Australian Indigenous Health*Reviews*
From the Australian Indigenous Health*InfoNet*

Australian Indigenous Health*InfoNet*

Plain language review of illicit drug use among Aboriginal and Torres Strait Islander people

Joanne Hoareau
Australian Indigenous Health*InfoNet*

2016

Preface

This plain language review of illicit drug use among Aboriginal and Torres Strait Islander people is based on the *Review of illicit drug use among Aboriginal and Torres Strait Islander people* (2016) by Andrea MacRae and Joanne Hoareau.

Introduction

Most Aboriginal and Torres Strait Islander people do not use illicit (illegal) drugs, but the proportion of drug use is higher among Aboriginal and Torres Strait Islander people than among non-Indigenous people [1, 2].

Cannabis is the most commonly used illicit drug among Aboriginal and Torres Strait Islander people [3, 4]. High levels of cannabis use have been reported in some Aboriginal and Torres Strait Islander communities [5-7]. Illicit drug use has a number of impacts on health and community that affect Aboriginal and Torres Strait Islander people more than non-Indigenous people. These include a greater chance of being infected with blood-borne viruses (hep C, hep B, HIV) from injecting drug use [8], reduced social and emotional wellbeing, and an increased risk of suicide [4, 9, 10]. Illicit drug use also contributes to family disruption, harm to children, violence, crime and imprisonment [4].

Contents

Core funding is provided by the Australian Government Department of Health

AUSTRALIA ECU EDITH COWAN UNIVERSITY

Box 1: Illicit drugs

Illicit drugs are:

- drugs that are illegal to have, such as cannabis, ice (crystal methamphetamine), cocaine and heroin
- prescribed drugs, such as codeine and benzodiazepines, that are used for purposes different from those intended [11].

Specific information on sniffing petrol or glue (volatile substance use) is not included in this review. Detailed information on volatile substance use is available in the Review of volatile substance use among Aboriginal and Torres Strait Islander people http://www.aodknowledgecentre.net.au/aodkc/volatile-substance-use/reviews/volatile-substance-use).

For more information on categories and definitions of illicit drugs, refer to the Australian Indigenous Alcohol and Other Drugs Knowledge Centre: background information on illicit drugs (http://www.aodknowledgecentre.net.au/aodkc/illicit-drug-use/reviews/background-information).

About this review

The purpose of this plain language review is to provide an overview of the use of illicit drugs among Aboriginal and Torres Strait Islander people in Australia. It provides general information on illicit drug use in Australia and the factors relevant to Aboriginal and Torres Strait Islander people. Detailed information is provided on:

- the level of illicit drug use among Aboriginal and Torres Strait Islander people
- the harms caused by illicit drug use
- the policies that aim to address illicit drug use
- effective alcohol and other drug services
- possible barriers for Aboriginal and Torres Strait Islander people when using services.

The Australian Indigenous Health*InfoNet* produces a wide range of publications and reviews of specific health topics. In these publications, authors summarise and present data from other sources. It is often difficult to determine whether original sources are referring to Aboriginal people only, Torres Strait Islander people only or to both groups. When this happens the authors are ethically obliged to use the terms from the original source unless they can obtain clarification from the report authors/copyright holders. Our readers may see these terms used as well as the term 'Indigenous'. If you have any concerns please contact the Health*InfoNet* for further information.

Key facts

Level of illicit drug use among Aboriginal and Torres Strait Islander people

- Most Aboriginal and Torres Strait Islander people do not use illicit drugs.
- In 2012-2013, just under a quarter (22%) of Aboriginal and Torres Strait Islander people aged 15 years and older had used an illicit drug in the previous 12 months.
- In 2012-2013, cannabis was the most common, recently used illicit drug for Aboriginal and Torres Strait Islander people.

Health impacts

- Illicit drug use among Aboriginal and Torres Strait Islander people has been linked with increased levels of anxiety, depression and psychosis.
- Injecting drug use is associated with an increased chance of being infected with hepatitis C and HIV infection.

Social impacts of drug use among Aboriginal and Torres Strait Islander people

- Illicit drug use contributes to harms to children and family.
- Illicit drug use contributes to violence and crime.

Policies and strategies

Important policies that guide governments, communities and services to reduce the harmful effects of alcohol and other drugs include:

- the *National drug strategy 2010-2015*
- the *National Aboriginal and Torres Strait Islander peoples' drug strategy 2014-2019*.

Programs and services

- Alcohol and other drug services for Aboriginal and Torres Strait Islander people are more likely to be effective if they:
  - are initiated and controlled by communities
  - are culturally appropriate
  - have strong partnerships between Aboriginal and Torres Strait Islander and mainstream services
  - have good management
  - provide appropriate training and support for staff.
- Reasons why some services do not meet the needs of Aboriginal and Torres Strait Islander people include:
  - lack of cultural competence in mainstream services
  - not enough funding
  - lack of follow-up care for clients

- lack of services in remote areas
- lack of information on the types of alcohol and other drug services that work well for Aboriginal and Torres Strait Islander people.

Illicit drug use in Australia

The 2013 National drug strategy household survey (NDSHS) found that 15% of Australians aged 14 years and older had used illicit substances in the previous 12 months, and almost half (42%) had used an illicit substance at least once in their lifetime [1].

Illicit drug use contributes to:

- injuries
- violence
- crime

and is associated with:

- developing some chronic (long-lasting) diseases
- becoming infected with blood-borne viruses
- a higher risk of developing mental illness [12, 13].

In 2011-2012, there were around 100,000 hospitalisations due to drug use. Almost half of these (46,000) were due to illicit drug use [14].

The cost to society of illicit drug use is very high. The total cost of legal and illegal drug use in 2004-05 was $56 billion, of which $8.2 billion (15%) was for illicit drug use [13]. Of this, $3.8 billion was for law-enforcement and cost related to crime.

What factors contribute to illicit drug use among Aboriginal and Torres Strait Islander people?

The higher level of illicit drug use among Aboriginal and Torres Strait Islander people compared with non-Indigenous people, and the harms associated with its use, are directly linked to social disadvantage [15]. These include:

- historical factors
- social context
- education
- employment
- income
- family and peers
- community.

Each of these will be discussed in more detail below.

Historical factors

With the arrival of Europeans in 1788, Aboriginal and Torres Strait Islander people were forcibly removed from their lands. This process resulted in the loss of culture, trade and community stability for many Aboriginal and Torres Strait Islander communities [15]. Aboriginal and Torres Strait Islander people were often separated from their country and their language groups and made to live in poor conditions in missions and settlements, where, except for the most basic roles, they were largely excluded from colonial life.

Social context

In general, Aboriginal and Torres Strait Islander people experience lower levels of education, employment, and income compared with non-Indigenous people. Patterns of problematic drug use, such as dependence (where a person has difficulty controlling their use and experiences physical withdrawal symptoms), have been closely linked with social disadvantage [16].

Education

Having a good education affects a person's employment opportunities and, in turn, affects their living standards. Surveys show that Aboriginal and Torres Strait Islander people are more likely to leave school at a younger age [17-19].

Employment

Employment directly affects a person's quality of life. Unemployment may encourage drug use, and established drug use may interfere with a person's ability to find and keep a job [20].

Figures from the 2011 Census show that, for Aboriginal and Torres Strait Islander people aged 15 years and older, unemployment was more than three times higher (17%) than for non-Indigenous people (5.4%) [21].

Income

Past studies have shown a clear link between income and health; that is, people on higher incomes are healthier [16]. In 2012-13, the median weekly household income for Aboriginal and Torres Strait Islander adults was $465 compared with $869 for non-Indigenous adults.

Family and peers

Strong, healthy family relationships may decrease the likelihood of a person using illicit drugs and may help some people to overcome drug dependence [5, 22-25]. Family support and involvement has also been identified as an important factor in quitting drug use [5, 23-25].

Family support may be a protective factor, but existing drug use within the family network may be a risk factor [26].

Friends and peers may also encourage drug use. A 2009 survey of young people in prison in New South Wales (NSW) found a higher proportion of Indigenous young people (66%) than non-Indigenous young people (57%) identified peer pressure as the main reason they tried illicit drugs [27]. Being part of a peer group that uses illicit drugs may also make it more difficult to reduce drug use or quit [28].

Community

Community relationships can protect members from drug use through positive community involvement [16, 29, 30]. Positive community support may be provided by:

- recreational opportunities – to prevent boredom and provide an alternative to drug use
- information and support
- community connection that nurtures a sense of pride and belonging
- cultural leadership, such as through arts programs or through developing traditional skills like hunting [16, 29, 30].

How common is illicit drug use among Aboriginal and Torres Strait Islander people?

Surveys consistently show that most Aboriginal and Torres Strait Islander people do not use illicit drugs [31, 32].

According to the 2012-2013 Australian Aboriginal and Torres Strait Islander health survey (AATSIHS):

Table 1. Proportions (%) of illicit drug use among Aboriginal and Torres Strait Islander people aged 15 years and older, by age-group and frequency of use, Australia, 2012-2013

	Used illicit drug in the previous 12 months	Used illicit drug but not in the last 12 months
Age-group (years)	**Proportion of persons (%)**	**Proportion of persons (%)**
15-24	28	15
25-34	27	30
35-44	23	27
45-54	19	29
55+	7	14
All ages	22	23

Source: ABS, 2013 [31]

- half (52%) of Aboriginal and Torres Strait Islander people aged 15 years and older reported never using illicit drugs [31]
- less than a quarter (22%) of Aboriginal and Torres Strait Islander people aged 15 years and older had used an illicit drug in the previous 12 months [31].

Other surveys report higher levels of recent illicit drug use (in the 12 months prior to survey) among Aboriginal and Torres Strait Islander people than among non-Indigenous people [1, 31, 32, 34]. The 2013 NDSHS found that after adjusting for age differences, almost one quarter (23%) of Aboriginal and Torres Strait Islander people aged 14 years and older had recently used an illicit drug, compared with 15% of non-Indigenous people [1].

Box 2: Age adjustment

Comparing illicit drug use by Aboriginal and Torres Strait Islander and non-Indigenous people is complicated by the fact that the Aboriginal and Torres Strait Islander population is younger overall than the non-Indigenous population. A statistical procedure known as age-standardisation adjusts health measures (such as prevalence and rates) to minimise the effects of differences in age structures of the two populations, so that these different populations can be compared [33]. These measures are called age adjusted or age standardised comparisons.

According to the 2012-2013 AATSIHS, when comparing between Aboriginal and Torres Strait Islander males and females:

- a higher proportion of males used illicit drugs than females [31, 32].

When comparing different age groups:

- the highest level of recent use was for Aboriginal and Torres Strait Islander people in the age range 15-24 years (28%) (Table 1) [31].

The 2008 *Australian secondary students alcohol and drug survey* (ASSAD) found that one in five (19%) Indigenous participants aged 12-15 years had used an illicit drug in the previous year compared with 9% for all respondents [35].

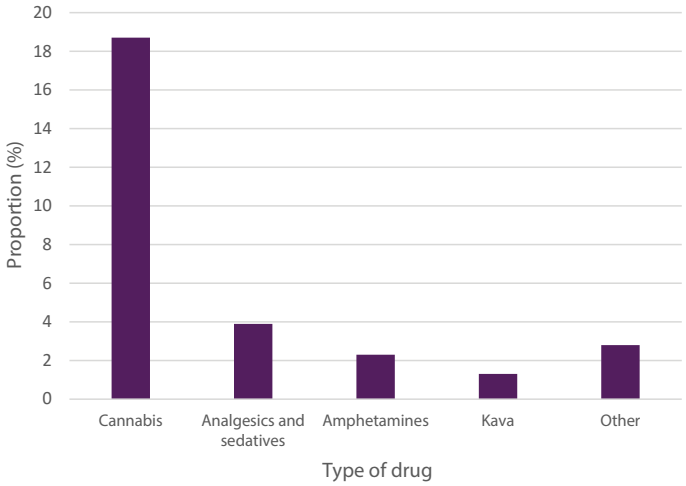
Remote vs non-remote:

- The 2012-2013 AATSIHS found that almost one quarter (23%) of Aboriginal and Torres Strait Islander people aged 15 years and over who lived in non-remote areas had recently used an illicit drug compared to 19% living in remote locations [3].

What are the commonly used illicit drugs?

Cannabis is the most common illicit drug used in Australia for both the Aboriginal and Torres Strait Islander population and the total population [1, 2]. Other illicit drugs used by Aboriginal and Torres Strait Islander people include analgesics (painkillers and sedatives for non-medical use) and amphetamines (ice or speed) [3]. Levels of illicit drug use vary according to the type of drug used as shown in Figure 1.

Figure 1. Proportions (%) of recent illicit drug use among Aboriginal and Torres Strait Islander people aged 15 years and older, by type of illicit drug, Australia, 2012-13



Source: ABS, 2013 [3]

Notes: 1. 'Recent use' refers to use in the 12 months prior to survey
2. 'Other' includes heroin, cocaine, petrol, LSD/synthetic hallucinogens, ecstasy/designer drugs, methadone and other inhalants

Cannabis

What is the level of cannabis use according to surveys?

2013 NDSHS [1]:

- 10% of the total population had recently used cannabis and over one third (35%) had used cannabis at least once in their lifetime.
- After adjusting for age differences, 13% of Aboriginal and Torres Strait Islander people had recently used cannabis compared to 8% of non-Indigenous people.

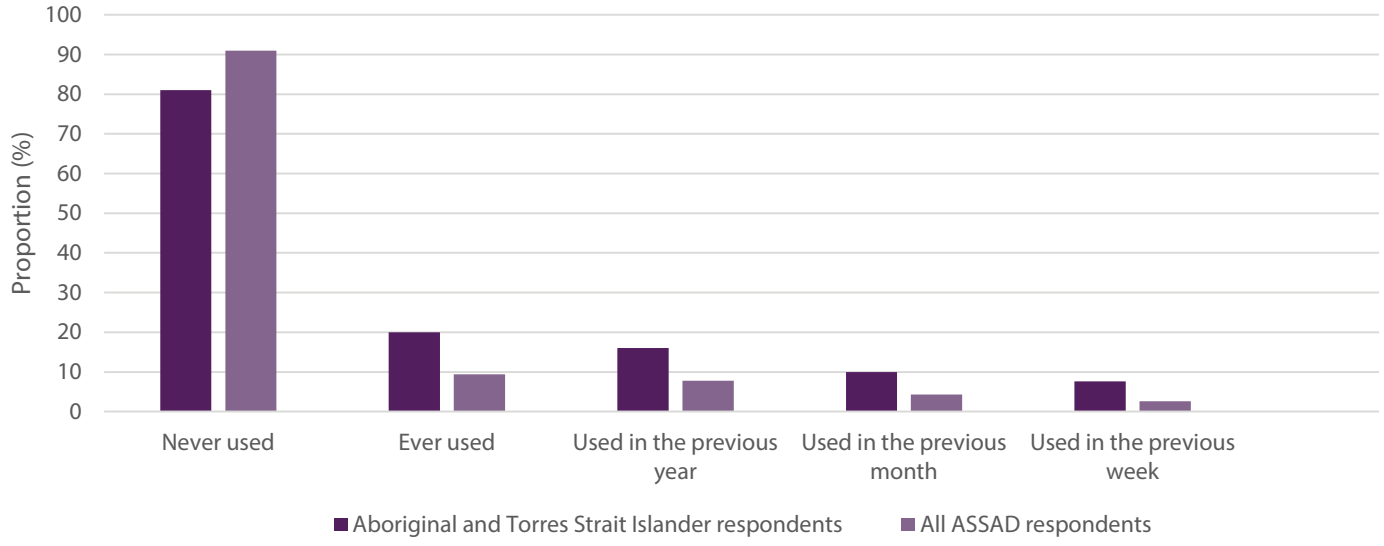
2012-2013 AATSIHS [3]:

- 19% of Aboriginal and Torres Strait Islander people aged 15 years and older had recently used cannabis, a slight increase on levels reported in the 2008 NATSISS (17%) [32].
- Almost one quarter of Aboriginal and Torres Strait Islander males (24%) had recently used cannabis compared with 14% of females.

2008 ASSAD [35]:

- Around 20% of Aboriginal and Torres Strait Islander respondents aged 12-15 years had ever used (used cannabis at least once in their lifetime) (see Figure 2).
- Use of cannabis was almost twice as common among Aboriginal and Torres Strait Islander respondents as among all ASSAD respondents.

Figure 2. Proportions (%) of cannabis use among students aged 12-15 years, by Aboriginal and Torres Strait Islander status and frequency of use, Australia, 2008



Source: Smith G, White V, 2010 [35]

Note: Due to rounding, percentages totals may be higher than 100%

Cannabis use in Aboriginal and Torres Strait Islander communities

- National surveys do not provide information on illicit drug use in specific locations or communities. Therefore we have to find information from smaller studies. Some studies have reported very high levels of cannabis use among Aboriginal and Torres Strait Islander people living in some remote communities. This high level of cannabis use is known to have negative effects on social and emotional wellbeing [36]. The following studies provide data from remote communities.
- Two studies conducted in 1999 and 2000 in Arnhem Land, Northern Territory (NT), found current cannabis use was reported by almost one third (31%) of Aboriginal males and 8% of Aboriginal females in 1999, rising to 39% of Aboriginal males and 20% of Aboriginal females in 2000 [37]. The median period of cannabis use was 4 years. The estimated cost of cannabis use was $6,000 a month for the community and $42 a month per user.
- A 2001-2002 study of Aboriginal people aged 13-36 years from three remote communities in Arnhem Land found that two thirds (67%) of males and almost a quarter (22%) of females were current users, and similar proportions (69% of males and 26% of females) had used cannabis at least once in their lifetime [6]. The study estimated that 2.4 to 4.1kg of cannabis was used weekly, resulting in an estimated cost of $19,000 - $32,000 a week being spent by cannabis users in these communities.
- A study conducted in several Aboriginal communities in the NT in 2001 was followed by a study done in 2004, which reported lower levels of cannabis use in 2004 [9]. The study found lower levels of cannabis use were accompanied by an improvement in social and emotional wellbeing. Cannabis users also reported that they were experiencing fewer symptoms such as confusion, problems with memory , difficulties controlling use, and hallucinations (seeing and hearing things that are not real) [9, p.702].
- A study of three remote Aboriginal communities in Arnhem Land among people aged 13-42 years revealed that almost half (49%) of the 106 participants were heavy cannabis users (six or more cones daily) [7, 9, 28] [7, 38]. Among the participants, the study found a strong association between heavy cannabis use and moderate-to-severe symptoms of depression (feeling low most of the time, having no energy, difficulty sleeping)
- A study conducted between July 2010 and March 2011 in a dry community in Cape York, Queensland (Qld), found high levels of cannabis use among participants aged 14-50 years[5]. Around two thirds (66%) of males and almost one third (31%) of female participants were current users. Symptoms of dependence were evident in almost two thirds (64%) of all users.

Analgesics and sedatives

What is the level of use for analgesics (pain killers) and sedatives according to surveys?

2013 NDSHS [1]:

- After adjusting for age differences, the proportion of Aboriginal and Torres Strait Islander people aged 14 years and older who had recently used pharmaceuticals for non-medical reasons was 4.4% compared with 3.2% for non-Indigenous people.

2012-2013 AATSIHS [3]:

- Analgesics and sedatives for non-medical use were identified as the second most common, recently used illicit drug among Aboriginal and Torres Strait Islander people aged 15 years and older.
- 3.9% of respondents reported recent use of analgesics and sedatives for non-medical use.
- 4.1% of Aboriginal and Torres Strait Islander females reported recent use of analgesics and sedatives for non-medical use compared to 3.6% of males.
- Aboriginal and Torres Strait Islander people living in non-remote areas reported higher levels of recent use (4.5%) of analgesics and sedatives for non-medical use compared to those living in remote areas (1.8%).

Amphetamines

Since 2007, the use of methamphetamine has been relatively steady for the total Australian population [39]. Reports show:

- the stronger and potentially more harmful crystal methamphetamine (or 'ice') is now used more than 'speed' or other forms of methamphetamine
- the use of ice has more than doubled since 2010 (see also section on hospitalisation for harm associated with amphetamines) [39].

What is the level of amphetamine use according to surveys?

2013 NDSHS [1]:

- 2.1% of Australians aged 14 years and older had recently used, and 7.0% used methamphetamines or amphetamines (meth/amphetamines) at least once in their lifetime.
- After adjusting for age differences, the levels of recently used meth/amphetamines among the Aboriginal and Torres Strait Islander population were similar to those among the total Australian population.

- The proportion for ex-use (respondents who had previously used, but not in the last 12 months) of meth/amphetamines by Aboriginal and Torres Strait Islander people was around 1.5 times higher than that for non-Indigenous people (5.3% compared to 3.5%).

2012-2013 AATSIHS [3]:

- Amphetamines were the third most common recently used illicit drug by Aboriginal and Torres Strait Islander people aged 15 years and older (2.3% of respondents).
- Proportions of recent use were 1.5 times higher for Aboriginal and Torres Strait Islander males (2.9%) than females (1.8%).
- 2.8% of Aboriginal and Torres Strait Islander people living in non-remote areas reported recent use of amphetamines compared to 0.8% for those in remote areas.
- Between 2008 and 2012-2013, recent use of amphetamines decreased among Aboriginal and Torres Strait Islander people living in non-remote areas (from 5.0% to 2.8%) [32].

2008 ASSAD [35]:

- 7.1% of Aboriginal and Torres Strait Islander respondents had used amphetamines in the previous year compared to 2.2% all ASSAD respondents.

Ecstasy and other designer drugs

What is the level of use for ecstasy and designer drugs according to surveys?

2013 NDSHS [1]:

- 2.5% of Australians aged 14 years and older had recently used ecstasy, and 11% had used the drug at least once in their lifetime.
- After adjusting for age differences, Aboriginal and Torres Strait Islander people were three times less likely to have recently used ecstasy (0.8%) than non-Indigenous people (2.4%), but had similar proportions for ex-use (8.0% compared to 6.5%).

2008 NATSISS [32]:

- Ecstasy or designer drugs were reported as the fourth most common recently used illicit drug for Aboriginal and Torres Strait Islander people aged 15 years and older (3.3%).
- Recent use was almost twice as high for Aboriginal and Torres Strait Islander males as for females (4.4% and 2.3%).
- 3.9% of Aboriginal and Torres Strait Islander people living in non-remote areas reported recent use, compared to 1.5% of those living in remote areas.

2008 ASSAD [35]:

- 6.1% of Aboriginal and Torres Strait Islander respondents aged 12-15 years reported having ever used ecstasy, compared to 2.6% of all ASSAD respondents.
- Aboriginal and Torres Strait Islander males were twice as likely as females to have used ecstasy in the previous month.

Kava

What is the level of kava use according to surveys?

2012-2013 AATSIHS [3]:

- 1.3% of Aboriginal and Torres Strait Islander people aged 15 years and older reported recently using kava.
- A higher proportion of Aboriginal and Torres Strait Islander males (2.0%) than females (0.6%) reported recently using kava.

2008 NATSISS [32]:

- Among Aboriginal and Torres Strait Islander people aged 15 years and older, kava was recently used by 1.2% and ever used by 5.7%.
- The proportion of Aboriginal and Torres Strait Islander people aged 18 years and over reporting recent use of kava was the same for those living in non-remote and remote areas (1.2%) (Table 2) [40].

There has been a decline in use of kava in very remote areas since 2002, which reflects the impact of restrictions that have been placed on kava during this time [41, 42]. For details, please see the Review of the use of kava among Indigenous people (http://www.aodknowledgecentre.net.au/aodkc/illicit-drug-use/reviews/kava-review).

Table 2. Proportions (%) of recent kava use among Aboriginal and Torres Strait Islander people aged 18 years and older, by area of residence, Australia, 2002 and 2008

	Major cities	Inner regional	Outer regional	Total non-remote	Remote	Very remote	Total remote
2002	0.7	1.1	0.4	0.7	0.7	4.3	3.2
2008	1.4	1.8	0.4	1.2	n.p.	1.8	1.2

Source: Steering Committee for the Review of Government Service Provision, 2011 [40]

Notes: 1. 'n.p.' means 'not provided'
2. Data for remote areas should be viewed with caution because relative standard errors exceed 25%

How common is injecting drug use?

Experts suggest that studies and surveys about injecting drug use (as for other illicit drugs) may not be very accurate for several reasons:

- the drugs involved are illegal
- there is often a sense of shame associated with injecting drug use [24].

Very few surveys and studies provide national information on injecting drug use among Aboriginal and Torres Strait Islander people [24].

The goanna survey (2011-2013), asked survey participants about behaviour such as illicit drug use and injecting drug use [43]. Of the 3,000 participants:

- 3% reported injecting drug(s) in the last year
- for those injecting drugs, the most common drugs injected were meth/amphetamine and heroin (37% and 36%), followed by methadone, morphine and cocaine (26%, 19% and 15%)
- over a third (37%) of those who reported injecting drugs had shared needles.

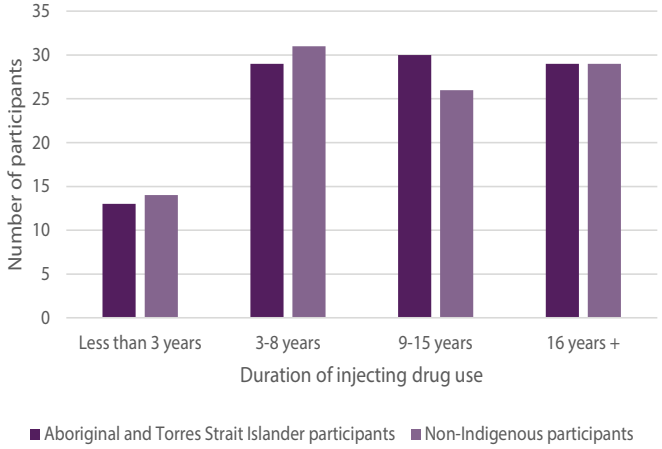
According to data from *Alcohol and other drug treatment services in Australia 2013-14* [44]:

- 14% of all clients receiving treatment for their own drug use were Aboriginal and Torres Strait Islander people
- for both Aboriginal and Torres Strait Islander clients and non-Indigenous clients, amphetamines (17%) and heroin (7%) were the second and third most common drugs of concern for clients after cannabis
- in 2013-14, injecting was the most common method of use for amphetamines (44%) and heroin (83%).

In a study involving clients of needle and syringe programs (NSPs) across Australia in 1998-2008 [45]:

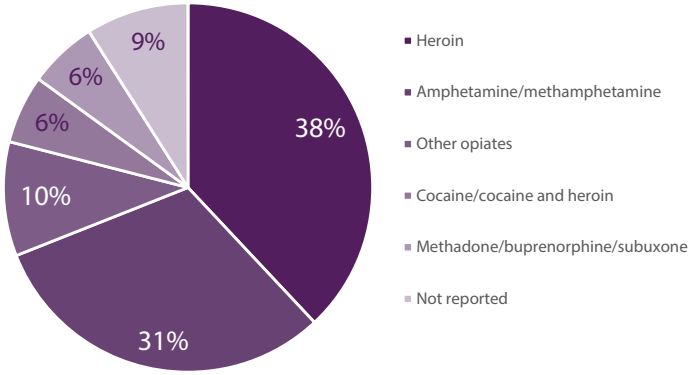
- around 9% of participants were Aboriginal or Torres Strait Islander people
- a higher proportion of Aboriginal and Torres Strait Islander participants (61%) than non-Indigenous participants (53%) reported 'daily or more' use in the month before the survey
- Aboriginal and Torres Strait Islander participants and non-Indigenous participants reported injecting drugs for similar periods of time (see Figure 3)
- heroin was the most commonly reported recently injected drug by all participants, followed by amphetamine/methamphetamine (figures 4 and 5).

Figure 3. Duration of injecting drug use for participants attending NSPs, by Aboriginal and Torres Strait Islander status and characteristics, Australia, 1998-2008



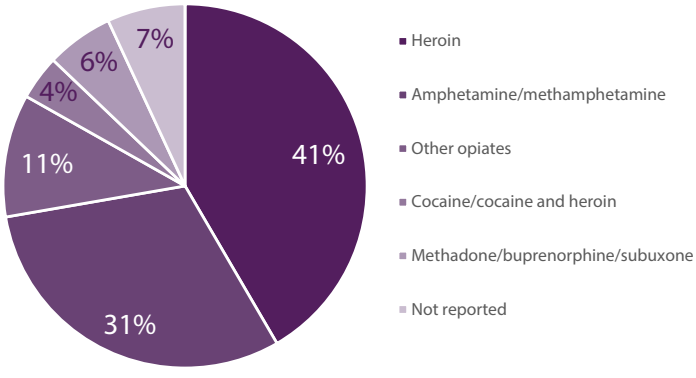
Source: Ward J, Topp L, Iversen J, Wand H, Akre S, Kaldor J, Maher L, 2011 [45]

Figure 4. Drug last injected by proportion (%) of Aboriginal and Torres Strait Islander participants attending NSPs, Australia, 1998-2008



Source: Ward J, Topp L, Iversen J, Wand H, Akre S, Kaldor J, Maher L, 2011 [45]

Figure 5. Figure 5: Drug last injected by proportion (%) of non-Indigenous participants attending NSPs, Australia, 1998-2008



Source: Ward J, Topp L, Iversen J, Wand H, Akre S, Kaldor J, Maher L, 2011 [45]

Some Australian studies provide valuable information about Aboriginal and Torres Strait Islander injecting drug use in specific locations.

- A 2009 study in Victoria (Vic) found that the average age of Aboriginal and Torres Strait Islander people who inject drugs was 35 years, and most reported having injected drugs for 5 to 10 years [46]. The most commonly reported injected drugs were amphetamines and heroin.
- Around 20% of respondents in the 2008 *Pharmacy needle and syringe survey* in NSW identified as Aboriginal [47]. Of these participants, the average age was 34 years and the average length of time for injecting drugs was 17 years. Aboriginal participants were more likely to have been in prison in the previous year, share injecting equipment, and have less knowledge about hepatitis C.

Poly-drug use

Poly-drug use refers to using more than one drug at the same time (concurrent use) or replacing one drug with another when the preferred one is not available [15, 48].

How common is poly-drug use according to surveys?

2008 NATSISS [32]:

- 6.4% of Aboriginal and Torres Strait Islander people aged 15 years and older had recently used two or more illicit drugs.
- Aboriginal and Torres Strait Islander males (8.9%) were more likely than Aboriginal and Torres Strait Islander females (4.0%) to use two or more substances.

2008 ASSAD [35]:

- Aboriginal and Torres Strait Islander participants aged 12-15 years were poly-drug users in similar proportions for all ASSAD participants (Table 3).
- The three drugs most commonly used in combination were alcohol, cannabis, and tobacco.

Some small studies provide information on poly-drug use among Aboriginal and Torres Strait Islander people (which is not available from national surveys).

- Studies conducted in Arnhem Land suggest a link between cannabis use and the use of other substances [6, 7, 28]. Heavy cannabis use has been found to be strongly associated with petrol sniffing, alcohol and tobacco [6, 9, 28, 49].
- A 2001 study of Aboriginal and Torres Strait Islander injecting drug users in SA found that poly-drug use was very common [50]. Most study participants used four different drugs or drug types during the six months before interview.

What is known about the health impacts of drug use among Aboriginal and Torres Strait Islander people?

Health issues associated with cannabis use

Cannabis use has been linked with many social and emotional wellbeing problems among Aboriginal and Torres Strait Islander people. These include [7, 9, 49, 51-54]:

- mild changes of mood
- lack of motivation
- anxiety (feeling worried or nervous)
- confused thinking
- problems with memory
- depression (feeling in a low mood most of the time)
- psychosis (seeing or hearing things that are not real).

Table 3. Proportion (%) of ASSAD participants aged 12-15 years who engaged in concurrent substance use in the 12 months prior to interview, by Aboriginal and Torres Strait Islander status and type of substance, Australia, 2008

Type of substance	Concurrent use with cannabis		Concurrent use with amphetamines		Concurrent use with ecstasy	
	Aboriginal and Torres Strait Islander	All ASSAD	Aboriginal and Torres Strait Islander	All ASSAD	Aboriginal and Torres Strait Islander	All ASSAD
Alcohol	58	58	52	48	55	61
Tobacco	42	43	35	34	36	42
Cannabis	-	-	40	32	54	39
Hallucinogens	6.6	4.9	17	10	14	15
Amphetamines	3.6	5.8	-	-	24	14
Ecstasy	13	8.8	26	15	-	-
Analgesics	12	9.4	19	7.3	10	9.7

Source: Smith G, White V, 2010 [35]

Evidence also suggests that cannabis use may be linked to thinking about and planning for suicide [55]. A WA study reviewing the state's coronial records for suicides among people aged 15-24 years in 1986-1998 found that cannabis was the illicit drug most commonly detected during suicide post-mortems, being detected in 20% of males and 11% of females [56].

Health issues associated with injecting drug use

People who inject drugs are more likely to become infected with blood borne viruses such as hepatitis C and HIV, if they share injecting equipment [57]. Many Aboriginal and Torres Strait Islander people who inject drugs do not use new injecting equipment from needle and syringe programs (NSPs) and other services due to feelings of shame and discrimination [24, 46, 58].

A study conducted at NSPs across Australia in 1998-2008 found that [45]:

- a higher proportion of Aboriginal and Torres Strait Islander people (73%) than non-Indigenous people who inject drugs (70%) reported using a new needle for all injections in the previous month
- Aboriginal and Torres Strait Islander people who inject drugs (21%) were more likely to share injecting drug equipment than non-Indigenous people (16%).

Health issues associated with hepatitis C

Almost all (around 80-90%) of Australia's hepatitis C infections are caused by injecting drug use [45, 59]. Studies between 1996 and 2004 have found that half the injecting drug users were diagnosed with hepatitis C [59].

Aboriginal and Torres Strait Islander people have higher rates of hepatitis C infection than non-Indigenous people [60].

- Between 2011-2013, 15% of the 6,317 people diagnosed with hepatitis C in WA, SA, Tas and the NT were identified as Aboriginal and Torres Strait Islander.
- In 2013 the rate of diagnosis of hepatitis C was three times higher for Aboriginal and Torres Strait Islander people (142 per 100,000) than that for non-Indigenous people (41 per 100,000).
- Notification rates from 2009 to 2013 for newly diagnosed hepatitis C infections for Aboriginal and Torres Strait Islander people have gradually increased while rates for the non-Indigenous population decreased slightly.

Treatment for hepatitis C is currently available, but people who inject drugs do not tend to seek treatment [61].

Health issues associated with HIV

As with hepatitis C, HIV infections can result from the sharing of injecting equipment. Infection with HIV through injecting drug use is much more common among Aboriginal and Torres Strait Islander people than among non-Indigenous people [60]. In 2009-2013, four times as many Aboriginal and Torres Strait Islander people as non-Indigenous people were newly diagnosed with HIV due to injecting drug use (12% compared with 3%).

Rates of diagnosis for HIV [60]:

- From 2004 to 2011, the rate of HIV diagnosis among Aboriginal and Torres Strait Islander people (3.5 per 100,000) and non-Indigenous people (3.8 per 100,000) remained similar and relatively steady.
- In 2012 and 2013, the rate of HIV diagnosis among Aboriginal and Torres Strait Islander people increased from 3.5 to 4.8 per 100,000 (data is based on small numbers and may be due to local occurrences rather than a national trend).
- In 2012 the rate of HIV diagnosis for non-Indigenous people increased to 4.2 per 100,000 but then decreased to 3.0 per 100,000 in 2013.

Other harms associated with injecting drug use

In addition to hepatitis C and HIV infection, injecting drug use can cause [62]:

- poor appetite
- hot or cold flushes
- lack of energy
- aching muscles or joints
- problems with teeth
- liver problems.

Several of these symptoms occur during withdrawal, while others are ongoing health issues (Table 4).

Overdose

Overdose is a serious risk that injecting drug users face [63]. The 2012 IDRS (with 16% Aboriginal or Torres Strait Islander participants) found:

- for those respondents who did not die from their overdose, 41% had overdosed on heroin at some point in their lifetime, with a median of two overdoses
- of those participants who had overdosed in the previous year, 18% did not receive treatment
- during 2008, there were 500 accidental deaths from overdose among people aged 15-54 years from all types of opioids

Table 4. Proportion (%) of Aboriginal and Torres Strait Islander participants reporting physical reactions and injecting-related health problems from injecting drug use, SA, 2001

Physical reactions	Proportion of participants	Injecting-related health problems	Proportion of participants
Poor appetite	82	Track marks	81
Hot or cold flushes	80	Shaking or shivering	66
Lack energy	79	Nausea	55
Aching muscles or joints	76	Headache due to hit	54
Headache	69	Vein problems	52
Nausea	65	Hurt self while intoxicated	41
Teeth	51	Dirty hit	27
Breathing problems	49	Virus from injecting	22
Stomach problems	48		
Liver problems	39		
Skin problems	33		
Virus	25		
Heart problems	17		

Source: Holly C, Shoobridge J, 2004 [62]

- three quarters (74%) of overdose deaths were males. The largest proportion of these deaths occurred among people aged 25-34 years.

Impacts on social and emotional wellbeing according to surveys

Surveys show that illicit drug use can have a negative effect on a person's social and emotional wellbeing.

2012-2013 AATSIHS [64]:

- 11% of respondents felt stress caused by drug-related problems.
- Respondents in the 25-34 years age-group (14%) had the highest proportion of stressors (events or conditions that cause stress).

2008 NATSISS [19]:

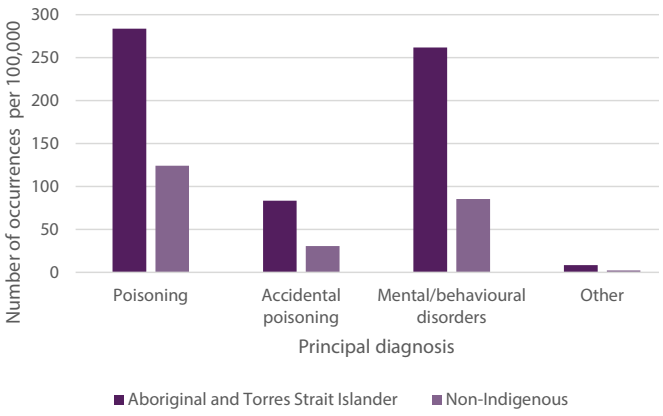
- 40% of Aboriginal and Torres Strait Islander people aged 15 years and over who had recently used illicit drugs in the last 12 months reported high levels of psychological distress compared to 28% of those who had never used illicit drugs.

Hospitalisation

Detailed national information on hospitalisation due to illicit drug use for Aboriginal and Torres Strait Islander people is available for the period 2012-13 [11].

- The most common conditions relating to drug use that resulted in hospitalisation were 'poisoning' and 'mental and behavioural disorders'.
- The hospitalisation rate for poisoning for Aboriginal and Torres Strait Islander people (284 per 100,000) was more than twice the rate for non-Indigenous people (124 per 100,000) (Figure 6).
- The hospitalisation rate for mental and behavioural disorders for Aboriginal and Torres Strait Islander people (262 per 100,000) was around three times the rate for non-Indigenous people (85 per 100,000 respectively) (Figure 6).
- Hospitalisation for mental/behavioural disorders due to amphetamine use was higher than for any other drug type for the total population (Figure 7) [11].
- Hospitalisation for mental/behavioural disorders due to amphetamine use for Aboriginal and Torres Strait Islander people (76 per 100,000) was three times higher than the rate for non-Indigenous people (23 per 100,000) (Figure 7) [11].

Figure 6. Hospitalisation relating to drug use, by Aboriginal and Torres Strait Islander status and principal diagnosis, Australia 2012-13



Source: AIHW, 2014 [11]

Notes: Rates are per 100,000 population; age-standardised using the Australian 2001 standard population

Figure 7. Hospitalisation for mental/behavioural disorders relating to drug use by Aboriginal and Torres Strait Islander status and principal diagnosis, Australia 2012-13

Source: AIHW, 2014 [11]

Notes: 1. Rates are per 100,000 population; age-standardised using the Australian 2001 standard population
2. ICD code F15 hospitalisation from use of other stimulants includes amphetamine-related disorders and caffeine but not cocaine.
3. See original source for other relevant ICD codes

- Between 2008-09 and 2012-13, hospitalisations for psychotic disorders due to methamphetamine use more than tripled (increased by 312%) for the whole population [39].
- In 2012-13, hospitalisation of Aboriginal and Torres Strait Islander people for mental/behavioural disorders from the use of cannabinoids (71 per 100,000) was more than four times higher than that for non-Indigenous people (16 per 100,000) (Figure 7).
- In NSW, Vic, Qld, WA, SA and the NT, rates for hospitalisation due to poisoning for Aboriginal and Torres Strait Islander people almost doubled from 149 per 100,000 in 2004-05 to 289 per 100,000 in 2012-13.
- Aboriginal and Torres Strait Islander people living in major cities were more likely to be hospitalised for conditions relating to drug use (372 per 100,000) than those living in remote areas (181 per 100,000) [11].

Deaths due to drug use

In 2008-2012, the number of deaths due to drug use was 1.5 times higher for Aboriginal and Torres Strait Islander people living in NSW, Qld, WA, SA and the NT than for non-Indigenous people [11]. This rate was highest in SA (3.3 times), followed by NSW (2.0 times). In WA and Qld the rates for Aboriginal and Torres Strait Islander people and non-Indigenous people were almost the same (1.2 and 1.1 respectively).

Suicide

Drug use has been identified as a risk factor for suicide among Aboriginal and Torres Strait Islander people [9, 10], particularly for impulsive suicide (where a person is more likely to do things without thinking them through)[56]. The effects of longer term use on a person's social and emotional wellbeing can also lead to an increased chance that a person may decide to take their own life. In general, drug use can make any existing mental health disorder worse [56, 65, 66]. Cannabis use, in particular, has been associated with suicide attempts [55].

In 2012, the death rate due to suicide for Aboriginal and Torres Strait Islander people living in NSW, Qld, WA, SA, and the NT in 2012 was 2.0 times the rate reported for non-Indigenous people [67]. It was the fifth leading cause of death among Aboriginal and Torres Strait Islander people.

What are the social impacts of drug use among Aboriginal and Torres Strait Islander people?

As well as affecting health, the use of illicit drugs is associated with a number of social harms including:

- domestic violence
- assaults
- crime.

Child and family harm

Illicit drug use can be damaging to families, in particular children. Harmful alcohol and other drug use can contribute to unsafe environments for children including [68-70]:

- neglect - parents who use drugs may be unable to do routine household tasks or focus on the needs of their child if they are intoxicated or going through withdrawal
- child abuse
- financial difficulties - parents may favour buying drugs instead of household essentials like food and clothes
- family violence.

There is a recognised association between drug use, family violence and conflict within the community [70, 71]. Children who experience family violence and neglect may be more likely to use violent behaviour themselves [72].

Illicit drug use can also lead to tension within families. A study in Vic of Aboriginal and Torres Strait Islander people who inject drugs found that clients were most worried about their family's negative reaction towards their injecting drug use behaviour [46]. They reported fears of shaming and stigma from their family and community and the risk of physical violence towards them if the family learned of their habit. Because of these fears, many clients were unwilling to collect clean injecting equipment from Aboriginal and Torres Strait Islander community-controlled health services. They preferred to use mainstream services that were more anonymous, and where they wouldn't be recognised by anyone from their community.

Community harm and violence according to surveys

Illicit drug use can have a negative effect on the whole community.

NATSISS (2008) [32, 40, 73]:

- 36% of Aboriginal and Torres Strait Islander people 15 years and older reported that illegal drugs were a problem in their neighbourhood or community.
- Aboriginal and Torres Strait Islander people aged 15 years and older who had recently used drugs were twice as likely to have been the victim of physical or threatened violence (40%) than were Aboriginal and Torres Strait Islander people who had not used substances (19%).

Other studies:

- A 2009-2010 study examining the view of community safety in Aboriginal and Torres Strait Islander communities in NSW, Qld, WA and the NT found that 62% of respondents thought that illegal drug use was a social problem in their community [74].
- Over a ten year period (from 1999-2000 to 2008-2009), there were 335 Aboriginal and Torres Strait Islander murder victims - almost one-quarter (24%) of these cases involved drugs [40].

Crime and imprisonment rates according to surveys

Imprisonment rates for Aboriginal and Torres Strait Islander people are much higher than those for non-Indigenous people [75]. In 2013 the imprisonment rate for Aboriginal and Torres Strait Islander people was 15 times higher than that for non-Indigenous people. The relationship between crime, imprisonment, and illicit drug use is complex [76-79]:

- In 2010, 68% of Aboriginal and Torres Strait Islander prison entrants reported illicit drug use in the previous 12 months [80]. Among Aboriginal and Torres Strait Islander prison entrants, the most commonly used illicit drugs were cannabis (54%), meth/amphetamine (19%) and analgesics (17%).
- The 2009-10 *Drug use monitoring in Australia* (DUMA) survey found that 66% of inmates tested positive for at least one drug [77] and 45% of detainees reported that their current offence related to drug use.
- A 2009 survey of the health of prisoners in NSW found that 43% of inmates had used an illicit drug while in prison and 17% had injected drugs while in prison [81]. The survey also found that inmates were at increased risk of contracting hepatitis C and HIV due to a lack of new injecting equipment.

Policies that address illicit drug use among Aboriginal and Torres Strait Islander people

National drug strategy 2010-2015

Australia's *National drug strategy* (NDS) is based on the three pillars of harm minimisation: demand reduction, supply reduction and harm reduction. The strategy provides a collection of actions that can be used to minimise the harm from drug use [82].

Demand reduction

Demand reduction strategies aim to [82, 83]:

- prevent or delay the use of alcohol and other drugs
- reduce drug use among people who are already using
- support the recovery of people who are dependent on drugs.

Demand reduction includes a wide range of strategies including health promotion, treatment and ongoing care.

Supply reduction

Supply reduction strategies aim to [82, 83]:

- reduce the availability of illegal drugs
- control and regulate the supply of legal drugs, such as alcohol and tobacco.

Harm reduction

Harm reduction strategies aim to [82, 83]:

- reduce harmful consequences of drug use for individuals, families and the community, without necessarily reducing the use of drugs.

One of the main harm reduction strategies in Australia is through NSPs.

National drug strategy Aboriginal and Torres Strait Islander Peoples complementary action plan 2003-2009

The *National drug strategy Aboriginal and Torres Strait Islander peoples complementary action plan* (CAP) was developed to address the specific needs of Indigenous people affected by alcohol and drugs [84, 85].

A review of CAP in 2009 found it [84]:

- provided a useful, culturally appropriate framework for policy makers and service providers
- did not identify specific actions to address alcohol and drug use
- did not provide information on ways of measuring if programs and strategies were making a difference.

Recommendations were made to develop the CAP further and introduce improved ways of collecting information on the effectiveness of alcohol and drug programs and strategies.

National Aboriginal and Torres Strait Islander peoples drug strategy 2014-2019

The *National Aboriginal and Torres Strait Islander peoples' drug strategy* 2014-2019 is a sub strategy of the NDS and builds upon the strengths of the CAP to identify four priority areas [86]:

1. Build capacity and capability of the alcohol and other drug service system, particularly Aboriginal and Torres Strait Islander-controlled services and their workforce.
2. Increase access to a full range of culturally responsive and appropriate programs.
3. Strengthen partnerships based on respect both within and between Aboriginal and Torres Strait Islander peoples, government and mainstream service providers.
4. Establish effective ways of measuring whether alcohol and other drugs programs and strategies are working. [86].

In relation to illicit drug use, these priorities are directed toward reducing:

- the levels of illicit and legal drug use
- offending related to substance use
- involvement in the criminal justice system
- blood-borne viral infections due to injecting drug use [86].

Policies for specific types of illicit drugs

There are a number of national policies that focus on specific types of illicit drugs or the way they are used. Many of these policies identify Aboriginal and Torres Strait Islander people as a priority population.

Injecting drug use related policies

Policies relating to injecting drug use include:

- *Fourth national Aboriginal and Torres Strait Islander blood borne viruses and sexually transmissible infections strategy 2014-2017* [87]
- *National hepatitis B strategy 2010-2013* [88]
- *Fourth national hepatitis C strategy 2014-2017* [89]
- *Sixth national HIV strategy 2010-2013* [90]
- *National needle and syringe programs strategic framework 2010-2014* [91].

These policies all promote harm reduction through [87-91]:

- making clean injecting equipment available
- increasing peer education
- reducing the stigma associated with injecting drug use
- integrating health services that can appropriately cater to the needs of Aboriginal and Torres Strait Islander people who inject drugs
- improving data collection.

Cannabis related policy

The *National cannabis strategy 2006-2009*, developed by the Ministerial Council on Drug Strategy aimed to reduce cannabis use and the associated harms [54]. This policy identified Aboriginal and Torres Strait Islander people as a priority population and outlined four priority areas:

1. community cannabis education
2. preventing the use of cannabis
3. preventing problems associated with cannabis
4. responding to problems associated with cannabis.

The *Strategy* specified the need to create and use specific resources for Aboriginal and Torres Strait Islander people, developed in partnership with communities, as well as increasing the workforce capacity of Aboriginal and Torres Strait Islander Health Workers.

Amphetamine related policy

In 2015 the *The National ice action strategy* was developed in response to the issues surrounding the drug crystal methamphetamine (ice) [92].

Six areas for action were identified in the interim report [92]:

1. target primary prevention
2. improve access to early intervention, treatment and support services
3. support local communities to respond
4. improve tools for frontline workers
5. focus law enforcement actions
6. improve and consolidate research and data.

The final report includes a recommendation that all levels of government should work towards improving access to services for Aboriginal and Torres Strait Islander people that are [93]:

- integrated
- evidence-based
- culturally appropriate
- developed in close consultation with Aboriginal Community Controlled Organisations (ACCHOs).

Services

Current alcohol and other drug services aim to reduce the harms from drug use in three ways [15]:

- primary prevention - preventing drug use in the first place
- secondary prevention - minimising the harms of short-term/ experimental drug use and preventing drug dependence
- tertiary prevention - reducing the harms from long-term drug use and providing rehabilitation.

Table 5 (below) outlines how services addressing Aboriginal and Torres Strait Islander drug use fit within the three pillars of harm minimisation and the three levels of prevention (note that this list may not be exhaustive).

Primary prevention

Primary prevention aims to minimise the risk of harmful drug use by addressing social determinants and educating the public, in the hope of decreasing or delaying use [15].

Table 5. Services by pillar of harm minimisation and type of prevention

	Demand reduction	Supply reduction	Harm reduction
Primary prevention (preventing the uptake of drugs)	• Addressing social determinants • Recreational activities • Education • Health promotion campaigns	• Law enforcement	
Secondary prevention (minimising the harms of short-term use; preventing drug dependency)	• Brief interventions • Diversion of offenders • Education • Health promotion campaigns • Primary health care • Community-based treatment • Counselling and support services	• Law enforcement	• Night patrols • Sobering-up shelters • Needle and syringe programs
Tertiary prevention (reducing harms from chronic use; rehabilitation	• Primary health care • Community-based treatment • Residential treatment • Counselling and support services		• Sobering-up shelters • Needle and syringe programs

Sources: Gray et al, 2008 [15], Gray et al, 2010 [30]

Notes: 1. Services may fit in multiple categories
2. Services exclude those for alcohol exclusively (notably supply control of alcohol)

Social determinants

The social determinants of health are the circumstances in which people are born, live and age [94]. Factors such as inadequate housing, leaving school early, not being able to get a job and racism, contribute to the cycle of social disadvantage. Disadvantage contributes to behaviours associated with harmful drug use [95]. The social determinants of harmful drug use for Aboriginal and Torres Strait Islander people include not only the current disadvantage they may be experiencing, but also the past disadvantage of colonisation, which includes loss of land, loss of culture, and past practices of forcible removal of children (stolen generations) [96, 97]. This history of trauma continues to impact on Aboriginal and Torres Strait Islander people today [98, 99].

Recreational activities

Organised recreational activities may prevent drug use by providing alternative entertainment, positive role models and peers, and a safe place for community members [16, 100-102]. Recreational activities can take a number of forms such as sport, cultural activities, art, and music. Providing recreational facilities and services for young people is an important part of reducing demand and allowing communities to guide young people away from drug use [100, p.21].

Evidence suggests that these programs are valued but may suffer from lack of funding [103, 104]. Recreational and cultural activities are often provided with one-off funding with no commitment to supporting these activities into the future [83, p.5].

A study by The Centre for Remote Health and the Central Australian Youth Link-Up Service (CAYLUS) to explore what works when providing services for young people found that programs need to [102]:

- be reliable and regular
- offer variety
- focus on engagement
- have flexibility to provide meaningful, culturally relevant activities
- be appropriate for gender and age
- include guidance and support from older family members
- involve the whole of the community
- employ skilled youth workers who develop ideas and lead activities
- have appropriate funding and resources, including infrastructure.

Education and health promotion campaigns

Aboriginal and Torres Strait Islander-specific education and health promotion campaigns aim to provide culturally relevant information about drug use to Aboriginal and Torres Strait Islander people, and are the most frequent services provided for drug use [15, 105]. Some health promotion activities are based on the belief that harmful drug use results from a lack of knowledge about drugs, which can be addressed through education and public awareness campaigns. The effectiveness of education and health promotion campaigns has not been proven [105-108].

In 2011-12, the majority of Commonwealth-funded alcohol and other drug services (84%) provided community education and activities and 54% provided school-based education [109].

Law enforcement

Australian governments' expenditure on law enforcement is much greater than their expenditure on treatment services (demand and harm reduction) [110].

In 2009-10, an analysis of the Australian federal and state governments' direct (proactive) spending on illicit drug policy was approximately $1.7 billion [111]. Approximately 64% of the illicit drug budget was spent on law enforcement, 23% on treatment, 10% on prevention, and 2% on harm reduction. This analysis found that, between 2002-03 and 2009-10, there had been little change in the balance of spending across the four policy areas (prevention, treatment, harm reduction and law enforcement). Overall spending had increased by a small amount but harm reduction was one area where spending had reduced.

Evidence suggests that law enforcement should focus its efforts on the suppliers of illicit drugs, rather than on the users of drugs – who are better managed through education and treatment services rather than the criminal justice system [48]. In 2009-10, around 80% of all arrests were of drug users in Australia; cannabis-related crimes accounted for 67% of arrests [112].

Secondary prevention

Secondary prevention aims to prevent risky drug use and stop occasional use from progressing to problematic use or dependence [15].

Brief interventions

Brief intervention refers to prevention activities offered in health care settings such as a general practitioner's (GP's) offices or community counselling [113].

Brief intervention activities relevant to drug use include [15, 113]:

- use of appropriate screening tools
- giving advice
- encouragement to think about the short and long-term costs of using
- support for reducing use or quitting.

The advice given in a brief intervention is tailored to each person and may include a referral to a specialist, if required.

Research has found that training in brief intervention techniques at Aboriginal Community-Controlled Health Services (ACCHSs) gives staff the confidence to use brief intervention approaches with Aboriginal and Torres Strait Islander clients [114]. Workshop materials developed for GPs can also be adapted for health care providers in ACCHSs. Brief interventions provided by GPs can provide Aboriginal and Torres Strait Islander patients with clear advice that is culturally appropriate, particularly if an Aboriginal and Torres Strait Islander Health Worker is involved [115].

Barriers to the use of brief interventions for drug use include [114, 116-118]:

- complex patient needs that need to be addressed in a short period of time
- the patient is not ready to consider quitting
- tools that are difficult to use
- cultural inappropriateness of certain techniques
- lack of follow-up services for referral.

One Aboriginal and Torres Strait Islander-specific project that aimed to address cannabis use and included brief intervention was *Could it be the gunja?* The project was developed in partnership with six Aboriginal and Torres Strait Islander communities and included [119]:

- developing a plan to introduce screening and brief interventions in ACCHs
- providing training to use brief interventions
- creating appropriate health promotion resources that reflect community feedback.

As a result of the project, the percentage of clinic staff who talked to clients about cannabis rose from 20% to around 60%.

Night patrols

Night patrols are community-based initiatives that aim to improve overall safety in Aboriginal communities [120]. They involve teams of local people who patrol communities at night, either by car or on foot, and assist people who may be at risk of causing harm or being harmed.

Night patrols began in the NT in remote communities but now operate in urban, regional, and remote areas across Australia [120-122]. They have been found to be an effective way of reducing alcohol and drug-related harm and the number of police lock-ups [122]. Night patrols are highly valued by the community in providing a culturally appropriate mobile service that can respond quickly to problems in the community [123, 124].

Sobering-up shelters

Sobering-up shelters provide a safe place where people can get sober, avoid harming themselves and others, and avoid being locked up by the police [105, 125]. Shelters offer practical care, provide opportunities for brief interventions and referral, and offer basics, like food.

In 2013-14, there were nine Aboriginal and Torres Strait Islander alcohol and other drug services that provided sobering-up, residential respite and short-term client care to around 5,000 people [126]. A 2010 review of alcohol and other drug services reported 36 sobering-up shelters nationally, but noted a shortage of sobering-up shelters in many parts of Australia [30]. Sobering-up shelters have been shown to have strong community and police support [103, 105, 125].

Needle and syringe programs

NSPs provide sterile needles, syringes, and other injecting equipment. These items may be free of charge, on an exchange basis, or for sale. They also provide information and counselling and referral services for people who inject drugs [91]. NSPs aim to reduce the sharing of injecting equipment and provide education to users, both of which aim to lower the risks associated with injecting drug use.

NSPs are delivered:

- at hospitals, pharmacies, or community health services
- through vending machines (providing 24 hour access to sterile injecting equipment)
- through outreach and mobile methods (for example a van that goes out to different locations, such as local parks).

NSPs form a part of the harm minimisation approach outlined by the NDS, with more than 3,000 programs established across the country [45].

The NSP program has been described as a key strategy that is relatively low cost and effective in reducing harms related to injecting drug use [91]. A 2009 evaluation of NSPs in Australia found that they had directly prevented around 32,050 HIV infections and 96,667 hepatitis C infections during 2000-2009 [127].

A Victorian study into injecting drug use among Aboriginal and Torres Strait Islander people suggests that Aboriginal and Torres Strait Islander clients may feel more comfortable visiting mainstream NSPs or vending machines because they provide greater privacy [46].

Diversion

Diversion programs aim to [79]:

- avoid the shame associated with imprisonment
- prevent further offending by minimising contact with the criminal justice system
- reduce the number of people reaching courts and prisons
- provide appropriate interventions to people in need of treatment or other services.

Diversion programs mainly target young people and offenders with crimes relating to drug use. Examples of Aboriginal and Torres Strait Islander diversion programs are [79, 128]:

- *Indigenous alcohol diversion program* (Qld)
- *Indigenous diversion program* (WA)
- *Koori court* (Vic)
- *Magistrate's early referral into treatment* (MERIT) (NSW).

The MERIT program has been shown to reduce re-offending and to lead to improved health in participants [128, 129]. A study of the MERIT program found that those people who completed the program were less likely to re-offend than those who did not complete the program (a 30% reduction in risk) [129].

Some studies found that Aboriginal clients were less likely to complete the MERIT program than non-Indigenous participants [130, 131]. However when the program was adapted to meet the needs of the Aboriginal participants, there was a significant increase in the number of Aboriginal clients who completed the MERIT program (33% compared to 7% for services that were not adapted to meet Aboriginal participant needs) [132].

Diversion programs also aim to provide relevant health services for offenders. For example, establishing NSPs or methadone programs in prisons can potentially reduce the harm associated with injecting drug use among inmates [133-135].

Tertiary prevention

Tertiary prevention aims to reduce health and social harm among problem users, and help them to reduce or quit drug use [15]. This prevention includes:

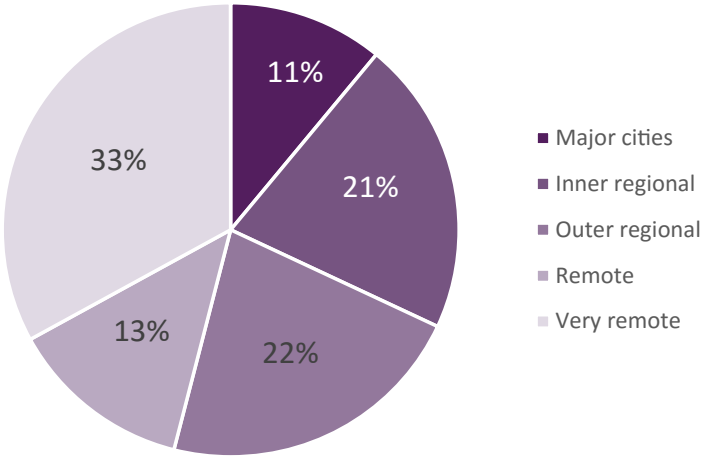
- treatment
- residential rehabilitation
- counselling for long-term drug users.

Tertiary prevention also seeks to prevent harm from drug use affecting other people, including family members and the wider community.

Many of the primary health care services provided by ACCHSs provide comprehensive care that includes treatment and support for alcohol and other drug users [109, 136].

In 2013-14, there were 203 federally funded Aboriginal and Torres Strait Islander primary health care services (Figure 8) [126].

Figure 8. Proportion (%) of Aboriginal and Torres Strait Islander primary health care services, by remoteness level, Australia, 2013-14



Source: AIHW (2015), [126]

These primary health care organisations reported that the most common drug use issues were [126]:

- cannabis (88%)
- amphetamines (41%)
- poly-drug use (39%).

The most common services offered by these organisations were [126]:

- individual counselling (85%)
- community education (78%)
- crisis intervention (63%).

Community-based treatment

Community-based treatment provides specialised and ongoing support for Aboriginal and Torres Strait Islander people in the community [15]. Treatment may include:

- *Alcoholics Anonymous*
- recreational programs
- family therapy
- counselling
- case management.

In 2013-14, 95% of Commonwealth-funded alcohol and other drug services for Aboriginal and Torres Strait Islander people were for non-residential services [126]. There were around 353,000 episodes of non-residential, follow-up, and after-care reported and on average each client received 11 episodes of care. This is a large increase from 2011-12 when there were 61,000 episodes of non-residential care [109].

According to the 2013-14 AIHW report on alcohol and other drug treatment services in Australia, around one in seven (14%) clients receiving treatment for drug use were Aboriginal and Torres Islander people.

Residential rehabilitation

Residential rehabilitation provides a service where clients are able to live away from the environment where they usually use drugs [15]. This provides an opportunity for intensive interventions (e.g. counselling, life-skills, cultural activities) to change drug use behaviours. It also helps the client to regain their health. Some services include the involvement of family members.

In 2013-14, nearly half (46%) of Commonwealth funded alcohol and other drug services for Aboriginal and Torres Strait Islander people provided residential treatment [126]. Through the 21 organisations providing residential rehabilitation, 2,300 clients were provided services with around 2,400 episodes of care. Three quarters (76%) of these organisations had waiting lists.

Evaluation of residential rehabilitation services for Aboriginal and Torres Strait Islander people shows both positive and negative results [137, 138].

Positive aspects of residential services are that they:

- give people a break from their drug use so that they can consider the costs (both financial and personal) of continuing to use
- provide education about drug use
- provide opportunities to practise life-skills.

Negative aspects include:

- a gradual return to problematic drug use for some clients once they are back in the community
- not dealing with the underlying causes of drug use
- lack of cultural awareness among staff
- poor staff training
- lack of follow-up support
- clients being separated from family.

Other studies have found that residential rehabilitation is beneficial when [139, 140]:

- treatment is based on evidence
- treatment is adapted to match the therapeutic and cultural needs of the client
- good follow-up care is provided.

Residential rehabilitation is best suited to those people with moderate-to-severe levels of drug dependence and less social stability (e.g. they may not have a secure place to live) [140].

What works in alcohol and other drug services?

The following factors are important in providing effective alcohol and drug services to Aboriginal and Torres Strait Islander people.

Community originated and controlled services

Alcohol and other drug services that are led and controlled by communities are more likely to provide relevant and appropriate services, resulting in better outcomes [24, 30, 108, 141, 142].

Culturally appropriate

Services that include cultural practices in evidence-based approaches have been shown to have better results than mainstream services which lack cultural competence [30, 70, 140, 141, 143, 144].

Ensuring that services are culturally appropriate includes [30]:

- employing local Aboriginal and Torres Strait Islander staff
- conducting cultural competence training
- delivering services in partnership with ACCHSs
- ongoing consultation with members of local communities.

Holistic

Many of the problems faced by Aboriginal and Torres Strait Islander clients (such as drug use and social and emotional wellbeing issues) cannot be properly dealt with in isolation. The provision of holistic services helps to address multiple issues [30, 144, 145] and an organisation that can address many needs at one location is likely to benefit clients.

Partnerships

Strong partnerships between Aboriginal and Torres Strait Islander and mainstream services provide a network of care for clients [24, 30, 138, 141]. These partnerships allow organisations to use their own expertise and, when required, refer clients to other organisations that are supported, trusted, and respected by the community.

Flexible and innovative

The need for services that are flexible and offer innovative solutions to clients has been identified as important [24, 30, 143, 146]. This includes being able to personalise services around client needs (such as arranging for staff to meet clients in a variety of locations) and taking account of a client's cultural duties (such as missing appointments because of family business).

Inclusion of family and community

Some studies suggest that including family and community may improve the likelihood of success of alcohol and other drug services for some Aboriginal and Torres Strait Islander people, especially with treatment services [22, 24, 70]. Families can sometimes play a vital role in the success of an individual's experience in drug treatment, by supporting healthy lifestyle choices [24].

Confidentiality

An important strategy for effective service [143], especially among people who inject drugs [24, 46], is making sure that the client's information is not shared without their permission (confidentiality).

Workforce development

Good management within organisations (governance) is essential to support staff in delivering services to meet the needs of clients and communities. [144, 147, 148].

Developing the skills of workers strengthens an organisation's ability to respond to alcohol and other drug issues [15, 24, 30, 141, 149-151]. This can be achieved by:

- providing appropriate training and supervision for workers
- providing career paths
- making sure workplaces are culturally safe.

Studies show that ongoing training increases the confidence of workers who become more willing and able to provide a wider variety of services [114, 116, 152].

Barriers to services

Some barriers to providing effective alcohol and drug services Aboriginal and Torres Strait Islander people are outlined below.

Lack of adequate resources

Lack of ongoing funding was identified as a major barrier to organisations providing alcohol and other drug services to Aboriginal and Torres Strait Islander people [30, 83, 150]. Organisations without adequate funding are not able to attract and keep qualified staff and are not able to provide continuity in their services [30].

Lack of ongoing care

Aboriginal and Torres Strait Islander people need follow-up care after they have completed rehabilitation treatment [30, 116, 138]. A 2010 review found only two services were funded to provide ongoing care [30].

Geographic and service gaps

The provision of appropriate and integrated alcohol and other drug services across Australia, regardless of location, is required to meet the needs of the Aboriginal and Torres Strait Islander population. However, a 2010 review of Aboriginal and Torres Strait Islander alcohol and other drug services found that some regions were poorly serviced, and many regions did not have a suitable range of services [30]. The provision of services did not match the size of population or level of remoteness.

Lack of reliable information

Currently, there is a lack of information about which alcohol and other drug services and programs best serve the needs of Aboriginal and Torres Strait Islander people [83, 137]. Up-to-date and reliable data, information, and knowledge is needed to assess the effectiveness of services and determine 'what works' in addressing illicit drug use among Aboriginal and Torres Strait Islander people.

Concluding comments

While more than half of Aboriginal and Torres Strait Islander people do not use illicit drugs, the levels of illicit drug use are substantially higher among Aboriginal and Torres Strait Islander people than among non-Indigenous people in Australia [31, 32]. The effects from illicit drug use – deaths due to drug use, social and emotional distress and risk of infection from blood-borne viruses - are greater for Aboriginal and Torres Strait Islander people than for non-Indigenous people. Factors contributing to these higher proportions of illicit drug use are directly associated with social and economic disadvantage and colonisation.

Research has found that services that are likely to be more effective among Aboriginal and Torres Strait Islander people are those that:

- are initiated and controlled by the community
- are culturally appropriate
- are able to address a range of health issues
- create strong partnerships with other organisations
- are flexible in service delivery
- have high levels of confidentiality with client information
- provide a high level of training and skills development for staff.

The *National Aboriginal and Torres Strait Islander people's drug strategy 2014-2019* identifies a number areas for action, including building culturally appropriate and responsive services, strengthening partnerships and improving data collection.

All levels of government have an obligation to work with Aboriginal and Torres Strait Islander communities and health organisations to address the current levels of illicit drug use among Aboriginal and Torres Strait Islander people. Policies addressing illicit drug use need to provide long-term, culturally appropriate guidance that equally addresses each of the three pillars of harm minimisation. Illicit drug use services need to be adequately resourced and funded in the long-term to be able to provide the holistic quality of care Aboriginal and Torres Strait Islander Australians deserve.

References

1. Australian Institute of Health and Welfare (2014) *National Drug Strategy Household Survey detailed report: 2013*. (AIHW Catalogue no PHE 183, drug statistics series no 28) Canberra: Australian Institute of Health and Welfare

2. Australian Institute of Health and Welfare (2011) *2010 National Drug Strategy Household Survey report*. (Drug statistics series no. 25. Cat. no. PHE 145) Canberra: Australian Institute of Health and Welfare

3. Australian Bureau of Statistics (2013) *Australian Aboriginal and Torres Strait Islander health survey: first results, Australia, 2012-13: Table 15 Substance use by age, remoteness and sex [data cube]*. Retrieved 27 November 2013 from http://www.abs.gov.au/AUSSTATS/subscriber.nsf/log?openagent&table%2015%20substance%20use%20by%20age,%20remoteness%20and%20sex,%202012-13%20-%20australia.xls&4727.0.55.001&Data%20Cubes&E6B1092ED1C8DC69CA257C2F00145F58&0&2012-13&27.11.2013&Latest

4. Australian Health Ministers' Advisory Council (2015) *Aboriginal and Torres Strait Islander health performance framework 2014 report*. Canberra: Department of the Prime Minister and Cabinet

5. Bohanna I, Clough AR (2012) Cannabis use in Cape York Indigenous communities: high prevalence, mental health impacts and the desire to quit. *Drug and Alcohol Review*;31(4):580–584

6. Clough A, d'Abbs P, Cairney S, Gray D, Maruff P, Parker R, O'reilly B (2004) Emerging patterns of cannabis and other substance use in Aboriginal communities in Arnhem Land, Northern Territory: a study of two communities. *Drug and Alcohol Review*;23(4):381-390

7. Lee KSK, Clough AR, Jaragba MJ, Conigrave KM, Patton GC (2008) Heavy cannabis use and depressive symptoms in three Aboriginal communities in Arnhem Land, Northern Territory. *Medical Journal of Australia*;188(10):605-608

8. The Kirby Institute (2014) *Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander people: surveillance and evaluation report 2014*. Sydney: University of New South Wales

9. Clough AR, Lee KSL, Cairney S, Maruff P, O'Reilly B, d'Abbs P, Conigrave KM (2006) Changes in cannabis use and its consequences over 3 years in a remote Indigenous population in northern Australia. *Addiction*;101(5):696-705

10. Select Committee on Youth Suicides in the NT (2012) *Gone too soon: a report into youth suicide in the Northern Territory: committee report*. Darwin: Legislative Assembly of the Northern Territory

11. Steering Committee for the Review of Government Service Provision (2014) *Overcoming Indigenous disadvantage: key indicators 2014*. Canberra: Productivity Commission

12. Degenhardt L, Hall W (2012) Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *The Lancet*;379(9810):55-70

13. Collins DJ, Lapsley HM (2008) *The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004/05*. Canberra: Department of Health and Ageing

14. Australian Institute of Health and Welfare (2013) *Alcohol and other drug treatment services in Australia 2011-12*. (AIHW Catalogue no HSE 139) Canberra: Australian Institute of Health and Welfare

15. Gray D, Saggers S, Atkinson D, Wilkes E (2008) Substance misuse. In: Couzos S, Murray R, eds. *Aboriginal primary health care: an evidence-based approach*. 3rd ed. South Melbourne: Oxford University Press:755-787

16. Loxley W, Toumbourou JW, Stockwell T, Haines B, Scott K, Godfrey C, Waters E, Patton G, Fordham R, Gray D, Marshall J, Ryder D, Saggers S, Sanci L, Williams J (2004) *The prevention of substance use, risk and harm in Australia: a review of the evidence*. Canberra: Department of Health and Ageing

17. Australian Curriculum Assessment and Reporting Authority (2013) *National Assessment Program - Literacy and Numeracy achievement in reading, persuasive writing, language conventions and numeracy: national report for 2013*. Sydney: Australian Curriculum Assessment and Reporting Authority

18. Australian Bureau of Statistics (2014) *Schools, Australia, 2013*. (ABS Catalogue no. 4221.0) Canberra: Australian Bureau of Statistics

19. Australian Institute of Health and Welfare (2013) *Aboriginal and Torres Strait Islander health performance framework 2012: detailed analyses*. (AIHW Cat. no. IHW 94) Canberra: Australian Institute of Health and Welfare

20. Australian Institute of Health and Welfare (2006) *Drug use among Aboriginal and Torres Strait Islander peoples: an assessment of data sources*. (AIHW Catalogue no. PHE 76) Canberra: Australian Institute of Health and Welfare

21. Australian Bureau of Statistics (2012) *Census of population and housing: characteristics of Aboriginal and Torres Strait Islander Australians, 2011*. (ABS Catalogue no 2076.0) Canberra: Australian Bureau of Statistics

22. Munro A, Allan J (2011) Can family-focussed interventions improve problematic substance use in Aboriginal communities? A role for social work. *Australian Social Work*;64(2):169-182

23. Chenhall R, Senior K (2012) Treating Indigenous Australians with alcohol/drug problems: assessing quality of life. *Alcoholism Treatment Quarterly*;30(2):130-145

24. Kratzmann M, Mitchell E, Ware J, Banach L, Ward J, Ryan J, Sutton L, Griffiths P, Saunders M (2011) *Injecting drug use and associated harms among Aboriginal Australians*. (ANCD research paper; 22) Canberra: Australian National Council on Drugs

25. d'Abbs P, Maclean S (2008) *Volatile substance misuse: a review of interventions*. (Monograph Series No. 65) Barton, ACT: Australian Government Department of Health and Ageing

26. Nagel TM, Thompson C (2010) The central role of Aboriginal families in motivational counselling: family support and family 'humbug'. *Australian Indigenous HealthBulletin*;10(1)

27. Indig D, Vecchiato C, Haysom L, Beilby R, Carter J, Champion U, Gaskin C, Heller E, Kumar S, Mamone N, Muir P, van den Dolder P, Whitton G (2011) *2009 NSW young people in custody health survey: full report*. Sydney: Justice Health and Juvenile Justice

28. Lee KSK, Conigrave KM, Clough AR, Dobbins TA, Jaragba MJ, Patton GC (2009) Five-year longitudinal study of cannabis users in three remote Aboriginal communities in Arnhem Land, Northern Territory, Australia. *Drug and Alcohol Review*;28(6):623–630

29. Lee L, Midford R, Malone S (2012) The Dampier Peninsula Prevention Project: working with a group of remote Australian Aboriginal communities to address alcohol and drug use. *International Journal of Health Promotion and Education*;50(3):111-124

30. Gray D, Stearne A, Wilson M, Doyle M (2010) *Indigenous-specific alcohol and other drug interventions: continuities, changes and areas of greatest need*. (ANCD research paper 20) Canberra: Australian National Council on Drugs

31. Australian Bureau of Statistics (2013) *Australian Aboriginal and Torres Strait Islander health survey: first results, Australia, 2012-13*. (ABS Catalogue no. 4727.0.55.001) Canberra: Australian Bureau of Statistics

32. Australian Institute of Health and Welfare (2011) *Aboriginal and Torres Strait Islander health performance framework 2010: detailed analyses*. (AIHW Catalogue no IHW 53) Canberra: Australian Institute of Health and Welfare

33. Australian Institute of Health and Welfare (2011) *Principles on the use of direct age-standardisation in administrative data collections: for measuring the gap between Indigenous and non-Indigenous Australians*. (AIHW Catalogue no CSI 12) Canberra: Australian Institute of Health and Welfare

34. Australian Institute of Health and Welfare (2008) *National Drug Strategy Household Survey 2007 : detailed findings*. (AIHW Catalogue no. PHE 107) Canberra: Australian Institute of Health and Welfare

35. Smith G, White V (2010) *Use of tobacco, alcohol, and over-the-counter and illicit substances among Indigenous students participating in the Australian Secondary Students Alcohol and Drug Survey 2008*. Canberra: Department of Health and Ageing, Australia

36. Brady M (1991) *The health of young Aborigines: a report on the health of Aborigines aged 12 to 25 years prepared for the National Youth Affairs Research Scheme*. (ISBN 1 875236 12 0) Hobart: Australian Institute of Aboriginal and Torres Strait Islander Studies

37. Clough AR, Guyula T, Yunupingu M, Burns CB (2002) Diversity of substance use in eastern Arnhem land (Australia): patterns and recent changes. *Drug and Alcohol Review*;21(4):349-356

38. Lee KS, Clough AR, Conigrave KM (2007) High levels of cannabis use persist in Aboriginal communities in Arnhem Land, Northern Territory [letter]. *Medical Journal of Australia*;187(10):594-595

39. Roche A, McEntee A, Fischer J, Kostadinov V (2015) *Methamphetamine use in Australia*. Adelaide: National Centre for Education and Training on Addiction

40. Steering Committee for the Review of Government Service Provision (2011) *Overcoming Indigenous disadvantage: key indicators 2011*. Canberra: Productivity Commission, Australia

41. Hughes H (2007) *Kava and after in the Nhulunbuy (Gulf of Carpenteria) Hinterland*. (Issues Analysis no. 88) St Leonards, NSW: Centre for Independent Studies

42. Northern Terrritory Department of the Chief Minister (2008) *Kava Management Act*. Darwin: Northern Territory Government of Australia

43. Ward J, Bryant J, Wand H, Pitts M, Smith A, Delaney-Thiele D, Worth H, Kaldor J (2014) *Sexual health and relationships in young Aboriginal and Torres Strait Islander people: results of the first Australian study of knowledge, risk practices and health service access for sexually transmissible infections (STIs) and blood borne viruses (BBVs) among young Aboriginal and Torres Strait Islander people: the Goanna Survey*. Alice Springs: Baker IDI Heart & Diabetes Institute

44. Australian Institute of Health and Welfare (2015) *Alcohol and other drug treatment services in Australia 2013 - 14*. (AIHW Catalogue no HSE 158, Drug treatment series no. 25) Canberra: Australian Institute of Health and Welfare

45. Ward J, Topp L, Iversen J, Wand H, Akre S, Kaldor J, Maher L (2011) Higher HCV antibody prevalence among Indigenous clients of needle and syringe programs. *Australian and New Zealand Journal of Public Health*;35(5):234-245

46. Mapfumo L, Waples-Crowe P, Ware J (2010) *Action research: addressing HIV risks related to injecting drug use in Victorian Aboriginal communities*. Melbourne: Anex

47. McEwan M, Paquette D, Bryant J (2012) *Injecting drug use among Aboriginal people in New South Wales*. Sydney: National Centre in HIV Social Research

48. Ritter A, Lancaster K, Grech K, Reuter P (2011) *An assessment of illicit drug policy in Australia (1985-2010): themes and trends*. Sydney: National Drug and Alcohol Research Centre

49. Dingwall KM, Cairney S (2010) Detecting psychological symptoms related to substance use among Indigenous Australians. *Drug and Alcohol Review*;30(1):33-39

50. Holly S, Shoobridge J (2003) *Responding to the needs of Indigenous people who inject drugs: investigating the impact of injecting drug use in Indigenous communities in metropolitan Adelaide: community report June 2002*. Adelaide: Aboriginal Drug and Alcohol Council (SA)

51. Bohanna I, Clough AR (2011) Cannabis use in Cape York Indigenous communities: high prevalence, mental health impacts and the desire to quit. *Drug and Alcohol Review*;Early View(http://dx.doi.org/10.1111/j.1465-3362.2011.00405.x)

52. Hunter EM, Gynther BD, Anderson CJ, Onnis L-A, L.,, Nelson JR, Hall W, Baune BT, Groves AR (2012) Psychosis in Indigenous populations of Cape York and the Torres Strait. *Medical Journal of Australia*;196(2):133-135

53. Clough AR, d'Abbs P, Cairney S, Gray D, Maruff P, Parker R, O'Reilly B (2005) Adverse mental health effects of cannabis use in two Indigenous communities in Arnhem Land, Northern Territory, Australia: exploratory study. *Australian and New Zealand Journal of Psychiatry*;39(7):612-620

54. Ministerial Council on Drug Strategy (2006) *National cannabis strategy 2006-2009*. Canberra: Ministerial Council on Drug Strategy

55. Beautrais AL, Joyce PR, Mulder RG (1999) Cannabis abuse and serious suicide attempts. *Addiction*;94(8):1155-1164

56. Hillman SD, Silburn SR, Green A, Zubrick SR (2000) *Youth suicide in Western Australia involving cannabis and other drugs: a literature review and research report*. (WA strategy against drug abuse occasional paper number 2) Perth, WA: Western Australian Drug Abuse Strategy Office

57. Communicable Diseases Section Department of Human Services (2005) *The blue book - guidelines for the control of infectious diseases*. Melbourne: Victorian Government Department of Human Services

58. Coupland H, Ball K, Costello M, Harvey B, Maher L (2005) *"Something is going to get us": a consultation and development project for a national campaign addressing injecting drug use in Indigenous communities: final report*. Darlinghurst, NSW: Australian Federation of AIDS Organisations and the Australian Injecting and Illicit Drug Users League

59. Hepatitis C Virus Projections Working Group (2006) *Estimates and projections of the hepatitis C virus epidemic in Australia 2006*. Canberra: Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis C Sub-Committee

60. The Kirby Institute (2014) *HIV, viral hepatitis and sexually transmissible infections in Australia annual surveillance report 2014*. Sydney: University of New South Wales

61. Iversen J, Grebely J, Topp L, Wand H, Dore G, Maher L (2013) Uptake of hepatitis C treatment among people who inject drugs attending needle and syringe programs in Australia, 1999–2011. *Journal of Viral Hepatitis*;21(3):198 - 207

62. Holly C, Shoobridge J (2004) *Responding to the needs of Indigenous people who inject drugs: findings from the research project: using rapid assessment procedures to investigate the impact of injecting drug use amongst Indigenous Australians in metropolitan Adelaide*. Adelaide: Aboriginal Drug and Alcohol Council (SA)

63. Stafford J, Burns L (2013) *Australian drug trends 2012. Findings from the Illicit Drug Reporting System (IDRS)*. (Australian Drug Trend Series no 91) Sydney: National Drug and Alcohol Research Centre

64. Australian Bureau of Statistics (2013) *Australian Aboriginal and Torres Strait Islander health survey: first results, Australia, 2012-13: table 19 [data cube]*. Canberra: Australian Bureau of Statistics

65. Hanssens L (2011) 'Suicide (echo) clusters' - are they socially determined, the result of a pre-existing vulnerability in Indigenous communities in the Northern Territory and how can we contain cluster suicides? *Aboriginal and Islander Health Worker Journal*;35(1):14-19, 23

66. Shoobridge J, Vincent N, Allsop S, Biven A (1998) *Using rapid assessment methodology to examine injecting drug use in an Aboriginal community: final report*. Adelaide: National Centre for Education and Training on Addiction and the Aboriginal Drug and Alcohol Council

67. Australian Bureau of Statistics (2014) *Causes of death, Australia, 2012: Deaths of Aboriginal and Torres Strait Islander Australians [data cube]*. Retrieved 25 March 2014 from http://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&3303_12%20deaths%20of%20aboriginal%20and%20torres%20strait%20islander%20australians.xls&3303.0&Data%20Cubes&0585A7BA09CCB81DCA257CA5000C9072&0&2012&25.03.2014&Latest

68. Bromfield L, Lamont A., Parker R, Horsfall B (2010) *Issues for the safety and wellbeing of children in families with multiple and complex problems: the co-occurrence of domestic violence, parental substance misuse, and mental health problems*. (NCPC Issues No. 33) Melbourne: Australian Institute of Family Studies

69. Dawe S, Harnett P, Frye S (2008) *Improving outcomes for children living in families with parental substance misuse: what do we know and what should we do*. (Child abuse prevention issues no. 29) Melbourne: Australian Institute of Family Studies

70. Dawe S, Atkinson J, Frye S, Evans C, Best D, Lynch M, Moss D, Harnett P (2006) *Drug use in the family: impacts and implications for children*. (ANCD Research Paper 13) Canberra: Australian National Council on Drugs

71. Bryant C, Willis M (2008) *Risk factors in Indigenous violent victimisation*. (Technical and Background Paper 30) Canberra: Australian Institute of Criminology

72. Wundersitz J (2010) *Indigenous perpetrators of violence: prevalence and risk factors for offending*. (Research and public policy series no. 105) Canberra: Australian Institute of Criminology

73. Australian Bureau of Statistics (2009) *National Aboriginal and Torres Strait Islander social survey, 2008*. Retrieved 11 April 2011 from http://www.abs.gov.au/ausstats/abs@.nsf/mf/4714.0?OpenDocument

74. Willis M (2010) *Community safety in Australian Indigenous communities: service providers' perceptions*. (Research and public policy series no. 110) Canberra: Australian Institute of Criminology

75. Australian Bureau of Statistics (2013) *Prisoners in Australia, 2013*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics

76. Prichard J, Payne J (2005) *Alcohol, drugs and crime: a study of juveniles in detention*. (Research and public policy series no.67) Canberra: Australian Institute of Criminology

77. Sweeney J, Payne J (2012) *Drug use monitoring in Australia: 2009–10 report on drug use among police detainees*. (Monitoring reports no. 17) Canberra: Australian Institute of Criminology

78. Makkai T, Payne J (2003) *Drugs and crime: a study of incarcerated male offenders*. (Australian Institute of Criminology Research and Public Policy Series No. 52) Canberra: Australian Institute of Criminology

79. Joudo J (2008) *Responding to substance abuse and offending in Indigenous communities: review of diversion programs*. (Research and Public Policy series no. 88) Canberra: Australian Institute of Criminology

80. Australian Institute of Health and Welfare (2011) *The health of Australia's prisoners 2010*. (AIHW Catalogue no PHE 149) Canberra: Australian Institute of Health and Welfare

81. Indig D, Topp L, Ross B, Mamoon H, Border B, Kumar S, McNamara M (2010) *2009 NSW inmate health survey: key findings report*. Sydney: Justice Health

82. Ministerial Council on Drug Strategy (2011) *National drug strategy 2010-2015*. Canberra: Australian Government

83. Gray D, Wilkes E (2010) *Reducing alcohol and other drug related harm*. (Resource sheet no. 3) Canberra: Closing the Gap Clearinghouse

84. Urbis (2009) *Evaluation of the National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003 - 2009: final report*. Canberra: National Drug Strategy

85. Ministerial Council on Drug Strategy (2006) *National drug strategy: Aboriginal and Torres Strait Islander peoples complementary action plan 2003-2009*. Canberra: Ministerial Council on Drug Strategy

86. Intergovernmental Committee on Drugs (2015) *National Aboriginal and Torres Strait Islander peoples' drug strategy 2014-2019*. Canberra: National Drug Strategy

87. Australian Department of Health (2014) *Fourth National Aboriginal and Torres Strait Islander Blood-Borne Viruses and Sexually Transmissible Infections Strategy 2014-2017*. Canberra: Australian Department of Health

88. Australian Department of Health and Ageing (2010) *National hepatitis B strategy 2010 - 2013*. Australian Department of Health and Ageing

89. Australian Department of Health (2014) *Fourth National Hepatitis C Strategy 2014-2017*. Canberra: Australian Department of Health

90. Australian Department of Health and Ageing (2010) *Sixth national HIV strategy 2010-2013*. Canberra: Department of Health and Ageing, Australia

91. Department of Health and Ageing (2010) *National needle and syringe programs strategic framework 2010-2014*. Canberra: Department of Health and Ageing, Australia

92. Department of Prime Minister and Cabinet (2015) *National Ice Taskforce*. Retrieved 29 September 2015 from http://www.dpmc.gov.au/taskforces/national-ice-taskforce

93. Department of the Prime Minister and Cabinet (2015) *Final report of the National Ice Taskforce*. Canberra: Commonwealth of Australia

94. World Health Organisation (2012) *Social determinants of health*. Retrieved 2012 from http://www.who.int/social_determinants/sdh_definition/en/

95. Wilkes E, Gray D, Casey W, Stearne A, Dadd L (2014) Harmful substance use and mental health. In: Dudgeon P, Milroy H, Walker R, eds. *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*. 2nd edition ed. Canberra: Department of The Prime Minister and Cabinet:125-146 (chapter 8)

96. Couzos S, Murray R (2008) *Aboriginal primary health care: an evidence-based approach*. 3rd ed. South Melbourne: Oxford University Press

97. Wilkes E, Gray D, Saggers S, Casey W, Stearne A (2010) Substance misuse and mental health among Aboriginal Australians. In: Purdie N, Dudgeon P, Walker R, eds. *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*. Canberra: Department of Health and Ageing:117-134

98. Dudgeon P, Milroy H, Walker R, eds. (2014) *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*. 2nd edition ed. Canberra: Department of The Prime Minister and Cabinet

99. Haythornthwaite S, Hirvonen T (2015) *The relevance of trauma informed care to Aboriginal primary health care services*. Presented at *13th National Rural Health Conference* 24-27 May 2015, Darwin

100. Select Committee on Substance Abuse in the Community (2007) *Substance abuse in remote communities: confronting the confusion and disconnection*. Darwin: Legislative Assembly of the Northern Territory

101. Cairnduff S (2001) *Sport and recreation for Indigenous youth in the Northern Territory: scoping research priorities for health and social outcomes*. Darwin: Cooperative Research Centre for Aboriginal and Tropical Health and Australian Sports Commission

102. Lindeman M, Flouris A, Lopes J (2013) *Youth programs in remote central Australian Aboriginal communities 2013*. Darwin: Centre for Remote Health

103. Gray D, Saggers S, eds. (2002) *Indigenous Australian alcohol and other drug issues: research from the National Drug Research Institute*. Perth: National Drug Research Institute

104. Burns C, d'Abbs P, Currie B (1995) Patterns of petrol sniffing and other drug use in young men from an Australian Aboriginal community in Arnhem Land, Northern Territory. *Drug and Alcohol Review*;14(2):159-169

105. Gray D, Saggers S, Sputore B, Bourbon D (2000) What works? A review of evaluated alcohol misuse interventions among Aboriginal Australians. *Addiction*;95(1):11-22

106. Clifford A, Jackson Pulver L, Richmond R, Shakeshaft A, Ivers R (2010) Smoking, nutrition, alcohol and physical activity interventions targeting Indigenous Australians: rigorous evaluations and new directions needed. *Australian and New Zealand Journal of Public Health*;Early view(http://dx.doi.org/10.1111/j.1753-6405.2010.00631.x):1-9

107. Mikhailovich K, Morrison P, Arabena K (2007) *Evaluating Australian Indigenous community health promotion initiatives: a selective review*. Rural and Remote Health **7**.

108. Kylie Lee KS, Jagtenberg M, Ellis CM, Conigrave KM (2013) Pressing need for more evidence to guide efforts to address substance use among young Indigenous Australians. *Health Promotion Journal of Australia*;24(2):87-97

109. Australian Institute of Health and Welfare (2013) *Aboriginal and Torres Strait Islander health services report 2011–12: online services report – key results*. (AIHW Catalogue no IHW 104) Canberra: Australian Institute of Health and Welfare

110. Moore TJ (2008) The size and mix of government spending on illicit drug policy in Australia. *Drug and Alcohol Review*;27(July):404-413

111. Ritter A, McLeod R, Shanahan M (2013) *Government drug policy expenditure in Australia - 2009/10*. Sydney: National Drug and Alcohol Research Centre

112. Australian Crime Commission (2011) *Illicit drug data report 2009-10*. Canberra: Australian Crime Commission

113. Clifford A, Pulver LJ, Richmond R, Shakeshaft A, Ivers R (2010) Brief intervention resource kits for Indigenous Australians: generally evidence-based, but missing important components. *Australian and New Zealand Journal of Public Health*;34(s1):S80-S86

114. Clifford A, Shakeshaft A (2010) Evidence-based alcohol screening and brief intervention in Aboriginal Community Controlled Health Services: experiences of health-care providers. *Drug and Alcohol Review*;30(1):55-62

115. Brady M (2012) The National Drug Strategy and Indigenous Australians: missed opportunities and future challenges [the James Rankin Oration 2011]. *Drug and Alcohol Review*;31(6):747–753

116. Clifford A, Shakeshaft A, Deans C (2011) How and when health-care practitioners in Aboriginal community controlled health services deliver alcohol screening and brief intervention, and why they don't: a qualitative study. *Drug and Alcohol Review*;30(2):166-172

117. Harvey D, Tsey K, Cadet-James Y, Minniecon D, Ivers R, McCalman J, Lloyd J, Young D (2002) An evaluation of tobacco brief intervention training in three Indigenous health care settings in north Queensland. *Australian and New Zealand Journal of Public Health*;26(5):426-431

118. Shakeshaft A, Clifford A, Shakeshaft M (2010) Reducing alcohol related harm experienced by Indigenous Australians: identifying opportunities for Indigenous primary health care services. *Australian and New Zealand Journal of Public Health*;34(s1):S41-S45

119. Howard J, Butt J, Wright T, Norberg M, Copeland J, Wilkes T (2012) *Raising awareness about cannabis, its use and impact on health and wellbeing among Indigenous Australians*. (Bulletin 14) Randwick, NSW: National Cannabis Prevention and Information Centre

120. Australian National Audit Office (2011) *Northern Territory night patrols*. (Audit Report No.32 2010-11) Canberra: Australian National Audit Office

121. Beacroft L, Richards K, Andrevski H, Rosevear L (2011) *Community night patrols in the Northern Territory: toward an improved performance and reporting framework*. (Technical and background paper series no. 47) Canberra: Australian Institute of Criminology

122. Australian Institute of Health and Welfare, Australian Institute of Family Studies (2013) *The role of community patrols in improving safety in Indigenous communities*. (Resource sheet no. 20) Canberra: Closing the Gap Clearinghouse

123. Northern Territory Board of Inquiry into the Protection of Aboriginal Children from Sexual Abuse (2007) *Ampe akelyernemane meke mekarle: little children are sacred*. Darwin: Northern Territory Government

124. Department of Families Housing Community Services and Indigenous Affairs (2011) *Northern Territory Emergency Response evaluation report 2011*. Canberra: Department of Families, Housing, Community Services and Indigenous Affairs

125. Brady M, Nicholls R, Henderson G, Byrne J (2006) The role of a rural sobering-up centre in managing alcohol-related harm to Aboriginal people in South Australia. *Drug and Alcohol Review*;25(3):201-206

126. Australian Institute of Health and Welfare (2015) *Aboriginal and Torres Strait Islander health organisations: online services report - key results 2013-14*. (AIHW Catalogue no IHW 152) Canberra: Australian Institute of Health and Welfare

127. Wilson D, Kwon A, Anderson J, Thein R (2009) *Return on investment 2: evaluating the cost-effectiveness of needle and syringe programs in Australia*. Sydney: Department of Health and Ageing, Australia

128. Jessimer M, Ang J, Rabone S, Lander R (2014) Magistrates Early Referral Into Treatment Program follow-up pilot study. *SAGE Open*;April-June 2014:1-7

129. Larney S, Martire KA (2010) Factors affecting criminal recidivism among participants in the Magistrates Early Referral Into Treatment (MERIT) program in New South Wales, Australia. *Drug and Alcohol Review*;29(6):684-688

130. Cain M (2006) *Participation of Aboriginal people in the MERIT program*. Sydney: Crime Prevention Division, NSW Attorney General's Department

131. Martire KA, Larney S (2009) *Aboriginal participation in MERIT*. (Crime prevention issues no. 6) Sydney: Crime Prevention Division, NSW Attorney General's Department

132. Aboriginal Health and Medical Research Council (2010) *Improving Aboriginal participation in the MERIT program*. (SHPN (MHDAO) 100271) North Sydney, NSW: New South Wales Department of Health

133. Anex (2010) *With conviction: the case for controlled needle and syringe programs in Australian prisons*. Melbourne: Anex

134. Larney S, Toson B, Burns L, Dolan K (2011) *Opioid substitution treatment in prison and post-release: effects on criminal recidivism and mortality*. (Monograph Series No. 37) Canberra: National Drug Law Enforcement Research Fund

135. Larney S (2010) Does opioid substitution treatment in prisons reduce injecting-related HIV risk behaviours? A systematic review. *Addiction*;105(2):216 - 223

136. Allan J (2010) Engaging primary health care workers in drug and alcohol and mental health interventions. *Australian Journal of Primary Health*;16(4):311-318

137. Nichols F (2010) Aboriginal recommendations for substance use intervention programs. *Aboriginal and Islander Health Worker Journal*;34(3):4-8

138. Taylor K, Thompson S, Davis R (2010) Delivering culturally appropriate residential rehabilitation for urban Indigenous Australians: a review of the challenges and opportunities. *Australian and New Zealand Journal of Public Health*;34(s1):S36-S40

139. Berry SL (2013) *Culture in treatment for Aboriginal Australian men in New South Wales residential drug and alcohol rehabilitation services*. University of Wollongong, Wollongong

140. National Indigenous Drug and Alcohol Committee (2014) *Alcohol and other drug treatment for Aboriginal and Torres Strait Islander peoples*. Canberra: National Indigenous Drug and Alcohol Committee

141. Purdie N, Dudgeon P, Walker R, eds. (2010) *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*. Canberra: Department of Health and Ageing

142. Gray D, Saggers S (2003) Substance misuse. In: Thomson N, ed. *The health of Indigenous Australians*. South Melbourne: Oxford University Press:158-185

143. Logan G, Bakos K (2011) *Our Healing Ways successful strategies for working with dual diagnosis issues, Aboriginal way*. Fitzroy, Vic: Victorian Dual Diagnosis Education and Training Unit

144. Strempel P, Saggers S, Gray D, Stearne A (2003) *Indigenous drug and alcohol projects: elements of best practice*. (ANCD research paper no. 8) Canberra: Australian National Council on Drugs

145. Freeman T, White VM, Roche AM (2011) Which Australian secondary school students are at risk of illicit drug use? *Drug and Alcohol Review*;30(6):589–596

146. Allan J, Campbell M (2011) Improving access to hard-to-reach services: a soft entry approach to drug and alcohol services for rural Australian Aboriginal communities. *Social Work in Health Care*;50(6):443-465

147. Chenhall RD, Senior K (2013) 'The concepts are universal, it is the picture you paint that is different': key issues for Indigenous Australian alcohol and drug residential treatment centres. *Therapeutic Communities*;34(2/3):83-95

148. Gray D, Wilson M, Allsop S, Saggers S, Wilkes E, Ober C (2014) Barriers and enablers to the provision of alcohol treatment among Aboriginal Australians: a thematic review of five research projects. *Drug and Alcohol Review*;33(5):482–490

149. Roche AM, Pidd K (2010) *Alcohol and other drugs workforce development issues and imperatives: setting the scene*. Adelaide: National Centre for Education and Training on Addiction

150. Gleadle F, Freeman T, Duraisingam V, Roche A, Battams S, Marshall B, Tovell A, Trifonoff A, Weetra D (2010) *Indigenous alcohol and drug workforce challenges: a literature review of issues related to Indigenous AOD workers' wellbeing, stress and burnout*. Adelaide, SA: National Centre for Education and Training on Addiction (NCETA), Flinders University

151. Roche A, Nicholas N, Trifonoff A, Steenson T (2013) *Staying deadly: strategies for preventing stress and burnout among Aboriginal and Torres Strait Islander alcohol and other drug workers*. Adelaide: National Centre for Education and Training on Addiction

152. Hinton R, Nagel T (2012) *Evaluation of a culturally adapted training in Indigenous mental health and wellbeing for the alcohol and other drug workforce*. ISRN Public Health **2012**.

Australian Indigenous
Health*InfoNet*

The Australian Indigenous Health*InfoNet*'s mission is to contribute to improvements in Aboriginal and Torres Strait Islander health by making relevant, high quality knowledge and information easily accessible to policy makers, health service providers, program managers, clinicians, researchers and the general community. We are helping to 'close the gap' by providing the evidence base to inform practice and policy in Aboriginal and Torres Strait Islander health.

The Health*InfoNet* addresses this mission by undertaking research into various aspects of Aboriginal and Torres Strait Islander health and disseminates the results (and other relevant knowledge and information) mainly via its Internet site (www.healthinfonet.ecu.edu.au). The Health*InfoNet*'s research mainly involves analysis and synthesis of data and other information obtained from academic, professional, government and other sources, but it also undertakes some primary data collection and analysis.

The Health*InfoNet* is a leader in knowledge transfer, the area of research which aims at transferring the results of pure and applied research into practice. In this research, the Health*InfoNet* addresses the knowledge needs of a wide range of potential users. These include policy makers, health service providers, program managers, clinicians and other health professionals (including Aboriginal and Torres Strait Islander health workers), and researchers. The Health*InfoNet* also provides easy-to-read and summarised material for students and the general community.

Director Professor Neil Drew

Address Australian Indigenous Health*InfoNet*
Kurongkurl Katitjin, Centre for Indigenous
Australian Education and Research
Edith Cowan University
2 Bradford Street
Mount Lawley, WA 6050

Telephone (08) 9370 6336

Facsimile (08) 9370 6022

Email healthinfonet@ecu.edu.au

Web www.healthinfonet.ecu.edu.au

FEATURED ARTWORK

Silel

By Billy Missi

ISBN 978-0-9945502-5-5

Core funding is provided by the Australian Government Department of Health

AUSTRALIA ECU EDITH COWAN UNIVERSITY