

Substance misuse and primary health care among Indigenous Australians

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In 2003, a series of papers was commissioned to provide information, analysis and advice to Government as part of a Review of the Australian Government's Aboriginal and Torres Strait Islander Primary Health Care Program. The Review examined issues relating to funding for comprehensive primary health care for Aboriginal and Torres Strait Islander people and the impact of activity in this area. The commissioned material complemented information obtained from previous reviews and evaluations as well as that obtained from program data.

An Interdepartmental Committee (IDC) oversaw the Review process. Members of the IDC were from the Australian Government Departments of the Treasury; Prime Minister and Cabinet; Finance and Administration; Immigration and Multicultural and Indigenous Affairs; Health and Ageing (Chair); and Aboriginal and Torres Strait Islander Services.

This is Volume 7 of the published Review papers.

The papers in this series are:

Volume 1. National Strategies for Improving Indigenous Health and Health Care by Judith Dwyer, Kate Silburn and Gai Wilson, La Trobe University.

Volume 2. Investment Analysis of the Aboriginal and Torres Strait Islander Primary Health Care Program in the Northern Territory by Carol Beaver, Centre for Chronic Disease, University of Queensland and Yuejen Zhao, Health Gains Planning Unit, Department of Health and Community Services, Northern Territory.

Volume 3. Costings Models for Aboriginal and Torres Strait Islander Health Services by Econtech Pty Ltd.

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Volume 5. Cancer, Health Services & Indigenous Australians by John Condon, Cooperative Research Centre for Aboriginal and Tropical Health.

Volume 6. Maternal and Child Health Care Services: Actions in the Primary Health Care Setting to Improve the Health of Aboriginal and Torres Strait Islander Women of Childbearing Age, Infants and Young Children by Sandra Eades, Menzies School of Health Research.

Volume 7. Substance Misuse and Primary Health Care among Indigenous Australians by Dennis Gray, National Drug Research Institute, Curtin University of Technology; Sherry Siggers, Centre for Social Research, Edith Cowan University; David Atkinson, Rural Clinical School, University of Western Australia and Phillipa Strempel, National Drug Research Institute, Curtin University of Technology.

The opinions expressed in these papers are those of the authors and are not necessarily those of the Australian Government.

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Abbreviations

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
AIHW	Australian Institute of Health and Welfare
ASR	age-standardised mortality rate
CDEP	Community Development Employment Projects
GP	general practitioner
GPET	General Practitioners Education and Training
KAMSC	Kimberley Aboriginal Medical Services Council
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIS	National Aboriginal and Torres Strait Islander Survey
NDS	National Drug Strategy
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
PY	person years
RCADIC	Royal Commission into Aboriginal Deaths in Custody
RR	rate ratio
TAOS	Tobacco, Alcohol and Other Substances

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Summary

The purpose of this review is to put a primary health care approach to substance misuse among Indigenous Australians into the context of: patterns of use; the health harms associated with substance misuse; the underlying causes of higher levels of use in Indigenous populations; and the broader range of Indigenous substance misuse interventions. Key findings of the review are presented below and references to the evidence base for those findings can be found in the main body of the text.

Substance use among Indigenous Australians

- Overall, since 1994, the level of substance use in the Indigenous population has increased relative to that in the non-Indigenous population.
- Since 1994, a small decline in the percentage of Indigenous people who smoke tobacco may have occurred, but the percentage remains about twice that of the non-Indigenous population.
- There is some evidence to suggest that among young Indigenous people the proportion of females who smoke tobacco is greater than in older age categories.
- Since 1994, there has been a decrease in the percentage of Indigenous people who report abstaining from alcohol, so that while the percentage of current drinkers remains less than in the non-Indigenous population it is now closer.
- While there are fewer current drinkers in the Indigenous population and while they drink less frequently, a greater percentage of them consume alcohol at levels that pose both short-term and long-term risks for their health.
- There is also some evidence to suggest that the percentage of women who drink is higher in younger age cohorts.
- The percentage of Indigenous people who report current use of cannabis appears to have increased by approximately 5% since 1994 and is about twice that in the non-Indigenous population.
- The percentage of Indigenous people who report current use of illicit drugs other than cannabis has increased since 1994 and is about 1.6 times that in the non-Indigenous population.
- In population terms, the percentage of Indigenous people who inhale volatile substances is small. However, the practice has become endemic over a wider area.
- There is evidence to suggest that use of different substances is correlated, i.e. many Indigenous people are poly-drug users. This and the substitution of one drug for another have important implications for efforts to reduce substance misuse.

Substance-related health harms

- Higher levels of substance use among Indigenous people are reflected in higher levels of health harms.
- The best documented evidence of the harms substance misuse causes to the health of Indigenous people comes from mortality and hospital admissions data—although this is far from complete.
- Mortality and hospital admissions data represent only a small—albeit more severe—proportion of the total burden of ill-health caused by substance misuse. However, no system is in place for identifying substance use-related conditions in primary health and medical care settings, or for estimating the burden of untreated substance misuse problems in the community.

- Evidence from Western Australia and the Northern Territory indicates that the age-standardised rates of tobacco-caused deaths among Indigenous people are at least twice those among non-Indigenous people and probably account for at least 13% of Indigenous deaths.
- Evidence from Western Australia indicates that age-standardised rates of alcohol-caused deaths are about five times those among non-Indigenous people and that alcohol causes about 10% of Indigenous deaths.
- Evidence about deaths caused by substances other than alcohol and tobacco is limited, but in Western Australia between 1990 and 1999 there were 26 Indigenous male and 14 Indigenous female deaths from these substances, and the mortality rates were about eleven times those among non-Indigenous males and six times those among non-Indigenous females.
- Evidence from Western Australia and the Northern Territory indicates that hospital admission rates for tobacco-caused conditions among Indigenous people are at least twice those among non-Indigenous people.
- The fact that, in Western Australia, tobacco caused approximately 13% of Indigenous deaths but was responsible for less than 3% of hospital admissions indicates that much tobacco-caused illness is untreated.
- Evidence from Western Australia and the Northern Territory indicates that hospital admissions for alcohol conditions are at least 1.5 times greater—and possibly much greater—among Indigenous people.
- In Western Australia there has been an increase in the rate of first-time hospital admissions for illicit drug problems and the rate is almost twice that among non-Indigenous people.

The context of Indigenous substance use

- Explanations for substance misuse vary, but it is clear that use is socially patterned and that problems facing Indigenous Australians are similar to those among indigenous minorities in other countries that have similar histories of conquest and marginalisation.
- Research on the social determinants of health in the general population has directed attention to the economic and social consequences of Indigenous dispossession, and how this is linked to poor health and substance misuse.
- The social origins of poor Indigenous health involve inter-connected levels from macro-social factors such as education and culture, to individual characteristics such as socio-economic position, behavioural patterns and genetic features.
- In spite of more than three decades of recognition of the primary role that social factors play in poor health and substance misuse, Indigenous people experience absolute material deprivation on all key social indicators—post-secondary qualifications, employment status, and individual and family income.
- These social factors are associated with higher differences in rates of substance misuse between Indigenous and non-Indigenous people and among Indigenous people themselves.
- Social capital, which is known to protect against substance misuse, is currently not well understood in Indigenous communities. However, one dimension has been the development of many community-controlled organisations to tackle ill health and substance misuse. These include the Aboriginal Community Controlled Health Services (ACCHSs) and other Indigenous organisations that work within a broad social determinants framework, but with different emphases.
- Interventions to tackle the social determinants of substance misuse include short-, medium- and long-term strategies aimed at reducing the demand for and supply of psychoactive substances and harms associated with misuse at the level of society, community and the individual. Primary health care practitioners have participated in interventions at all levels.

Substance misuse interventions

- Indigenous disadvantage in areas such as housing, employment and education is a major cause of Indigenous alcohol and substance misuse.
- Limited progress towards reducing the extent of disadvantage of Indigenous Australians is being made.
- Specific alcohol and drug use services only reach a small proportion of Indigenous people who are affected by alcohol and substance misuse.
- Primary prevention approaches commonly used for the general Australian population appear to be having little effect on the levels of Indigenous alcohol and substance misuse.
- A number of specific approaches to alcohol and substance misuse among Indigenous people in towns and communities are reducing harm to some extent.
- Primary health care services reach most of the Indigenous population and have the potential to have significant impacts on Indigenous alcohol and substance misuse.
- Programs to reduce alcohol and substance misuse harm that appear to be useful are run within ACCHSs in a number of areas.
- Programs within primary health care services to address alcohol and substance misuse and harm currently have very limited resources and are unable to address the need for them.
- General practice-based primary care currently only provides reactive services for substance misuse harm and private general practitioner (GP) involvement in broader services is ad hoc and based on the goodwill of individual practitioners.
- Primary health care services (ACCHSs, GPs, and state and territory government services) have the potential to do much more to prevent and ameliorate alcohol and substance misuse harm if allocated appropriate resources.
- Programs to address substance misuse related harms should be based within primary health care services that reach the broader Indigenous community and need to focus on working collaboratively with the many other agencies attempting to address these problems.

Future directions

Expansion of and support for the human resource base

- There is a need to expand the availability of substance misuse programs in primary health care settings. The key to any such expansion is the employment of staff whose time is not—or not wholly—tied up in the provision of acute care and who have clearly defined substance misuse intervention roles.
- An adequate number of staff members should be employed to allow for rotation and relief to prevent staff ‘burnout’ and high turnover.
- There should be clearly defined support networks within organisations for front-line substance misuse workers.
- Substance misuse workers should not be placed in small isolated units, but should be attached to larger organisations that can provide pastoral care, assist with staff development and facilitate inter-agency collaboration.

Workforce development

- The proportion of funds allocated to workforce development needs to be increased.
- Workforce development of both Indigenous and mainstream health professionals needs to focus on specific, accredited skilling.
- As well as on ACCHSs, attempts to develop the substance misuse intervention skills of the primary health care workforce also need to focus upon personnel within government clinics and hospitals and in general practice.

Program development

- Program development needs to address common issues but—given the heterogeneity of Indigenous communities—should be developed at a local and/or regional level so that intervention strategies are appropriate and acceptable to Indigenous people.
- Evidence-based programs should be developed within a framework that gives recognition to the social determinants of substance misuse, bringing together the perspectives of affected individuals, their families, and the broader communities.
- The design, development and delivery of substance misuse programs should be a collaborative effort between primary health care practitioners and community Elders and leaders.
- Peer education for leaders and Elders, to facilitate informed communication about alcohol and other drugs should be an important part of such collaboration.
- There is a need for the development of both generic and substance specific intervention programs.

Primary prevention and early intervention

- Primary prevention should be a major focus of interventions in the primary health care sector.
- Primary prevention interventions should include strategies to strengthen individuals, families and their communities to address substance misuse and promote health and wellbeing.
- Given the long-term intractable nature of substance misuse problems, but also given the potential of primary prevention to impact upon them, there should be a significant increase in longer-term funding for prevention projects.
- As with primary prevention, early intervention should be a major focus of primary health care service delivery.

Integration of services and activities

- Primary health care providers and other agencies should be encouraged to develop collaborative arrangements with local communities, other agencies and local, state and territory governments to enhance the effectiveness of substance misuse interventions.
- The Divisions of General Practice could assist with the integration of private GPs by providing them with information on other providers with whom they can link up at specific local and regional locations.
- The integration of services could also be enhanced by encouraging all primary health care providers to develop protocols for referral of clients with substance misuse problems to other agencies, including specialist drug and alcohol agencies.

Monitoring and evaluation

- Good evidence is an essential ingredient of good policy and intervention, and there is a need to put in place better systems of monitoring and evaluation to provide such evidence.

1 Introduction

The purpose of this review is to put a primary health care approach to substance misuse into the context of:

- patterns of use;
- the health harms associated with substance misuse;
- the underlying causes of higher levels of use in Indigenous populations; and
- the broader range of Indigenous substance misuse interventions.

At the outset, it is important to note the evidence base is not wide. There has been only one major national population survey of substance use and related issues among Indigenous Australians, and subsequent studies are either based on small samples or they elicit information on only a limited number of issues. No national studies have been conducted on the specific impact of substance use on Indigenous mortality and hospital admissions and the few from state/territory jurisdictions are not recent. Little information is available on the contribution of substance-related problems to the workload of primary health and medical care practitioners. Although the range of interventions for Indigenous substance misuse problems is better documented, in general few have been evaluated and often their evaluation has not been culturally appropriate. Despite these problems, sufficient information is available to indicate that the levels of substance misuse and related harms among Indigenous Australians are of serious concern and that an increased effort to address the issue is needed—an effort in which primary health care providers can make an important contribution.

2 Substance use among Indigenous Australians

Data sources

The only major population survey focusing specifically on substance use among Indigenous Australians was conducted in 1994 in response to the recommendations of the Royal Commission into Aboriginal Deaths in Custody (RCADIC).^{1,2} The survey (referred to hereafter as the ‘1994 NDS survey’) was conducted by AGB McNair on behalf of the then Commonwealth Department of Human Services and Health. As part of the survey, interviews were conducted with 2993 Indigenous people aged 14 years or more residing in ‘urban centres’ (defined as centres with populations of equal to or greater than 1000 people—centres in which most of the country’s Indigenous population resides). Participants in the survey were asked a range of questions on topics including:

- frequency and levels of drug use;
- perceptions of drug use;
- awareness of the health risks from alcohol and tobacco; and
- the consequences of drug use.

The report on the survey also provided comparative data on the non-Indigenous population from the 1993 *National Drug Household Survey*.³ Both these surveys – and those discussed below – rely upon self reports of consumption and are thus likely to be under-estimates of actual consumption.

The 1994 NDS survey provides aggregate baseline data on substance use among Indigenous Australians. However, it is important to note that a number of smaller studies indicate that the national figures hide considerable regional and local variation in frequency and/or levels of consumption for both tobacco and alcohol.⁴⁻¹⁰

Also in 1994, the Australian Bureau of Statistics conducted the National Aboriginal and Torres Strait Islander Survey (NATSIS).¹¹ This survey of about 15 700 people aged 13 years or more was also conducted in response to the recommendations of the RCADIC. It was a general social survey and it included questions on the frequency, though not the levels, of alcohol and tobacco consumption and reported prevalence levels for these two substances that were similar to those of the 1994 NDS survey.

Since 1994, no major population survey of Indigenous Australians focusing specifically on substance use has been conducted. Data available from other surveys provide some indication of change. However, these have limitations. The 1998 National Drug Strategy (NDS) Household Survey sample included only a little more than 200 Indigenous people (aged ≥ 14 years) and the survey report included information only on the prevalence of use.¹² For the 2001 NDS Household Survey, the size of the Indigenous sample was increased to 415 and as well as prevalence data, information on smoking status and levels of alcohol consumption was included.¹³ However, despite the increase in size, the sample remains small and caution must be used in extrapolating from it.

A National Health Survey (NHS) was conducted in 1995.¹⁴ This survey included an Indigenous sub-sample of 1540 people of all ages from non-remote areas. Of these people, about 50% would have been aged 18 years or older, leaving a sample of fewer than 800 persons (considerably less than those in the 1994 NDS survey and the NATSIS) who provided information on smoking status and alcohol use. The 1995 NHS found levels of current alcohol consumption to be approximately 10% higher than the 1994 NDS survey and the NATSIS. However, given the smaller sample size, the different age structure of the samples and the consistent support from findings of several smaller studies of alcohol use, it is likely that the findings of the 1995 NHS were an overestimate of the prevalence of alcohol consumption.

The sample size for the 2001 NHS was supplemented so that it included a total of 1853 Indigenous adults and 1828 children and, unlike the 1994 NDS survey and the 1995 NHS, it included people from remote areas.¹⁵ However, unlike the NDS surveys, the 2001 NHS only gathered data on tobacco and alcohol consumption.

Other studies that provide an indication of change, or potential change in levels of substance use since 1994 include:

- two studies from Western Australia that demonstrate increases in a number of indicators of illicit drug use;^{16, 17}
- a study of students in seven primary schools in Queensland;¹⁸
- a study of secondary students in New South Wales;¹⁹ and
- a small study of young people aged 8–17 years in Albany, Western Australia.²⁰

Patterns of use

Tobacco

Comparison of the results of the 1994 NDS survey and the 1993 *National Drug Household Survey* shows that there was little difference in the percentage of people who had ever smoked tobacco (77% versus 74%). However, Indigenous people were 1.9 times likely to be current smokers (i.e. had smoked in the previous 12 months) than were non-Indigenous people (54% versus 29%). The percentage of Indigenous men who smoked (58%) was higher than the percentage of Indigenous women who did so (50%).¹

Among non-Indigenous people, there has been a steady decline in the percentage of current smokers; this fell from 29% in 1993 to 25% in 1998 to 22.8% in 2001.^{3, 12, 13} Among Indigenous people, the percentage fell from 54% in 1994 to 50% in 1998 and remained about the same in 2001.^{1, 12, 13} However, the prevalence of smoking among Indigenous people remains about twice that of their non-Indigenous counterparts.

A survey of secondary school students in New South Wales, conducted in 1996, found that the percentage of Indigenous students who reported smoking on a weekly basis (30%) was 1.5 times greater than that among non-Indigenous students (20%) and that more Indigenous females (33%) smoked on a weekly basis than did males.¹⁹ In a study of substance use among Indigenous people aged 8–17 years in Albany, Western Australia, it was found that 44% of those aged 15–17 years were frequent smokers and that there was no statistically significant difference in the number of male and female smokers.²⁰ These studies suggest that the prevalence of smoking among younger Indigenous people is also higher than that of their non-Indigenous peers and that prevalence among young Indigenous females is closer to that of males than was the case among people aged 14 years or more at the time of the 1994 NDS survey.

Alcohol

As with smoking, the percentage of Indigenous people who reported ever having consumed alcohol (84%) in the 1994 NDS survey was about the same as among non-Indigenous people in the 1993 *National Drug Household Survey* (82%). However, the percentage of current drinkers was approximately 10% lower among Indigenous people (62% versus 72%). This difference was mainly the result of the greater percentage of those in the Indigenous sample who used to drink but who had given it up (22% versus 9%).¹

Comparison of the results of the 1994 and 1993 surveys also showed that Indigenous people consumed alcohol less frequently than non-Indigenous people. Fewer Indigenous than non-Indigenous people reported drinking every day (8% versus 11%) or at least once a week (41% versus 50%) and more reported only drinking at least once a month (29% versus 22%).¹ However, although reporting less frequent drinking, Indigenous drinkers reported consuming more on each occasion than did non-Indigenous drinkers and this was the case for both males and females. Seventy percent of Indigenous males who drank, reported consuming alcohol at harmful levels compared to 24% of non-Indigenous male drinkers (i.e. at least six standard drinks on each occasion under the now superseded National Health and Medical Research Council Guidelines^{21, 22}). Among females who drank alcohol, 67% did so at harmful levels compared to 11% of non-Indigenous women drinkers (i.e. four standard drinks or more on each occasion). As indicated previously, however, local and regional studies show that there is considerable variation in consumption—some of which may be due to methodological differences but some of which is real.

Between 1993–1994 and the time of the 2001 NDS survey, the percentage of people who were abstainers decreased in both the Indigenous and non-Indigenous populations. However, the rate was greater in the Indigenous population. In the 2001 NDS survey, 79% of Indigenous and 83% of non-Indigenous people reported that they had consumed alcohol in the previous 12 months. In both populations, this was an increase from levels reported in 1994 and 1993.¹³ In the Indigenous population, part of this increase reflects a decrease in the number of women who reported abstaining from alcohol—25% in 2001 compared to 28% in 1994.

Direct comparison of harmful levels of drinking reported in 1993 and 1994 with those reported in the 2001 NDS survey are not possible because data were analysed using different National Health and Medical Research Council (NHMRC) classifications.^{21, 22} However, in the 2001 NDS survey, compared to their non-Indigenous counterparts the percentage of Indigenous males who consumed alcohol at either ‘risky’ or ‘high risk’ levels was 2.6 times as great for long-term harms (30% versus 12%) and 1.5 times as great for short-term harms (67% versus 45%). Among females the prevalence was 1.8 times greater for long-term harms (20% versus 11%) and 1.5 for short-term harms (56% versus 38%).¹³

The 1996 survey of New South Wales secondary students did not provide a breakdown by gender, but found that the prevalence of regular drinking (three or more times in the previous month) was similar among Indigenous and non-Indigenous students. However, the percentage of Indigenous students who reported hazardous drinking (53%) was 1.6 times that among non-Indigenous students.¹⁹ In the Albany study, there was increasing use among young people by age, so that by the time they were in the 15–17 year age category

the majority were either occasional (41%) or frequent drinkers (48%).²⁰ These studies as well as a study from the Kimberley region of Western Australia,²³ lend support to the observation based on comparison of the 1994 NDS Indigenous specific survey and the regular NDS surveys that a cohort effect might exist, so that for younger people the percentage of drinkers among both males and females is approaching that in the non-Indigenous population. These studies also support the observation that Indigenous drinkers are continuing to drink at either 'risky' or 'high risk' levels.

Other substances

In the 1994 NDS survey, 48% of Indigenous participants reported ever having used cannabis and 22% that they had used it in the previous 12 months. This compared to the non-Indigenous percentages of 36% ever having used and 13% having used cannabis in the previous 12 months.¹ In the 2001 NDS survey, there was a slight reduction (3%) in the percentage of the non-Indigenous population that had ever used cannabis, but the proportion of current users remained the same. However, in the Indigenous population there was a 2% increase in those who had ever tried cannabis and a 5% increase in current users.¹³ Thus, the percentage of current cannabis users in the Indigenous population is approximately twice that in the non-Indigenous population. Supporting evidence for such an increase comes from work currently being undertaken in Arnhem Land and from anecdotal evidence from both Indigenous people themselves and from health workers.²⁴

In both the Indigenous and non-Indigenous populations, there have been increases in both the percentage of people who have ever used an illicit drug other than cannabis and current users of those drugs. However, in the Indigenous population the percentage increases have been greater. In the 1994 NDS survey, 19% of Indigenous people reported ever having used an illicit drug other than cannabis and 6% reported being current users—compared to 16% and 5% among non-Indigenous people.¹ In the 2001 NDS survey, 25% of Indigenous people reported ever having used at least one of those drugs and 13% reported being current users. In the 2001 NDS survey, the percentage of the Indigenous population ever using an illicit drug was 1.4 times greater than the percentage in the non-Indigenous population and the percentage of current users was 1.6 times as great.¹³

Three percent of Indigenous people reported ever injecting drugs and 2% that they had injected drugs in the previous 12 months in the 1994 NDS survey. This compared to 2% and 0.5% in the non-Indigenous population in the 1993 *National Drug Household Survey*.¹ Comparable data are not published for later years. However, based on various indicators including hospital admissions data, hepatitis C notifications and police arrest data, it has been estimated conservatively that in Western Australia the percentage of Indigenous people who inject drugs increased by between 50% and 100% over the period 1994 to 2002.¹⁷

In the 1994 NDS survey, 7% of Indigenous respondents reported having inhaled solvents at some time—either petrol (4%) or other inhalants such as glue (5%). This was approximately 1.75 times the percentage reported among non-Indigenous people. The percentages of Indigenous and non-Indigenous people reporting inhalant use in the 12 months prior to the interview were approximately the same (0.8% compared to 0.7%).¹ As might be expected, in surveys confined only to young people, the percentage who report having used inhalants is significantly greater. Thus in the 1996 survey of New South Wales secondary students, 33% of Indigenous students reported having used inhalants.¹⁹ This is similar to the results of the study conducted in Albany where 32% of those aged 13–17 and 7% of those aged 8–12 reported having sniffed solvents.²⁰ For most of these people, however, such use tends to be experimental.

Brady (1992) reported that petrol sniffing—as opposed to sniffing other volatile substances—was largely concentrated in small communities in Arnhem Land, central Australia, and the Goldfields region of Western Australia.²⁵ In 1985, it was estimated that 49% of the 105 people aged 10 to 14 at Amata in South Australia

were either occasional or chronic sniffers.²⁶ Similarly, in a non-random sample of 58 males from 13 to 32 years old (31% of the male population) in an Arnhem Land community, 38% were current sniffers and 31% were ex-sniffers.²⁷ In communities such as these, sniffing patterns are often cyclical and populations fluctuate. This makes estimating prevalence difficult and it is not possible to generalise from these studies with any degree of accuracy. However, a recent report describes a shift in the geographic distribution of petrol sniffing. While there is now little or no petrol sniffing in the Eastern Goldfields region of Western Australia, it now appears to be endemic in the south-east Kimberley region of Western Australia and in northern Queensland, as well as in parts of central Australia and Arnhem Land.²⁸

Poly-drug use

Generally, individuals do not confine their drug taking to one substance and most are poly-drug users. The 1994 NDS survey reported that among Indigenous people *There is some evidence that smoking and drinking are correlated, with heavier smokers also more likely to be heavier drinkers* (p. 27).¹ This finding is supported by other studies. A correlation between alcohol and tobacco use was found in a 1987 study in the Northern Territory.⁶ In Maningrida, petrol sniffers were more likely to be cigarette smokers, heavy drinkers and light kava users than were non-sniffers.²⁷ In Albany, 15% of 105 young people aged 8–17 were ‘poly-drug users’ and 14% were ‘frequent poly-drug users’.²⁰ High frequencies of poly-drug use have also been found among non-random samples of injecting drug users in both Western Australia and South Australia.¹⁷²⁹ The high levels of poly-drug use and the substitution of one drug for another have important implications for efforts to reduce substance misuse.

3 Substance-related health harms

The social costs of substance misuse are well known and of considerable magnitude. For the Australian population as a whole, Collins and Lapsley have estimated that in 1998–99, after taking account of the health benefits of moderate alcohol use, the tangible social costs of misuse of alcohol, tobacco and other drugs were \$18 340.8 million and the intangible costs (loss of life, pain and suffering) were \$16 099 million.³⁰ The tangible *health* costs of drug misuse were estimated to be \$1379.1 million (see Table 1). While no separate estimates of costs are available for Australia’s Indigenous population, the levels of excessive drug use documented in the previous section suggest that such costs are proportionately greater.

Table 1: Selected tangible drug abuse costs, 1998–99

	Alcohol \$m	Tobacco \$m	Illicit drugs \$m	Alcohol and illicit drugs combined \$m	Total \$m
Crime	1235.3	-	2500.4	582.3	4318.0
Health (net)	225.0	1094.9	59.2	-	1379.1
Production in the workplace	1949.9	2519.5	991.2	-	5460.6
Production in the home	402.6	6880.0	344.8	-	7627.5
Road accidents	1875.5	-	425.4	-	2300.9
Fires	-	52.1	-	-	52.1

Source: Collins & Lapsley (p. x).³⁰

The best information about the health effects of substance misuse comes from records of deaths and hospital admissions. However, these represent only a small—albeit more severe—proportion of the total burden of ill-health caused by substance misuse. No system is in place for identifying substance-related consultations in primary health care settings, and there are no estimates of the burden of un-treated substance misuse problems in the community.

Mortality

In some states and territories deaths among Indigenous Australians are under-enumerated and for the purpose of making national estimates of Indigenous mortality the Australian Bureau of Statistics (ABS) relies only on data from Western Australia, South Australia, the Northern Territory and Queensland. Based on data from these jurisdictions, for the period 1999–2000, the ABS has estimated life expectancy for Indigenous males to be 56 years (compared to 77 for non-Indigenous males) and to be 63 years for Indigenous females (compared to 82 years for non-Indigenous females).¹⁵ There are no published analyses of the contribution of substance misuse to these combined state/territory data. However, there are studies that provide a reasonable indication of that contribution.

Tobacco

Using the aetiologic fraction method,³¹ Unwin *et al.* estimated age-standardised mortality rates (ASRs) per 100 000 person years (PY) for tobacco-caused deaths among Indigenous people of *all ages* in Western Australia for the triennial periods 1983–85, 1986–88, and 1989–91.³² For each period respectively, among Indigenous males these were 284, 302 and 271 and for females were 100, 99 and 113. The Indigenous to non-Indigenous rate ratios (RRs) for these periods for males were 2.1:1, 2.4:1, and 2.4:1 and for females were 4.0:1, 2.9:1, and 3.7:1 (see Table 2).

Table 2: Estimated tobacco-caused mortality ASRs, all ages, (per 100 000 PY) and Indigenous to non-Indigenous rate ratios by gender by triennium, Western Australia, 1983–91

Triennium	Males		Females	
	Rate	Rate ratio	Rate	Rate ratio
1983–85	284	2.1 : 1	100	4.0 : 1
1986–88	302	2.4 : 1	99	2.9 : 1
1989–91	271	2.4 : 1	113	3.7 : 1

Source: Unwin *et al.*³²

Unwin *et al.* also identified the most common tobacco-related causes of death. For the period 1989–91, for both Indigenous men and women these were ischaemic heart disease, lung cancer, and chronic bronchitis. For men the Indigenous to non-Indigenous RRs for these conditions were 3.2:1, 1.4:1, and 2.0:1; for women they were 6.8:1, 1.2:1, and 3.5:1. Between 1983 and 1991, tobacco smoking caused an estimated 13.2% of Indigenous deaths in Western Australia.³²

Also using the aetiologic fraction method, Measey *et al.* estimated the ASRs per 100 000 PY for tobacco-caused deaths among males and females aged *15 years and over* in the Northern Territory for the period 1986–95.³³ For the Territory as a whole, for Indigenous males these were 475 and 251 for Indigenous females and Indigenous to non-Indigenous RRs were 3.2:1 for males and 6.6:1 for females. However, there was some regional variation reflecting differences in the prevalence of smoking. In the Top End the ASRs and RRs were 605 per 100 000 PY and 4.1:1 for males, and 407 per 100 000 PY and 10.7:1 for females. In the Centre they were 221 per 100 000 and 1.6:1 for males and 9 per 100 000 and 1:4.2 for females (see Table 3). It should be noted that, in part, these rates are elevated over those in Western Australia because of the different population denominator used. What is consistent, however, is the generally elevated RRs.

Table 3: Estimated tobacco-caused mortality rates, ≥ 15 years, (per 100 000 PY) and Indigenous to non-Indigenous rate ratios by gender by region, Northern Territory, 1986–95

Region	Males		Females	
	Rate	Rate ratio	Rate	Rate ratio
Top End	605	4.1 : 1	407	10.7 : 1
Centre	221	1.6 : 1	9	1.0 : 4.2
NT	475	3.2 : 1	251	6.6 : 1

Source: Measey *et al.*³³

The leading causes of death in the Northern Territory were the same as in Western Australia—*ischaemic heart disease, lung cancer, and chronic bronchitis*—and it was estimated that in the Northern Territory as a whole among those aged 15 years or over, 23% of Indigenous male deaths and 17% of Indigenous female deaths were attributable to smoking.³³

Alcohol

Over an extensive period from various geographic locations, a number of reports implicate alcohol as a cause of excessive Indigenous mortality.^{34–44} For methodological reasons, few of these studies are directly comparable. Furthermore, many of them are simply associational:

- they identify causes of death shown to be alcohol-related in other populations;
- they compare either numbers of deaths or mortality rates between Indigenous and non-Indigenous people from these causes; and
- they report on higher than expected death figures for Indigenous people, and attribute the observed difference to alcohol.

While this approach can be justified with respect to conditions caused *solely* by alcohol, caution is needed in determining the extent of alcohol-related causation for other conditions.³⁹

While it is not without limitations, the aetiologic fraction method overcomes some of the methodological limitations referred to above. Using this method, Unwin and colleagues estimated ASRs per 100 000 PY for alcohol-caused deaths among Indigenous people of all ages in Western Australia, for 1983–85, 1986–88, and 1989–91. Among males these were 159, 186, and 152 respectively with Indigenous to non-Indigenous RRs of 5.3:1, 5.8:1, and 5.2:1.³² For Indigenous females the estimated rates were 30, 32, and 29 with RRs of 5.8:1, 4.6:1, and 3.7:1 (see Table 4).

Table 4: Estimated alcohol caused mortality ASRs, all ages, (per 100 000 PY) and Indigenous to non-Indigenous rate ratios by gender by triennium, Western Australia, 1983–91

Triennium	Males		Females	
	Rate	Rate ratio	Rate	Rate ratio
1983–85	159	5.3 : 1	30	5.8 : 1
1986–88	186	5.8 : 1	32	4.6 : 1
1989–91	152	5.2 : 1	29	3.7 : 1

Source: Unwin *et al.*³²

In Western Australia, in 1989–91, the leading causes of alcohol-related deaths (and the ASRs per 100 000 PY) among Indigenous males were:

- alcoholic liver cirrhosis (42);
- alcohol-dependence syndrome (30); and
- road injuries (19).

Among Indigenous women they were:

- alcohol dependence (17);
- cirrhosis (16); and
- assault (7).

In 1983–91, alcohol caused an estimated 9.6% of Indigenous deaths in Western Australia.³²

Other substances

There are no population-based studies of volatile-substance-related deaths. However, compiling data from various sources, Brady identified 35 deaths related to petrol sniffing in Western Australia, South Australia, and the Northern Territory between 1980–88.²⁵ More recently, in the Northern Territory and Western Australia, a total of 37 petrol sniffing related deaths was identified for the period 1998–2003 and a further seven for the period January to June 2003.²⁸

Although there are no published studies of illicit-drug-related mortality, data from the Western Australian Department of Health show there were 26 Indigenous male and 14 Indigenous female deaths from drugs other than alcohol or tobacco in 1990–99. The ASRs per 100 000 PY for these conditions were 11.1 for males and 5.9 for females.

Hospitalisation

Tobacco

The aetiologic fraction method has also been applied in the estimation of tobacco-caused hospital admissions in Western Australia and the Northern Territory. In Western Australia in 1989–91, the ASRs per 100 000 PY were 2037 for Indigenous men and 1311 for Indigenous women. The Indigenous to non-Indigenous RRs were 2.6:1 for males and 4.7:1 for females. For both males and females the most common tobacco-caused admissions were for chronic bronchitis, ischaemic heart disease and pneumonia and between 1983 and 1991 tobacco-caused conditions accounted for 2.6% of all Indigenous admissions in Western Australia.³²

In the Northern Territory, among Indigenous persons aged 15 years or more, ASRs per 100 000 PY for tobacco-caused admissions were estimated to be 1520 for males and 1013 for females, with Indigenous to non-Indigenous RRs of 2.3 for males and 4.4 for females. The regional variation found in tobacco-caused mortality rates was also found in admission rates. In the Top End, the male and female Indigenous to non-Indigenous RRs were estimated to be 2.3:1 and 6.4:1, and in the Centre they were estimated to be 2.1:1 and 1.2:1.³³

Alcohol

A small number of older studies from various locations show broadly that the rate of hospitalisation admissions among Indigenous Australians is considerably higher than among non-Indigenous people.^{45–49} Staff from the Western Australian Department of Health have used the aetiologic fraction method to estimate ASRs for hospital admission for conditions wholly attributable to alcohol in Western Australia in 1981–90, and for injuries and conditions wholly attributable to alcohol in the Kimberley region in 1988–92 and the

Pilbara region in 1989–93.^{50–52} They also used the method to estimate admission rates for all alcohol-caused conditions in Western Australia in 1989–91: these rates were 3742 per 100 000 PY for Indigenous males and 2104 for Indigenous females; the Indigenous to non-Indigenous RRs were 9.3:1 for males and 12.8:1 for females. The main causes of alcohol-related admissions for males were assault, alcohol dependence and fall injuries; and for females were assault, alcohol abuse and alcohol dependence.³²

In the Northern Territory, for the period 1977–82, comparison was made of world-standardised hospital admission rates for five conditions caused solely by alcohol misuse and various other conditions known to be associated with alcohol misuse. For Indigenous people, the ASRs per 100 000 PY for these conditions ranged from 470 to 610 for males and from 180 to 300 for females. The RRs for these conditions were all in the vicinity of 1.6:1.³⁸

Other substances

No population-based studies of hospitalisations due to the use of volatile substances are available. Published data on hospital admissions for conditions caused by drugs other than tobacco and alcohol are only available for Western Australia. Gray *et al.* using data provided by the Health Department of Western Australia, reported that between 1994 and 2000 hospital admissions of Indigenous people for conditions caused by drugs other than alcohol or tobacco increased by 121% for males and 44% for females.¹⁷ In a more comprehensive study, Patterson *et al.* examined the incidence of first-time hospital admissions for illicit drug problems in Western Australia.¹⁶ They found that between 1980 and 1995 the ASRs per 100 000 PY for Indigenous people increased dramatically, from 9.2 to 180.7. In 1980, the rate among non-Indigenous people was approximately 1.8 times that among Indigenous people, but by 1995 this had been reversed and the admission rate among Indigenous people was approximately 1.9 times that among non-Indigenous people. The study's authors noted the following trends:

Largest proportional increases were observed in first-time admissions mentioning amphetamine dependence or abuse, although increases were also seen in problems due to opiates, hallucinogens, cocaine and cannabis (p. 460).¹⁶

Primary care settings

There are no comprehensive studies on which to base an overall assessment of the workload in primary health care related to alcohol and substance misuse harms. However it is reasonable to assume that as with most conditions mortality and hospital admissions represent only a small—albeit severe—proportion of the overall burden of alcohol and other substance related health problems; and that most treated alcohol and substance misuse morbidity is seen in primary health care settings.

Smoking-related illness is a major cause of morbidity and, as with hospital care, is a major consumer of primary care resources. Although the relative contribution of differing substances to primary care use is not well documented smoking is likely to be a greater contributor to the use of primary care resources for Indigenous people than other drugs.

The major contribution to the primary care workload relating to alcohol use is likely to be for conditions where alcohol is a contributing factor rather than the sole or major cause. For example, while alcohol does not specifically cause diabetes, it contributes to poor management of diabetes and hence the long-term consequences of diabetes including cardiovascular disease, renal disease and infections of greater severity. Hypertension is multifactorial, and heavy alcohol consumption is one of the causes of hypertension. Heavy alcohol consumption also makes good control of blood pressure more difficult and hence contributes to greater harm both directly and indirectly.

Some of the acute, and much of the more serious, violence-related morbidity due to alcohol is seen in hospitals. However, most people seen in hospitals with injury are followed up in primary care. A greater number of people present to primary care in the first instance with injury related to alcohol and many of these presentations require multiple visits (e.g. from two to three visits for a wound that requires suturing to perhaps dozens of visits for people with significant limb or back injuries requiring rehabilitation).

Apart from common serious conditions such as those mentioned briefly above, specific substance use problems also make a significant if lesser contribution to primary health care morbidity. Substance specific problems include alcohol withdrawal, liver disease, alcohol or other substance related brain injury and hepatitis C—all of which are almost entirely due to alcohol or other substance misuse.

Despite the absence of reliable figures there is no doubt that a significant proportion of the limited primary health care resources accessed by Indigenous people are for problems related directly or indirectly to tobacco and alcohol. Other substance misuse makes a lesser but not insignificant contribution.

Summary

Although the geographical coverage of the reports we have summarised is far from complete, they provide a consistent picture. While there is some regional variation, both mortality and hospitalisation rates for all psychoactive substances are significantly higher for Indigenous than for non-Indigenous Australians. Tobacco is the substance responsible for the most Indigenous deaths, although alcohol is responsible for more hospitalisations. This is probably a reflection of under-treatment of many serious tobacco-related problems and the high frequency of acute alcohol-related conditions (such as assaults and injuries) requiring hospitalisation. The effects of volatile-substance misuse are serious and need to be addressed urgently. However, volatile substances make little contribution to mortality and morbidity at the national population level. Deaths and hospitalisations due to the misuse of illicit drugs are still considerably less common than those due to tobacco and alcohol but the increase in these problems over recent years is cause for concern.

As indicated, there have been no studies of the burden that substance misuse problems place on primary health care providers. Nevertheless, the high levels of substance use, and associated deaths and hospitalisations, lend support to the commonly held perception that the direct and indirect consequences of substance misuse contribute substantially to primary health care workloads.

4 The context of Indigenous substance use

Explanations for excessive levels of substance use (as opposed to use per se) and related harms among Indigenous people vary. They include:

- biological theories about the inability of Indigenous people to metabolise alcohol (for which there is no evidence);
- cultural theories about the absence of alcohol in traditional Indigenous life and consequent lack of social rules to deal with it (now discredited with evidence of some pre-contact use of intoxicating substances); and
- social learning theories about the impact of European frontier drinking patterns, and the influence of prohibition on Indigenous drinking styles.

Many people see substance misuse as a problem for individuals. However, ill health and substance misuse are socially patterned and the problems facing Indigenous Australians are typical of indigenous minorities in countries such as in the United States, Canada and New Zealand.^{53,54} It is necessary, therefore, to examine

the social context of the transformation of a healthy hunter-gatherer population to a population that is one with the poorest health living in a developed nation today.

The origins of contemporary ill health among Indigenous Australians can be traced to the history of the dispossession of traditional countries and the destruction of the economies that sustained people for more than 40 000 years.⁵⁵ As European settlement expanded from the fertile coastal fringes in search of land for agriculture, pastoralism and mining, Indigenous people were increasingly deprived of the resources to maintain a healthy diet and lifestyle. They struggled with newly introduced diseases, and many moved or were forced on to missions and settlements. These church and government institutions controlled every aspect of individual's lives, from the food eaten and how and when it was to be eaten, to the choice of marriage partners. The little education provided was designed only to equip Indigenous people to take places as domestics or manual labourers in the emerging new society.⁵⁶ For almost two hundred years Indigenous people were excluded from full participation in the growing Australian economy and social institutions such as schools and hospitals. Government policies also sanctioned the removal of many lighter-skinned children from their families, in the belief that these children could be trained to more easily assimilate into Australian society.⁵⁷

While this history of dispossession, exclusion and marginalisation is now widely recognised, some argue that we should focus, not on the past, but on current opportunities for Indigenous people. Indigenous people have long argued that the past continues to influence the present, as people traumatised by their experiences struggle to rear their own families.⁵⁸ Only recently has the link between these colonial policies and poor health, including substance misuse, been more explicitly explored by health researchers. Work on the social determinants of health among the general population has focused attention on the way in which the history of the relationship between Indigenous and non-Indigenous people in this country, and the economic and social consequences of this history has influenced and continues to influence the health status of Indigenous Australians.

The social determinants of ill health and substance misuse

It is now almost universally acknowledged among health researchers that much ill health and substance misuse is socially determined, although the precise causal mechanisms by which this occurs is still debated.^{56, 59–63} An understanding of the foundations of 'social medicine' which illustrated the links between urbanisation, industrialisation, growing poverty and ill health date back to the 17th and 18th centuries. Since the 19th century studies have shown that heavy alcohol use is linked to unemployment, low income and poor housing.^{64–67}

There is a complex relationship between these broad social determinants and individual risk and protective factors. This results in some individuals maintaining better health and resisting risky drug and alcohol use, in spite of their materially poor circumstances. Modelling the social origins of health, therefore, involves interconnected levels of social determinants from the most broadly social to individual pathobiology. These include:

- macro-social factors (such as the political economies of particular countries, the cumulative effects of historical factors such as colonialism and dispossession, social institutions such as education, and culture);
- the availability of positive social connections far from and near to the individual (such as neighbourhood, community, friends and family);
- individual characteristics (such as socio-economic position, psychological disposition, and behavioural patterns);
- genetic characteristics; and
- pathobiology (pathological biomarkers).^{59, 62, 63, 68, 69}

In Australia, for almost thirty years there has been consistent acknowledgement by various government inquiries of the primary role that broad social factors such as colonisation, dispossession from country and traditional economies, and marginalisation from the developing non-Indigenous economy have played in the dismal health of Indigenous people.^{56, 70–74} In spite of this recognition—and three decades of attempts to address Indigenous inequality—on all key social indicators such as post-secondary qualifications, employment status, and individual and family income, Indigenous people experience absolute material deprivation compared to the general population.^{75–77} In 2001, for example, mean Indigenous weekly household income was 62% of that for non-Indigenous households (\$364 versus \$585).⁷⁷ The Kimberley in Western Australia provides a good example. In 1999 it had an Indigenous population of approximately 15 500 and an estimated deficiency of at least 700 houses, with new constructions not keeping pace with population increases. Up until that time, an average of only one child a year from a Kimberley school attained minimum entry level for any university course; and the most common type of employment was work for social security entitlement schemes.⁷⁸

Recent work on the social determinants of health has focused on the way in which socio-economic gradients influence health outcomes. Concepts of absolute and relative deprivation are important in this determination. Societies with inequitable income distributions, such as the United States, have the steepest socio-economic gradients in health, while those societies with more equitable income distributions, such as Norway or Sweden, tend to have shallower gradients.^{79, 80} Recent Australian research has shown that the widening gap between income groups has been associated with the greatest gap in the health status between groups ever recorded among the general population in this country.⁸¹

Even though the starkest differences in social indicators and health are *between* Indigenous and non-Indigenous Australians, a number of Australian studies illustrate the link between these social indicators and substance misuse *among* Indigenous people. A joint publication by the ABS and the Australian Institute of Health and Welfare (AIHW) summarised the results of the two most comprehensive, national, surveys of Indigenous people and showed a link between cigarette smoking and such social indicators.

An extensive analysis of NATSIS [National Aboriginal and Torres Strait Islander Survey] data revealed that both Indigenous males and Indigenous females aged 15 and over who had completed at least year 12 at school were less likely than those who left school earlier to report that they smoked. Indigenous people in forms of employment other than Community Development Employment Projects (CDEP) [a work for social security entitlements program] were less likely to report that they smoked than those in CDEP scheme employment, the unemployed and people not in the labour force (Cunningham 1997⁸²). Similarly, in the NHS, Indigenous adults aged 18 years and over from non-remote areas were less likely to report smoking if they were employed (49%) than if they were unemployed (63%) or not in the labour force (55%). (p. 53)⁷⁶

Two smaller studies have demonstrated a link—at least among males—between tobacco smoking among Indigenous Australians and employment status.⁸³ The first—a study of 306 Indigenous and 553 non-Indigenous people in two Victorian towns—found that 66.9% of Indigenous males and 24.0% of non-Indigenous males were current cigarette smokers.⁹ When those receiving a pension, benefit or allowance were excluded from analysis, the proportion of Indigenous males who were current smokers was reduced to 39%. However, this was not the case for Indigenous females. In the second study—among a sample of 273 Indigenous people in New South Wales—the prevalence of tobacco smoking was 54% among those who were unemployed but only 27% among those who were employed.⁸⁴

The ABS & AIHW publication also linked alcohol misuse among Indigenous people to education, employment and income.

An analysis of Indigenous drinkers aged 18 years and over in the NHS showed that those in the high risk category were less likely than low risk drinkers to have a higher educational degree and more likely to have left school before the age of 15, to be unemployed or not in the labour force, to earn the majority of their income through government pensions, to earn less than \$10,000 per annum [in 1995]... Although the numbers of people in each category are small, the patterns are consistent in suggesting that high risk drinking among Indigenous people is more common among the socio-economically disadvantaged. (p. 55)⁷⁶

In a study of 105 Indigenous people aged 8–17 years in Albany, Western Australia, Gray *et al.* found that among children aged 8–14 years those who were disaffected from school were 23 times more likely to be poly-drug users and that among those aged 15–17 years those who were unemployed were 13.5 times more likely to be ‘frequent poly-drug users’ than those who were employed, in training, or still at school.⁸⁵

It is not just that exposure to poor material environments results in ill health, but that relative access to resources dictates a person’s social position. This means that low social status—rather than simply the lack of material goods—is more likely to be associated with fewer positive social connections to friends and family, and lack of control of one’s work environment, leading to chronic stress and ill health.⁸⁶ If CDEP is excluded Indigenous unemployment is more than four times higher than among the general population,⁸⁷ and many Indigenous people never experience the material and social benefits of worthwhile work. It is these psychosocial correlates of relative deprivation that increasingly have been emphasised in the literature.^{63, 88}

Social capital, defined as ‘those features of social organisation—such as the extent of interpersonal trust between citizens, norms of reciprocity and density of civic associations—that facilitate cooperation for mutual benefit’ has been seen as one important mechanism by which these psychosocial factors influence health outcomes.⁸⁹ Although specific research has not been conducted among Indigenous people in Australia, social capital has been found to influence individual health after controlling for income, educational level, and risk factors such as smoking among some young people.^{90, 91}

Although much health and social program development in Indigenous communities has been directed at so-called community strengthening or capacity building, very little is known empirically of social capital and its relationship to health and substance misuse among Indigenous people. Many of the measurements of social capital, such as membership of associations or religious affiliation may be less applicable to many Indigenous people. Instead, measures of community engagement might need to take account of more informal social networks operating in Indigenous communities, such as regular care of grandchildren, the informal provision of care and protection for women escaping domestic violence, and duties associated with the maintenance of country and tradition.

Social capital and Indigenous community control

One important dimension of social capital in Indigenous communities has been the development of a large range of organisations run by Indigenous people for Indigenous people, and designed to tackle what they see as the root causes of their ill health and substance misuse: ‘loss of land, law, culture and language, forced removals, and racism’ (p. 595).⁹²

The ACCHSs, through their umbrella organisation, the National Aboriginal Community Controlled Health Organisation (NACCHO), have long stressed the importance of the broad structural determinants of Indigenous ill health, and particularly the role that the history of dispossession and the marginalisation of Indigenous peoples continues to play in their ill health.⁹³ The first of the ACCHSs commenced operation in 1971 with primary health care, controlled by Indigenous people, as its focus. Today such services are controlled and managed by Indigenous people and wherever possible, Indigenous people are employed. Poor access to education and training means that there are still very few trained Indigenous doctors and

nurses and the largest numbers of people are employed as Aboriginal Health Workers.⁹⁴ Non-Indigenous people working in the ACCHSs—general practitioners, nurses, and administrators—are employed by and must satisfy the priorities of the community-controlled boards of each health service. For many urban, rural, regional and remote communities, the ACCHSs provide the main source of employment and training for Indigenous people.

The ACCHSs see substance misuse as being closely connected to the background of dispossession and disadvantage stemming from the past. This means that many of their activities also deal with housing and homelessness, financial assistance, emergency relief, gambling, legal issues, employment support and school liaison, as well as specific alcohol and other substance misuse issues.⁹²

Following the evidence from inquiries such as the Royal Commission into Aboriginal Deaths in Custody² and the *Bringing them Home* report⁹⁵ that linked separation from families with substance misuse and ill-health, poor parenting and over-representation in the criminal justice system, funds were provided to ACCHSs for the development of social and emotional wellbeing centres. These are also attempting to tackle the psychosocial antecedents of current ill health by tracing family histories and providing counselling and other interventions that acknowledge the physical and spiritual harms of the past.^{58, 93, 96}

Alongside this model of community-controlled health service, other Indigenous models are emerging with a different focus. Rather than emphasising substance misuse as the ‘symptoms of oppression’, Noel Pearson, for example, uses an addiction framework.⁹⁷ Pearson has mapped a comprehensive strategy to tackle alcohol and other substance misuse in Cape York communities. This strategy is similar to interventions recommended under the National Drug Strategy, with some important exceptions.⁹⁸ Pearson is adamantly opposed to a harm minimisation approach, and believes compulsory measures (both in terms of income control and treatment for alcohol and other substance misuse) are necessary to control the unacceptable behaviours of those he calls ‘addicted individuals’. He advocates a six-pronged strategy including:

- rebuilding a social, cultural, spiritual and legal intolerance of alcohol and other drug abuse;
- police and community control of the availability and supply of alcohol and other drugs;
- the introduction of money management schemes that would encourage saving for family and community goals, and discourage the use of discretionary income on alcohol, other drugs and gambling;
- the provision of domestic, social and recreational pursuits so that people have less time to spend on drugs and gambling;
- a range of compulsory and voluntary treatment and rehabilitation programs; and
- a concerted effort to improve the physical and aesthetic environments of local communities through home and community improvement schemes with a focus on community history and pride.⁹⁸

Pearson is not arguing that the government should be absolved—either financially or morally—from responsibility for the position of Indigenous people. Instead he maintains that external assistance should be mediated through Indigenous family and community organisations that can insist on some form of reciprocity by community members (e.g. the requirement that individuals contribute to a group savings plan or attend rehabilitation for their addictions). For Pearson, government support is a necessary but not sufficient condition for alleviation of the poverty and despair in many Indigenous communities. He argues that transformation will only come when Indigenous people lead the recovery from within.

Some people are concerned that Pearson’s approach places a heavy burden on Indigenous family and community forms of governance, which may struggle to assert the authority necessary to achieve reform—in part because of long-demonstrated resistance of Indigenous groups to having their behaviour governed by either outsiders or their own members.⁹⁹ It is also difficult to balance the rights of Indigenous communities to self-determination and the citizenship rights of individuals when Indigenous communities choose forms

of governance that reduce those individual rights. There are existing precedents for such models, however, such as restrictions on the sale of alcohol to Indigenous peoples (rather than the whole population) in specified areas.^{54, 100}

Given the intractable nature of substance misuse, the fact that there are few rigorous evaluations to guide intervention and the great diversity of Indigenous communities, all attempts by Indigenous people to address the issues warrant close scrutiny and support where there are indications that they are having a positive impact.

5 Substance misuse interventions

As the social determinants of ill health and substance misuse are wide ranging, from the macro-social to the individual, so too must be the range of interventions. It is also important to distinguish between short-, medium- and long-term interventions. Much of the work on the social determinants of health and substance misuse has identified structural factors such as education and employment which, if addressed, will have a positive impact on future generations. However, ameliorating the circumstances of those individuals and communities that are currently afflicted by the consequences of substance misuse requires short- and medium-term strategies and primary health care practitioners can play—and have played—roles at many levels in those strategies.

A useful framework for reviewing substance misuse interventions is provided by the tripartite approach of Australia's National Drug Strategy—demand reduction, supply reduction and harm reduction.¹⁰¹ This framework is cross-cut by the classification of interventions as being focused on primary prevention, secondary prevention, and treatment and rehabilitation (tertiary prevention); and, in turn, these can be distinguished in terms of whether they focus on populations (including communities) or individuals.

Demand reduction

In the long term, the strategies that will have the greatest impact on the excessive demand among some sections of the Indigenous population are those that directly target the social determinants of substance misuse. These include the broader primary prevention strategies that generally fall outside the purview of the health sector. They include:

- programs to increase Indigenous participation in the education system;
- employment programs;
- the provision of housing and other community infrastructure;
- community development; and
- the provision of recreational facilities and programs.

The impact of these strategies will have greatest effect over the long term. In the short term, however, a number of demand reduction strategies do fall within the domain of the health sector.

Primary prevention

A range of innovative health promotion approaches to reduce alcohol and other substance misuse and the harm that follows have been developed and tried across Australia. A list of current health-promotion projects is available on the Indigenous Australian Alcohol and Other Drugs Database <<http://www.db.ndri.curtin.edu.au>>, and overviews of the range of projects are available for tobacco, alcohol and petrol sniffing.^{83, 102–104}

Innovative health promotion projects have included approaches such as theatre adapted to local and regional circumstances and advertising on regional Indigenous television in rural and remote areas (e.g. *Imparja* television in the Northern Territory and *Goolarri* television in the Kimberley region). Promotional programs developed by ACCHSs in the Kimberley include the ‘Condoman’ posters and condom trees (free supply of condoms in baskets in trees) in areas where people drink to reduce the consequences of alcohol-related sexual activity. Many ACCHSs have produced local material such as posters and pamphlets using local Indigenous people most of which are well received, although the extent to which these approaches are effective is less certain. State and territory health promotion units have also produced a wide variety of Indigenous-specific health promotion materials, much of which is culturally appropriate and locally relevant.

Unfortunately, most of these projects tend to be small-scale with limited one-off funding. For example in 1999–2000, prevention projects made up only 21% of all substance misuse intervention projects, and received less than 10% of the funds directly targeted at reducing Indigenous substance misuse. Furthermore, 47% of these projects received only short-term funding.¹⁰⁴

A small number of (largely qualitative) reviews of alcohol prevention projects have been conducted. The projects reviewed have included:

- a combination of health-education classes, sporting and recreational activities, support for homeless people;¹⁰⁵
- a bush tour by the band *Yothu Yindi* and an associated television commercial;¹⁰⁶
- alcohol education programs and related programs for young people;^{107, 108} and
- community education and activities.^{109, 110}

While most of these interventions were well received by the communities in which they were conducted, evaluations of the outcomes were equivocal. The evaluations also identified a number of process issues that both enhanced and constrained project effectiveness.¹¹¹

Petrol-sniffing–prevention projects have focused on youth work,¹¹² recreational activities,^{113–115} general education,¹¹⁶ employment¹¹⁷ and substance-specific education.¹¹⁸ These and other projects have been reviewed by d’Abbs and MacLean.¹⁰³

Primary prevention at an individual level tends to occur most frequently in primary health care settings, where all clients can be asked about substance use even when not presenting with the consequences of misuse. This is possible in all health care settings and does occur to some extent. However, more widespread use of a structured approach applied to all clients is likely to yield considerable gains. Preventive initiatives in primary health care settings include:

- clinical programs (which might include brief interventions for substance misuse);
- women and children’s programs (including ante-natal advice on foetal alcohol syndrome);
- community programs (focusing on alcohol-free activities);
- family programs (such as camps for young people); and
- education and training (in substance misuse for health workers and other health professionals).⁹²

Most ACCHSs now use computer-based patient information and recall systems that prompt workers to ask about and record substance use on a regular basis (e.g. the ‘*Ferret*’ program widely used in ACCHSs can be set to prompt primary health care staff to ask about alcohol and tobacco consumption annually as part of the well person’s health check⁹²). This enables the issue of substance use to be routinely raised in a non-threatening way with all clients by appropriate workers—including Aboriginal health workers, nurses

and doctors. In mainstream primary health care settings recall systems are generally used in a much more limited way to prompt doctors about medical follow up and a systematic approach to regularly following up substance use is not common.

Secondary prevention and treatment and rehabilitation

The most common approach to alcohol and substance misuse and related harm, and the approach that uses the most resources is the provision of secondary and tertiary prevention services for individuals. The agencies that provide these services also generally provide services to Indigenous people who are suffering the consequences of substance misuse by others. These agencies include ACCHSs, GPs, community health centres, specific alcohol and drug agencies (both Indigenous and general), sobering up shelters, police and justice departments, women's refuges, Centrelink, state and territory government welfare services, ambulance services, the Royal Flying Doctor Service, religious and other charitable welfare organisations, emergency departments, hospital in-patient services, and mental health services.

In the 2001 NHS more than 25% of Indigenous people reported having seen a medical practitioner in the previous two weeks (about 115 000 people given the ABS Indigenous population estimate of approximately 458 500 in 2001).⁷⁷ Thus, the potential capacity of primary health care services for early identification of problems and the prevention of more serious problems (effective secondary prevention) is significantly greater than that of alcohol and substance misuse specific services.

The availability of primary health care services for Indigenous people varies by location.

- In remote Australia either ACCHSs or state and territory governments generally provide primary health care and only one service is available.
- In remote towns there may be both an ACCHS and a state or territory government-run service that may provide some primary care services and/or there may be a private general practitioner service.
- In rural areas most of the services in small towns are provided by general practitioners with varying support from state and territory government-run services.
- In medium to larger towns with a significant Indigenous population there is often an ACCHS as well as a number of general practices.

In most areas available services are unable to address all the primary health care needs of communities and duplication of services that might address alcohol and other drug related harm is rarely an issue. Rather, the problem is that—other than acute care for injury and illness related to substance use—primary health care services do not have the resources to meet their potential to provide preventive services.

One intervention with particular potential in primary health care settings is 'brief intervention'. On the basis of reports by Indigenous people about the role of advice from medical practitioners in their decisions to give up drinking alcohol, and of the effectiveness of such interventions in other populations, Brady, among others, has been an advocate of the use of brief interventions for Indigenous people.^{119–121} There have been no evaluations of their efficacy among Indigenous Australians. However, given their effectiveness elsewhere, and as they do no harm, they should probably be used more often by primary health care providers.

Specialist treatment services for substance misuse for the general population (to which Indigenous people theoretically, but not practically, have access) are provided by a wide range of mainstream government and non-government services. A study is currently underway to provide an inventory of all such services but at the time of writing the results are not available. However, as indicated previously, there has been a review of services provided specifically by or for Indigenous people.¹⁰⁴ This study found that, in the 1999–2000 financial year, 107 projects were providing specialist treatment services specifically for Indigenous Australians in both residential and non-residential settings. Most of these projects targeted alcohol alone, or alcohol and some combination of other substances. Although most treatment projects are based on the

'12 steps' model, or an adaptation of it, in recent years services have begun to explore a wider range of approaches, including harm minimisation, life-skills counselling and vocational training.

It is difficult to obtain figures for Indigenous use of substance misuse treatment services in general. However, just over 6500 Indigenous clients were identified in the Alcohol and Other Drug Treatment Services National Minimum Data Set collection for 2000–2001.⁷⁷ While this is a significant underestimate—due to incomplete coverage of Aboriginal and Torres Strait Islander agencies—even if the actual figure is double that reported, it is likely that only a small proportion of the people for whom treatment is required receive services from specialised agencies. These services are important sources of expertise and can provide examples of good practice but it is unrealistic to expect them to be the major source of preventive services.

Evaluations of treatment projects have again been equivocal. They have found that some produced no significant improvements, while others were moderately successful.^{109–111, 122–124} In one case, such results were a consequence of the fact that there were no agreed criteria against which success could be measured.¹²⁴ In others, project effectiveness was circumscribed by limited resources and the need for additional training for both clinical and administrative staff.^{109, 111} Importantly, staff from services focusing mainly on alcohol-related problems often report that they do not have the training to deal effectively with illicit drug-related problems.¹⁷

Supply reduction

Indigenous communities have taken two main approaches to reducing the supply of alcohol: declaring 'dry' areas and using liquor-licensing legislation to extend controls on availability. Some groups have also lobbied for changes to licensing legislation.^{125, 126}

The legal procedures enabling Indigenous communities to declare themselves 'dry' vary between jurisdictions. These procedures and their effects in the Northern Territory, Western Australia, and South Australia have been reviewed by d'Abbs.¹²⁷ He found that they can be effective, but that communities need support to enforce them and that the policies underlying them must promote Indigenous control. These findings echo those of an earlier study by Larkins and McDonald.¹²⁸

Indigenous groups in the Northern Territory and Western Australia have used liquor-licensing legislation to extend the restrictions on the availability of alcohol. Restrictions commonly include limitations on hours of sale and prohibition of the sale of wine in casks of more than two litres (effectively a price-control measure as cask wine is the cheapest alcoholic beverage per standard drink). Among other community organisations, ACCHSs—including Central Australian Aboriginal Congress in Alice Springs, Anyinginyi Aboriginal Congress in Tennant Creek and Yuri Yungi Aboriginal Medical Service in Halls Creek—have played major roles in gathering evidence in support of, and advocating for, such restrictions.

Evaluations of restrictions have been conducted in Halls Creek and Derby in Western Australia, and Tennant Creek and Curtin Springs in the Northern Territory.^{129–133} Generally, restrictions have been found to be effective in reducing consumption and related harms. They have been most effective when they have:

- been initiated by Indigenous people;
- been conducted as part of broader strategies to address alcohol-related harm; and
- had wide community support.^{134, 135}

Supply reduction has also been used to reduce petrol sniffing and the harm it causes. In communities in central Australia and Arnhem Land, aviation fuel which does not have the same psychoactive effects as petrol has been substituted for petrol (again, in some areas, with ACCHS support).^{103, 117} This has been most effective when introduced in conjunction with other interventions. However, its effectiveness can be compromised when petrol remains available from other sources. Another measure to reduce availability has been to lock up petrol supplies, but this has had virtually no success.^{103, 136}

In the Ngaanyatjarra Lands in Western Australia and the Pitjantjatjara Lands in South Australia, sniffing petrol and supplying petrol for sniffing have been made illegal. It is also illegal to supply petrol for sniffing in the Northern Territory. No formal evaluation of these measures has been conducted, but anecdotal evidence suggests their effectiveness is equivocal—particularly as petrol is widely available and the sanctions themselves do not act as a strong deterrent.¹⁰³

d'Abbs has provided an overview of legislative controls over kava.¹³⁷ In Western Australia, in response to Indigenous community concerns about plans by non-Indigenous people to market it, the supply of kava was prohibited under the terms of the *Poisons Act*. In the Northern Territory, largely as a result of non-Indigenous concerns, the *Kava Management Act* was introduced in 1998, and it stipulates that kava can only be supplied under license. There are no published studies of the impact of this legislation.

Harm reduction

Harm-reduction strategies are designed to reduce the impact of drug use on individuals and communities, without necessarily reducing consumption. The most common of these are night patrols, which provide transport to safe locations for intoxicated persons. There were 69 patrols operating in various locations in 1999–2000.¹⁰⁴ Most patrols aim to reduce alcohol-related conflict and harm. Mosey has provided an overview and largely qualitative assessment of the operation and effectiveness of remote-area night patrols in central Australia.¹³⁸ Sputore and her colleagues have conducted qualitative and limited quantitative evaluations of patrols in Kununurra, Wyndham and Halls Creek in Western Australia. While the quantitative measures were equivocal—due to confounding factors—people in those communities generally considered the patrols effective in reducing alcohol-related violence and in removing intoxicated people from the streets.^{109, 110}

Sobering-up shelters provide temporary haven for and supervision of intoxicated people at risk of causing harm to themselves or others, and divert intoxicated people from police custody. In 1999–2000 there were 23 such shelters.¹⁰⁴ Daly and Gvozdenovich conducted a qualitative evaluation of shelters in three Western Australian towns and found that the shelters were well accepted by both clients and police.¹³⁹ Evaluation of a shelter in Kununurra found that it was well accepted and significantly reduced the number of police detentions of intoxicated people.¹⁰⁹

Detoxification programs prepare individuals for entry into treatment programs, and at least one ACCHS—WuChopperen Health Service in Cairns—has had some success in conducting a home-based (as opposed to a specialised facility-based) detoxification program.⁹⁶ However, the practical problems associated with home detoxification in many Indigenous communities—where clients' homes may be overcrowded and in which other individuals may continue to consume alcohol at high levels—mean that more detoxification facilities are needed for Indigenous people. The lack of detoxification services is particularly acute for those who inject drugs.^{140, 141}

The provision of free or cheap needles and injecting equipment is a key strategy in attempts to reduce the spread of blood-borne viruses among people who inject drugs. In 1999–2000, there were six needle exchanges specifically for Indigenous people, and an unknown number of ACCHSs also provided clean needles and other injecting equipment.¹⁷ However, none of these has been evaluated.

Comprehensive primary health care for substance misuse: two examples

To provide examples of what is being done and can be done to address substance misuse using a comprehensive primary health care approach, we have selected two ACCHSs. WuChopperen Health Service in Cairns and Kimberley Aboriginal Medical Services Council (KAMSC) in Broome offer a combination of clinic-based medical treatment and culturally appropriate social and emotional health programs in an effort

to tackle the significant health problems affecting Indigenous people. As with many other community-controlled health services, these organisations are successful because of their:

- ability to combine an Indigenous perspective on health care with traditional western concepts of illness and treatment;
- emphasis on community involvement; and
- capacity to make achievements in the face of continuing staff shortfalls and budgetary restraints.

WuChopperen Health Service is a community-controlled health service for Aboriginal and Torres Strait Islander peoples in Cairns and the surrounding region. It was officially opened in 1981 with just one Maori doctor and two Aboriginal nurses. The health service now employs 75 staff members, all but 16 of whom are Aboriginal (44) or Torres Strait Islander (15). Indigenous people hold eight of the 10 managerial positions. WuChopperen has also established health clinics in Innisfail, Mareeba, Kuranda and Atherton. Two of these—the Mamu Health Service in Innisfail and Mulungu Aboriginal Corporation Medical Centre in Mareeba—are now autonomous services.⁹⁶

WuChopperen provides a range of services and activities aimed at the holistic health needs of Aboriginal and Torres Strait Islander people in the region. These services are provided by two units: Clinical Services and Social Health Services. Clinical Services provides comprehensive medical and oral health services that are delivered by a wide range of medical and dental staff, nurses, health workers, technicians and administrative support personnel. Within Clinical Services, the Specialist Services Unit conducts a range of programs that address the needs of all members of the community. These programs include: Eye Health, Women's Health, Men's Health, Child Health, Hearing Health, Sexual Health, Diabetic Clinic, Chronic Disease Management and Health Promotion for Youth. The Social Health Service provides counselling and support services that address the social and emotional needs of individuals, couples and families. These services include a stolen generation program; a parenting skills and family relationships project; a cultural program for young boys; and the Tobacco, Alcohol and Other Substances (TAOS) program.

The main aim of the TAOS program is to assist in delaying the uptake and reduction of tobacco, alcohol and other substance use. Until 2003, when it received four year funding from the Alcohol Education & Rehabilitation Foundation to employ an additional worker, TAOS was staffed by one person. This severely constrained the scope and extent of program activities. In spite of this, however, TAOS has created a high quality service. Involvement in successful community campaigns, such as that by the Cairns Inhalant Action Group, and well-publicised promotions, such as a health education kit, demonstrate what can be achieved with highly motivated people with limited resources. Achievements of TAOS include:

- actions to address volatile substance misuse in the community;
- development of culturally appropriate health education resources; and
- integrated case management, including the introduction of a home-based detoxification program for substance dependent clients.

Factors that have contributed to these successes include: supportive, strengths-based work with quality staff; and rigorous reporting requirements for the program.⁹⁶

KAMSC is a health resource body for a group of independent ACCHSs in Western Australia's remote Kimberley region, where one quarter of the State's Indigenous population lives. Established in 1986, KAMSC was initially formed as a cooperative between the Broome Regional Aboriginal Medical Service and the East Kimberley Aboriginal Medical Service (now the Ord Valley Aboriginal Health Service), with membership from Halls Creek and Fitzroy Crossing communities. These communities recognised that sharing resources and working collaboratively would benefit the region. Since then, KAMSC has grown to incorporate ACCHS representatives from Halls Creek, Derby and Gibb River Road as well as community council representatives

from Beagle Bay and Bidyadanga. The Kimberley region is unique in its adoption of this type of formalised partnership between independent services.

KAMSC has developed a number of innovative Aboriginal health programs during the past 20 years. These programs are distributed among the ACCHSs to improve efficiency, maintain specialised expertise or to address issues of regional coordination and policy. KAMSC cooperative services include:

- accounting, administration and human resource management support;
- identification of funding and coordination of grant applications;
- policy support;
- representation and advocacy at a regional, state and national level;
- public health program development and coordination;
- centralised purchasing of pharmaceuticals, medical and other supplies;
- registered training for Aboriginal health workers;
- an Aboriginal health promotion unit; and
- a social and emotional wellbeing centre.

Suicide, domestic violence and sexual violence are strongly associated with alcohol and other substance misuse problems and are significant issues for people in the Kimberley. KAMSC's health promotion unit and the Regional Centre for Social and Emotional Wellbeing provide a range of services through the ACCHSs and are focused on the trauma experienced by many Aboriginal people in the region, much of which is associated with alcohol and other substance misuse. While the social and emotional wellbeing centre provides counselling support for clients and staff, and community-based preventive initiatives to combat youth suicide and violence, the health promotion unit's most successful approach has been the creation of a travelling theatre company—Heatworks. Heatworks is an ensemble of Aboriginal actors, singers, dancers and playwrights who deliver culturally appropriate health promotion messages to Aboriginal people in their own communities through the use of visual and oral aids. The approach is successful for a number of reasons:

- the plays are written by Aboriginal people for an Aboriginal audience and have Aboriginal people on the stage/dirt/floor;
- they allow people to identify with the characters and their problems; and
- the three-dimensional experience is an excellent way to communicate with people who have a strong oral tradition.

KAMSC's cooperative strategy has been highly successful. As with WuChopperen Health Service, outstanding progress has been made despite the difficulties of servicing a large area (the Kimberley region is almost the size of Victoria) with a small staff base. Indicators of KAMSC's success include:

- the development of accredited Aboriginal health worker curricula, career structures and industrial awards;
- implementation of nationally and internationally recognised health promotion initiatives;
- a major role in the development of medicines policy, which has resulted in much improved supply of medicines to remote Aboriginal health services in Australia;
- pioneering work in the application of evidence-based approach to Aboriginal Health; and
- the development of CD-based Aboriginal health worker training resources.

WuChopperen Health Service's TAOS program and KAMSC's health promotion and social and emotional wellbeing programs are good examples of the positive work being done by ACCHSs. While good work is not limited to ACCHSs, these community-controlled organisations feature prominently in the coordination and delivery of primary care-related substance misuse programs. Importantly, ACCHSs have a greater focus than mainstream services on the social and personal disruption that substance dependence causes, and tend to have a more sympathetic and holistic approach to dealing with these issues. In comparison, mainstream services are committed to traditional medical treatments and often consider Indigenous people with substance misuse problems to be a distraction from their main task of 'curing illness'. Generally, these services do not offer adequate prevention or follow-up programs for Indigenous people affected by dependence on alcohol and other drugs.

Summary

There are some excellent programs designed to address substance misuse-related problems for Indigenous people in a number of areas across Australia. However these services are spread thinly and many areas have very limited services to address alcohol and substance misuse problems. Primary health care services, both ACCHSs and—where there is no ACCHS—mainstream services, need to be supported to provide effective primary and secondary prevention in collaboration with other agencies.

A secondary but important issue that needs to be addressed, that is also in part a consequence of the overall lack of resources, is that agencies working in the alcohol and substance misuse areas tend to be working in isolation and resources are required to support integrated programs between substance misuse-specific services, acute care services and primary health care services. In particular, where primary health care is provided by private GPs there are limited services to address substance misuse issues.

Substance misuse intervention needs to be programmed into the everyday work practices of all primary health care practitioners. This requires training in alcohol and other substance issues and adequate resourcing so that practitioners have the time and energy to discuss these matters with their clients.

6 Future directions

Levels of substance misuse among some sections of the Indigenous Australian community are significantly higher than among the non-Indigenous community and, at least in the area of illicit drug use, appear to be increasing. This level of substance misuse places a heavy burden of ill-health on Indigenous people and is of considerable cost to Indigenous substance users themselves, their families and communities, and Australian society at large.

The pattern of substance misuse observed among Indigenous Australians is similar to that among indigenous minorities in New Zealand, Canada and the United States. These diverse peoples have levels of substance misuse in excess of those of the wider populations in these countries and this is socially determined (i.e. it is a consequence of common histories of dispossession and colonialism and its continuing legacy of social and economic inequality) rather than being a random phenomenon or the result of any common genetic or cultural background.⁵⁴

To address these high levels of substance misuse and their consequences, it is therefore necessary to address the underlying social determinants. This means providing enhanced educational and employment opportunities, and housing and community infrastructures within a framework that is negotiated with Indigenous people rather than being imposed on them. As the history of Indigenous affairs policy over the past three decades clearly illustrates, unless the underlying social inequalities are addressed and unless Indigenous people are actively involved, health and substance misuse intervention programs will have only

marginal impact and, in fact, may be insufficient to prevent further deterioration in the health status of a significant proportion of the Indigenous population.

Clearly, much of the action to address the social determinants of ill-health and substance misuse must be initiated outside the health sector. Nevertheless, there are important initiatives that can be undertaken within the health sector to prevent or minimise substance misuse and associated harms and to address the problems that have already arisen through substance misuse and which further exacerbate the social problems faced by Indigenous communities. Furthermore, when conducted in concert with initiatives in other sectors, the impact of both can be enhanced.

Within the health sector, a broad effort incorporating demand, supply and harm reduction strategies is required to address substance misuse and related problems, and a range of generalist and specialist agencies—both Indigenous community-controlled and mainstream—is required to implement those strategies. However, within that range, primary health care providers are best placed to have the greatest impact simply because they come into contact with a large proportion of those who have substance misuse problems themselves (whether at an early or later stage) and with those who are affected by the substance misuse of people within their families or broader social networks. Potentially, primary health care providers are uniquely placed to deliver a comprehensive range of interventions including primary prevention programs and treatment for those with substance misuse problems. They are also in a position to be the centre of a network of agencies—taking referrals from other agencies such as sobering-up shelters, making referrals to specialist treatment or support services, and complementing and supporting the services provided by other agencies.

The potential of the primary health care sector is, however, far from fully used. There are some good examples of the comprehensive approach to substance misuse interventions that can be taken within ACCHSs. However, the reality is that most ACCHSs are not sufficiently resourced to provide such a range of services and in many cases, even if they were, they do not have either the general or specialist staff with the training to do so. In some remote and rural locations where state or territory government clinics or hospitals are the sole providers of health care there may be varying capacities to provide some primary prevention services. However, most fee-for-service general practices, upon which many Indigenous people are reliant in the absence of ACCHSs, are essentially primary medical care, rather than primary health care, providers and their capacity to provide appropriate and acceptable substance misuse services for Indigenous people is limited.

Given that the potential of the primary health care sector is not currently being met, action needs to be taken to strengthen its capacity to address substance misuse problems. Such action should build on and enhance social capital within Indigenous communities. Without being overly prescriptive, there are a number of areas in which such action needs to take place.

Expansion of, and support for, the human resource base

The available evidence suggests that, particularly because of the necessity of meeting the high demand for acute medical care, primary health care providers are working to capacity and do not have the human resources to apply to an expansion of substance misuse interventions. The key to any such expansion is the provision of staff whose time is not, or not wholly, tied up in the provision of acute care and who have clearly defined substance misuse intervention roles.

Substance misuse intervention is stressful work and there is a high turnover of staff members working in this area. To prevent staff 'burnout' and high turnover, there should be an adequate number of staff members to allow for rotation and relief. There should also be clearly defined support networks within organisations for front-line substance misuse workers. The need for support means that substance misuse workers should not be placed in small isolated units, but should be attached to larger organisations that can provide pastoral care, assist with staff development, and facilitate inter-agency collaboration.

Workforce development

Several evaluations of substance misuse intervention programs have reported that program staff believe they have insufficient training and skills to adequately address substance misuse problems at either the individual or community level. Despite this, a study of substance misuse organisations found that in 1999–2000 less than 4% of funding allocations were set aside for staff development.¹⁰⁴ Although no figures are available for primary health care agencies the level of resourcing for this important function is unlikely to be significantly different. Such resourcing needs to be increased—especially given the limited formal education many Indigenous workers have received.

Workforce development of both Indigenous and mainstream health professionals needs to focus on specific, accredited skilling—including ways to appropriately communicate information about substance misuse to Indigenous clients.¹⁴² Attempts to develop the substance misuse intervention skills of the primary health care workforce also need to focus on personnel within government clinics and hospitals and in general practice. The Indigenous component of the undergraduate medical program developed by the Committee for Alcohol and Drug Education in Medical Schools could be given more salience in medical education.¹⁴³ Regional training providers under the General Practice Education and Training (GPET) program should be encouraged to develop—in conjunction with Indigenous people—practically oriented programs for trainee GPs on meeting the needs of Indigenous patients with substance misuse problems.

Program development

Substance misuse interventions within primary health care settings need to be developed and implemented in a planned and coordinated manner. Program development needs to address common issues but, given the heterogeneity of Indigenous communities, should be developed at a local and/or regional level so that intervention strategies are appropriate and acceptable to Indigenous people.

Programs should be developed within a framework that gives recognition to the social determinants of substance misuse; brings together the perspectives of affected individuals, their families, and the broader communities; and is evidence-based.

The design, development and delivery of substance misuse programs should build on and enhance Indigenous social capital. It should be a collaborative effort between primary health care practitioners and community Elders and leaders. Peer education for leaders and Elders, to facilitate informed communication about alcohol and other drugs should be an important part of such collaboration.

As indicated previously, many people with substance misuse problems are poly-drug users. For this reason development of both generic and substance specific programs is needed.

Primary prevention and early intervention

In the longer term, primary prevention has the greatest capacity to make inroads into the high levels of substance misuse and related harm and should be a major focus of interventions in the primary health care sector. Primary prevention interventions should include strategies to strengthen individuals, families and their communities to address substance misuse and promote health and wellbeing.

As indicated previously, prevention projects constituted only 21% of all intervention projects directly targeting Indigenous people that were funded in the 1999–2000 financial year. These prevention projects received less than 10% of allocated funds and almost half received only short-term non-recurrent funding.¹⁰² Given the long-term intractable nature of substance misuse problems, but also given the potential of primary prevention to impact on them, a significant increase in longer-term funding is needed for prevention projects.

As with primary prevention, early intervention has considerable potential to reduce substance misuse and related harms and early intervention strategies should be a major focus of primary health care delivery. Early interventions should include the use of brief interventions and prompts for annual checks on substance misuse issues.

Integration of services and activities

Various reviews and research reports have pointed to the fact that substance misuse intervention services often operate in isolation or that their activities are poorly coordinated.^{17, 144} To address this, primary health care providers and other agencies should be encouraged to develop collaborative arrangements with local communities, other agencies and local, state and territory governments to enhance the effectiveness of substance misuse interventions. Collaboration might include, for example, the establishment of local alcohol management committees to address issues related to the supply of alcohol. The Divisions of General Practice could assist with the integration of private GPs by providing them with information on other providers with whom they can link up at specific local and regional locations. The integration of services could also be enhanced by encouraging all primary health care providers to develop protocols for referral of clients with substance misuse problems to other agencies, including specialist drug and alcohol agencies.

Monitoring and evaluation

The materials reviewed in this paper clearly demonstrate the limited evidence base for the monitoring of patterns of substance misuse within the Indigenous population and the harms that it occasions, especially within the primary health care context. The review also demonstrates the limited extent to which substance misuse interventions for Indigenous people have been evaluated. Good evidence is an essential ingredient of good policy and intervention and there is a need to put in place better systems of monitoring and evaluation to provide such evidence.

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