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The harmful use of alcohol amongst Indigenous Australians

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Alcohol is the most widely used psychoactive drug in Australia. The 2007 National Drug Strategy Household Survey (NDSHS) estimated that 82.9% of Australians aged over 14 years, had consumed alcohol in the previous 12 months, with only 10.1% having never consumed at least one standard drink of alcohol [1]. The NDSHS also found that 20.4% of Australians (23.7% of males and 17.2% females) consumed alcohol at risky or high risk levels according to the 2001 Australian Alcohol Guidelines [1, 2].

Begg and colleagues [3] have calculated the burden of disease in Australia associated with alcohol. They estimated that in 2003, alcohol contributed to 3.2% of the burden of disease and prevented 0.9% of disease and injury (although serious doubt has been cast on the extent to which alcohol 'prevents' disease - [4]) - with the largest contribution being to the level of disease and injury among males under 45 years. They also found that, in addition to impacting on physical and psychological health, harmful levels of alcohol use contributed to social harms, including child abuse and neglect, interpersonal violence and homicide, and suicide and self-inflicted harm [3]. Collins and Lapsley [5] estimate that in 2004-5, the social cost of drug use in Australia was a massive $55.2 billion, with alcohol alone contributing to 27.3%, and alcohol combined with illicit drugs adding a further 1.9% to the social costs from harmful drug use.

Indigenous Australians constitute 2.6% of Australia's population. However, they experience health and social problems resulting from alcohol use at a rate disproportionate to non-Indigenous Australians [1]. Vos and colleagues [6] estimated that the burden of disease associated with alcohol use by Indigenous Australians is almost double that of the general Australian population [6]. In 2003, alcohol accounted for 6.2% of the overall burden of disease among Indigenous Australians, while preventing only 0.8% of this burden [6].

Indigenous Australians are acutely aware of the costs of alcohol and have been actively involved in responding to alcohol misuse in their communities. In this paper, we explore alcohol use in an Indigenous Australian context through examining: the extent and level of use and related harms; factors associated with such harms, including the structural determinants of health and the historical context of such use; current interventions and their effectiveness; and, possible pathways forward for Indigenous-specific substance use interventions in Australia.

Contents

What is the problem?

PATTERNS OF ALCOHOL USE

The concern of this paper is with the harmful use of alcohol - often termed 'alcohol misuse'. Not all 'alcohol use' is 'alcohol misuse'. As used in this review, 'alcohol misuse' refers to any use of alcohol that causes harm to users or to others. Diagnostically, the DSM-IV [7] categorises two conditions under the umbrella 'alcohol use disorders': substance abuse and alcohol dependence (including alcoholism). Though not mutually exclusive, the distinction between the broader use of alcohol misuse and the medical definitions of alcohol-related conditions is important. Harms resulting from excessive alcohol use are not experienced only by those diagnosed as alcohol dependent, often greater harms are experienced among those without a diagnosis [8].

Although the focus of this paper is specifically on alcohol, many people who use alcohol also use other psychoactive drugs. Most commonly, users of alcohol often smoke tobacco. Smaller numbers also use cannabis and to a lesser extent other illicit drugs, such as amphetamine type stimulants. Particularly in the case of alcohol and tobacco, the interactive effect of these drugs results in higher levels of health-related harm. Furthermore, as common factors play a causal role in the use of all drugs, many strategies to address them are also common. This needs to be borne in mind when reading the following sections of this paper.

Sources of data

At the national level, alcohol sales data provided to the Australian Bureau of Statistics (ABS) by wholesalers give a reasonably accurate measure of total alcohol consumption and provide a basis for calculating *per capita* levels of annual consumption. However, these data tell us little about the way in which alcohol is consumed by individuals or about variations in patterns of use among population sub-groups, such as women or Indigenous Australians [9-12]. To overcome the limitations inherent in alcohol sales data, we rely upon surveys that ask respondents about the frequency and amounts of consumption. These surveys' validity and reliability are dependent upon sampling methods, the questions asked, and the way on which the results are interpreted [9]. Furthermore, they have been shown to always underestimate actual consumption; thus the methods that yield the highest estimates of consumption are preferred to those yielding lower estimates [9]. To address these limitations, the World Health Organization (WHO) has developed a set of guidelines for conducting such surveys, but these guidelines are not always used [13, 14].

Coinciding with the introduction of the National Campaign Against Drug Abuse - now known as the National Drug Strategy - in 1985, a triennial National Drug Strategy Household Survey (NDSHS) or equivalent has been conducted [1, 15, 16]. These surveys utilise the most comprehensive questions for determining the prevalence and level of alcohol use, and for the Australian population as a whole, provide the best survey estimates of consumption [1, 9]. An Indigenous Australian sample is included in these surveys. However, while they provide national estimates for Indigenous consumption, the size of the samples is too small to provide information on regional and local level variation [9] .

In 1994, the NDSHS was supplemented with a special survey of Indigenous Australians residing in urban areas - areas with populations of more that 1000 people [17]. This unfortunately remains the most comprehensive alcohol and other drug-specific survey undertaken among Indigenous Australians.

Data on alcohol consumption among Indigenous Australians are also available from the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) [18, 19]. These surveys, which are conducted less frequently than the NDSHS, were not designed specifically to address issues of alcohol and other drug use and the questions they ask only partially comply with the WHO guidelines [13, 14]. For these reasons, they are likely to have produced significant underestimates of both the prevalence of recent consumption and levels of consumption [9, 13]. Consequently, the result of these and other surveys should be treated with caution. Nevertheless, they are important, and particularly for the Indigenous population, provide us with part of the total picture that cannot come from sales data alone.

Levels of alcohol use

The prevalence of 'recent' alcohol consumption is usually measured as the percentage of a population that has consumed alcohol in the previous 12 months. Conversely, the prevalence of abstention is measured as the percentage of a population who have not consumed alcohol in the previous 12 months. In most surveys, the percentage of abstainers among the Indigenous population is higher than among the non-Indigenous population [1, 17, 18, 20, 21]. This difference in prevalence of abstainers between populations can, on the surface, be interpreted positively [22]. However, it is important to note that there are two groups within this category - life-time abstainers and those who previously drank, but no longer do so. The higher total level of abstention in the Indigenous population is a consequence of the higher percentage of people who used to drink but have given up - often because of the harmful effects of their consumption [21, 23].

For the purposes of this paper, among those who drink, we are interested primarily in those who drink at levels that are harmful to their health. Based on extensive reviews of the national and international literature, the National Health and Medical Research Council (NHMRC) has assessed the extent to which various patterns of drinking pose risks to the health of individuals. They have issued drinking guidelines aimed at reducing associated levels of harm. These assessments of risk and the types of risk posed in the short- and long-term have been revised over time in the light of accumulating new evidence [2, 24, 25].

The patterns of risky consumption identified by the NHMRC have been used to categorise responses to questions about the frequency and level of consumption asked in various surveys in an attempt to estimate levels of harmful use in the community. As indicated above, depending on the questions asked, surveys produce estimates of consumption that vary to a greater or lesser extent from known levels of consumption based on wholesale sales data. As a consequence, estimates of harmful use based on survey responses also vary. Furthermore, as the classifications of risky levels of consumption have changed, comparisons of estimates over time is difficult. Nevertheless, when considered critically, such estimates yield important information.

The 2002 NATSISS and the 2004 NASTIHS estimate the rates of risky and high risk consumption of alcohol by Indigenous Australians at 15% and 16%, respectively [9, 13, 18, 19]. The 2004 and 2007 NDSHSs calculated both short- and long-term high-risk consumption. The 2004 NDSHS found these were 39% and 23% respectively for Indigenous Australians, and 21% and 10% for the non-Indigenous population [20] . Interestingly, the 2007 NDSHS found the percentages of Indigenous Australians drinking at these levels had reduced significantly over a short period, to 27% and 13 % respectively - a decline of an astounding 46% and 57% - whereas, the percentages among all Australians remained stable at 20% and 10% [1] . Such a significant secular change is highly unlikely, as a similar decrease in alcohol-related harms would be expected. It is therefore likely to be the result of the use of different methodologies [9] .

Furthermore, it cannot be assumed that patterns of consumption are uniform across geographic regions, with regional variation likely hidden within the national surveys. The number of Indigenous Australian alcohol-attributable deaths at the old ATSIC zone level illustrate this variation. For example, Chikritzhs and colleagues [26] found the number of alcohol-attributable deaths varied from as few as 0.8 per 10,000 in Tas to 14.6 per 10,000 in Central Australia - a rate more than three times the national rate of 4.17 per 10,000 [26]. There is also likely to be variation across age and gender groups [27, 28].

Based upon careful consideration of the results of the various studies cited above, it is likely that the prevalence of harmful alcohol use in the Indigenous population is about twice as great as that in the non-Indigenous population. This estimate is supported by the data on the prevalence of health problems known to be caused by alcohol.

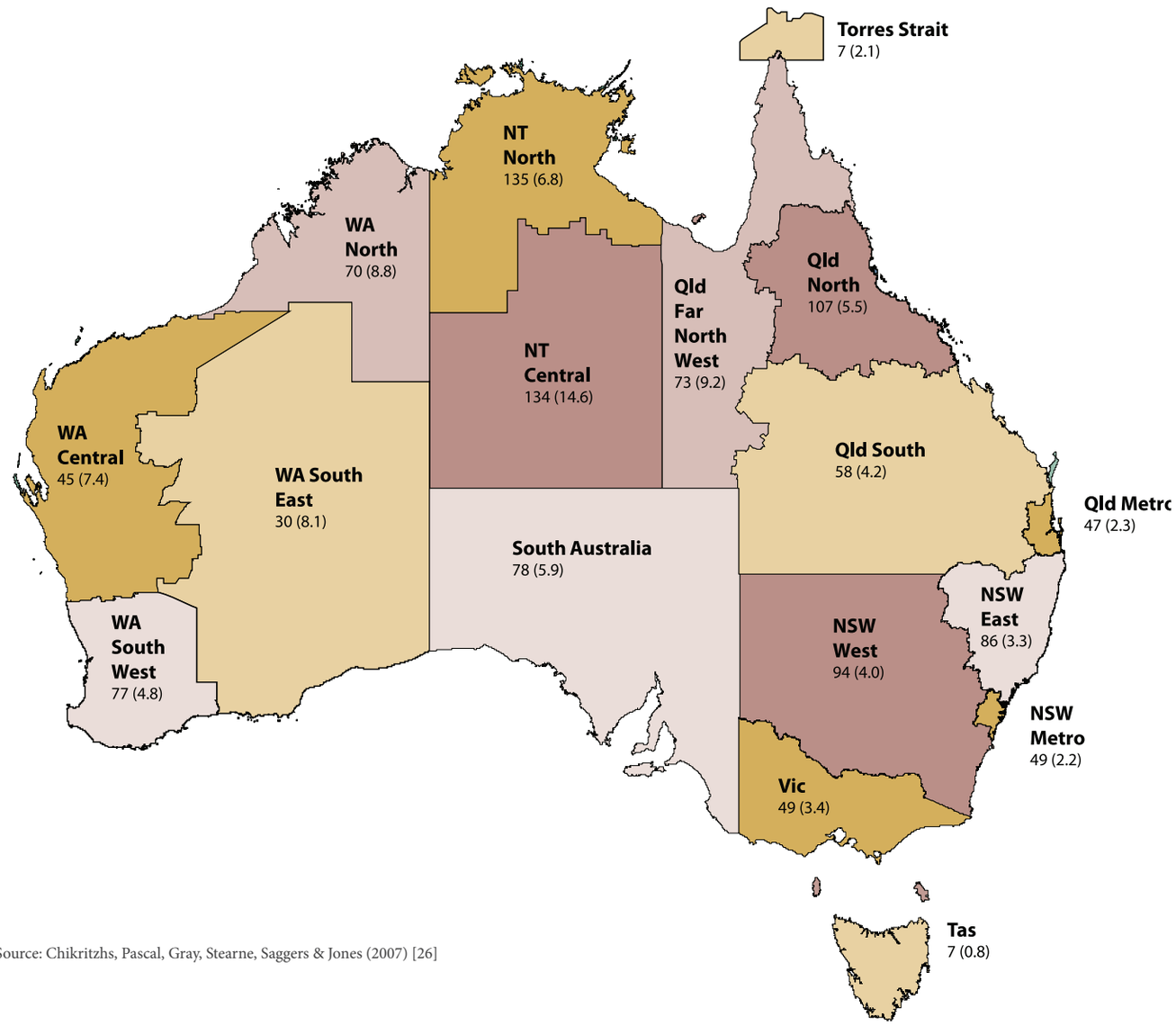
PATTERNS OF ALCOHOL- RELATED HARMS

Alcohol misuse is a contributing factor to a wide range of health and social problems, including: violence; social disorder; family breakdown; child neglect; loss of income or diversion of income to purchase alcohol and other substances; and, high levels of imprisonment [1, 29]. In addition, Indigenous Australians experience harms associated with alcohol use, including deaths and hospitalisations, at a rate much higher than other Australians [1].

Mortality

Indigenous Australians die earlier than non-Indigenous Australians as a consequence of harmful alcohol use and alcohol induced conditions, with approximately 7% of Indigenous Australian deaths resulting from such use [1, 26]. The Steering Committee for the Review of Government Service Provision estimated that alcohol-related death rates were between five and 19 times higher for Indigenous Australians than for non-Indigenous Australians in Qld,

Map 1. ***Estimated numbers and crude population rates (per 10 000 Indigenous residents) of alcohol-attributable deaths by (former) ATSIC zones, 2000–04***



Source: Chikritzhs, Pascal, Gray, Stearne, Saggers & Jones (2007) [26]

SA, WA and the NT [29]. Map 1 illustrates the regional variations - ranging from 0.8 to 14.6 per 10,000 - in the rate of alcohol-related mortality (1998-2004) within the Indigenous Australian population [26]. Table 1 presents the key alcohol-related causes of deaths for Indigenous Australians [26].

Table 1. Five most common causes of alcohol-attributable death among Indigenous males and females (based on aggregates from 1998-2004)

Condition		Number	Percentage	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**

Source: Chikritzhs, Pascal, Gray, Stearne, Saggers & Jones (2007) [26]

Intentional harm causing injury or death to self also occurs at greater rates among Indigenous Australians. Alcohol plays a significant role in this difference and it has been estimated that alcohol is associated with 40% of male and 30% of female suicides within the Indigenous Australian population [29, 30]. It is estimated that between 2000 and 2004, there were 159 male and 27 female alcohol-attributable deaths from suicide among Indigenous Australians. This is compared to 123 and 27 deaths, respectively, among non-Indigenous Australians [30]. This is clearly disproportionate given that Indigenous Australians comprise less than 3% of the entire population.

Morbidity

The higher rates of risky and high-risk alcohol consumption by Indigenous Australians are reflected in the higher rates of alcohol-related hospital admissions among this population. Table 2 presents the ratio of Indigenous to non-Indigenous Australian admissions to hospital (2005-06) in NSW, Vic, Qld, WA and the NT, for conditions in which alcohol is a factor [1]. Of these admissions, the rates of alcohol-related injury from traffic accidents among Indigenous Australians are 20% and 30% higher - for males and females respectively - than those experienced by non-Indigenous Australians. In the case of assault, 50% are alcohol-related; Indigenous Australian men and women, respectively, experience assaults at an astonishing 6.2 and 33 times the rate of their non-Indigenous counterparts [1, 31].

Table 2. Indigenous Australian to non-Indigenous Australian hospitalisation rate ratios for conditions in which alcohol is a significant contributing factor, 2005-06

Condition	Males	Females
Mental disorders due to psychoactive substance use (F10-F19)	4.5	3.3
Cerebrovascular disease (I60-I69)	2.4	2.5
Hypertensive disease (I10-I15)	4.2	5.6
Transport accidents (V01-V99)	1.2	1.3
Intentional self-harm (X60-X84)	2.9	1.9
Assault (X85-Y09)	6.2	33.0

*Data for NSW, Vic, Qld, WA, SA and NT combined

Source: Australian Bureau of Statistics and Australian Institute of Health and Welfare (2008) [32]

An additional indicator of the contribution of alcohol misuse to the ill-health of Indigenous Australians can be seen in the number of presentations to general practitioners for 'alcohol abuse' - a rate 2.7 times that for non-Indigenous Australian patients [32].

Table 3. Current substance use (previous 12 months), percentage of persons aged >14 years, by Aboriginal status, 2004

Substance	Aboriginal	Non-Aboriginal
Tobacco	52.0	22.5
Alcohol		
Abstainer	21.3	16.1
Short-term high risk	52.0	35.5
Long-term high risk	22.7	9.7
Cannabis	23.0	11.3
Meth/amphetamines	7.0	3.2
Pain killers/analgesics (non-medical use)	6.0	3.1
Inhalants (including petrol)	≈1.0	0.4
Heroin	≈0.5	0.2
Injected drugs	≈ 3.0	0.4

Source: AIHW 2005, 2006. [20, 33]

Social and emotional well-being

Excessive alcohol consumption has also been implicated in a wide range of social and emotional harms. For example, Teesson and colleagues[34] found that of the 4% of females and 9% of males with an alcohol use disorder in the general Australian population, 48% and 34%, respectively, also met the criteria for an anxiety, affective or drug use disorder [34]. While there appears not to be any directly comparable studies for Indigenous Australians, it is likely that comorbid conditions occur more frequently among this population [35]. In Table 4, the ratio of observed (or actual) rates of hospitalisation for mental and behaviour disorders in the Indigenous population are compared to the rates that would be expected if the Indigenous population had the same age-structure as the non-Indigenous population [36]. As shown, in NSW, Vic, Qld, WA, SA and the NT, combined Indigenous Australian men and women were hospitalised for 'mental disorders attributable to psychoactive substance misuse' at four and a half and three times the rates of non-Indigenous males and females [36]. In addition, the burden of ill-health due to alcohol dependence and harmful use was 4.5 times greater than that experienced by non-Indigenous Australians [6].

*Table 4. Hospitalisations for mental and behavioural disorders, ratio of observed to expected cases among Aboriginal males and females, 2005-2006**

Disorder	Male	Female
Mental disorders due to psychoactive substance misuse	4.5	3.3
Schizophrenic, schizotypal and delusional disorders	2.7	2.5
Mood and neurotic disorders	1.2	1.0
Disorder of adult personality and behaviour	1.8	0.8
Organic mental disorders	2.4	2.3
Other mental disorders	1.4	0.7
Total	**2.4**	**1.5**

* NSW, Vic, Qld, WA, SA and the NT combined.

Source: ABS & AIHW 2008[1]

Alcohol misuse has also been associated with other harms such as social disruption [37], family violence and breakdown [38-40], child abuse and neglect [41-43], diversion of income, and extraordinarily high levels of incarceration [39, 44-47].

Clearly, many of those Indigenous Australians, who currently consume alcohol, are doing so at levels that place them at great risk of harm. Indigenous Australians constitute 2.6% of Australia's population; yet, experience alcohol-related harms at levels disproportionate to the rest of the population. In order to understand patterns of use by Indigenous people in Australia, it is necessary to examine the underlying social and structural determinants of health and to situate alcohol in an historical context.

What are the causes of the problem?

SOCIAL DETERMINANTS OF HEALTH AND HARMFUL ALCOHOL USE

Inequalities in health status are not inevitable, they exist because of social inequalities [48]. The 'lifestyle' choices of individuals undoubtedly impact on their health status. However, conceptualising health from a social determinants perspective involves acknowledging the growing body of evidence regarding the influence of broader societal factors outside the control of individuals, which either cause or protect against ill-health [10, 13, 49, 50]. These factors operate within a broad range of domains including at the family, local and regional levels, and in national and international arenas. They include factors such as educational attainment, employment status, access to capital resources, social organisation and societal mechanisms of inclusion and exclusion - which are themselves products of historical forces - and they exert their influence at all stages of the lifecycle from birth to death [51]. Responding effectively to health issues and producing positive, sustainable change involves more than addressing the health problems of individuals; it entails broadly promoting those factors known to act protectively against ill-health and reducing those that contribute to vulnerability [52].

Inquiries since the late 1970s have emphasised a link between the social determinants of health and the appalling health status experienced by Indigenous Australians [39, 53, 54]. These inquiries have consistently recommended the creation of strategies targeting the poor environmental, social and economic conditions under which the majority of Indigenous Australians live. Three decades later, some improvements have occurred in a number of measures, such as educational attainment and participation in employment [29, 55].

However, despite these improvements Indigenous Australians continue to lag behind non-Indigenous Australians across most social indicators [29, 55, 56]. Disadvantage across these indicators, in Australia and international settings, has been associated with poorer general health status and lower life expectancies [36]. Numerous Australian reports have also clearly identified a relationship between alcohol and other drug use with socioeconomic factors such as education, employment and low income [52, 57]. Specifically within the Indigenous Australian population lower levels of alcohol use have been shown to be related to higher levels of income [36, 58].

HISTORICAL BACKGROUND

Current patterns of alcohol use among Indigenous Australians - and the factors that determine those patterns - cannot be understood apart from the historical context from which they have emerged. Indigenous Australians had some exposure to alcohol prior to European contact [59, 60]. However, following the arrival of the 'First Fleet', the volume and availability of alcoholic beverages increased significantly. Alcohol quickly became a cornerstone of early social and economic colonial life in Australia and many Indigenous Australians came to develop a taste for it [61]. This suited the interests of colonists who reportedly used alcohol as a means of exchange for sex or labour with Indigenous Australians [62]. It was not long before the harmful effects of alcohol on the lives of Indigenous Australians became apparent. As a response to the devastating effects of colonialism, including dispossession [63], and illness and death resulting from disease and confrontation [64, 65], alcohol became somewhat of a panacea for Indigenous people's pain, with many using it as a means of escape and solace [60].

Restricting access to alcohol

Laws prohibiting the sale of alcohol to, or purchase of alcohol by, Indigenous Australians first came into effect in NSW in 1838 and had been enacted in all states and territories by 1929 [60]. However, exemptions were granted to those people who were able to demonstrate that they were sufficiently assimilated into the wider society - often at the expense of denying their Indigenous identity and social relationships [66]. These restrictions were of limited effectiveness in circumventing Indigenous Australians' access to or desire for alcohol, and non-Aboriginal people were able to make a profit from selling them alcohol illegally [67, 68]. The effects of prohibition on Indigenous Australians were extreme. As a population, they were under strict surveillance and excluded from social spaces such as hotels, which were important centres of social activity [66]. Reports suggest that the fear of being caught with alcohol resulted in riskier drinking patterns such as drinking beverages with higher alcohol content quickly and excessively, and without food [66, 68].

Given the culturally and racially-based nature of the restrictions, alcohol predictably became a civil rights matter; with the laws seen to embody inequity, discrimination and exclusion [66, 68]. From the 1960s on, the various state and territory laws controlling Indigenous access to alcohol were progressively repealed, with some Indigenous Australians equating the end of prohibition with

the achievement of citizenship status - whereas citizenship rights in fact were granted separately [69]. Similarly, some have equated the repeal of prohibitions on Indigenous access to alcohol with the passage of the 1967 Referendum that only amended the Australian Constitution to enable the Commonwealth Government to make laws with regard to Indigenous Australians and to count them in the census of population and housing.

With the repeal of prohibitions, Indigenous Australians were now able to do what non-Indigenous Australians did and occupy the same spaces [70]. However, rather than acting to moderate alcohol use among Indigenous Australians, the lifting of the restrictions saw a continuation of drinking patterns established under the climate of restriction; patterns which continue to have a profound impact on the health of Indigenous Australians today [70].

DISPOSSESSION AND THE STOLEN GENERATIONS

The social determinants underlying the past and current health status of Indigenous Australians include a history of dispossession, racism, social exclusion and a legal framework supporting removal of children from families. While colonialism and dispossession are the not the cause of all alcohol use among Indigenous Australians, drinking patterns are a response to this history, as found among other indigenous peoples [71].

In 1788, when the British arrived in Australia they declared it to be *terra nullius* or 'empty land' [72]. As settlement spread through the continent, widespread displacement of Indigenous peoples from the lands they had occupied for at least 60,000 years occurred. As a result of both introduced epidemic disease and violence the numbers of Indigenous Australians fell precipitously and it was widely assumed that they were doomed to extinction. Accordingly, a policy of 'protecting' the remnant population was introduced. Under this policy, many were placed in missions or taken to Government settlements where they lost all autonomy under legislation that sought to control and contain the population by dictating where and how they could live [73].

By the 1920s it was obvious that the Indigenous population was again increasing and in response, following World War II, the Commonwealth Government introduced a policy under which Indigenous Australians were to be 'assimilated' into the wider European population and its way of life [74]. The assimilation policy was couched in an inclusive language. However, underlying the rhetoric was a belief that Aboriginality would meet a timely end [74, 75]. Part of the policy involved the wide-spread forced removal of children from their families - now known as the Stolen Generations [76]. The policy of assimilation had a devastating impact on Aboriginal families and ways of life, the effects of which continue to reverberate today. This includes the high level of mental health problems experienced by Indigenous Australians, and the absence of parenting models resulting in unacceptably high levels of child abuse and neglect, which many people attribute to this period [76, 77].

MORE RECENT POLICIES

The late 1950s and 1960s marked a period of growing discontent among Indigenous Australians and some non-Indigenous Australians with the status quo. There was a call for an end to racially discriminative Acts [68]. From the early 1970s through to the mid-1990s, self-determination and/or self-management characterised governmental policies. The growing momentum brought about by the Indigenous rights movement and the implementation of these policies saw the rise of national Indigenous representative groups and community-controlled health and substance use services [78, 79]. During the 1990s, the Council for Aboriginal Reconciliation was established and the Aboriginal Reconciliation Act passed (1991).

Under that Liberal-National Government of 1996-2007, there was a move away from the principle of self-determination to an emphasis on national unity and a concept of togetherness [80]. The focus was on 'practical' rather than 'symbolic' measures for addressing disadvantage [81]. In 1997, the *Bringing Them Home* report was launched which detailed the extent of suffering of the Stolen Generations and recognised the deleterious impact previous policies had had on the health and well-being of Indigenous Australians [76]. In the name of reconciliation, Indigenous and

many non-Indigenous Australians demanded an apology from the Australian Parliament for the past treatment of Australia's first people. However, the Prime Minister's speech at the 1997 Reconciliation Convention confirmed that the Liberal-National party rhetoric of togetherness held no place for a national apology to Australia's Indigenous peoples [80].

In 2007 - in what was to become the Liberal Party's final term - the *Little Children are Sacred* report [42] on child abuse in Indigenous communities was published. In response to this report [42], the Liberal Government introduced the Northern Territory 'Intervention' [82]. As Wilkes and colleagues point out, the majority of Indigenous Australians understand the pressing need for resources and focused action to respond to continuing structural, social and health inequities faced by their people [83]. However, the Act was racially discriminatory (sections of the Racial Discrimination Act had to be over-ridden in order to ensure its 'legality') and it was implemented without sufficient consultation with, and involvement of, Aboriginal people [84-86].

In 2007, the Labor Government came to power and committed itself to 'Closing the Gap' between Indigenous and non-Indigenous Australians [87] - using a new slogan for what, essentially, has been the policy of all Australian governments since the early 1970s, albeit with increased funding. In February 2008, the Prime Minister honoured his pledge to issue a formal apology to Indigenous Australians for the past wrongs committed against them through the policies of former governments [88]. The symbolic apology intended to mark a new era of reconciliation and partnership between government and Indigenous Australians in which practical objectives could in turn be achieved.

What is being done?

INTERVENTIONS AND THEIR EFFECTIVENESS

Considering the structural determinants and historical context outlined above, it is timely to identify strategies for addressing alcohol misuse among Indigenous people in Australia and their effectiveness. The current policy for targeting alcohol misuse in Australia - The National Alcohol Strategy 2006-2009 - aims to 'prevent and minimise alcohol-related harm to individuals, families and communities in the context of developing safer and healthy drinking cultures in Australia' [89]. Prevention interventions should not be viewed as mutually exclusive and a combination of primary, secondary and tertiary strategies is likely to have a more notable impact on minimising harm from alcohol misuse.

The knowledge of how to prevent alcohol misuse among the general population - while not consistently translated to policy and practice - is extensive [52]. The evidence for the effectiveness of such programs for Indigenous Australian populations, on the other hand, is scant as evaluations are often not systematic or focus on program processes or outcomes in the short-term [50, 90]. However, translations of non-Indigenous programs show promise: if implemented in a culturally and contextually appropriate manner, and in consultation with the local communities and Indigenous organisations they are likely to be effective [50, 90, 91].

PRIMARY PREVENTION

Primary prevention strategies aim to prevent the up-take of alcohol by non-drinkers and are informed by knowledge of risk and protective factors. Primary prevention interventions begin with prenatal and postnatal care, and include programs that educate expectant parents on the risks of alcohol to the unborn child, such as Fetal Alcohol Syndrome and Fetal Alcohol Spectrum Disorder, and provide support to parents with new babies [8]. They also include programs designed to enable the smooth transition into schooling [52]. International evidence has shown the importance of the early years, including the antennal period, to the later health and social development of a child [92]. As positive family functioning and education are key social determinants of health and substance use, resources committed at this stage of life are an effective investment [93]. The international evidence illustrates that such interventions have been associated with improvements in childhood risk factors, which are linked to the vulnerability to risky substance use later in life [42, 43, 52]. However, while it is apparent that these interventions are occurring [94-96], few Australian studies - and even fewer in Indigenous contexts - have been rigorously evaluated [52].

Primary prevention interventions also include, for example, school and parent education programs, and activities that provide alternatives to alcohol use - such as sporting, recreational and cultural activities. Indigenous communities in Australia have identified the importance of such programs for fostering positive family relationships, and for developing young people's self-esteem, self-worth and cultural connectedness - factors shown to protect against substance use [10, 97]. Again, the evidence for the effectiveness of such programs in reducing the alcohol use among the general population is limited, with the exception of some particular school-based programs. This is more so the case for Indigenous Australians [52].

Another strategy for reducing alcohol use is to limit the supply of alcohol. International evidence has illustrated that restrictions of the supply of psychoactive substances are effective in reducing consumption and harms [52]. In Australia, as in most countries, the sale and consumption of alcohol is subject to various state and territory legal restrictions - around who can sell alcohol and at what times, where it can or cannot be consumed, and the age at which persons can legally purchase it. In addition to these general constraints, various state and territory liquor licensing authorities have introduced additional local strategies aimed at reducing supply and, thus, consumption and related harm [26, 98]. While not usually explicitly targeted at Indigenous communities, additional restrictions on supply have most commonly been applied in areas with high proportions of Indigenous Australians [10]. These supply reduction strategies include: restrictions on the sale of low-cost high-alcohol-content beverages such as cask wine; restrictions on hours of trading; and bans on the consumption of alcohol in particular public locations. In addition, Indigenous people in many remote areas have declared their communities 'dry'. These strategies have resulted in some reduction in consumption among drinkers, delay in uptake of alcohol use among young people and reductions in alcohol-related harms [99, 100].

SECONDARY PREVENTION

Secondary prevention interventions aim to prevent risky or problematic drinking, and avoid use developing into dependence [101]. These interventions are commonly provided through Aboriginal community controlled health and substance-use specific services, and through mainstream medical and substance-use specific services.

Brief interventions are an important feature of secondary prevention. These strategies include, for example, the provision of education about alcohol-related harms and recommended drinking guidelines, and support and advice for those attempting to reduce or abstain from use [8]. Brief interventions are a cost effective treatment and can take place opportunistically [8, 91]. Australian evidence shows that brief interventions used with non-Indigenous Australians may be more effective than longer treatments for those who are not alcohol dependent [8]. Positive outcomes of such approaches may occur in Indigenous settings if they are delivered in a culturally sensitive, respectful, and non-judgemental manner [8, 91]. Additionally, while evidence for the effectiveness of screening for alcohol misuse among Indigenous Australians is minimal, a number of screening tools have been adapted to Indigenous settings, including the IRIS and AUDIT-C. Several barriers to successful integration of these tools have been identified [102, 103]. However, they may aid in the earlier detection of alcohol problems within this population.

While widely promoted, the evidence for the effectiveness of education and health promotion strategies remains equivocal among both non-Indigenous and Indigenous Australians [52]. These approaches remain popular - in part because of the low cost - however, it is recommended that these interventions are delivered in combination with other interventions [8].

Interventions aimed at reducing harm (rather than ceasing use) from alcohol misuse include, for example, night patrols and sobering up shelters. Alcohol-specific harm reduction strategies respond to the immediate harm caused by alcohol intoxication and in some cases, reduction of these harms is considered more pressing than the actual substance use [50]. There have been few evaluations of these two strategies. A small number of reviews and reports of night patrols in the NT [104, 105] and WA [106] have been conducted. These sources provide informal evidence of effectiveness in reducing harms in the communities under review [50, 106].

TERTIARY PREVENTION

Tertiary prevention interventions occur when alcohol use is consolidated and the aim is to reduce the harms from use, or enable reduction or cessation of use [101]. The main focus of tertiary prevention is treatment. Treatment for alcohol misuse among the general population can result in a number of positive outcomes including reductions in criminal behaviour, reduced drug use and improved physical and psychological health [52, 107]. Furthermore, regardless of the type of intervention used, any exposure to treatment is associated with significant reductions in consumption and related harm [108].

Indigenous Australians tend to present for alcohol-related problems at a later stage than non-Indigenous Australians, often with complex comorbidities, and structured treatment programs are a common form of intervention among this population [52, 91]. Treatment can occur in primary healthcare, community or residential settings. Programs include, for example, withdrawal management, cognitive behavioural therapies, brief interventions, inpatient detoxification, residential rehabilitation and aftercare services [8] . Reviews have highlighted the paucity of evidence related to treatment interventions for Indigenous Australians [50, 109, 110]. While there are informal examples of programs that appear to be achieving some success in reducing alcohol consumption among Indigenous Australians, few programs have been formally evaluated [50, 90]. However, guidelines now exist for the treatment of Indigenous people with alcohol-related health issues and more is known about elements of effective treatment among Indigenous Australians [91, 105, 109, 111, 112].

Indigenous Australians should have access to the same range of options as non-Indigenous Australians, and there is a strong argument for additional options given the disproportionate level of alcohol-related harms experienced among this population

[91]. However, barriers to treatment have been identified and Indigenous Australians are not accessing or do not have access to the full range of treatment services. In particular, the availability of early intervention, pharmocotherapies to reduce relapse and aftercare services are limited [10, 91]. In addition, a recent study found that services (Indigenous and mainstream) for complex comorbid clients, families and specific sub-populations such as young people and women, are similarly lacking [10] .

Mainstream treatment services are available for all Australians. However, many services are not accessed by Indigenous Australians as they are considered inappropriate or are not available in particular geographical locations [8, 10, 91]. On the other hand, some Indigenous Australians report preferring the anonymity offered by mainstream services because of the 'shame' factor associated with alcohol misuse compared to other conditions such as diabetes and kidney disease [113]. Based on these findings, it is essential that Aboriginal community-controlled organisations are sufficiently resourced and staffed to respond to alcohol problems. A recent report into areas of greatest need in Indigenous-specific alcohol and other drug interventions found that many Aboriginal community-controlled organisations providing Indigenous-specific alcohol and other drug interventions were hampered by insufficient resources, short-term funding cycles, difficulty attracting qualified and trained staff, and trouble accessing training and workforce development for staff [10]. Community-control in and of itself is not sufficient if an organisations is under-resourced and inadequately staffed, and these deficiencies need to be addressed [10]. Mainstream services must also be culturally suitable and accessible for Indigenous Australians [91]. This may include, for example, the employment of Indigenous staff in mainstream organisations and/or collaboration and on-going relationships with Indigenous organisations [91, 113].

What works?

Indigenous Australians are well aware of the devastating impact alcohol is having on their communities and many interventions to address alcohol misuse have been initiated by Indigenous Australians themselves. Indigenous Australians should be key players in the design and implementation of interventions to address harmful alcohol use, with capacity building within Aboriginal community-controlled organisations a central focus [10, 52, 90]. However, as community-controlled organisations are not always accessible or preferred by Indigenous Australians themselves, mainstream organisations should be enabled to provide culturally sensitive services. These organisations should work in partnership with Indigenous organisations [91].

As mentioned previously, there is no single solution to the harms associated with alcohol misuse. There is also a paucity of formal evaluations of interventions of Indigenous-specific alcohol misuse interventions [50, 114]. As suggested by Sibthorpe and colleagues [102], 'high-level' evidence may not become available any time soon, which means decisions regarding the choice and delivery of interventions may need to continue to rely on informal or qualitative assessments, or refer to evidence from other populations and settings.

What the available evidence does indicate however is that, for interventions to be effective they should: have the support of and be controlled by local communities; be designed specifically for the needs of a particular community and sub-groups within the community; be culturally sensitive and appropriate; have adequate resourcing and support; provide aftercare; and, cater for complex presentations. Most importantly, a single intervention should not be seen as a quick fix, and a combination of harm minimisation strategies is most effective.

What needs to be done?

Despite what is being done, considerable harm remains. Past governments have acknowledged the influence of social factors on ill-health and substance use and have committed to Closing the Gap [87] - the concept is not new. However, Australia's Indigenous health policy has not consistently been developed in conjunction with complementary employment, education and housing strategies. As a consequence gains on the health-front have been countered by the continuing poor living and social conditions experienced by many Indigenous Australians. Recently, the Council of Australian governments (COAG) identified seven essential 'building blocks' that must be in position to address Indigenous disadvantage. These include a focus on: healthy homes; safe communities; improved health; early childhood; schooling; economic participation of Indigenous Australians; and the creation of opportunities for leadership and governance [115]. This represents a clear recognition of the connection between the underlying social determinants and health status [115].

The National Alcohol Strategy [89], Alcohol Treatment Guidelines [91, 110] and the *National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003-2009* (CAP) [112] provide an evidence-based framework for addressing alcohol misuse and harms among Indigenous Australians. This paper does not attempt to review these strategies here; however, the six key result areas identified in the CAP provide useful benchmarks for assessing current services and planning for future programs [112].

A recent report on organisations conducting Indigenous-specific alcohol and other drug services in Australia [10] found that several of the key result areas are not being adequately met. These included a move away from a government commitment to funding community-controlled organisations, compromising the capacity of Indigenous Australians to address alcohol use issues within their own communities (Key Result Area 1). The report highlighted a paucity of services for particular at-risk groups such as women, young people and those experiencing mental health issues (Key Result Area 3). Access to organisations providing a comprehensive range of services from prevention through treatment to on-going care were extremely limited (Key Result Area 4). In addition, the capacity of Indigenous community-controlled organisations to deliver services was severely constrained by staff shortages, lack of trained and qualified staff and very limited access to workforce development programs (Key Area Result 5). Among the recommendations of Gray and colleagues were:

- a call for all levels of government to recommit to the principle of community-control;
- the creation of services catering for sub-groups within the Indigenous Australian population;
- improved access for Indigenous Australians to a wide range of Indigenous-specific interventions;
- better access to workplace development and training; and,

incentives for Indigenous Australians to enter into education which will equip them to work in the alcohol and other drug sphere [10].

While there has been some reduction in the levels of harmful alcohol use amongst the non-Indigenous Australian population, this has not been the case for Indigenous Australians, among whom use remains alarmingly high. A two-pronged strategy is needed to reduce alcohol-related harms among Indigenous Australians. The first is a recommitment to the tenets outlined in the CAP. Failure to have achieved optimal results in some of the key areas is likely to be a matter of implementation rather than a reflection of the soundness of the strategies [10]. The policy framework shared by the National Alcohol Strategy, the National Drug Strategy and the CAP provides an evidence-based guide for Australia's response to the harmful level of alcohol use among Indigenous Australians and can guide both Indigenous and mainstream organisations providing these services. The role mainstream organisations play in the provision of Indigenous-specific services is important. However, these organisations should be familiar with the above frameworks, and the design and delivery of services should be culturally sensitive and occur in consultation and partnership with Indigenous organisations.

Second, the roles of social and structural determinants in the alcohol-related harms experienced by Indigenous Australians need to be addressed. The evidence clearly illustrates, that in order to make progress in reducing the disproportionate levels of ill-health among this population , we need to scrutinize 'the causes of the causes' [48]. There needs to be clear recognition of the role structural determinants play in either protecting or making a person vulnerable to risky behaviours such as substance use. Comprehensive intervention strategies are required that enhance protective factors in addition to addressing the harms from substance use [10].

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Australian Indigenous
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by Donna Lei Rioli