



**INJECTING DRUG USE IN URBAN
INDIGENOUS COMMUNITIES: A
LITERATURE REVIEW WITH A
PARTICULAR FOCUS ON THE
DARWIN AREA**

Gary Meyerhoff

**Danila Dilba Medical Service
Education and Training Centre
GPO Box 2125
Darwin NT 0801**

www.daniladilba.org.au

Copyright © 2000 Danila Dilba Medical Service

Disclaimer: In no way does Danila Dilba Medical Service condone or condemn Injecting Drug Use. This Literature Review has been prepared in order to stimulate debate and discussion around this sensitive issue.

Table of contents

Section	Page
i Table of contents	2
ii Summation	3
1. Introduction	4
2. The Context: The Health of Indigenous Australians – Where does Illicit Drug Use fit in?	5
2.1 Overview	5
2.2 Indigenous Australians and Injecting Drug Use	6
3. Major Themes	8
3.1 Lack of research on IDU in Indigenous communities	8
3.2 Why do Indigenous young people use illicit drugs?	9
3.2.1 Youth and Experimentation	10
3.2.2 Leisure boredom	10
3.2.3 Peer group issues	11
3.2.4 Lack of positive role models	11
3.3 Risk factors in Blood Borne Virus Infection	12
3.3.1 Knowledge of BBVs	12
3.3.2 High risk injecting practices	12
3.3.3 Unsafe Sexual Behaviour	13
3.3.4 Tattooing and Piercing as issues	14
3.4 Cultural Issues and Injecting Drug Use	15
3.5 The Prison System and IDU	17
3.6 Accessing Services and Information	18
4 The Snapshots: A look at IDU in the Darwin Indigenous Community	20
4.1 Summary of results	21
4.2 Indigenous Injectors in the Darwin area	22
5 Acknowledgments	24
6 Glossary	25
7 Bibliography	26

i. Summation

There is a lack of research on illicit drug use by Indigenous Australians. Much of the research that has been conducted on substance abuse in Indigenous communities has focussed on Alcohol and Tobacco. The issue of illicit drug use has been largely neglected.

Indigenous Australians may be more likely than their non-Indigenous counterparts to use illicit substances and to inject them. Injecting drug use is occurring in Indigenous communities. Young people are injecting drugs as are older community members, including the elders of some communities. Many factors can be implicated in this illicit drug use, including family breakdown, leisure boredom, unemployment, peer group issues and lack of positive role models. The relationships between these factors and illicit drug use by Indigenous Australians need to be explored further.

The threat of HIV and Hepatitis C are of major concern to Indigenous communities. Whilst many campaigns have targeted at risk groups of Indigenous Australians, the effectiveness of these campaigns has not been accurately measured.

Many Indigenous Injecting Drug Users are sharing needles, syringes and other injecting equipment. Many of these users are not accessing needle exchange services for clean equipment due to the shame and stigma associated with their drug use.

Aboriginal Medical Services are also poorly attended by Indigenous IDUs. Concerns around confidentiality are the major reason for this although shame is also a major factor. Workers within Aboriginal Medical Services are not always resourced or trained to deal with illicit drug users

There are many cultural, social, political and economic issues that impact on illicit drug use by Indigenous Australians and these need to be taken into account when developing any programs or interventions aimed at this target group.

Unless the use of illicit drugs by Indigenous Australians is effectively addressed, we face a possible epidemic of blood borne viruses within the Australian Indigenous Community.

“It is dismal to contemplate the possible outcomes from the risky behaviour practiced by Indigenous youth who inject drugs” (Eldridge, 1997).

1. Introduction

This literature review is one component of an overall action-research project currently being undertaken by the Danila Dilba Medical Service in Darwin, Australia. Danila Dilba Medical Service is an Aboriginal Community Controlled organisation, which is funded by Territory and Commonwealth Government Departments. This literature review pertains to injecting drug use within urban Indigenous communities. Particular attention has been paid to literature reporting on injecting drug use by young Indigenous Australians.

The literature reviewed has been determined by the overall objectives of the Danila Dilba Youth Project. The project is funded by the Office for Aboriginal and Torres Strait Islander Health - Indigenous Sexual Health Program, in line with the National Aboriginal Health Strategy. The youth project is targeted at Indigenous people between the ages of 12 to 25 who are injecting drugs or are “at risk” of injecting drugs. It aims to identify and address the needs of young Indigenous injectors residing in the Darwin area to reduce the spread of blood borne viruses such as HCV.

The hypothesis of the research is that “**young Indigenous IDUs have different issues to older Indigenous and non-Indigenous IDUs**”. This project has been divided into two stages. Stage one attempts to identify projects and research that have already been carried out in this area. Major themes have been identified and are discussed in this review. Stage two is the research component.

Because this is a preliminary aspect of the overall research, it is not an extensive literature review. With eight months to complete the project, time constraints were an important factor faced by the author. Focus has been kept on material from 1990 onwards to ensure that information was relevant and current. Given the time constraints further investigation of a number of projects was limited.

This is not a typical literature review, as the author has not critically analysed each piece of literature. Rather, it is an outline of the current national situation regarding injecting drug use among Indigenous young people coupled with discussion of the major themes.

This review may be of assistance to other personnel working with Indigenous young people in an Aboriginal community controlled setting or within generalist drug/youth agencies. It may also be of interest to members of Indigenous communities. It has been designed for people who may not be working within Indigenous organisations or who are not aware of Indigenous health issues.

2. The Context: The Health of Indigenous Australians – Where does Illicit

Drug Use Fit In?

2.1 Overview

“Indigenous Australians suffer a higher burden of illness and die at a younger age than non-Indigenous Australians, and this is true for almost every type of disease or condition for which information is available” (*Health and Welfare Of Australia’s Aboriginal and Torres Strait Islander Peoples, 1997*).

This poor state of health has been the subject of a number of studies and reviews. Government reports aim to provide an overview of Indigenous health (*Health and Welfare of Australia’s Aboriginal Australians, 1997 and 1999*). These are probably the most useful reports when looking at the overall Indigenous health status, as they have access to national data collection points. Major disadvantages with this data are that they are general in nature and do not identify regional differences.

Indigenous peoples health worldwide is not uniformly poor. Governments in New Zealand and the United States have successfully addressed the health concerns of the Indigenous peoples of those countries. Fox (*1999*) reports that Indigenous Australians have a shorter life expectancy than other Indigenous people including New Zealand Maoris and Native Americans.

Many factors have been implicated in relation to this poor health status. The major factors have been the impact of colonialism on Indigenous communities; the introduction of communicable diseases, alcohol and tobacco and later illicit drugs; the forcible removal of children from their families, the change of diet and in the twentieth century, the move to an urban lifestyle (*Brady 1992*).

Socially and economically, Indigenous people are disproportionately disadvantaged and this places them at greater risk of ill health and reduced well being. For example, Indigenous Australians are notified at a greater rate to State/Territory Authorities for child abuse/neglect than non-Indigenous peers (*Health and Welfare of Australia’s Aboriginal and Torres Strait Islander People, 1999*). Indigenous Australians also have a remarkably high imprisonment rate (*Brady, 1992*). They are more likely to be both the victims and perpetrators of crime than their non-Indigenous peers (*Fox, 1999*).

The impact of illicit drugs on Indigenous communities has been reported by a small number of researchers. Gracey (*1997*) summarised this impact. “Australia’s Aborigines lived in isolation from the rest of humanity as successful hunter-gatherers for tens of thousands of years....today, Aborigines suffer disproportionately to other Australians from the physical and social consequences of excess alcohol consumption, tobacco usage, petrol and other sniffing, amphetamines, cocaine and heroin, as well as other drugs.” This use of solvents and illicit drugs by Indigenous young people has increased markedly over recent years (*Protecting the Community, 1995*).

Infectious diseases have also had an impact. Indigenous Australians continue to be diagnosed with sexually transmitted diseases (STD) at much higher rates than non-Indigenous people (*HIV/AIDS, HCV and STD Infections in Australia, 1999*).

National studies have found that 2% of urban Indigenous people inject drugs, compared with 0.5% of the general urban population (*National Drug Strategy-Household Survey: urban Aboriginal and Torres Strait Islander Peoples Supplement, 1994*). The injection of drugs with contaminated injecting equipment is a risk factor for blood borne viruses.

Hepatitis C Virus (HCV) continues to be the most commonly diagnosed notifiable infection in Australia. Since commencement of testing in the early 1990s over 125,000 notifications have been made. During the period 1994 to 1998, the number of notifications for HCV infection in the 15 to 19 age group tripled, suggesting high levels of HCV transmission among young people who inject drugs (*HIV/AIDS, HCV and Sexually Transmitted Infections in Australia, 1999*). Young Indigenous Injectors are definitely at risk of HCV infection.

There is also clear evidence of HIV infection in some Indigenous communities – including rural, remote and urban communities. There have been some Acquired Immune Deficiency Syndrome (AIDS) related deaths within these communities (*Brady, 1992*).

Faced with the threat of HCV and HIV, it is essential that the risk behaviours around injecting drug use are reduced or eliminated, although the latter may not be possible. Without a reduction in these risk behaviours - the health status of Indigenous Australians will deteriorate even further (*Fox, 1999*). Injecting drug use, and drug use in general may complicate a general picture of relatively poor health among Indigenous Australians (*Shoobridge, 1997*).

On a positive note, Brady (*1992*) reported that Indigenous Australians in the teenage and early adult years are the healthiest of all of the age groups. Although this is a generalist statement, perhaps this is a foundation upon which Aboriginal health workers, community workers, educators, allied health professionals, communities and families can base their work with Indigenous young people.

2.2 Indigenous Australians and Injecting Drug Use

The use of illicit drugs by Indigenous young people is just one facet of the overall use of these substances by Australians (*Brady, 1992*). Although issues around the excessive use of alcohol, tobacco and marijuana by Indigenous Australians have been well documented, an area that has had relatively little attention is the use by the Indigenous community of other illicit drugs; especially the injection of these substances (*Gracey, 1997; Fox, 1999; Perkins, 1994; Protecting the Community 1995; The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 1997 and 1999*).

The author of this paper refers to heroin, cocaine, amphetamines, steroids, LSD, ecstasy and any prescription drugs used for non-medical purposes as illicit drugs. Authors of a number of papers have used the terms “hard drugs” for illicit drugs and “soft drugs” for alcohol, tobacco and marijuana. These terms can be misleading, as data shows alcohol and tobacco are the drugs currently doing the most damage to the health of Indigenous Australians (*The Health and Welfare of Australia’s Aboriginal and Torres Strait Islander Peoples, 1999*).

The National Drug Strategy: Household Survey (1994) found a higher prevalence of lifetime and past year illicit drug use among urban Indigenous Australians compared to the general population. Fox (1999) found that the injection of drugs was more widespread in the Indigenous community. Nearly 50% of Indigenous Australians have smoked marijuana, and 19% have tried another illicit drug compared with 16% of the general population (*National Drug Strategy: Household Survey, 1994*).

Although the National Drug Strategy: Household Survey (1994) reported that rates among Indigenous people are marginally higher for non-medical use of tranquillisers, analgesics, inhalants and opiates, rates were found to be marginally lower for use of cocaine and designer drugs (ecstasy, LSD) when compared to the general population.

A number of studies have found that injecting drug use is more prevalent within urban Indigenous communities than in rural Indigenous communities (*Brady, 1992; National Drug Strategy: Household Survey, 1994*). Therefore, most studies on injecting drug use within Indigenous communities have been conducted in urban areas. This is important information for researchers as two thirds of Australia’s Indigenous community live in urban areas (*Gracey, 1997*).

There is a perception that the use and injection of illicit drugs by urban Indigenous Australians is increasing and Indigenous communities are concerned (*Edwards, 1999; Larson and Currie, 1995; Shoobridge, 1997*). Indigenous Australians are more likely to become regular users of these drugs and develop dependency issues (*Shoobridge, 1997*).

Although there is a dearth of research in the area (*Hando et al, 1998*), a number of studies have looked at the needs of Indigenous injectors (*Bardsley, 1995; Edwards et al, 1999; Eldridge, 1997; Larson, 1996; Larson et al, 1997*). The studies do provide both qualitative and quantitative data and are useful tools for any workers in this area. There are similarities between some of the studies and these are discussed in Section Three.

These studies have had relatively small sample sizes and have focussed on individual regional areas, towns or cities. It may be argued that this hinders the reliability of data and information reported. We must note however, that the targeting of injecting drug users is extremely difficult due to the complex nature of IDU especially within Indigenous communities, therefore, limiting the sample sizes of such studies (*Hando et al, 1998*).

3. Major Themes

3.1 The lack of research into IDU in Indigenous communities

“Despite growing concern and indirect evidence, there is little information on the extent or nature of injecting drug use by Indigenous people” (Larson et al., 1999).

Many authors have reported a scarcity of information on injecting drug use within Indigenous communities (Brady, 1992; Fox, 1999; Shoobridge, 1997; Hando et al, 1998; Larson and Currie 1995; Perkins, 1994). Only recently have attempts been made to gather data on this subject. Many studies have been conducted on the general IDU population. Unfortunately, these studies have included too few Indigenous Australian respondents to reliably estimate their drug use (Hando et al, 1998).

There is remarkably little published information about drug use by Indigenous Australians, other than alcohol and tobacco. Only a small number of services around Australia have addressed the issue of injecting drug use in Indigenous communities and virtually no research has been done.

This is despite the expressed concern by Indigenous communities that disease prevention activities need to take a high priority. “Everyone knew too well that continuing to just treat sores and diseases would have only a limited impact on Aboriginal health without disease prevention strategies” (Crawshaw and Thomas, 1993).

Prevention of blood borne viruses and unsafe injecting practices within Indigenous communities remain an area of high priority for research (Cotton and Lowe, 1999). In their report, “Hepatitis C, a Review of Australia’s Response”, it is clearly identified that research is required if best practice models are to be developed. They recognised the important role of social research in improving the delivery and design of interventions.

Brady (1992) suggested that while epidemiologists and medical researchers frequently allude to “socio-cultural” factors having a profound impact on the health of Indigenous Australians, their studies rarely analyse these factors. Fortunately, a number of studies have attempted to address these issues (Edwards et al, 1999/Eldridge, 1997/ Larson et al, 1997). Socio-cultural issues remain a high priority area for research.

Perkins et al (1994) reported that exploration needs to be particularly targeted towards the regional differences in substance abuse. This assertion is supported by Fox (1999) who raised concerns that Indigenous people are often treated as an homogenous group, “regional data remains very limited”. Perkins (1994) goes on to say “no methodologically sound information on the use of licit and illicit drugs is available for Aborigines living in urban areas”.

Lennings (1996) supports these authors, finding that data on the practices of “at risk” youth only exists for small samples and is of questionable reliability, representing a significant research gap in current Australian practice.

The difficulty of obtaining large sample sizes of IDUs should not be underestimated. Issues around shame and the illegality of IDU are important factors (Hando *et al*, 1998). Only by combining the findings of these small regional studies can we start to identify national trends.

Two studies (*HIV/AIDS, HCV and STDs in Australia: Annual Surveillance Report, 1999 and The Health and Welfare of Australia’s Aboriginal and Torres Strait Islander Peoples, 1999*) have reported difficulties around the recording of information on the Indigenous status of respondents. This has been identified as one of the major issues facing the quality of data in relation to research in this area.

A number of other issues have been identified as in need of research and although listed in this section, they will not be completely covered in this review. These include the relationships between leisure boredom, homosexuality, unemployment, suicide and illicit drugs; assessment of drug and alcohol treatment services (in relation to Indigenous Australians); and implications of poly-drug use.

3.2 Why do young Indigenous Australians inject illicit drugs?

As early as 1992 and probably prior to that, authors were reporting that Indigenous young people were injecting drugs (Brady, 1992). Recent studies have supported this assertion. A number of studies have reported an increase in the numbers of Indigenous young people who are injecting.

There are many factors that contribute towards the injection of illicit substances, however when the users are Indigenous people a range of other social, historical and cultural influences are perceived to be involved (Brady, 1992). By adding youth to this equation we confuse an already complex picture of injecting in Indigenous communities.

The concept of youth featured as a theme in a number of *studies* (Edwards *et al*, 1999; Eldridge, 1997; Larson and Currie, 1995.) The United Nations define young people as those who are aged between 10 and 24 (*Young People’s Health – a challenge for society, 1986*). It would be simple for researchers if they could treat young people as a homogenous group. In reality, the concept of youth varies across cultures and ethnicities. (Bessant *et al.*, 1998).

Indigenous Australians are a young group of the population. Using ABS 1986 Census results, Brady (1992) reported the proportion of Indigenous Australians under age 30 was 72%. This contrasted with the figure of 48% for the wider community. This shows a disproportionate number of young people within the Indigenous community.

Much of the focus on Indigenous young people in the late twentieth century has been negative. Brady (1992) “An issue which has dominated much of the medical and social attention on young Aborigines has been their drug use, specifically the

deliberate inhalation of petrol fumes”. This image of Indigenous young people serves to further alienate these young people.

Edwards (1999) reported that after a long history of violence and abuse towards Indigenous people, which has had profound effects on the whole community; drugs are taken as a way of dealing with the pain both emotional and physical. Other factors in this drug use are employment/educational status, lack of leisure activities and family breakdown (Perkins, 1994). Like other Australians however, some young people use a variety of drugs in order to alter their mood and have fun (Brady, 1992).

A strong relationship has been found to exist between drug use, delinquency and suicide (Lennings, 1996). There is an important association between, crime, illicit drug use and street presence. This is dramatically highlighted by the unacceptably high risk of suicide or self harm in delinquent young people who are affected by illicit drugs.

3.2.1 Youth and Experimentation

It is well established that the period of youth is a time of experimentation. Whether or not Indigenous young people are engaging in high risk behaviours at a greater rate than non-Indigenous young people is open to debate. There is however, significant cause for concern.

As previously discussed, a number of studies have reported finding young Indigenous people who are injecting drugs (Roberts, 1998). A small number of young Indigenous people have accessed HINT for clean needles and syringes. Larson et al. (1999) reported that the average age Indigenous people first inject is declining. Edwards et al (1999) suggested that with some young injectors it is often because they are experimenting. Experimentation appears to be one of the major risk factors for injecting drug use among young Indigenous Australians.

(Lennings, 1996) found that experimental drug use may be a feature of adolescence, but graduation to severe drug use problems is confined to a minority of adolescents. This would support the evidence that the use of alcohol and illicit drugs is not evenly distributed among Indigenous people as many Indigenous people are abstinent (Brady, 1992). It is this minority group of Indigenous adolescents who are at risk of severe drug use that need to be targeted by harm-minimisation programs.

3.2.2 Leisure Boredom

Other reasons or factors have been put forward as to why young Indigenous people inject drugs. Boredom, or the lack of relevant and affordable recreational facilities or activities has been a common theme among a number of the studies reviewed. Patterson and Pegg (1999) found that the relationship between leisure boredom and excessive drug and alcohol use is an area that is largely ignored, particularly in remote, rural and regional communities. They suggest that this factor may contribute to depression and substance abuse in these communities.

The lack of mentally and physically stimulating leisure activities has been identified as a risk factor for illicit drug use in young people by a number of *papers* (Lennings, 1996; Patterson and Pegg, 1999). Family and community issues are discussed in section 6.4.

We should also remember the decline of traditional economic roles for Indigenous young people (due to secure food supplies and a move to an urban environment). This has allowed the period of youth to be expanded and has therefore coincided with a reduction in close one to one contact between mature adults and younger people (Brady, 1992). Young Indigenous people now have a lot of spare time on their hands.

Edwards (1999) supported this assertion with the finding that some young Indigenous people used drugs “simply because they are bored or have nothing to occupy their time.” It can be argued, therefore, that young Indigenous IDUs with high levels of leisure boredom seek to achieve higher levels of arousal and are more likely to decrease leisure boredom through the use of illicit substances (Patterson and Pegg 1999).

3.2.3 Peer Group Issues

Another common factor in IDU by young Indigenous people is the peer group. The nature of the peer group is inextricably inter-woven into the issue of leisure boredom, as young Indigenous people have more time on their hands, they spend it together (Brady, 1992). Brady suggested that the peer group is in fact a refuge from parental criticisms and expectations.

Fox (1999) reported that peer pressure was a risk factor for injecting drug use. Edwards et al. (1999) also found that peer pressure was a risk factor. Respondents to that particular study reported being pressured into being involved with risky things.

Larson et al (1997) found that if a young person’s friends smoke or use marijuana, then they are 60-80% more likely to use it as well. If all or even just some of their friends use other drugs, then the young person is two and a half times more likely to have tried them.

3.2.4 Lack of Positive Role Models

Some studies reported a lack of role models within Indigenous communities. Difficulties were reported around telling young people to “say no to drugs” as many of the people using drugs were parents, aunties, uncles and elders. In some communities, elders, aunts and uncles are often the dealers (Edwards, 1999). “Within this context, it is unreasonable to encourage children to make their own decision not to try drugs” (Larson et al, 1997).

This lack of positive role models is reinforced by South Australian respondents to one study (Shoobridge, 1997). A number of respondents and service providers described considerable hypocrisy and lack of role models in relation to drug abuse. As a consequence, young Indigenous people reported they had very few reasons to choose not to use drugs or alcohol.

3.3 Risk Factors in Blood Borne Virus Infection

3.3.1 Knowledge of blood borne viruses

The knowledge, or lack of knowledge around blood borne viruses have been themes that are common across a number of studies (*Edwards, 1999; Larson, 1996; Lennings, 1996; Lindsay et al, 1997*). Lindsay et al (*1997*) conducted the second in a series of two intensive studies on this issue carried out in Australia.

The findings of this study are encouraging, although possibly misleading, showing that secondary students have shifted towards safer sex practices. Unfortunately for Indigenous Australians, the proportion of Indigenous young people was extremely small (less than 3%), and is therefore unreliable when attempting to ascertain knowledge levels of this group of young people. The study focussed little attention towards the issue of injecting drugs, as its main focus was sexual health.

Another important finding of this study was poor knowledge around HCV. Many national campaigns have responded to the HIV crisis, however, it is only recently that the threat of HCV infection is being taken seriously by State/Territory or Federal Parliaments (*Cotton and Lowe, 1999*).

The National Drug Strategy: Household Survey (1994) found that heavier users of drugs felt better informed of blood borne viruses. This is supported by the Blood to Blood: Public Health and HCV report (1999), which found that most respondents knew nothing about BBVs when they started injecting. This has potentially dangerous implications for “at risk” young Indigenous people.

It is generally well known that young people underestimate their personal risk of contracting a blood borne virus (*Lindsay et al, 1997; Lennings, 1996*). Lennings (*1996*) reviewed a number of studies and found that “at risk” young people have extremely worrying patterns of experimental drug use that clearly place them at a greater risk of BBVs.

“Getting the hit or fix was the main thing on their minds” (Edwards et al, 1999).

In a study of Victorian Indigenous IDUs, Edwards et al (1999) found that while most community members said they understood the risk of BBVs, they explained that when desperate for the drug, BBVs did not take priority.

3.3.2 High risk injecting practices

This review of literature has revealed alarming trends in relation to the sharing of injection equipment (*Fox, 1999; Larson, 1996; Shoobridge, 1997*). However, although many of these studies focus on the sharing of needles and syringes, they do not focus on the sharing of other equipment such as tourniquets, spoons etc. The sharing of this injecting equipment poses a risk of HCV and to a lesser extent HIV. Therefore,

information around the safe using practices of clients, as reported in some studies, may be irrelevant, as IDUs may be sharing other equipment.

Terminology varies from one document to another. Terms such as IV drug use and injecting drug use can be misleading. IV or intravenous drug use refers only to injection of drugs into the vein. The author has used the term injecting drug user in order to include all injectors, including users of Steroids, which are injected intramuscularly.

In any case, studies show that Indigenous young people are sharing needles and syringes. Shoobridge (1997) reported that half of respondents had shared needles on at least one occasion in the past. Larson (1996) also found a high proportion of sharing in Indigenous young people with a figure of 50 to 60% of respondents reporting that they had shared a needle in the past twelve months. Eldridge (1997) elaborated on this situation, suggesting that young Indigenous IDUs were most likely to have unsafe practices. No comparisons were made with non-Indigenous users rates of sharing. Crofts et al (1996) however reported that these rates of sharing equipment may be higher among IDUs in rural and regional areas both Indigenous and non-Indigenous.

These unsafe injecting practices pose a serious risk to the health of young Indigenous injectors. It appears from the research that young Indigenous IDUs are more likely to inject illicit substances than non-Indigenous young people. They are also more likely to use unsafe practices whilst injecting. The promotion of cleaning needles and syringes is no longer an option as there is evidence that bleach does not kill blood borne viruses (Crofts et al, 1996). Intervention also needs to occur around cleaning routines when injecting (Blood to Blood, 1999).

This situation needs to be addressed as a matter of urgency. "It is dismal to contemplate the possible outcomes from the risky behaviour practiced by Indigenous youth who inject drugs" (Eldridge, 1997).

3.3.3 Unsafe sexual behaviour

Lennings (1996) reported significant associations between illicit drug use and unsafe sex, suggesting that involvement in crime, prostitution and a culture of suicide attempts is apparent. This association between IDU and unsafe sex has been mentioned in a number of studies (Lennings, 1996; NDS: Household Survey, 1994; Brady, 1992). The use of alcohol and other drugs is closely connected with sexual behaviour and practices and is therefore implicated in the prevalence of STDs and HIV/AIDS. Between, 1992 and 1997, the overall rates of HIV infection per capita varied only slightly between Indigenous and non-Indigenous Australians (Proving Partnership, 1999). There were however a higher proportion of heterosexually acquired cases and a higher incidence amongst Indigenous women.

Rates for STDs (other than BBVs) are significantly higher for Indigenous Australians. Indigenous Australians continue to be diagnosed with sexually transmitted diseases at much higher rates than non-Indigenous people (HIV/AIDS, HCV and STD Infections in Australia, 1999).

The Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health (1996) acknowledged that excessive use of alcohol in communities has proven to be a huge barrier to effective BBV/STD prevention. It is essential that unsafe sexual practices are targeted in the context of injecting drug use.

Young Indigenous gay, bisexual and transgender men and women were highlighted as a sub group that were more likely to abuse illicit drugs (*Crofts et al, 1996; National Indigenous Gay and Transgender Project, 1998*). This sub group requires further attention.

3.3.4 Tattooing and piercing as issues

“The issue of adolescents and tattoos is a relatively neglected area of research and intervention...studies indicate that there is an association between having tattoos, increased risk taking and anti-social behaviours” (*Putnins, 1997*). With a relatively high risk of transmission of BBVs during tattooing, this area should be investigated further.

Tattoos and body piercing are often associated with peer group membership and risk taking, particularly among young males (*Putnins, 1997*). Many of the tattoos of young people are crudely executed by the youths or their friends, often whilst under the influence of alcohol or illicit substances. Tattooing is also common in the prison environment and is generally unsafe (*Crofts et al, 1996*). This is an extremely risky practice.

Although tattooing and piercing by young people are risk factors for BBV infection, there is little published research on tattooing and virtually no research around piercing and at risk youth. The majority of studies on IDUs do not focus on tattooing or piercing.

Tattooing and piercing are often associated with the experimentation of young people. Two reports have highlighted the need for interventions around tattooing and piercing (*Blood to Blood, 1999; Crofts, 1996*). The Blood to Blood report suggested that colleges and schools should assist the prevention of BBV infections through education covering body piercing and tattooing.

Putnins (*1997*) identified a causal relationship between tattoos and delinquency. Young people with tattoos are often perceived as delinquent. This labelling serves only to further marginalise and alienate these young people. The relationships between young people, tattooing/piercing and illicit drug use need to be explored.

3.4 Cultural issues and injecting drug use

Some communities are still in denial regarding the incidence of IDU and may be unaware how to address this issue (*Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health, 1996*). This is supported by evidence from the *Statistics on Drug Abuse in Australia (1994)* which reported that only 5% of Indigenous Australians felt that illicit drugs were the most serious problem facing the Indigenous community. With the excessive rates for heart disease, lung disease, cancers and other major illnesses, it is easy to understand why illicit drug use does not take priority.

Edwards et al (1999), however found that almost all Indigenous families have been affected by drug use in some way. Many of the studies around IDU in Indigenous communities have been conducted because some communities believe that the incidence of IDU is increasing.

One of the major cultural barriers to illicit drug education with Indigenous communities is the perception within these communities that illicit drug use is not happening. The community may determine that education about safe using is culturally in-appropriate as they perceive that it serves only to promote drug use. The *Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health (1996)* found that this need for cultural appropriateness may have to be compromised in order for education around these issues to take place.

“There are many factors about being black in Australia which make it especially difficult to reach and help Indigenous injectors” (*Larson and Currie, 1995*). These cultural factors pose barriers to reducing risk behaviour among young Indigenous injectors and this has been highlighted in a number of studies. Authors have reported an urgent need for culturally appropriate interventions (*Perkins, 1994; Protecting the Community, 1995; Edwards, 1999*).

Shyness and shame are common barriers in educating young Indigenous people about sexually transmitted diseases and blood borne viruses. This shame also extends to illicit drug use and Indigenous injectors often stay away from their families (*Edwards et al., 1999*). 16 service providers who responded to Shoobridge (1997) described IDU as a highly stigmatised and a shame thing for both Indigenous users and their families.

Shoobridge (1997) reported an apparent complacency to safer injecting practices related to cultural reasons. Indigenous injectors thought that it was okay to share needles and syringes as they would share other belongings. Edwards et al (1998) supported this, reporting that the concept of sharing, a central part of Indigenous family life, has become distorted and is sometimes used as an excuse for encouraging others to use drugs.

Safer sex and safer using campaigns can also be seen by Indigenous users as more of white man's impositions (*Shoobridge, 1997; Report on Aboriginal and Torres Strait Islander Forum on Sexual Health, 1996*). These studies also point to some Indigenous IDUs who see HIV/AIDS and HCV as white man's diseases, and that they are invincible to them.

Low income levels, common among Indigenous communities may also be a factor. Many IDUs deal drugs in small amounts, often to support their own habit. In poor communities, extra money made through this dealing can be of assistance to families. (*Edwards, 1999*). This is an important factor in the context of abstinence based programs and the illegality of illicit drugs.

Delegates to the Aboriginal and Torres Strait Islander Forum on Sexual Health (*1996*) reported that young Indigenous people in big cities such as Sydney and Darwin were developing their own sub-cultures by turning to all things American. Delegates suggested that these young people were hard to reach, as they are turning their backs on their own culture and its values.

Addressing this move away from Aboriginal cultural values should be a priority of any service providers working with at risk Indigenous youth. Edwards et al (*1999*) reported a need for a holistic approach based on strengthening culture. This concept of strengthening culture has also been supported by conferences held by Indigenous communities aimed at addressing these issues (*Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health, 1996; Aboriginal Drug and Alcohol Conference, 1993*).

The Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health (*1996*) gave one example of how traditional cultural values can be maintained whilst providing education around illicit drug use. If information is given to the communities elders first, traditional law then has its place again. This also maintains oral traditions.

The importance of cross-cultural training for non-Indigenous service providers has been stressed in a number of reports (*Perkins, 1994; Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health, 1996*).

For education or prevention interventions to be effectively implemented with this target group it is essential that cultural considerations are taken into account. The Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health (*1996*) stressed that a number of factors need to be taken into account, including the nature of the community, languages spoken and the significance of men's and women's business.

Although Indigenous identity is an important part of the lives of Indigenous young people, three quarters of respondents to one study (*Larson et al, 1999*) said that at least half of their friends were non-Indigenous. It can be suggested that campaigns that are effective in reducing drug use among non-Indigenous young people may also deter drug use by Indigenous youth.

However, there is some evidence that this move away from Aboriginal cultural values is a factor in the excessive use of illicit substances by young Indigenous Australians and this area is in need of further review.

3.5 The prison system and injecting drug use

Around Australia Indigenous people are over-represented in the prison system, including both juvenile and adult institutions. The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples (1999) provides strong supporting evidence. After a review of government statistics for the year 1997, the report found that 19% of the Australian adult prison population for that year were Indigenous Australians. A staggering 40% of young people in juvenile detention centres were Indigenous.

There is compelling evidence that risk behaviour occurs within the prison system. Crofts et al (1996) refers to this risk behaviour when he makes the suggestion that prisons are an important entry point for HIV into the Australian Indigenous population. This is strongly supported by the Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health (1996) that reported that HIV and HCV transmission among Indigenous prisoners are a serious concern to the Indigenous community.

Brady (1992) also supports this suggestion, reporting that among other social factors which affect risk of infection of HIV, is the high imprisonment rate of Aborigines which places them at high risk of exposure whilst imprisoned, to injecting drug use and/or unprotected sexual activities. Many studies have investigated risk behaviors around IDU within the prison system (Crofts et al, 1996; Loxley et al., 1992). Injecting is known to occur within the adult prison system and to a lesser extent, juvenile detention centres.

The sharing of injection equipment within the prison system is an obvious risk factor in the transmission of BBVs. Many reports have reported that injecting is occurring in both prisons and juvenile detention centres (Shoobridge et al, 1997; Larson and Currie, 1995; Larson, 1996; Report on the Aboriginal and Islander Forum on Sexual Health, 1995). In one study of Indigenous injectors, researchers found that 84% of respondents had been incarcerated (n=25). 57% of these respondents reported that they continued to inject whilst in prison (Shoobridge et al, 1997).

“The drugs available in prisons and detention centres are not only used by people who were experienced users when they arrived.” (Larson, 1996).

Two separate studies of Indigenous injectors, one in Queensland and one in Victoria reported an alarming trend. Both studies had a number of respondents who reported that the first time they injected drugs was within an adult prison or juvenile detention centre (Edwards et al, 1999/Larson, 1996). Tattooing is also common in prison (Crofts et al, 1996).

3.6 Accessing services and information

In comparison to Indigenous Australians in rural and regional areas, urban Indigenous youth have a wide range of health and social services at their disposal. Whether or not these services are appropriate to young Indigenous IDUs is a matter for debate. Brady (1992) spoke to a number of workers from Aboriginal Medical Services and mainstream agencies who felt that young people, particularly young males are not great users of health services. 70% of Indigenous respondents to the National Drug Strategy: Household Survey (1994) reported that they had never sought help in relation to drugs or alcohol from any service.

Aboriginal Medical Services are one example of the services available to Indigenous IDUs. There are obvious benefits to having community controlled health services within marginalised communities, however, there are drawbacks for IDUs. A study of Indigenous injectors in the Brisbane area found that only a quarter of respondents have been to any service and almost nil had attended an Aboriginal Service for a drug related problem (Larson, 1996). This is supported by Shoobridge's (1997) study of South Australian Indigenous IDUs which found that 40% of respondents were too ashamed to attend either mainstream or Aboriginal services.

Why aren't Indigenous injectors attending Indigenous health services? A number of reasons have been put forward. Respondents to Larson (1996) expressed negative opinions about the ability of Indigenous services to deal effectively and sensitively with their drug problems. Complicating this, in a previous study of service providers attitudes to Indigenous IDUs, Larson and Currie (1995) found that all would prefer to refer Indigenous injectors.

Confidentiality is of major concern to Indigenous IDUs. Service providers responding to Eldridge (1997) suggested that young Indigenous people's concerns about breaches of confidentiality deterred use of services. Brady (1992) and Crawshaw and Thomas (1993) further explain this concern by suggesting that the presence of local people as staff can serve to dissuade certain individuals from using the service, for fear that information about them would be disseminated by staff members.

It seems that confidentiality may not be as much an issue as a concern that they will have to tell an Aboriginal Health Worker they know personally that they are an IDU. Edwards et al (1999) suggested that Indigenous Australians may prefer to access mainstream services for drug related problems because they are simply too shamed to ask Indigenous services for help.

Shoobridge (1997) also found that Indigenous IDUs were generally reluctant to frequent local Needle Exchange Programs. This is again supported by Larson (1996) who found that 60% of the respondents less than 16 years old had not been to a chemist or needle exchange for new equipment. "Younger and less experienced users are most likely to say they got supplies from friends" Larson (1996).

The concept of youth can also serve as a barrier to service provision. Some young people may not identify as young people for cultural reasons or environmental reasons, and therefore will not access youth services. This is highlighted by Eldridge (1997); “it appeared that because of the fact that he has already been in and out of detention centres he could be eligible for the “big house” so, this young man appeared to have some confusion on understanding the definition of youth”. Some young people simply do not associate the term youth as applying to them.

The lack of culturally appropriate and relevant information has been a major theme across the research although no researchers have defined the term “culturally appropriate.”

Indigenous IDUs have reported that they need more information on drugs (*Edwards et al 1999*). Many Indigenous IDUs have never received leaflets or other printed material about safe using (*Eldridge, 1997*). Much of the printed material does not take into consideration the poor literacy and numeracy levels of some Indigenous Australians.

Many services have been established to assist Indigenous Australians through alcohol related problems. Unfortunately, the issue of illicit drugs in Indigenous communities has been offered little attention. There are no Indigenous specific programs for IDUs in the Darwin area and research indicates that this is the case around Australia. “It is safe to say that both treatment and counselling services are almost non-existent for Indigenous Australians in all age groups” (*Brady, 1992*).

The fact that Aboriginal Health services and mainstream services are under-utilised by young Indigenous IDUs suggests considerable ambivalence towards these services. There is however, still an opportunity for services to win the trust of users (*Eldridge, 1997*).

4. The Snapshots: a look at injecting drug use in the Darwin Indigenous community

Research has been conducted on injecting drug use issues in Darwin generally. One report, Bardsley (1996) looked at the needs of IDUs in the Darwin area. The sample size was relatively small however (n=30), and the majority of the research was conducted with service providers rather than consumers. Most of the reliable research has been conducted as part of national studies of needle exchange users. These studies have been conducted on an annual basis.

As a data collection point for this national process, and the major provider of clean needles and syringes to Darwin injectors, the HINT project of the Northern Territory AIDS Council is well placed to develop a snapshot or picture of what is happening within the Darwin IDU community. Four such snapshots have been conducted. The first of these (Roberts 1998¹) was conducted in late 1997 during the wet season. A follow up to this study was conducted during the dry season to identify any variations in injecting behaviour (Roberts, 1998²). Studies have continued annually with Roberts (1998³) and Roberts (1999).

All of these studies have been conducted with the same methodology and the same researcher. The only variations in methodology for these studies has been the inclusion of a study during the wet season and the reduction of the survey time from two weeks for the first three studies to one week in the final study.

During the survey week, all clients who access the needle exchange are asked to participate in the survey. If they agree to participate in the survey they are taken into another room for confidentiality reasons, have a sample of blood taken (using finger prick method) and are asked a series of questions by the researcher. After completion of the survey, they are paid \$5 to cover expenses and are provided with information on safe using and services available.

The studies only provide a picture of IDUs who are accessing the needle exchange service of HINT. No information can be collected on IDUs who are not accessing HINT and may be accessing chemists for fitkits or not accessing clean needles and syringes at all

However, the snapshots do provide a reliable picture of IDU in Darwin. The number of respondents remains steady, around 100 per study. Response rates are always around 50% with a 60% response rate in the fourth study. These response rates may appear low, however there are a number of factors that negate this. The nature of IDU itself and the associated stigma are a major hurdle for researchers. It can also be suggested that IDUs presenting at the needle exchange may not have had the time to participate in the survey at that particular time.

¹ A Snapshot of HINT Clients – Conducted Wet Season 1997

² Snapshot 2: The Dry – Conducted Dry Season 1998

³ Snapshot 3 – Conducted Wet Season 1998

In any case, a response rate around 50% for this target population is a good result, especially in the context of Hando et al (1996), who reported on the many difficulties faced by researchers in this area.

In this section, the author will discuss the overall results of the surveys and will identify any commonalities in the results. A discussion on the Indigenous respondents of these surveys will follow.

4.1 Summary of Snapshot Results

All of the snapshot studies have had relatively good samples in a sense that they are reflective of the wider injecting community as a whole. There have been a decent proportion of young people responding to the study and even proportions of males and females participated.

By far the majority of respondents reported that they have been injecting for over eleven years. Morphine was the drug reported to have been injected by the majority of respondents at around 70% of IDUs in each of the studies. Speed was the next most injected drug. To a lesser extent, other drugs were reported to be injected; speed, steroids and prescription drugs. Dexamphetamine, Ritalin, Valium and Temazepam were all reported to have been injected by a minority of respondents.

A significant variation occurred in the fourth snapshot, where a 12% of respondents reported heroin as the last drug injected.

The last drug injected may not however, be the drug of choice for most respondents. Heroin is by far the drug of choice as reported in all four studies (57 to 72% of respondents). Amphetamines were the next drug of choice, with only a minority (less than 10%) of respondents reporting Morphine as their drug of choice.

In the first three studies, over 60% of respondents reported injecting at least once per day. By the fourth snapshot, 87% of respondents were reporting that they injected at least daily. In all of the snapshots, a majority (over 75%) of respondents reported that they had used a new needle and syringe for every injection during the previous month. This possibly reflects the nature of clients of the HINT project. By accessing the service, the IDUs are acknowledging the dangers of BBVs and are addressing these. However, a minority of respondents, who are accessing HINT, are still sharing injecting equipment.

Respondent's knowledge of the threat of blood borne viruses seems high and this may be a further reflection of the benefit of the needle exchange system. Over 80% of respondents in all of the studies had been previously tested for HIV or HCV.

The proportion of respondents who have tested positive to HCV is similar to the national picture, with 45% of respondents reporting Hep C positive in 1997 and early 1998. There has been a reduction in the proportion of Hep C positive respondents with only 35% reporting Hep C positive status in late 1998 and 1999. The proportion

of HIV positive respondents is also in line with national data, with an average of 5.65% over the four studies.

4.2 Indigenous Injectors in Darwin: Discussion

The snapshots provide us with a picture of Indigenous injectors who are accessing the needle exchange service. They do not provide an estimation of the numbers of Indigenous injectors. An average of 13% of respondents to the snapshot studies identified as Indigenous (see Table 4.1). This figure is closer to the percentage of Indigenous clients who access HINT on a daily basis (Roberts, 1998). It must be noted however that these percentages only represent around ten (10) Indigenous injectors per study.

Table 4.1 Indigenous Respondents of Snapshot studies

Year of Snapshot	Percentage of Indigenous Respondents
Wet Season 1997	9.18%
Dry Season 1998	13.95%
Wet Season 1998	13.22%
Wet Season 1999	15%

Source: Roberts 1998 1,2 & 3 and Roberts 1999

There are no reliable estimates of the extent of injecting drug use amongst Indigenous people in Darwin. Bardsley (1996) conducted a needs analysis of injecting drug users in Darwin on behalf of the Alcohol and Other Drugs Program of Territory Health Services. Only a small number (n=30) of injectors were interviewed and the majority of the research focussed on discussions with service providers.

Nonetheless, the author of this study estimated that 30-40 Indigenous people living in Darwin are injecting drug users. "There has been evidence in the past of Aboriginal people injecting drugs, this evidence has comprised of a small number of deaths due to heroin overdose" (Bardsley, 1996).

Injecting is obviously occurring within the Darwin Indigenous community. There is a need for further research into this area as there is currently no picture of what is happening for Indigenous IDUs who are not accessing HINT. These IDUs are at risk of infection with a blood borne virus.

Of the Indigenous IDUs who are accessing HINT, we have a good picture of use patterns. All of the snapshots have required details of respondents Indigenous status. The final three snapshots provide a discussion of Indigenous respondents.

The majority of Indigenous respondents in all of the studies have been tested for HIV/HCV and Hepatitis B, again reflecting the higher knowledge levels of the HINT consumers. Precedence rates for BBVs among the Indigenous respondents are in line with those of the overall precedence rates of BBVs for all respondents.

Like non Indigenous respondents, the majority of respondents inject at least daily with the remainder injecting weekly. A smaller number of drugs are reported to be injected by Indigenous respondents. Steroids are not reported by Indigenous

respondents in these studies. Morphine, amphetamines and Ritalin are the drugs reported as injected by Indigenous respondents, with morphine injected by the majority. The majority of respondents report heroin as their drug of choice followed by amphetamines.

The difficulty in accessing heroin in Darwin is a factor in the discrepancy between the respondents last drug injected and their drug of choice.

A breakdown of the ages of Indigenous respondents to Roberts (1999) showed that the average age of Indigenous respondents was 33. The youngest respondent was 19 years old and the youngest reported age of first injecting was 10 years old. The majority of respondents were over 25 years of age. This could mean two different things; that young Indigenous people in Darwin are not injecting drugs or; that young Indigenous young people are injecting but are not accessing HINT and therefore not accessing clean equipment. Again, these studies only represent a small number of Indigenous respondents. Further investigation is necessary.

5. Acknowledgments

The author would like to thank all persons and agencies that submitted information to this review. In particular, thank you to:

Bernadette Light	Danila Dilba Medical Service
Charles Roberts	HINT Project
Lorna Murakami-Gold	Danila Dilba
Dr David Thomas	Danila Dilba
Ronald Macdonald	Murdoch University (WA)

Finally, without the assistance of Cherise Daiyi Customer Service Officer, Danila Dilba, this review would never have been completed on time.

6. Glossary

AIDS	Acquired Immune Deficiency Syndrome
BBV	Blood borne virus
IDU	Injecting drug user: this term includes all persons who administer drugs to themselves using needles and syringes.
HINT	Health for Injectors of the Northern Territory. A project of the Northern Territory AIDS Council.
HIV	Human Immuno-deficiency Virus
STD/s	Sexually transmitted disease/s

7. Bibliography

1. Aboriginal Drug and Alcohol Conference: Conference Report. (1993). Nowra: Shoalhaven Drug and Alcohol Committee.
2. Bardsley L. (1995). Meeting the Requirements of Injecting Drug Users in Darwin. Darwin: Alcohol and other drugs program – Territory Health Services
3. Bessant J, Sercombe H and Watts R. (1998). Youth Studies: an Australian Perspective. Melbourne: Longman.
4. Brady M. (1992). The Health of Young Aborigines: A Report on the Health of Aborigines aged 12 to 25.Hobart: National Clearinghouse for Youth Studies.
5. Blood to Blood: Public Health and HCV. (1999). Canberra, ACT: Assisting Drug Dependents Incorporated.
6. Cotton R & Lowe D. (1999). HCV: a Review of Australia's Response. Canberra: AGPS.
7. Crawshaw J and Thomas D. (1993). It's Not Enough to Know About Diseases. Darwin: Danila Dilba Biluru Binnilutlum Medical Service.
8. Crofts N, Webb-Pullman J and Dolan K. (1996). An Analysis of Trends Over Time in Social and Behavioural Factors Related to the Transmission of HIV Among Injecting Drug Users and Prison Inmates. Canberra: AGPS.
9. Edwards G, Frances R and Lehman T. (1999). Injecting Drug Use Project. Melbourne: Victorian Aboriginal Health Service Co-operative.
10. Eldridge C. (1997). Improving Health Services for Indigenous Young People in Inala. Brisbane: Australian Centre for International and Tropical Health and Nutrition.
11. Fox W. (1999). Tobacco, Alcohol and Illicit Drugs: Patterns of Use and Harms Within the Aboriginal and Torres Strait Islander Populations in Queensland. Brisbane, Qld: Alcohol, Tobacco and Other Drug Services, Queensland Health.
12. Gracey M. (1997) Substance misuse in Aboriginal Australians. Addiction Biology.3, 29-46.
13. Hando J, Hall W, Rutter S and Dolan K. (1998) Setting a Research Agenda on Illicit Drugs in Australia: Scoping document for the National Health and Medical Research Council. Sydney: National Drug and Alcohol Research Centre.
14. The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples. (1997). Canberra: AGPS.

15. The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples. (1999). Canberra: AGPS.
16. HIV/AIDS, HCV and Sexually Transmissible Infections in Australia: Annual Surveillance Report. (1999). Sydney, NSW: National Centre in Epidemiology and Clinical Research.
17. Larson A. (1996). What Injectors Say About Drug Use: Preliminary Findings From a Survey of Indigenous Injecting Drug Users. Brisbane: Australian Centre for International and Tropical Health and Nutrition.
18. Larson A, and Currie D. (1995) Injecting Drug Use by Indigenous People in Brisbane: Perspectives of service providers and the community. Brisbane: Australian Centre for International and Tropical Health and Nutrition.
19. Larson A, Shannon C, Brough M and Eldridge C. (1997). Indigenous Youth, Alcohol and Other Drugs. Brisbane: Australian Centre for International and Tropical Health and Nutrition.
20. Larson A, Shannon C and Eldridge C. (1999). Indigenous Australians Who Inject Drugs: Results from a Brisbane study. Drug and Alcohol Review.18,53-62.
21. Lennings C. (1996) Adolescents at risk: Drug use and risk behaviour: Queensland and national data. Youth Studies Australia v15 no.2, 29-35.
22. Lindsay J, Smith A and Rosenthal D. (1997). Secondary students, HIV/AIDS and Sexual Health. Carlton, Australia: La Trobe University, Centre for the study of Sexually Transmitted Diseases.
23. Loxley W, Marsh A, Vawks D and Quigley A. (1992). HIV Risk Behaviour Among Injecting Drug Users in Perth: the Australian National AIDS and Injecting Drug Use Study. Medical Journal of Australia v156. 687-692.
24. The National Drug Strategy Household Survey: Urban Aboriginal and Torres Strait Islander Supplement. (1994). Canberra: AGPS
25. The National Indigenous Gay and Transgender Project: Consultation report and Sexual Health strategy. (1998). Sydney: Australian Federation of AIDS Organisations.
26. Nu-Hit (1993). Adelaide: AIDS Council of South Australia.
27. Patterson I and Pegg S. (1999). Nothing To Do: The Relationship Between Leisure Boredom and Alcohol and Drug Addiction: Is There a Link to Youth Suicide in Rural Australia. Youth Studies Australia v18 no.2, 24-29.

28. Perkins J et al. (1994) The Prevalence of Drug Use in Urban Aboriginal Communities. Addiction Journal 89, 1319-1331.
29. Protecting the Community: Report of the Task Force on Drug Abuse v1. (1995). Perth, WA: Government of Western Australia.
30. Proving Partnership: Review of the National HIV/AIDS Strategy 1996-97 to 1998-99. (1999). Canberra, ACT: AGPS.
31. Putnins A. (1997) "At Risk" Youth and Tattoos. Youth Studies Australia v16 no.2 13-15.
32. Report on the Aboriginal and Torres Strait Islander Forum on Sexual Health. (1996). Canberra: AGPS.
33. Roberts C. (1998). A Snapshot of HINT Clients. Darwin: Northern Territory AIDS Council.
34. Roberts C. (1998). Snapshot 2: The Dry. Darwin: Northern Territory AIDS Council.
35. Roberts C. (1998). Snapshot 3: The 1998 Wet. Darwin: Northern Territory AIDS Council.
36. Roberts C. (1999). Snapshot 4: The 1999 Wet. Darwin: Northern Territory AIDS Council.
37. Shoobridge J. (1997). The Health and Psychological Consequences of Injecting Drug Use in an Aboriginal Community. Proceedings of the 1997 National Centre for Education and Training on Addiction seminar. Adelaide: NCETA.
38. Shoobridge J et al. (1997). Drug Interactions: Lifestyle, Culture and Gender. Proceedings of the 1997 Winter School in the Sun conference(pp 227- 238). Adelaide: NCETA.
39. Statistics on Drug Abuse in Australia 1994. (1994). Canberra: AGPS.
40. Young People's Health: A Challenge for Society. (1986)Geneva: World Health Organisation.