Drug use among Aboriginal and Torres Strait Islander peoples

An assessment of data sources

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Abbreviations

ABS	Australian Bureau of Statistics
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
ALSWH	Australian Longitudinal Study on Women's Health
AODTS–NMDS	Alcohol and Other Drug Treatment Services National Minimum Data Set
ASGC	Australian Standard Geographic Classification
ASSAD	Australian Schools Students Alcohol and other Drug Survey
BEACH	Bettering the Evaluation and Care of Health survey of general practice activity
BTOM–C	Brief Treatment Outcome Measure–Concise
CATI	Computer-assisted telephone interview
CAYLUS	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database
CSTDA–NMDS	Commonwealth–State/Territory Disability Agreement National Minimum Data Set
DASR	Drug and Alcohol Services Report—annual data collected from Australian Government funded Aboriginal and Torres Strait Islander substance use specific services
DoHA	Australian Government Department of Health and Ageing
DUCO	Drug Use Careers of Offenders
DVA	Australian Government Department of Veterans' Affairs
DUMA	Drug Use Monitoring in Australia
FaCSIA	Australian Government Department of Families, Community Services and Indigenous Affairs
GCS	General Customer Survey
GP	General practitioner
GSS	General Social Survey
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HILDA	Household, Income and Labour Dynamics in Australia
HIV	Human immunodeficiency virus
IDIS	Indigenous Drug Injectors Study (South Australia)
IDDR	Illicit Drug Data Report
IDRS–IDU	Illicit Drugs Reporting System–Injecting Drug Users
IDRS–PDI	Illicit Drugs Reporting System–Party Drug Initiative
IDU	Injecting Drug User
IGCD	Intergovernmental Committee on Drugs
KHLS	Kids Help Line Statistics
LDS	Longitudinal Data Set 1% Sample
LSAC	Longitudinal Study of Australian Children

LSIC	Longitudinal Study of Indigenous Children
MCDS	Ministerial Council on Drug Strategy
NACCHO	National Aboriginal Community Controlled Health Organisation
NAGATSIHD	National Advisory Group on Aboriginal and Torres Strait Islander Health Data
NAPEDCD	National Non-admitted Patient Emergency Department Care Database
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSIS	National Aboriginal and Torres Strait Islander Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NCIS	National Coroners Information System
NCMHCD	National Community Mental Health Care Database
NCSDD	*National Community Services Data Dictionary*
NDSHS	National Drug Strategy Household Survey
NHDD	*National Health Data Dictionary*
NHMD	National Hospital Morbidity Database
NHS	National Health Survey
NIDAC	National Indigenous Data and Alcohol Committee
NMD	National Mortality Database
NMDS	National Minimum Data Set
NOPSAD	National Opioid Pharmacotherapy Statistics Annual Data collection
NPC	National Prisoner Census
NPCS	National Police Custody Survey
NPDC	National Perinatal Data Collection
NPEBVS	National Prison Entrants' Bloodborne Virus Survey
NRMHCD	National Residential Mental Health Care Database
NSMHW (C & A)	National Survey of Mental Health and Wellbeing (children and adolescents)
NSMHW (psychotic)	National Survey of Mental Health and Wellbeing (low prevalence (psychotic) disorders)
NSP	Australian Needle and Syringe Program Survey
NSW MDS-DATS	New South Wales Minimum Data Set for Drug and Alcohol Treatment Services
NSW–IHS	New South Wales Inmate Health Survey
NSW–PHS	New South Wales Population Health Survey
NT PDSDB	Northern Territory Police Drug Seizure Data Base
OATSIH	Office for Aboriginal and Torres Strait Islander Health
PDU	Party drug users
QLD–WPHS	Queensland Women Prisoners' Health Survey
SAAP–NDC	Supported Accommodation Assistance Program National Data Collection
SAR	Service Activity Reporting—annual data collection from Australian Government funded Aboriginal and Torres Strait Islander primary health care services
SCATSIH	Standing Committee on Aboriginal and Torres Strait Islander Health

SDAC	Survey(s) of Disability, Ageing and Carers
SLA	Statistical Local Area
SOMIH	State Owned and Managed Indigenous Housing
VIC-PHS	Victorian Prisoner Health Study
WAACHS	Western Australian Aboriginal Child Health Survey
YACR	Youth Alcohol Consumption Research, formerly the National Alcohol Campaign tracking research
YPiCHS	Young People in Custody Health Survey

Summary

Background and project methodology

The Australian Institute of Health and Welfare was commissioned by the Australian Government Department of Health and Ageing, on behalf of the Ministerial Council on Drug Strategy, to identify and report on the current state of data collections relating to substance use issues for Aboriginal and Torres Strait Islander peoples in Australia, and set out options for improving these data. The report achieves this by reviewing relevant data sources, highlighting inconsistencies between them and identifying data gaps. Data sources are assessed in terms of their capacity to answer a series of key questions, highlighted both by stakeholders through a workshop and by a literature review. While options are suggested for new analyses of existing data sources, this project does not involve analysing the data sources to answer these key questions.

An analytical framework is used throughout the report to organise the contextual information relating to Indigenous substance use. The five domains of the framework are intended to capture:

- contemporary patterns and trends in the use of tobacco, alcohol and other drugs
- the contextual factors associated with substance use *and* non-use, including exposure to preventive initiatives
- recognised harms associated with tobacco, alcohol and other drug use
- intervention and treatment services currently operating to assist Aboriginal and Torres Strait Islander peoples with substance use problems
- estimated expenditure on preventive, intervention and treatment programs and associated services, including health and long-term care.

Throughout this report, the term 'substance use' is used to refer to the use of tobacco, alcohol or other drugs. 'Other drugs' may include both illicit drugs and other drugs used illicitly.

Chapters 2 and 3 contain an overview of the literature review and the stakeholder workshop undertaken to guide the assessment of data sources relating to Indigenous substance use. More comprehensive information on these aspects of the project is included in Appendixes 1 and 2 respectively.

Key questions

The work on the literature review (Chapter 2) and discussions at the workshop (Chapter 3) revealed consistent themes in the types of information required about Indigenous substance use and its associated harms. Drawing on both of these sources, the key questions for the field appear to be about:

- the nature or patterns of substance use among Indigenous substance users (for example, prevalence of substance use, type of substance used, frequency of use, age at first use, geographic variation, risk behaviours)
- the characteristics of Indigenous substance users and their context, including their social context; social participation; influence of and exposure to family functioning and resilience, and family stressors and disruption; and exposure to substance use in the community

- mortality, morbidity and disability among Indigenous substance users
- other associated harms, such as violence, crime, detention, imprisonment and homelessness
- the affordability, accessibility and appropriateness of current approaches for intervention and treatment of substance use in Indigenous peoples
- what is working well in terms of intervention, treatment and prevention, why it is working and what extra measures or initiatives could make a difference
- expenditure relating to treatment and other interventions.

Three main information needs (agreed at the stakeholder workshop) cut across the key questions, namely the need for:

- community-level and individual information
- whole-of-government and cross-sectoral information
- timely information on emerging trends and patterns.

Information currently available

There are difficulties in collecting reliable information about substance use among Australians, particularly in relation to the use of illicit substances, and these complexities and sensitivities are amplified when collecting such information about Aboriginal and Torres Strait Islander peoples, particularly those living in small communities.

Nevertheless, Australia has a relatively large number of data sources that could be further developed and used in combination to provide better understanding of substance use, and contributing contextual factors, among Indigenous people. A total of 44 data sources were reviewed for this project and compared in terms of their methodology and data items (as per the information framework). In brief, the current information landscape includes:

- Indigenous-specific population surveys conducted by the Australian Bureau of Statistics (the National Aboriginal and Torres Strait Islander Social Survey and the National Aboriginal and Torres Strait Islander Health Survey) that collect information about substance use as well as a range of contextual information
- a drug-specific population survey on drug use behaviours and perceptions (the National Drug Strategy Household Survey)
- administrative data collections which describe the characteristics of people accessing mainstream alcohol and other drug treatment services, Indigenous-specific substance use treatment services and a range of other health services (for example, hospitals and general practitioners) and community services interventions (for example, the Supported Accommodation Assistance Program), as well as providing information about the types of services these people receive
- the Western Australian Aboriginal Child Health Survey, which describes the health and social context of Indigenous children, and the Longitudinal Study of Indigenous Children (currently under development)
- other surveys relating to substance use (for example, the Illicit Drug Reporting System–Injecting Drug Users and the Indigenous Drug Injectors Survey, which are surveys of injecting drug users, and the Youth Alcohol Consumption Research, which tracks awareness of the National Alcohol Campaign among young people)

- a range of surveys about the health and substance use patterns of people in custody (for example, Drug Use Careers of Offenders, Drug Use Monitoring in Australia, New South Wales Inmate Health Survey)
- a number of data sources about drug-related arrests and drug seizures (for example, the Northern Territory Police Drug Seizure Data Base and the Illicit Drug Data Report collection).

Extent to which available information answers key questions

Each of the reviewed data sources was developed with a specific purpose, which is reflected in their methodology (including scope and counting rules) and selection of data items. It is not realistic to expect each of these data sources in isolation to meet all of the information needs relating to Indigenous substance use and its associated contextual factors. Rather, it is desirable that, overall, they provide a national picture with, for example, sufficient coverage of relevant population subgroups and geography. Equally important are the comparability of data items and availability of information over time, so that the reviewed data sources can be used as a set to paint a picture of the current situation, trends and emerging issues.

The set of reviewed data sources was assessed in terms of its capacity to answer the key questions identified in Chapter 4. Information gaps were highlighted and then prioritised to those that are considered essential, practical, least burdensome to survey participants and other data providers, and most likely to 'make a difference'. Overall, available data sources on this subject are somewhat inadequate, in that they fail to provide answers to many of the key questions expressed by stakeholders.

Options for improving information

Key options for improving information about substance use among Aboriginal and Torres Strait Islander peoples are summarised here and explained in greater detail in Chapter 7.

1. Continue promoting the fundamental importance of accurate identification of Indigenous status across all data sources, including targeting for attention those data collections that use 'non-Indigenous' as the default response.
2. Improve population estimates of substance use among Aboriginal and Torres Strait Islander peoples by:
    (a) increasing the comparability of the data items in the National Aboriginal and Torres Strait Islander Social Survey, National Aboriginal and Torres Strait Islander Health Survey and National Drug Strategy Household Survey (see also option 3)
    (b) supporting the Australian Bureau of Statistics in developing methodologies to obtain improved estimates of substance use among Indigenous people in rural and remote locations (via the National Aboriginal and Torres Strait Islander Social Survey and National Aboriginal and Torres Strait Islander Health Survey)
    (c) improving the methodology (for example, increasing the sample size for Aboriginal and Torres Strait Islander peoples) of the National Drug Strategy Household Survey to allow better estimates of prevalence of Indigenous substance use and related factors
    (d) supporting efforts to develop prevalence estimates for community populations, based on a community epidemiology approach (see also option 5).

3. Develop a 'drug-specific data module' for use in population surveys (for example, National Aboriginal and Torres Strait Islander Social Survey, National Aboriginal and Torres Strait Islander Health Survey, National Drug Strategy Household Survey), other surveys (for example, corrections-related collections such as Drug Use Monitoring in Australia and Drug Use Careers of Offenders), and administrative data sources (for example, those describing Aboriginal and Torres Strait Islander primary health care and substance use services, mainstream alcohol and other drug treatment services). Such a module would include data standards and counting rules to promote consistency across collections and could include data items relating to substance use, individual characteristics and contextual factors. Such a module could be used at various levels of detail, depending on the purpose. A draft drug-specific data module could be rapidly developed, based on the work done for this report.
4. Improve information about Indigenous people accessing alcohol and other treatment services by:
    (a) working with Aboriginal and Torres Strait Islander primary health care and substance use services to increase the availability of nationally comparable client-level information, for example:
        (i) thoroughly analysing existing data held in these services; and/or
        (ii) developing a national minimum data set based on the contents of current data holdings and future data requirements as expressed by these agencies and other key stakeholders; and/or
        (iii) working towards creating a place for the safe storage and use of client-level data.
    (b) ensuring that data development work in relation to 4(a) includes efforts to routinely collect and collate data on client outcomes, including information about what works and why, and what doesn't work and why not
    (c) ensuring that data development work in relation to 4(a) harmonises, where possible, with national data standards and other administrative data sources relating to substance use treatment (see also option 3).
5. Develop an appropriate methodology for gathering timely information about emerging issues of most relevance to the subject of Indigenous substance use ('environmental scan of emerging issues'). This scan would produce community-level information that could identify local supply and demand issues and risks as well as highlight the characteristics of 'strong communities' versus 'communities at risk'.
6. Bring together available information in innovative ways to provide an overview of substance use among Aboriginal and Torres Strait Islander peoples and its associated harms. Such a report would make the best possible use of the extensive data sources already in place and could address a number of themes raised throughout the report. These themes include the need to disseminate information with content and format suited to a variety of needs, to present community-level information and to publish information about death, disease, comorbidity and disability among Indigenous substance users.

Many of the above options are inter-related. For example, the development of a 'drug-specific data module' (option 3) would assist in improving comparability across data sources (options 2 and 4), and the overview and synthesis of information (option 6) could assist in identifying core data items for inclusion in a 'drug-specific data module'.

1 Introduction

1.1 Purpose of the project

The Australian Institute of Health and Welfare (AIHW) was commissioned by the Australian Government Department of Health and Ageing (DoHA), on behalf of the Ministerial Council on Drug Strategy (MCDS) to identify and report on the current state of data collections relating to substance use issues for Aboriginal and Torres Strait Islander peoples in Australia, and set out options for improving these data. The stated objectives of the project were to:

- identify data needs
- examine existing data sources that may be accessed to provide a picture of Indigenous substance use and resultant impacts across the nation
- inform the best way forward, in terms of the improvement of Indigenous data collections
- explore the feasibility of development of an ongoing Indigenous (drug-specific) survey supplement to existing surveys and
- identify options for new, policy-relevant analyses of existing data sets.

This report thus identifies and reviews relevant data sources, highlights inconsistencies between them, identifies data gaps and makes recommendations about how to improve the availability and usefulness of data on this subject. While options are identified for new analyses of existing data sources, this project does not involve carrying out these analyses.

This report was presented to the MCDS in May 2006. The report findings are expected to feed into a broader National Drug Strategy Data Analysis Project, which aims to identify and analyse the information needed to inform the implementation and measurement of initiatives developed under the National Drug Strategy.

1.2 Project methodology, analytical framework and report structure

The first step in the project methodology was an extensive search of information, including literature, policy statements and information about programs and initiatives (see Chapter 2 for a summary and Appendix 1 for the full literature review). This search provided the contextual background to this report and assisted in identifying a set of preliminary information needs.

These preliminary information needs were subsequently refined into a series of key questions following a stakeholder workshop, held in November 2005. The purpose of the workshop was to highlight key information needs, outline the extent and state of existing data sources, and develop preliminary options for improving data availability and analysis (see Chapter 3 for a summary and Appendix 2 for a more detailed presentation of the discussion). Material from the literature review and the stakeholder workshop were used to outline the key information needs (Chapter 4), against which information sources were assessed (Chapter 5).

The project team assessed a broad range of data sources relating to Aboriginal and Torres Strait Islander peoples' substance use and their associated harms. While most of these data sources come from the health and welfare areas, relevant data sources from areas such as criminal justice, policing and homelessness are also explored where they provide additional information to describe this population and their substance use patterns. Analysis focuses on national collections (both population based and administrative data) that are in the public domain. However, this focus is not exclusive. For example, jurisdiction or local level data sources have been included if they provide relevant and good quality information, or if they provide a good model for collecting data. Information from published research literature and from Indigenous communities was also sought.

Three main steps were undertaken to assess the extent to which key data sources inform the needs of stakeholders:

1. Key data sources were analysed individually in terms of a standard template. This template was designed to gather information on the purpose, scope, content, definitions and methodology of each collection and thereby the extent to which it can address the information needs of stakeholders. The template (Table 5.2) was also designed to identify information in relation to all areas of the five domain framework (Table 1.1).
2. Key data sources were compared and contrasted in terms of their characteristics, as specified in the template in Table 5.2 (for example, their comparability in terms of counting rules and frequency of collection, the consistency with which they define key variables such as Aboriginal and Torres Strait Islander status and substance use).
3. Key data sources were analysed as a set of data sources in terms of their ability to inform key questions and information needs of stakeholders.

An analytical framework is used throughout the report to organise the presentation of contextual information relating to Indigenous substance use, the information needs of stakeholders (that is, key questions), the review of data collections, and the development of future options for improving information in this area. The five-domain framework (Table 1.1) was developed following the literature review and refined following discussions with stakeholders. The framework reflects the key questions identified through these processes.

The five domains of the framework are intended to capture:

- contemporary patterns and trends in the use of tobacco, alcohol and other drugs
- the contextual factors associated with substance use *and* non-use, including exposure to preventive initiatives
- recognised harms associated with tobacco, alcohol and other drug use
- intervention and treatment services currently operating to assist Aboriginal and Torres Strait Islander peoples with substance abuse problems
- estimated expenditure on preventive, intervention and treatment programs and associated services, including health and long-term care.

Throughout this report, the term 'substance use' is used to refer to the use of tobacco, alcohol or other drugs.

Analytical frameworks such as those used in *National Comorbidity Initiative: a review of data collections relating to people with coexisting substance use and mental health disorders* (AIHW 2005e), *A guide to Australian alcohol data* (AIHW 2004a), the conceptual framework for *Australia's health* (AIHW 2004b), the National Health Performance Framework (NHPC 2001), the National Aboriginal and Torres Strait Islander Health Performance Framework (NATSIC 2004a, 2004b) and the *Overcoming Indigenous Disadvantage* framework (SCRGSP 2005), informed the structure of this report and its underlying analysis. The report and framework are also consistent with, and inform, the National Drug Strategy (2004–2009) and the Aboriginal and Torres Strait Islander Peoples Complementary Action Plan (2003–2006).

Chapter 5 presents a detailed comparative analysis of the key information sources identified. Chapter 6 outlines the extent to which these data sources address information needs and identifies information gaps. Chapter 7 presents options of closing these information gaps.

The findings of the report are summarised under four related headings:

1. What are the priority information areas?
2. What information is available?
3. To what extent can existing information answer the key questions?
4. What are the information gaps and how do we fill them?

Table 1.1: Framework for information relevant to the description and understanding of Aboriginal and Torres Strait Islander peoples' substance use

Tobacco, alcohol and other drug use and associated risk behaviours	Context and influences	Associated harms and health status	Intervention and treatment services	Resources
Prevalence of use (including lifetime, current and most recent use) and trends in use Type of substance(s) used (including traditional drugs) and multiple drug use Age when substance(s) first used Frequency of use Amount used Drug paraphernalia/tools Geographic and seasonal variation (in substance use) Monetary expenditure on substances Risk behaviours (e.g. sharing needles)	Demographics (e.g. age, sex, Indigenous status, geographic location) Social context (e.g. living arrangements, residential setting, household composition, income and primary income source) Social participation (e.g. education, employment, recreation) Family and personal context and influences (e.g. influence of, and exposure to, family functioning and resilience, family stressors (e.g. grief) and social disruption (e.g. crime and violence); indicators of emotional and spiritual wellbeing, including connection to land and people; experience of discrimination) Substance use context and influences (e.g. influence of, and exposure to, substance use by family, peer group, community; cultural acceptance of specific substances; availability and opportunity to use substances, patterns of supply and demand, prevention strategies (e.g. community regulations (dry communities, licensing laws), education)	Mortality Comorbidity—actual and associated health conditions, including mental health, and acute morbid states such as overdose Disability (e.g. acquired brain injury, paralysis) Pregnancy and the unborn child Economic impact on individual and community Suicide Homelessness Violence Crime (as perpetrator and victim; crime as a result of use (e.g. violent assault) or undertaken to continue use (e.g. petrol siphoning, theft) Detention and imprisonment	Options (per substance type, per geographic location, per intervention/treatment type) Uptake Affordability Accessibility Appropriateness and cultural acceptability Outcomes of interventions and treatment (evaluation)	Expenditure (direct): preventive programs, intervention and treatment programs and facilities Expenditure (indirect) (e.g. health care, long-term care, incarceration)

2 Background: summary of literature review

There is consensus that a significant substance abuse problem exists among Aboriginal and Torres Strait Islander peoples. The use, and misuse, of alcohol, tobacco and other drugs is influenced by a wide range of socioeconomic and cultural factors, and the effectiveness of methods for preventing or treating this use are sometimes weakened by a series of problems as to where, how and by whom prevention, intervention and treatment strategies are provided.

The literature on this topic is somewhat fragmented, with little or no published material in some important areas (for example, mental health). Most of the reviewed literature is based on studies of particular communities, geographical places or time periods, so findings may not necessarily be applicable to the wider Aboriginal and Torres Strait Islander population.

This chapter presents a brief overview of the available published literature with reference to the framework in Table 1.1; a more comprehensive literature review is presented in Appendix 1.

2.1 Tobacco, alcohol and other drug use

A variety of licit and illicit substances are used by Aboriginal and Torres Strait Islander peoples, but most research has focussed on the problem areas of risky drinking, and the use of cannabis, heroin, amphetamines and sniffing of inhalants and solvents, particularly petrol. Recent data from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) indicates that over half (50–57%) of Aboriginal and Torres Strait Islander peoples aged between 18 and 54 years are current smokers, compared with 29% or fewer of other Australians (ABS 2006). While a number of population surveys indicate that Indigenous peoples are less likely than non-Indigenous people to have consumed alcohol in the last 12 months (71% compared to 82%; AIHW 2005a), there is conflicting evidence about the relative levels of risky or high risk drinking among these population groups. Illicit substance use appears to be somewhat higher for Indigenous Australians. The 2002 NATSISS and the 2004 NDSHS both indicate that approximately one quarter of Indigenous peoples used illicit substances in the last 12 months (AIHW 2005a). The comparable figure for non-Indigenous Australians was 15%, based on the 2004 NDSHS.

Many Indigenous Australians who become involved in drug use start using drugs from a young age, usually in their early to mid-teens, and generally at a younger age than other Australians (AIHW 2005a; Burns et al. 1995a; Clough et al. 2004; Gray et al. 1997; Larson 1996; Shoobridge et al. 1998). Substance use tends to vary with geographic location, with heroin and amphetamines, for example, more commonly used among urban living Indigenous Australians (Larson 1996; Larson et al. 1999; Shoobridge et al. 1998) and petrol sniffing among individuals living in regional areas, especially remote communities (Brady 1988; Burns et al. 1995a; d'Abbs & MacLean 2000). However, contemporary changes in drug use behaviour have seen a move towards an increased use of illicit drugs (for example, heroin: Shand & Mattick 2002), and the rapid uptake of certain drugs in areas where that drug had previously been unknown, such as the introduction and subsequent widespread use of cannabis in East Arnhem Land (Clough et al. 2002a, 2002b). Multiple drug use has also become problematic and, for those using large quantities of a drug or more than one substance, expenditure can be costly. The most detailed examination of expenditure comes from Clough et al. (2002b, 2004) who estimated that residents of two communities in East

Arnhem Land had a weekly outlay of between 31 and 62% of individual median weekly income, and 6–10% of the community monetary resources, on cannabis purchases.

2.2 Associated harms

The potential harms associated with substance use are large, and are exacerbated by the risky behaviours (for example, needle sharing) that often accompany illicit drug use. Aboriginal and Torres Strait Islander peoples who consume alcohol at risky levels, or who smoke, suffer considerable premature mortality (Hicks 1985, cited in Gray 1990; Measey et al. 1998; Unwin et al. 1995); life expectancy among Indigenous Western Australians was estimated by Arnold-Reed and colleagues (1998) to have the potential to rise 5.9 years (for males) and 3.4 years (for females) if tobacco smoking and unsafe alcohol use were eliminated together. Little, however, is known about mortality resulting from other drug use, despite sporadic reports of deaths attributable to petrol sniffing (Brady & Torzillo 1994; Goodheart & Dunne 1994; South Australian Coroners Court 2002) and a known association between suicidal ideation and substance use among Indigenous Australians (heroin: Shoobridge et al. 1998; alcohol: Hunter 1991; cannabis: Clough et al. 2006, Tatz 1990). More information is available on comorbidities, particularly the chronic conditions arising from heavy alcohol and tobacco use, HIV, HBV and HCV infection rates among intravenous drug users (Holly 2001; Larson 1996; Roberts & Croft 2000; Shoobridge et al. 1998), and cognitive and mobility impairments experienced by chronic petrol sniffers (Cairney et al. 2002, 2004, 2005). Permanent disability is also a very real consequence for long-term substance users, but very little is known about the proportion of Aboriginal and Torres Strait Islander peoples who are so affected, although there are some reports emanating from the Northern Territory and the Anangu Pitjantjatjara Lands in South Australia that suggest a considerable number of long-term petrol sniffers have been severely disabled as a result (Mosey 1997, cited in d'Abbs & MacLean 2000; Roper 1998, cited in d'Abbs and MacLean 2000; Select Committee on Substance Abuse in the Community 2004; South Australian Coroners Court 2002).

Criminal and violent behaviour, and subsequent incarceration, are similarly potential harms associated with substance use. Aboriginal and Torres Strait Islander peoples are incarcerated at a highly disproportionate rate compared with the rest of the Australian population (ABS 2005), and evidence suggests that drug-influenced criminal behaviour is a frequent pathway to incarceration. Stealing, break and entry, vandalism, gambling, drug dealing, sex work and violent crime (for example, assault) are regular consequences of intoxication (Brady 1985; Burns et al. 1995a; d'Abbs et al. 1994; Larson 1996), with violent crime and property damage being the main offences committed by Indigenous male prisoners and detainees (2004 DUCO and DUMA collections: Putt et al. 2005). Around 60% of both male and female Indigenous prisoners acknowledged that they had been under the influence of some form of substance at the time of their offence (Johnson 2004; Putt et al. 2005), although few male Indigenous prisoners attributed committing the crime to their intoxication.

2.3 Context and influences

The reasons behind current patterns of substance use among Aboriginal and Torres Strait Islander peoples are undoubtedly many and complex, and 'everyone has an "opinion" on the causes' (Brady & Torzillo 1994). Alcohol and drug use is often cited as a consequence of the effects of colonisation and dispossession, and the subsequent separation from culturally meaningful practices, but there is an increasing focus on the influence of contemporary realities of poor living standards, unemployment, 'welfare dependence', family conflict and

resolution, lack of facilities and boredom that are characteristic of many Indigenous communities. Being able to 'structur(e) time in a day to day sense…consistent with more productive activity, satisfaction, and cultural support and growth' (ANCD 2002) is considered crucial to guarding against immersion in sustained substance use, but often the opportunities to maintain that structure are missing. Education is important for opening up such opportunities, but, while apparent school retention rates among Indigenous Australians have improved (ABS & AIHW 2005), many children, particularly those in remote communities and who have started using drugs, are failing to stay at school (Burns et al. 1995a; Butt 2004; Clough et al. 2004; Gray et al. 1997; Holly & Shoobridge 2003). Employment is another potential casualty of substance use: either because the substance user loses the ability or desire to seek or maintain employment, or because the absence of employment opportunities encourages and sustains substance use. Little has been published on the employment status of known Indigenous substance users, but studies of alcohol users in Perth and Carnarvon (Blignault & Ryder 1997) and intravenous drug users in Brisbane, Adelaide and Murray Bridge (Holly & Shoobridge 2003; Larson 1996; Shoobridge et al. 1998) suggest a history of unemployment or underemployment.

The influence of the familial environment is another critical factor in influencing substance use or abstinence, particularly for Indigenous Australians where connections to the immediate and extended family are strong and culturally expected. In communities where risky alcohol use and drug taking is problematic, or for individuals who are regular users, family instability is often commonplace, characterised by frequent conflict and episodes of domestic and other violence, parental absenteeism and home-based alcohol and drug use (ANCD 2002; d'Abbs et al. 1994; Hunter 1991; Kelly & Kowalyszyn 2003). The peer group is also greatly influential, as acknowledged by young Indigenous Australians involved in petrol sniffing (Brady & Torzillo 1994; Burns et al. 1995a) and intravenous drug use (Shoobridge et al. 1998). While the sway of the peer group is not unique to Aboriginal and Torres Strait Islander peoples, it may be more attractive for those whose home life and family circumstances are stressful.

Exposure to substances, their use by community members and the opportunity to use these substances influences use, but the effect of supply and demand is an area of research requiring more attention. The Illicit Drug Reporting System uses 'key experts' to estimate the prevalence of drug use in Australian capital cities, and, by extrapolation, the supply of specific drugs. But, in non-urban settings, the collection of such information is more difficult, particularly for illegal or stigmatised drugs (see, for example, Clough et al. 2002b). Investigation by Clough and colleagues in the supply of kava and cannabis in East Arnhem Land provides a microcosm study of how supply and demand can greatly influence substance use behaviour (Clough & Jones 2004; Clough et al. 2002a, 2002b).

2.4 Intervention and treatment services

Efforts to prevent and reduce substance use among Aboriginal and Torres Strait Islander peoples cover a wide range of interventional approaches that target prevention (primary interventions), addressing the needs of the user and their community (secondary intervention) and treatment and long-term care (tertiary intervention). While formal evaluations of these interventions has generally been able to focus only on specific case studies, and for those that have been evaluated the results are generally favourable, there is still concern that interventions need considerable improvement. One notable flaw is the common assumption that Aboriginal and Torres Strait Islander peoples are a homogenous population, with interventions shaped accordingly (Gray et al. 1995). Better approaches

would acknowledge the diversity of the population, as well as ensuring cultural appropriateness, encouraging staff training and expertise, and offering a broader range of intervention approaches (particularly for treatment), which include support for families.

Preventive approaches (or primary interventions) have traditionally relied on education, but there is an increasing movement to supplement education with recreational programs, which act to alleviate boredom and focus interest and energies on sport and related activities (see, for example, Butt 2004; Stojanovski 1999, cited in d'Abbs & MacLean 2000). Temporary relocation to outstations or 'homeland centres' is another way of redirecting attention, where persons at risk of developing a drug problem, and those who are already using drugs, may spend time away from the community and become involved in cultural and other meaningful activities (d'Abbs & MacLean 2000). Diverting or halting the supply of alcohol and other drugs is a complementary approach to prevention, typified in Australia by the implementation of 'dry communities' and other forms of alcohol restriction, and the introduction of 'non-sniffable' Avgas and Opal fuels into communities where petrol sniffing is rife.

Secondary interventions have generally been described in the literature with respect to problem alcohol users and petrol sniffers and tend to occur in more regional and remote areas. The most well-known and commonly implemented of these interventions are night patrols and sobering-up shelters (see Blagg & Valuri 2003; Brady et al. 2006; d'Abbs & MacLean 2000; Gray et al. 2000). Night patrols and sobering-up shelters may work in concert. Night patrols are instrumental in maintaining safety and resolving conflict by diverting intoxicated people away from custodial care to designated safe place. Sobering-up shelters providing a safe environment in which persons can 'sleep it off' and be referred to appropriate services, if available.

Treatment, rehabilitation and counselling are the main tertiary interventions offered to Aboriginal and Torres Strait Islander peoples (Gray et al. 2002; OATSIH 2005). The success of these treatment options are, however, questioned in the literature as many Indigenous drug users shun these services because of cultural inappropriateness, confidentiality concerns or feelings of shame (intravenous drug users: Lane 1993; Larson 1996; Shoobridge et al. 1998), lack of knowledge about treatment services (Larson et al. 1999) or because such services are not available or too distantly located—a particular problem for people living in remote communities.

2.5 Resources

Information on national expenditure related to Indigenous drug use focuses primarily on funding of intervention programs. In the period 2003–04, Aboriginal and Torres Strait Islander substance use specific services, which included treatment/rehabilitation, counselling, education and sobering-up shelters, received $27.5 million in recurrent funding from (primarily) the Office for Aboriginal and Torres Strait Islander Health (OATSIH) and other sources (OATSIH 2005). A review of all alcohol and other drug intervention programs operating in Australia in the period 1999–2000 found that a third of the money distributed to alcohol and other drug intervention programs for Indigenous Australians was for residential treatment programs, around 27% for acute intervention programs (for example, night patrols, sobering-up shelters) and approximately 13% for treatment services (Gray et al. 2002).

Relevant information on expenditure for other, related services, such as health services, is mostly missing.

2.6 National drug strategies

The National Drug Strategy, formally known as the National Campaign Against Drug Abuse, is a cooperative venture between the Australian Government, state and territory governments and non-government organisations to deal with drug use, and its associated harms, in Australia. One of the priority areas under the National Drug Strategy is the implementation of the National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan (2003–2006) (MCDS 2004). The Action Plan is based on the concept of harm minimisation—the overriding focus of the National Drug Strategy—and recognises the social, economic, environmental and physical health inequalities experienced by Indigenous Australians.

Six 'key result areas' shape the action plan:

- building individual, family and community capacity to address current and future issues in the use of alcohol, tobacco and other drugs, and promote their own health and wellbeing
- actively promoting a whole-of-government commitment, alongside collaboration with community-controlled services and non-governmental organisations, in reducing drug-related harm
- improving access to the appropriate range of health and wellbeing services that play a role in addressing alcohol, tobacco and other drugs issues
- recognising the role of holistic approaches, from prevention through to treatment, and continuing care that is locally available and accessible
- introducing and improving workforce initiatives to enhance capacity of community-controlled and mainstream organisations to provide quality services
- increasing ownership and sustainable partnerships for research, monitoring, evaluation and dissemination of information (MCDS 2004).

Most states and territories have developed their own drug strategies that either target drug use among Aboriginal and Torres Strait Islander peoples, or deal with drug use among the general population, but include reference to the special needs of Indigenous Australians. These strategies have similar objectives of harm minimisation, reducing supply and demand, and improving interventions. See Appendix Table A1.2 for more detail.

3 Stakeholder workshop

3.1 Workshop background

A workshop was held on 24 November 2005 in Canberra to consider and discuss the information needs and data sources relating to drug use among Aboriginal and Torres Strait Islander peoples. Participants invited to the workshop included community leaders and members, service providers, policy makers and researchers, as well as people with expertise in relation to data capture and analysis (see Attachment 1 to Appendix 2 for a list of participants and invitees).

The workshop was structured around three key questions:

1. What are our priority information areas?
2. What information is already out there?
3. How can the information be improved?

Opening discussions focused on the need for high-quality data to provide a basis for action, noting that current data are sufficient to start some interventions, but to understand and describe the availability and impact of such interventions requires more accurate and relevant data. Early discussion also focused on the need for consistent identification of Aboriginal and Torres Strait Islander peoples across data sources, and the need for information that is useful at individual, community, regional, jurisdiction and national levels. However, there was also a strong view that concerns about accuracy of data should not prevent us moving forward with interventions.

3.2 Workshop discussion and proposals

What are the priority information areas?

Workshop participants were asked to consider the sorts of information critical to understanding the current pattern of substance use among Aboriginal and Torres Strait Islander peoples, the associated harms and the most appropriate methods to avoid and treat substance abuse. That is, what are the key questions or priority information areas?

Areas of information considered by workshop participants to be of greatest importance are those that focus on patterns of substance use, the factors driving or influencing use, identifying the harms associated with use, and the interventions available and/or successful in halting substance abuse. These may be summarised as:

- What is the level of the problem?
- What are the broader social indicators influential in usage patterns?
- What are the harms experienced by the individual and the community?
- What interventions exist and do they work?

Within these broader-level questions more specific inquiries were raised as being of similar importance. Specific interest was expressed in information that:

- recognises the diversity of substance use among Aboriginal and Torres Strait Islander peoples, including diversity in substance types used and geographic and seasonal variation in the use of particular substances
- assists in identifying the factors associated with 'communities at risk' as well as 'strong communities'
- is collected or analysed at the community level or regional level, recognising the potential difficulties in agreeing on appropriate definitions of communities or regions
- improves understanding of the social determinants of substance use, including unemployment, poverty, means and patterns of supply, involvement of the criminal community and legal settings in place
- enables identification and evaluation of interventions proposed or already in place, including:
  - which interventions work for particular problems?
  - why interventions are working?
  - how much of what should be happening is actually happening?
  - which interventions do not work, why not and what alternatives can be offered?
- is linked to the development of a systematic set or 'dashboard' of key indications
- uses strategic qualitative analysis to assist in interpreting and reporting information
- 'hears the voices of those involved', namely, listens to the experiences of Indigenous people who currently use or have used substances (for example, as in Dance et al 2004).

What information is already out there?

Workshop participants were invited to examine a preliminary list of existing data sources prepared by the project team and identify additional relevant data sources for the list, as well as identifying irrelevant data sources that should be removed from the list.

Although the general consensus among participants was that there is a wide range of data available on drug use among Indigenous peoples, it was also noted that there are information gaps in the areas of patterns of use and supply, harms, interventions, accessibility and expenditure. In addition, existing data sets seem to focus on illicit drugs while excluding alcohol, which has the most wide-ranging associated harms. Furthermore, the causes of substance use are likely to be different in each community, as are the data needed to capture this diversity.

Participants noted that some of the data currently collected are not accessible because of ethical and confidentiality issues.

It was also noted that there is some potential for improving the analysis and reporting of some of the data currently collected in the field. For example, Aboriginal and Torres Strait Islander primary health care and substance use services collect a wide range of information about their clients through patient information systems, a small subset of which is reported as part of the Service Activity Report (SAR) and the Drug and Alcohol Service Report (DASR). It was agreed that the information Aboriginal and Torres Strait Islander primary health care and substance use services collect needs further exploration.

How can the information be improved?

Participants were asked to consider how information about substance use among Aboriginal and Torres Strait Islander peoples can be improved. It was acknowledged by participants that there is a plethora of data that can help inform the issue, but to get value out of the data they must be analysed and interpreted in a meaningful way, taking into consideration the varying audiences. Participants expressed the desire to have a 'helicopter view' of what is happening across sectors in relation to substance use among Aboriginal and Torres Strait Islander peoples—that is, an analysis of all available data relevant to the issue.

Options for disseminating such an analysis were discussed, including the need for timely dissemination of results to government bodies, communities and researchers—especially true for reporting emerging issues and monitoring trends.

Two specific options for improving the dissemination of information were raised, namely:

1. the inclusion of a dedicated chapter on substance use in the next report of *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples*
2. production of a more regular report, specific to Indigenous substance use and associated harms, which would slice into and incorporate data from a broader range of data sources.

It was noted that such collations would give, for example, the National Indigenous Drug and Alcohol Committee (NIDAC) and other committees 'something to work with'.

In relation to improving information (either in terms of presenting analysis or in any future data development or data collection arrangements) the following issues were raised by participants:

- the need for timely and relevant analysis
- the need to be able to present analysis disaggregated to regional or community levels
- the importance of focussing on the balance between individual and community factors
- enabling greater access to existing data sources, and to a wider analytical audience
- exploring the possibility of data linkage of existing data sources
- promoting comparability between data sources
- improving the current gaps identified in data sets, such as information on interventions or causal factors
- the appropriate methods for identifying emerging issues
- the need to get the most amount of information out of current survey data.

Critical to improving information on substance use among Aboriginal and Torres Strait Islander peoples is the need to improve identification of Indigenous status, particularly in existing administrative collections. Current, recurring problems with collecting Indigenous status data compromises accurate estimates of the number of Aboriginal and Torres Strait Islander peoples utilising services and programs.

Several options for improving and obtaining more information about substance use among Aboriginal and Torres Strait Islander peoples and its associated harms were presented to workshop participants to generate discussion.

Module/set of questions for inclusion in Indigenous population surveys

The inclusion of a drug-specific data module in Indigenous population surveys, including information about substance use and social determinants or contextual factors, was supported in theory. However, a number of points were made in relation to the practicality of this option. Firstly, a standard module incorporated within a population survey would need to take into consideration cultural heterogeneity across Aboriginal and Torres Strait Islander communities. Secondly, development of a drug-specific data module would need to include a review of the existing substance use module in the NATSIHS and the NATSISS to see if they can be improved and to determine the amount of overlap between the modules in each survey. Greater overlap between these and any other relevant surveys (for example, the National Drug Strategy Household Survey) would increase the analytical abilities of the data. The Australian Bureau of Statistics (ABS) noted that a trade-off with other priority subject areas may need to occur if the existing substance use module were to expand. Development for the 2008 NATSIHS will begin in 2007.

Focus of discussion moved from the ABS population surveys to the National Drug Strategy Household Survey (NDSHS), which provides a broader range of substance-related data. In 1994, an urban Indigenous supplement to the 1993 NDSHS was run, but the quality of data collected was poor. It was suggested that over-sampling for Aboriginal and Torres Strait Islander peoples in future National Drug Strategy Household Surveys may improve population substance use data. The next NDSHS is scheduled for 2007.

There was discussion around the fact that a boost in sample size or questionnaire length inevitably imposes a burden on more respondents. However, as representatives from the NIDAC noted, if respondents were informed appropriately of the purposes of the survey, and how the information collected has potential to improve the quality of life for Indigenous people, then they would be happy to participate as it would be 'making Aboriginal and Torres Strait Islander peoples partners in the move'.

Module/set of questions for inclusion in Aboriginal and Torres Strait Islander primary health care and substance use services data collections or a snapshot survey of clients accessing these services

The Aboriginal and Torres Strait Islander primary health care and substance use services currently provide data to OATSIH as part of their funding agreements in one of two ways, either as part of the SAR (for Aboriginal and Torres Strait Islander primary health care services) or the DASR (for Aboriginal and Torres Strait Islander substance use services). Currently, data from the SAR and DASR collections are reported at the establishment level; however, OATSIH noted that these collections have been under review and may evolve over time.

The Aboriginal and Torres Strait Islander primary health care and substance use services provide services to specific geographic regions and collect a lot of client-level data that is not reported under the SAR and DASR collections. Participants suggested that there may be alternative options for interrogating data held by Aboriginal and Torres Strait Islander primary health care and substance use services independent of the SAR and DASR collections. One such option may be to mine existing data holdings within these organisations to see how they can inform the issue of substance use among Aboriginal and Torres Strait Islander peoples. Another option may be to survey clients of these services to find out their perception of, for example, treatment and intervention efficacy. Such approaches would need to deal with confidentiality issues, and other legal and ethical considerations, and be developed in close consultation with communities.

Module/set of questions for inclusion in administrative data sets including people who identify as Aboriginal or Torres Strait Islander peoples

The inclusion of a drug-specific data module or a set of questions in administrative data sets covering mainstream programs was generally supported. It was thought that a common set of items included within collections such as the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS–NMDS), the Juvenile Justice National Minimum Data Set and the Supported Accommodation Assistance Program National Data Collection (SAAP–NDC), would enable core information to be collected across sectors to provide a fuller picture of drug use among Aboriginal and Torres Strait Islander peoples and their use of treatment and other health and community services. The main concern relating to this option is the quality of Indigenous identification in administrative collections.

Monitoring emerging issues

Possible methods for monitoring emerging issues (for example, increased use of methamphetamines) or monitoring drug use among people who do not seek treatment for substance use and/or who are not currently included in population surveys conducted by the ABS were explored. The NIDAC has identified a range of emerging issues that they would like to understand better, such as youth and misuse of inhalants, Indigenous youth drug use in cities and the increase in injecting drug use and related traumatic experiences.

One method for identifying emerging issues could be through an environmental scan—systematically drawing on the knowledge of people (such as community leaders/elders, health workers, local police, youth workers) about emerging issues or areas of concern. An environmental scan also has the capacity to provide information relevant at smaller geographic or community levels (including risks, harms and social factors relevant to the community). It was suggested that information obtained through an environmental scan could be used in conjunction with administrative data to shed more light on substance use issues within communities and around Australia. (The Illicit Drug Reporting System is an example of such a monitoring system currently employed in urban areas of Australia.)

There was also interest in monitoring the structure of the illicit drug markets and routes of supply. The emergence of cannabis in the Top End, is an example of a drug that, once introduced, quickly became widely used.

Monitoring prisoner treatment and health was also flagged as an area where more information is needed. Four states (New South Wales, Queensland, Western Australia and Tasmania) recently conducted a survey of prison entrants, which was adapted from the Australian Needle and Syringe Program (NSP) survey. A significant proportion of those surveyed were Indigenous (17%) and they provided information on their recent drug use and other risk behaviours. It is hoped that this survey will be repeated every 2 years across all correctional jurisdictions.

The Prisoner Health National Minimum Data Set, currently under development, will also include information relating to alcohol and other drug use. It will be important to ensure that the data collected in this NMDS is consistent with other collections.

Adding extra data items to existing collections

The option of adding items—such as substance use and/or Indigenous status—to existing data collections was supported. A recent example of this is the recommended introduction of a data item on smoking during pregnancy in the National Perinatal Data Collection (NPDC).

Replicating the Western Australian Aboriginal Child Health Survey

The Western Australian Aboriginal Child Health Survey (WAACHS) was a large scale epidemiological survey of the health and well-being of Western Australian Aboriginal and Torres Strait Islander children undertaken in 2000–02. The option of replicating the survey in other jurisdictions was discussed. Participants were advised that a project is currently being undertaken, whereby synthetic estimates for other states and territories are being calculated using the data obtained from Western Australia. It was agreed that replicating the survey in other jurisdictions would be very costly.

Adding data items to the Longitudinal Study of Indigenous Children

The Longitudinal Survey of Indigenous Children (LSIC), managed by the Australian Government Department of Family and Community Services and Indigenous Affairs (FACSIA), is currently under development. It is planned to collect data on the following areas: culture, health, childcare, education, families and community; with draft content at this stage including items on smoking and alcohol consumption by parents and smoking and alcohol use by mothers during pregnancy.

4 What are the priority information areas?

4.1 What are the key questions?

The work on the literature review (Chapter 2 and Appendix 1) and discussions at the workshop (Chapter 3 and Appendix 2) revealed consistent themes in the types of information required about Indigenous substance use and its associated harms. Drawing on both of these sources, the key questions for the field appear to be about:

- the nature or patterns of substance use among Indigenous substance users (for example, prevalence of substance use, type of substance used, frequency of use, age at first use, geographic variation, risk behaviours)
- the characteristics of Indigenous substance users and their context, including their social context, social participation, influence of, and exposure to, family functioning and resilience, family stressors and disruption, and exposure to substance use in the community
- mortality, morbidity and disability among Indigenous substance users
- other associated harms, such as violence, crime, detention, imprisonment and homelessness
- what is known about the affordability, accessibility and appropriateness of current approaches for intervention and to treat substance use in Indigenous persons
- what is working well, in terms of intervention, treatment and prevention, why is it working and what extra measures or initiatives could make a difference
- expenditure relating to treatment and other interventions.

Thus, there appears to be a great deal of interest in information which supports all elements of the five-domain framework presented in Chapter 1 (Table 1.1). Running across the entire framework and the key questions, are some important information needs. There appears to be a need for:

- information that is available both at an individual level and community level. This is particularly important for Indigenous communities as it is recognised that patterns of substance use and contextual factors vary widely across geographical locations and communities. For example, knowing what treatment services are accessed by an individual is an important part of the picture, but is not sufficient without also knowing what services are available within a community. Information about the patterns of substance use of individuals (for example, substance type, age of first use) is useful, but may be more powerful when analysed at a community level and combined with information about, for example, supply of drugs in this particular area.
- information that enables a picture to be developed of the linkages across the domains of the framework, for example, between contextual factors, patterns of substance use, associated harms and the availability of interventions. This is particularly so in the case of promoting the availability of 'whole of government' information.
- timely information about emerging issues to assist in developing appropriate policy and program responses as early as possible.

The remaining chapters of this report will therefore focus on what information existing key data sources currently contain (Chapter 5), how we can make better use of the information already available to answer the above questions (Chapter 6) and how we might best fill identified gaps to answer questions that can not yet be adequately answered (Chapter 7).

5 What information is already available?

This chapter describes all data sources key to the discussion of substance use among Aboriginal and Torres Strait Islander peoples (Section 5.1). Using the template in Section 5.2, the data sources are compared in terms of their methodology, scope, coverage and timing, as well as comparability across data items (Sections 5.3 and 5.4).

5.1 Key data sources

Initially, 73 data sources were identified as relevant to the understanding of substance use among Aboriginal and Torres Strait Islander peoples. A subset of 44 data sources were then selected as 'key' data sources (Table 5.1) and are further examined in this chapter. Data sources were considered 'key' to this project if they were capable of informing more than one element of the five-domain framework, and if they contained an Indigenous identifier and some information relating to substance use. A list of data sources excluded from further analysis follows Table 5.1.

Table 5.1: List of data sources key to substance use among Aboriginal and Torres Strait Islander people and its associated harms

No.	Collection name	Abbreviation
Alcohol- and drug-related data sources		
1	National Drug Strategy Household Survey	NDSHS
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD
3	Illicit Drug Reporting System—Injecting Drug Users	IDRS–IDU
4	Illicit Drug Reporting System—Party Drug Initiative	IDRS–PDI
5	Indigenous drug injectors study (South Australia)	IDIS
6	Australian Needle and Syringe Program Survey	NSP
7	Youth Alcohol Consumption Research	YACR
8	Alcohol and Other Drug Treatment Services National Minimum Data Set[(a)]	AODTS–NMDS
9	Drug and Alcohol Service Report	DASR
10	Brief Treatment Outcome Measure—Concise	BTOM–C
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS
General health- or welfare-related data sources		
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS
13	ABS National Aboriginal and Torres Strait Islander Social Survey 2002	NATSISS
14	ABS 2001 National Health Survey	NHS
15	Western Australia Aboriginal Child Health Survey	WAACHS
16	Footprints in Time: the Longitudinal Study of Indigenous Children*	LSIC
17	Australian Longitudinal Study on Women's Health	ALSWH

(a) States and Territories may collect additional data items that are not part of the AODTS–NMDS and therefore not available nationally. For example, the NSW Minimum Data Set for Drug and Alcohol Treatment Services (NSW MDS-DATS) currently collects information on principal source of income, living arrangements and usual accommodation. The NSW MDS–DATS is also collected from opioid maintenance pharmacotherapy services in NSW, as part of the Brief Treatment Outcome Measure–Concise (BTOM–C).

(continued)

Table 5.1 (continued): List of data sources key to drug use among Aboriginal and Torres Strait Islander people and its associated harms

No.	Collection name	Abbreviation
18	Bettering the Evaluation and Care of Health	BEACH
19	Service Activity Reporting	SAR
20	National Hospital Morbidity Database	NHMD
21	AIHW National Mortality Database	NMD
22	National Coroners Information System	NCIS
23	National AIDS/HIV Registry	
24	National Perinatal Data Collection	NPDC
25	Kids Help Line Statistics	KHLS
26	Lifeline Statistics (Call Database–Client Service Management Information System)	
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD
28	New South Wales Population Health Survey	NSW–PHS
Mental health-related data sources		
29	National Survey of Mental Health and Wellbeing (Child and Adolescent Component) 1998	NSMHW (C & A)
30	National Survey of Mental Health and Wellbeing—Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)
31	National Community Mental Health Care Database—based on the National Minimum Data Set	NCMHCD
32	National Residential Mental Health Care Database	NRMHCD
Housing-related data source		
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC
Criminal justice-, corrections-, policing- and child protection-related data sources		
34	ABS National Prisoner Census	NPC
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS
36	National Police Custody Survey	NPCS
37	Drug Use Careers of Offenders	DUCO
38	Drug Use Monitoring in Australia	DUMA
39	2001 New South Wales Inmate Health Survey	NSW–IHS
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS
41	2002 Victorian Prisoner Health Study	VIC–PHS
42	NSW Young People in Custody Health Survey 2003	YPiCHS
43	NT Police Drug Seizure Data Base	NT PDSDB
44	Illicit Drug Data Report collection	IDDR

The project team initially identified and reviewed a very broad range of data sources that covered all domains of the framework (Table 1.1). This process included reviewing information sources relating to, for example, government-funded housing programs, labour force participation, income support and education. Of the 73 data sources initially reviewed, 29 data sources were excluded from further analysis. While many of these 29 data sources have the capacity to provide information about particular issues (for example, comparative

information about the Australian population overall from the ABS Australian Census of Population and Housing or contextual information about income support from the FACSIA General Customer Survey), they were excluded for the following reasons:

- National Tobacco Survey—because it does not collect information about Indigenous status.
- Council of Australian Governments Illicit Drug Diversion Initiative National Minimum Data Set—because the collection is incomplete and information is not readily available.
- National Opioid Pharmacotherapy Statistics Annual Data collection (NOPSAD)—because it does not collect information about Indigenous status and because the collection currently only reports on limited service level data.
- Growing up in Australia: the Longitudinal Study of Australian Children (LSAC)—because more relevant information will be collected in the LSIC collection currently under development.
- ABS 1997 National Survey of Mental Health and Wellbeing (adult)—because it does not collect information about Indigenous status. A second adult National Survey of Mental Health and Wellbeing is planned for 2007.
- Mental Health National Outcomes and Casemix Collection—because it is not currently possible to link outcomes information to client information, including Indigenous status and other demographic information. This collection, however, provides a model for collecting outcome information.
- ABS Survey of Disability, Ageing and Carers—because it does not collect information about substance use or Indigenous status (since 1993).
- ABS General Social Survey and ABS Labour Force Characteristics of Aboriginal and Torres Strait Islander peoples—because they contain no substance use information and minimal relevant information compared to other ABS surveys selected for further analysis.
- ABS Census of Population and Housing—because, while containing essential information to estimate the numbers of Aboriginal and Torres Strait Islander people in Australia, it does not contain information about substance use and minimal relevant information compared to other population surveys selected for further analysis.
- Commonwealth–State/Territory Disability Agreement National Minimum Data Set—because it does not contain substance use information.
- National Notifiable Disease Surveillance System Data Collection—because it does not contain reliable information about Indigenous status nor information on substance use.
- Pharmaceutical Benefits Scheme and Medicare Benefits Scheme data—because, while the PBS captures some information about substance use through script information, it is difficult to translate this into an estimate of the number of people with substance use problems. The MBS data do not enable estimates of substance use among people attending Medicare-funded services.
- ABS Australian Housing Survey and the Community Housing and Infrastructure Needs Study—because they do not contain information about substance use.
- Commonwealth–State Housing Agreement five data sets as they are based on households, rather than people, and they do not contain appropriately detailed information about the substance use patterns of individuals receiving this form of support.

- General Customer Survey (GCS) and the Longitudinal Data Set (LDS) 1% Sample—because they do not collect information about substance use, and Indigenous status is not a mandatory data item in the LDS.
- Household, Income and Labour Dynamics in Australia survey—because the sample of respondents of Aboriginal and Torres Strait Islander origin is too small to make inferences about the wider Aboriginal and Torres Strait Islander population.
- ABS Crime and Safety Survey—because it does not contain information about substance use and there are more appropriate data sources for this review.
- Juvenile Justice National Minimum Data Set and the Child Protection and Support Services National Minimum Data Set—because they do not contain information about substance use.
- Prisoner Health National Minimum Data Set—because it is currently in the early stages of its development. It is envisaged that the Prisoner Health NMDS will include data items relating to Indigenous status and substance use, and will become an important data source relating to drug use among Aboriginal and Torres Strait Islander people.
- Ministerial Council of Employment, Education, Training and Youth Affairs collection—because it contains no information on substance use.

5.2 Describing key data sources

All of the key data sources listed in Table 5.1 were described in terms of the following template (Table 5.2). The completed templates/collection summaries for all key data sources are available on the AIHW website at <www.aihw.gov.au/drugs/>, as related material to the online version of this report.

Table 5.2: Template for describing relevant data sources in the area of Aboriginal and Torres Strait Islander substance use and its associated harms

Data collection details	
Data source (title)	Full name of the survey of data collection.
Brief description	Brief outline of the data source.
Purpose(s)	Main stated purpose or purposes of the data source.
Collection methodology	Key features of the collection methodology, such as whether it is an administrative data collection or survey, the method of data collection (e.g. computer-assisted telephone interview (CATI), self-completion, administrative by product data) and sampling methodology (e.g. multi-stage, stratified area design sample of households).
Scope/target population	Theoretical or intended coverage of the relevant population and, if possible, proportion of total (a) Indigenous and (b) Australian populations.
Coverage (actual)	Actual coverage of the theoretical or intended population including, wherever possible, information about response rates.
Geographic coverage	The Australian state and territory or other geographic area covered by the data source.
Frequency/timing	The year(s) in which data have been collected for the data source and the period over which data were collected (e.g. 1990, 2001, 2003, each financial year from 1997–98).
Basic collection count	The basic counting unit for the data source (e.g. treatment episode, separation, client).
Data content (list of all data items)	List of all data items.
Definitions–how are the following data items addressed and/or defined?	
Substance use and associated risk behaviours	
Patterns of substance use	For example, types of substance(s) used by the individual including traditional drugs and multiple drug use, prevalence of substance use (including current and lifetime use), frequency and quantity used, age drug(s) first used and drug paraphernalia or tools used for drug use/method of use.
Cost of substance(s)	Whether and how information about the cost of substances to the individual is recoded in the data (e.g. knowledge of price, individual expenditure on substances).
Risk behaviours	Whether and how information about risky behaviours associated with substance use are recorded in the data (e.g. sharing needles, drink driving).
Context and influences	
Indigenous status	Whether and how information about Indigenous status is recorded in the data source (e.g. Aboriginal, Torres Strait Islander, both Aboriginal and Torres Strait Islander, neither Aboriginal nor Torres Strait Islander).
Age	Whether and how age details are recorded in the data source (e.g. date of birth, age or age groups).
Sex	Whether and how sex is recorded in the data source.
Cultural and linguistic diversity	Whether and how information about cultural and linguistic diversity is recorded in the data sources (e.g. preferred spoken language, country of birth, English proficiency)
Geographic location of respondent	Whether and how information about a respondent's geographic location is recorded in the data source (e.g. postcode or Statistical Local Area (SLA) of an individual's usual residence).
Geographic location of agency or other relevant unit	Whether and how information about an agency's (or other relevant unit's) geographic location is recorded in the data source (e.g. postcode or SLA of an agency's central office or service delivery outlet).
Indicators of social context	Whether and how information that provides indicators of an individual's social context is recoded in the data source (e.g. living arrangements, residential setting, marital status, household composition, income source).

(continued)

Table 5.2 (continued): Template for describing relevant data sources in the area of Aboriginal and Torres Strait Islander substance use and its associated harms

Indicators of social participation	Whether and how information that provides indicators of an individual's social participation is recorded in the data source (e.g. labour force status, education status, recreation).
Family and personal context and influences	Whether and how the data source records information about an individual's family and personal context and influences (e.g. influence of and exposure to family functioning and resilience versus family stressors such as grief, crime and violence; indicators of emotional and spiritual wellbeing including connection to land and people, and experience of discrimination).
Substance use context and influences	Whether and how the data source records information about an individual's context and influences in relation to substance use (e.g. influence of, and exposure to, substance use by family, peer group, community; cultural acceptance of specific substances); availability and opportunity to use substances; patterns of supply and demand; preventive strategies (e.g. dry communities, licensing laws, education).
Associated harms/health status	
Comorbidity/health conditions	Whether and how information about the morbidity or health conditions of the individual are recorded,(e.g. health conditions, such as Hepatitis C, HIV AIDS, cirrhosis of the liver; mental health conditions, such as schizophrenia and psychosis, overdose).
Disability	Whether and how information about disabling conditions associated with substance use are recoded in the data (e.g. acquired brain injury).
Pregnancy and the unborn child	Whether and how information is recorded in the data source about health-related exposures during pregnancy (e.g. to smoking, alcohol and other drugs).
Suicide	Whether and how information about suicide is recorded in the data source (e.g. suicidal thoughts and attempts).
Crime and justice	Whether and how information about crime (where the individual is either the victim of crime or the perpetrator of crime) is recoded in the data source (e.g. victim of domestic violence, theft) or interaction with justice system (e.g. detention and imprisonment).
Treatment and intervention services	
Options included in collection	Whether and how information about treatments and/or interventions are recorded in the data source (e.g. treatment type, programs or services accessed or received).
Uptake	Whether and how information about the uptake of services is recorded in the data source (e.g. reasons for not attending a service even though service needed).
Affordability	Whether and how information about the affordability of services is recorded in the data source (e.g. whether information about individual income and cost of services can be used as an indicator of affordability, or individual's assessment of the affordability of available services is recorded).
Accessibility	Whether and how information about the accessibility of services is recorded in the data source (e.g. whether information about the location of an individual versus the location of services can be used as an indicator of accessibility, or individual's assessment of the accessibility of available services is recorded).
Appropriateness	Whether and how information about the appropriateness of services is recorded in the data source (e.g. whether information about the cultural staffing profile of a service is recorded, or individual's assessment of the appropriateness of available services is recorded).
Treatment/intervention outcomes	Whether the data source includes any information relating to outcomes of treatment/intervention provided.
Resources	
Expenditure on services (direct and indirect)	Whether and how data sources record information on the expenditure on services. This relates to direct expenditure on substance use intervention and treatment programs and facilities and indirect expenditure on broader health care, long-term care and incarceration associated with substance use). This item relates to expenditure by government on health programs, treatments, interventions, justice, housing etc, not expenditure on services per individual.

(continued)

Table 5.2 (continued): Template for describing relevant data sources in the area of Aboriginal and Torres Strait Islander substance use and its associated harms

Administrative details of data source	
Collection management agency	The name of the organisation that manages or is responsible for the data source.
Title/name of contact	Contact details for the agency that manages the data collection.
Address	Contact details for the agency that manages the data collection.
Email	Contact details for the agency that manages the data collection.
Internet	Contact details for the agency that manages the data collection.
Phone/fax	Contact details for the agency that manages the data collection.
Data custodian/access	Contact details for the person who should be contacted in relation to accessing information from the data source
Funding agency	The agency (or agencies) responsible for funding the data collection.
Output (e.g. of latest report based on data)	Links to, or examples of, recent publications or data products (e.g. data cubes) relating to the data source.
References (for preparing this template)	Publications or information sources used in preparing this template.
When will data from this reference period/survey be available?	Expected release of the data for the most recent collection year (i.e. data relating to the definitions, scope, methodology and so on, in the remainder of the template).
Other comments	Additional information not covered elsewhere, including significant variations over time such as the inclusion of Indigenous components.

5.3 Comparability of key data sources in terms of methodology: scope, coverage, timing and collection counts

The focus of the comparative analysis in this section is on how comparable the key data sources are in terms of their basic methodological characteristics, such as counts, scope, coverage and timing.

Methodology

Of the 44 key data sources reviewed:

- Eight are population surveys—four of which are conducted by the ABS
- 20 are other surveys, for example one-off surveys or occasional surveys of particular populations such as people accessing a service sector such as corrections and
- 16 are administrative collections, including national minimum data sets (Table A3.1).

Of the 16 administrative data collections, 13 are considered unit record collections on the basis that one record is recorded and stored for each unit of the collection count (whether this was a client, closed treatment episode, episode of care, separation, phone call and so on). The remaining 3 administrative collections involve the collation and reporting of aggregate data, for example, where state/territory government departments forward a set of specified tables to a central agency for national collation.

Each of the key data sources reviewed provide valuable information about substance use among Aboriginal and Torres Strait Islander peoples and its associated harms. However, there are some limitations to the data sources based on their methodology. For example, one advantage of population surveys is that they use large representative samples from which prevalence estimates can be derived for a selected population. On the other hand, because of their large sample size and associated high costs, population surveys are generally conducted relatively infrequently. Table 5.3 highlights some advantages and disadvantages of population surveys, other surveys and administrative collections.

Table 5.3: Advantages and disadvantages of key data sources

	Advantages	Disadvantages
Population surveys e.g. NDSHS, NATSISS, NATSIHS and NHS	Large, representative samples which provide only source of prevalence over selected population Can be related to other data to explore associations and contexts Can be used to explore trends over points in time Two relevant population surveys specific to Indigenous people (NATSISS and NATSISH) are likely to have good Indigenous identification	Data collected via population surveys can rarely be disaggregated to a community level (i.e. small area estimates generally not possible) Indigenous samples may be too small for meaningful analysis Methodology for collecting substance information is problematic (e.g. self-reporting in presence of family members in NATSISS and NATSIHS; particularly problematic in remote areas) Response rates can be low (e.g. NDSHS) Information is collected at periodic intervals (e.g. NATSIHS and NATSISS each have a 6-yearly cycle meaning new data are available every 3 years) Population surveys collect information at an individual rather than community level Samples include only people living in households (i.e. there are problems around defining Indigenous households, omission of homeless population) Information is self-reported

(continued)

Table 5.3 (continued): Advantages and disadvantages of key data sources

	Advantages	Disadvantages
Other surveys—child focus e.g. NPDC, WAACHS, LSIC and ASSAD	Surveys generally have a specific focus and collect in-depth information about this area of focus (e.g. WAACHS) May be longitudinal (e.g. LSIC) May provide early warning of emerging problems by targeting young populations (e.g. ASSAD) and mothers (e.g. NPDC)	Sample often limited to specific geographic areas (e.g. WAACHS) Indigenous sample may be too small in surveys not designed to collect information from Indigenous populations (e.g. ASSAD) Relatively infrequent (e.g. ASSAD triennial since 1984) or one-off (e.g. WAACHS) Disaggregation to small areas or community level not generally possible Information is generally self-reported
Other surveys and studies—drug focus e.g. IDIS, NSP, IDRS–IDU and IDRS–PDI	Provide information about people who are already drug users and who may or may not be accessing treatment Provide information about people who are homeless or not in households (e.g. IDRS–IDU) Enables monitoring of emerging trends in patterns of supply and use of drugs (e.g. IDRS–IDU and IDRS–PDI) Enables monitoring of adoption of treatment services (e.g. overall numbers accessing needle and syringe programs, numbers of IDUs reporting using treatment services)	Generally include limited information about contextual factors May have low response rates (e.g. NSP) Not representative of all geographical areas (e.g. IDRS–IDU and IDRS–PDI covers only capital cities) and sampling is not systematic Information is self-reported
Other surveys—corrections e.g. DUMA, DUCO, NSW-IHS and QLD–WPHS	Provide relevant information about people in the corrections system Provide information about drug use and its relationship with crime (e.g. DUMA/DUCO) and health (e.g. NSW IHS) Sometimes ongoing (e.g. DUMA quarterly since 1999)	Not representative of all geographic areas (e.g. DUMA is not national) May be one-off (e.g. Queensland WPHS) Information is self-reported
Administrative collections—drug focus e.g. DASR, AODTS–NMDS and CAYLUS	Easier than population or other surveys to disaggregate to finer geographical areas Some collections provide community-level information (e.g. DASR) May include qualitative information on success stories at local level (e.g. DASR) Do not rely solely on self-reported information (e.g. AODTS–NMDS) Provide information about people with drug problems who are accessing treatment (e.g. AODTS–NMDS) Some provide information on substance use issues of particular relevance to Indigenous communities (e.g. CAYLUS)	Treatment outcome data are not available Limited contextual information is collected Some collections are not based on unit or individual records (e.g. DASR) Only includes service users Key drug treatment collections are not comparable in terms of collection count (e.g. AODTS–NMDS which covers mainstream treatment services, and the DASR which covers Indigenous specific drug treatment services) There are scope limitations in some collections (e.g. AODTS–NMDS only includes government-funded services and does not include sobering up shelters or prisons)

Scope, coverage and timing

The data sources reviewed have widely varied methodologies and purposes, which are reflected in their scope, coverage and timing (Table A3.2). For example, among population surveys, the scope may vary according to the age groups surveyed (for example, all people, adults only, children only), or could be specific to a sub-group of the population, such as Aboriginal and Torres Strait Islander peoples, which is the case for the NATSISS and the NATSIHS. Among other surveys, the scope ranges from prisoners, detainees and remandees in correctional facilities to secondary school students, women and injecting drug users.

Administrative collections generally define their scope in terms of program boundaries and associated funding arrangements (for example, the AODTS–NMDS collects information from all publicly funded alcohol and other drug treatment agencies). The IDRS–IDU and IDRS–PDI collections cover a sample of injecting drug users and ecstasy users as well as key informants, and triangulate this information with data from a range of other sources, including national morbidity data, population data and treatment services data.

Most data sources include all states and territories in Australia in their geographic coverage (Table A3.2). A small number of data sources are surveys specific to a particular state or territory, for example the QLD-WPHS (Queensland), NSW-IHS and the YPiCHS (New South Wales) and the NT PDSDB (Northern Territory). Other data sources that are not national, or unique to one state or territory, include the NSMHW (psychotic) (metropolitan areas of the Australian Capital Territory, Queensland, Victoria and Western Australia only), DUCO (various jurisdictions over time), DUMA (Queensland, Western Australia, New South Wales and South Australia) and CAYLUS (remote and central Australia, Northern Territory).

There are widely differing timing arrangements for the reviewed data collections. Of the population surveys reviewed, the most recent in the series had generally been conducted between 2001 and 2004 (Table A3.2). The most notable exception is the NSMHW, which has been conducted only once (in 1997 for the adult component, 1998 for the child and adolescent component and 1997–98 for the psychotic component). The second adult component of the NSMHW is scheduled to be conducted in 2007. Among administrative data collections, most are conducted on a financial year basis, with the most recent data generally available for 2004–05. For data sources such as Lifeline Statistics, data are collected on an ongoing basis, but can be collated on a financial year basis.

Collection counts

The basic collection count—or unit of measure—varied widely across the reviewed collections, from population estimates of people or households (generated by surveys) to client counts or number of phone calls (generated by administrative collections) (Table A3.2). Among administrative data collections reviewed, the basic counting unit varied substantially. For example:

- 'closed treatment episodes' in the AODTS–NMDS
- 'inhalant users' in CAYLUS
- 'deaths' in NMD
- 'separations' in NHMD
- service level estimates of 'client numbers' and 'episodes of care' in the SAR and DASR
- 'clients', 'closed support periods' and 'ongoing support periods' in the SAAP–NDC

- ‘phone calls received’ in Lifeline Statistics and Kids Help Line Statistics (KHLS)
- ‘seizures’ in NT PDSDB
- ‘notifications’ in NPDC
- ‘arrests’ and ‘seizures’ in IDDR

Variation also occurs in the way the terms listed above are defined, meaning that analysts should be cautious when comparing counts across collections. While varying definitions of ‘clients’ are generally broadly comparable, definitions relating to episodes of care have detailed definitions that relate mostly to the way commencement and cessation dates are specified, and rules for when and why an episode should be closed. Thus, the broad concept of an episode of care is not generally directly comparable across collections.

A number of data sources also include a counting unit for the number of agencies or establishments that provide services or assistance to clients. For example:

- ‘number of treatment agencies’ in the AODTS–NMDS
- ‘number of establishments’ in the NCMHCD
- ‘number of agencies’ in the DASR and SAR
- ‘number of SAAP-funded agencies’ in the SAAP–NDC

For more detail on the information presented in this section, see Table A3.2.

5.4 Comparability of key data sources in terms of data items

This section outlines the comparability of key data sources in terms of data items that inform the understanding of substance use among Aboriginal and Torres Strait Islander people in Australia (for example, basic demographic details, such as age, sex, geographic location; indicators of social context such as living arrangements; indicators of social participation, such as labour force status; and influences and exposures such as crime and family violence.). The section commences by examining the key data sources in terms of how they define two of the most critical variables to this discussion, namely Aboriginal and Torres Strait Islander status (Indigenous status) and substance use.

Indigenous status

The national standard for collecting information about a person’s Indigenous status is detailed in the national data dictionaries for health, community services and housing and the AIHW’s online metadata registry METeOR. An extract of the agreed national standard for Indigenous status is set out in Box 5.1. The national standard for collecting Indigenous status produces data that can be analysed separately for people of Aboriginal origin; Torres Strait Islander origin; Aboriginal and Torres Strait Islander origin; and neither Aboriginal nor Torres Strait Islander origin.

Box 5.1: The standard *National health data dictionary* question and classification for Indigenous status

The National health data dictionary *(NHDD) recommends that the following standard question be used to elicit information about Indigenous status. The question is based on the ABS standard for Indigenous status:*

[Are you] [Is the person] [Is (name)] of Aboriginal or Torres Strait Islander origin?

The response categories are as follows:

(For people of both Aboriginal and Torres Strait Islander origin, mark both 'Yes' boxes.)

☐ *No*

☐ *Yes, Aboriginal*

☐ *Yes, Torres Strait Islander*

The dictionary recommends the following output classification for Indigenous status:

Aboriginal, but not Torres Strait Islander, origin

Torres Strait Islander, but not Aboriginal, origin

Both Aboriginal and Torres Strait Islander origin

Neither Aboriginal nor Torres Strait Islander origin

Not stated/inadequately described

The classification includes a broader grouping of the detailed categories, as follows:

Indigenous: that is, Aboriginal, but not Torres Strait Islander, origin; Torres Strait Islander, but not Aboriginal, origin; and both Aboriginal and Torres Strait Islander origin

Non-Indigenous: that is, neither Aboriginal nor Torres Strait Islander origin

Not stated/inadequately described

Source: AIHW 2005c.

Of the 44 key data sources reviewed, 22 collect information about Indigenous status according to the national standard, and in such a way that it is possible to say that respondents were of Aboriginal and/or Torres Strait Islander origin/descent or not (Table 5.4). An additional 16 data sources ask the relevant question about Indigenous status in a way that identified Indigenous status in very broad groupings: Indigenous, non-Indigenous or not stated. The Northern Territory Police Seizure Data Base (NT PDSDB) identifies the Indigenous status of a person through a question relating to 'ethnic background', where Aboriginal is one coding option. The SAR and DASR collections include service level estimates of Indigenous status; this is done by the service allocating Indigenous status to the client numbers and episodes of care. SAR and DASR services also provide estimates of Indigenous status for staff.

Only one of the key data sources reviewed does not include information about the Indigenous status of respondents (the IDDR). This collection was retained for further analysis and comparison as it provides information relating to the supply of illicit drugs in Australia.

As stated in Section 5.3 and detailed in Table 5.4, the target population of the data sources reviewed vary considerably. Eight of the key data sources have target populations specific to Aboriginal and/or Torres Strait Islander people or services. Some of these data sources, for

example, the CAYLUS and the WAACHS, use an Indigenous identifier to screen people for inclusion in the survey. Where Aboriginal and/or Torres Strait Islander people are not the specified target population, the proportion of Indigenous people participating in the survey or data collection varies.

Of those data sources that record information about service usage, the proportion of Indigenous clients varies, for example:

- of closed treatment episodes in the in the 2003–04 AODTS–NMDS collection, 10% involved clients identified as Aboriginal and/or Torres Strait Islander peoples (AIHW 2005b) and
- of SAAP clients in the 2004–05, 16% identified as Aboriginal and/or Torres Strait Islander peoples (AIHW 2006).

The proportion of Aboriginal and Torres Strait Islander people participating in surveys also varies. However, this variability is often a result of the locality and purpose of the survey, for example:

- ten per cent of injecting drug users interviewed for the 2004 IDRS–IDU identified as Indigenous Australians (Stafford et. al. 2005a)
- four per cent of regular ecstasy users interviewed for the 2004 IDRS–PDI identified as Indigenous Australians (Stafford et. al. 2005b)
- eight per cent of respondents to the 2004 NSP survey, interviewed at a sample of NSP sites across Australia, identified as Indigenous Australians (National Centre in HIV Epidemiology and Clinical Research 2005).

Table 5.4: Indigenous identification[(a)] and target population group of key data sources

No.	Collection name	Abbreviation	Target group	Indigenous question
1	National Drug Strategy Household Survey	NDSHS	General—population aged 12 and over	Indigenous status, as per national standard (five-option output classification)
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	General—school students	Indigenous status, as per national standard (five-option output classification)
3	Illicit Drug Reporting System—Injecting Drug Users	IDRS–IDU	General—injecting drug users	Indigenous status (three-option broader grouping)
4	Illicit Drug Reporting System—Party Drug Initiative	IDRS–PDI	General—regular ecstasy users	Indigenous status (three-option broader grouping)
5	Indigenous Drug Injectors Study (South Australia)	IDIS	Indigenous injectors	Indigenous status, as per national standard (five-option output classification)
6	Australian Needle and Syringe Program Survey	NSP	General—injecting drug users from a sample of NSP sites across Australia	Indigenous status (three-option broader grouping)
7	Youth Alcohol Consumption Research	YACR	General—teenagers aged 15–17 years	Indigenous status (three-option broader grouping)
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	General—AODTS service users	Indigenous status, as per national standard (five-option output classification)
9	Drug and Alcohol Service Report	DASR	Indigenous-specific—substance use services	The service is asked to allocate Indigenous status to the client numbers and episodes of care (Indigenous, non-Indigenous). Services are asked whether staff is of Aboriginal and/or Torres Strait Islander origin.
10	Brief Treatment Outcome Measure–Concise	BTOM–C	General—publicly prescribed pharmacotherapy clients	Indigenous status, as per national standard (five-option output classification)
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	Indigenous-specific—petrol sniffers	Indigenous status is used to screen collection population

(a) The classification of Indigenous status as summarised in this table relates to either 'five-option output classification' (i.e. Aboriginal, but not Torres Strait Islander; Torres Strait Islander, but not Aboriginal; both Aboriginal and Torres Strait Islander; neither; not stated) or 'three-option broader grouping' (i.e. Indigenous, non-Indigenous, not stated)

(continued)

Table 5.4 (continued): Indigenous identification[(a)] and target population group of key data sources

No.	Collection name	Abbreviation	Target group	Indigenous question
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	Indigenous-specific	Indigenous status, as per national standard (five-option output classification)
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	Indigenous-specific	Indigenous status, as per national standard (five-option output classification)
14	ABS 2001 National Health Survey	NHS	General	Indigenous status, as per national standard (five-option output classification)
15	Western Australia Aboriginal Child Health Survey	WAACHS	Indigenous-specific—Indigenous children	Indigenous status is used to screen collection population
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	Indigenous-specific—Indigenous children	Indigenous status, as per national standard (five-option output classification)
17	Australian Longitudinal Study on Women's Health	ALSWH	General—women	Indigenous status, as per national standard (five-option output classification)
18	Bettering the Evaluation and Care of Health	BEACH	General—GP consultations	Indigenous status (three-option broader grouping)
19	Service Activity Reporting	SAR	Indigenous-specific—primary health care services	Collected as service level estimates in relation to client numbers (i.e. service are asked to report the number of clients over the reporting period that are Aboriginal and Torres Strait Islander clients, non–Indigenous clients or not stated Indigenous status. A separate question is asked about the proportion of total clients who are Torres Strait Islanders.
20	National Hospital Morbidity Database	NHMD	General	Indigenous status, as per national standard (five-option output classification)
21	AIHW National Mortality Database	NMD	General	Indigenous status, as per national standard (five-option output classification)
22	National Coroners Information System	NCIS	General	Indigenous status, as per national standard (five-option output classification with additional categories 'still enquiring' and 'unlikely to be known')
23	National AIDS/HIV Registry		General—AIDS/HIV reported cases	Indigenous status (three-option broader grouping)

(a) The classification of Indigenous status as summarised in this table relates to either 'five-option output classification' (i.e. Aboriginal, but not Torres Strait Islander; Torres Strait Islander, but not Aboriginal; both Aboriginal and Torres Strait Islander; neither; not stated) or 'three-option broader grouping' (i.e. Indigenous, Non-Indigenous, not stated)

(continued)

Table 5.4 (continued): Indigenous identification[(a)] and target population group of key data sources

No.	Collection name	Abbreviation	Target group	Indigenous question
24	National Perinatal Data Collection	NPDC	General	Indigenous status of mother, as per national standard (five-option output classification)
25	Kids Help Line Statistics	KHLS	General—children	Indigenous status (three-option broader grouping)
26	Lifeline Statistics (Call Database–Client Service Management Information System)		General—adults	Indigenous status, as per national standard (five-option output classification)
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	General	Indigenous status, as per national standard (five-option output classification)
28	New South Wales Population Health Survey	NSW–PHS	General	Indigenous status, as per national standard (five-option output classification)
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	General—children	Indigenous status (three-option broader grouping)
30	National Survey of Mental Health and Wellbeing—Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	General	Indigenous status (three-option broader grouping)
31	National Community Mental Health Care Database—based on the National Minimum Data Set	NCMHCD	General	Indigenous status, as per national standard (five-option output classification)
32	National Residential Mental Health Care Database	NRMHCD	General	Indigenous status, as per national standard (five-option output classification)
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	General	Indigenous status, as per national standard (five-option output classification)
34	ABS National Prisoner Census	NPC	General—prisoners	Indigenous status (three-option broader grouping)
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	General	Indigenous status, as per national standard (five-option output classification)

(a) The classification of Indigenous status as summarised in this table relates to either 'five-option output classification' (i.e. Aboriginal, but not Torres Strait Islander; Torres Strait Islander, but not Aboriginal; both Aboriginal and Torres Strait Islander; neither; not stated) or 'three-option broader grouping' (i.e. Indigenous, Non-Indigenous, not stated)

(continued)

Table 5.4 (continued): Indigenous identification[(a)] and target population group of key data sources

No.	Collection name	Abbreviation	Target group	Indigenous question
36	National Police Custody Survey	NPCS	General	Indigenous status (three-option broader grouping)
37	Drug Use Careers of Offenders	DUCO	General	Indigenous status (three-option broader grouping)
38	Drug Use Monitoring in Australia	DUMA	General	Indigenous status (three-option broader grouping)
39	2001 New South Wales Inmate Health Survey	NSW–IHS	General—prisoners	Indigenous status, as per national standard (five-option output classification)
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	General—female prisoners	Indigenous status (three-option broader grouping)
41	2003 Victorian Prisoner Health Study	VIC–PHS	General—prisoners	Indigenous status (three-option broader grouping)
42	NSW Young People in Custody Health Survey 2003	YPiCHS	General—juvenile	Indigenous status (three-option broader grouping)
43	NT Police Drug Seizure Data Base	NT PDSDB	General–people involved in drug seizures	Ethnic background: Aboriginal, other
44	Illicit Drug Data Report collection	IDDR	General	Indigenous status not collected

(a) The classification of Indigenous status as summarised in this table relates to either 'five-option output classification' (i.e. Aboriginal, but not Torres Strait Islander; Torres Strait Islander, but not Aboriginal; both Aboriginal and Torres Strait Islander; neither; not stated) or 'three-option broader grouping' (i.e. Indigenous, Non-Indigenous, not stated)

As with any data item, there are issues with collecting quality data relating to the Indigenous status of respondents. With the support of national data committees and the National Advisory Group on Aboriginal and Torres Strait Islander Health Data (NAGATSIHD), considerable effort has been put into improving Indigenous identification in data sources. A recent example of this has been in relation to hospital separation data. In 2005, the AIHW undertook a project to monitor and improve the completeness of Indigenous identification in hospital records over time. The project provided:

- a description of the extent to which the Indigenous origin of Indigenous patients is under-identified in separations data
- an outline of methods that jurisdictions use to improve Indigenous identification data—including examples of best practice and of methods that have not worked
- development of guidelines to support consistent and appropriate analysis of Indigenous status information in hospital separations data.

A series of recommendations about policies and processes needed to improve the quality of Indigenous identification in separations data were then made, and endorsed by the Statistical Information Management Committee (AIHW 2005d). Similar work was undertaken by the AIHW in 2004 on the quality of Indigenous identification in seven community services data collections (AIHW 2004c) and the AIHW is currently producing a report on the extent to which quality issues have subsequently been addressed.

Substance use

For the purposes of this report, a broad concept of substance use has been explored, including the use of three broad groups of drugs: tobacco, alcohol and other drugs (licit and illicit) for non-medical purposes. However, the operational definition of 'substance use' will vary depending on the research question. For example, depending on the data source and the research purpose, analysts might define 'substance use' in terms of whether a person has: ever used tobacco; currently uses illicit drugs; uses alcohol at levels which are considered harmful in the short-term or long-term; or uses drugs and also has related behaviours that cause distress to the individual or other person. In this section, we review the key data sources in terms of the information they contain about substance use.

Of the 44 key data sources reviewed:

- 26 include questions or data items relating to tobacco, alcohol and other drugs
- seven include questions or data items about other drugs only
- four include information about tobacco and alcohol only
- four include information about alcohol and other drugs but not tobacco
- one includes information about tobacco only
- two do not currently include any substantial information about substance use of any kind (Table A3.3).

Of the 26 collections including information on all substances:

- 14 collections include questions specifically about the individual's patterns of use of tobacco, alcohol and other drugs, thus enabling estimates to be developed of the number of *people* within specified populations (for example, Australian households in the case of the NDSHS, NSW prisoners in the case of the NSW–IHS) who have ever used or are currently using substances.

Within this group of data sources:

  - all include information about whether a person has 'ever used' drugs and some indication of 'current' or 'recent' use, such as whether they have used drugs in the last: week, month, 3, 6 or 12 months (NDSHS, ASSAD, IDRS–IDU, IDRS–PDI, YACR, NATSISS, WAACHS, ALSWH, NSW–PHS, NSMHW (C&A), NSMHW (psychotic), NSW–IHS, QLD–WPHS, YPiCHS)
  - all also include information about the frequency of use of tobacco, alcohol and/or other drugs
  - 12 include information about the quantity of tobacco, alcohol and/or other drugs used and
  - eight include information about the age at which the person commenced using and tobacco, alcohol and/or other drugs.

- one (AODTS–NMDS) provides information about the principal and other drugs of concern for people attending alcohol and other drug treatment services
- two (SAR and DASR) provide service-level estimates of the different types of drugs for which services are provided in the reporting period (including tobacco, alcohol and other drugs)
- one provides an estimate of the number of people using GP services for drug-related problems (BEACH)
- three provide estimates of the number of hospital separations, community mental health service contacts or residential mental health care episodes involving a drug-related diagnosis (NHMD, NCMHCD and NRMHCD, respectively)
- one provides an estimate of the number of episodes in emergency departments where the presenting problem or diagnosis was drug-related (NAPEDCD)
- two provide estimates of the number of deaths related to drugs (NMD and NCIS) and
- two provide estimates of the number of calls to telephone helplines where the main problem raised is drug-related (KHLS and Lifeline).

Of the seven collections which include information on other drugs only, all have a focus on illicit drugs:

- two provide estimates of the number of people presenting to specific programs (NSP and CAYLUS) as well as some limited information about frequency of use among people attending Needle and Syringe Programs and the CAYLUS service, and some information on the frequency of use of injected drugs (NSP)
- one provides an estimate of the number of people on the HIV/AIDS registry who inject drugs
- one provides an estimate of the number of people entering prison who inject drugs
- one provides an estimate of the number of people arrested for possession of illicit drugs
- two provide estimates of the number of people in prison or juvenile remand establishments (DUCO) or detained in custody (DUMA), including information on those who have 'ever used', 'current use' and, in the case of DUCO, some information on patterns of drug use.

Of the four collections including information about tobacco and alcohol only:

- the NATSIHS and NHS provides estimates of the number of people who have 'ever used' drugs, a measure of 'current use' (last year and last week in NATSIHS, last week in NHS) as well as information about frequency of use and quantity used
- the LSIC will provide an estimate of the number of people who have 'ever used' tobacco and alcohol and their frequency of use
- the NSW–PHS provides an estimate of the number of people who have 'ever used' or are 'currently using' tobacco and alcohol and their frequency of use.

Of the four collections including information about alcohol and other drugs, but not tobacco:

- one (IDIS) includes information from a sample of injecting drug users about whether they have 'ever used' alcohol or other drugs and information about their 'current use' including information about frequency of use, quantity used and age first injected
- one (SAAP–NDC) provides an estimate of the number of clients presenting for SAAP services where the presenting problem or support provided are drug-related
- one (NPCS) provides an estimate of the number of occasions in which a person is in police custody for drug-related reasons and
- one (VIC–PHS) provides an estimate of the number of people incarcerated in Victoria who ever used alcohol and/or illicit drugs and their frequency of use.

Specific information about injecting practices is collected in 17 key data sources including the IDRS-IDU, IDRS–PDI, IDIS, ALSWH, NSW–IHS and DUCO.

Exposure to tobacco smoke is also collected in a number of surveys, usually by asking how many regular smokers there are in the household (for example, ABS NHS and NATSIHS, WAACHS).

The remainder of this section summarises the way in which the key data sources include information relating to each of the five domains of the framework in Table 1.1.

Alcohol, tobacco and other drug use and associated risk behaviours

This section further explores the 44 key data sources in relation to the information they collect about prevalence of substance use, frequency and quantity of substance(s) used, monetary expenditure on substances and risk behaviours associated with substance use.

Prevalence of substance use

Information that can be used to estimate the prevalence of substance use in a selected population is collected in 41 of the key data sources. For example:

- 'ever used and current use' is collected in 18 data sources. The majority of these data sources delineate 'use' further by asking whether the substance has ever been used, for example, over the last 12 months, month, week, 48 hours and/or day
- 'ever used' is collected in the NSP, LSIC, VIC–PHS and IDDR
- 'current use' is collected in the YACR and BTOM–C. In the NMD and NCIS, current use is implied where a drug-related death has been recorded
- 'estimates of use' are recorded for 12 data sources. Examples of these estimates include: estimate of petrol and glue sniffers in the CAYLUS, estimate of hospital separations where a drug-related diagnosis has been made in the NHMD, and estimate of people accessing SAAP services where alcohol and drugs in recorded as the presenting reason in the SAAP–NDC.

Frequency and quantity used

Frequency of substance use is collected in 23 data sources. The data items used to collect this information vary depending on the type of substance frequency is being recorded against. For example:

- the YACR includes a data item on 'frequency of smoking', coded as daily, weekly but not daily, less than weekly
- the NSMHW (C & A) includes a data item on the 'frequency of marijuana use over the past 30 days', coded as none, 1 or 2 times, 3 to 9 times, 10 to 19 times, 20 to 39 times 40 or more times
- the DUCO includes a data item on 'frequency of illicit drug use', coded as less than monthly, one to several times a month, one to several times a week, once a day, several times a day.

The amount (quantity) of substances used is collected in 19 data sources. As for frequency of use, the data items used to collect information on quantity vary depending on the type of substance. For example:

- the IDRS–PDI asks for the amount of ecstasy used in a typical use episode
- the YACR asks for the amount of alcohol consumed, coded as under 10 drinks, over 10 drinks or just a few sips
- the CAYLUS asks how much petrol a person had sniffed on a particular day
- the NPDC asks for the average number of cigarettes smoked per day during the second half of pregnancy.

A number of data sources, including the NSW–IHS and QLD–WPHS, collect consumption of alcohol information using the Alcohol Use Disorders Identification Test (AUDIT).

Age first used drugs and method of use

'Age first used (substance)' is collected in 11 data sources including:

- the NDSHS, which asks about 'age first used' in relation to alcohol, tobacco and a range of illicit substances
- the NATSIHS, which asks about 'age commenced daily smoking'
- the ALSWH, which asks about 'age first started smoking'
- the DUCO collection, which asks respondents to indicate the age at which they first used drugs and the age at which they first used them regularly.

'Method of use' is collected in the NDSHS, IDRS–PDI, AODTS–NMDS and BTOM–C.

Monetary expenditure on substances

Little information is collected on the monetary expenditure on substances from the data sources reviewed. Five data sources collect information on the amount spent on particular drugs, for example:

- the IDRS–PDI collects information on the 'amount of money spent on ecstasy in the last 6 months'
- the IDIS asks about the 'amount spent on heroin in the past week' and the 'cost of a hit of heroin'
- DUCO collects information on the 'weekly expenditure on drugs'.

Risk behaviours

A variety of data items are used to identify risk behaviours:

- 'sharing needles (and other injecting equipment)' is collected in 11 data sources
- 'injecting drug behaviour' is collected in eight data sources, and is often accompanied by further data items relating to the type of drug injected, frequency of injecting and so on
- 'risky behaviours while under the influence (of a substance)' is collected in seven data sources: types of risky behaviours include drink or drug driving, stealing, abuse of a person and so on
- 'drinking at a risk of harm' is collected in four data sources
- 'overdose' is collected in six data sources
- 'presence of tattoos and piercings' or 'obtaining tattoos and piercings while under the influence' is collected in five data sources
- 'safe sex practices' or 'risky sexual behaviour' is collected in 10 data sources
- '(engaged in) sex work' is collected in the IDRS–IDU and DUMA
- 'perceived risk' is collected in the IDRS–PDI in relation to ecstasy and IDIS in relation to bloodborne viruses.

Context and influences

Table A3.4 outlines whether basic demographic data items are included in each of the 44 key data sources reviewed. Most key data sources enable a basic profile of individuals to be developed in relation to sex, age, cultural and linguistic diversity and geographic location.

Sex

Nearly all of the data sources reviewed collect information about the sex of respondents. There is minimal variation in the way the data items are defined and the information collected.

Indicators of age

Almost all data sources include information about the age of respondent, with SAR being the most notable exception.

Of the remaining key data sources reviewed:

- respondent's 'date of birth' is collected in 23 data sources
- 'age in years', 'age at last birthday' or 'age at collection' is collected in 13 data sources
- 'age group' is collected in five data sources, not necessarily in comparable formats
- 'age at death' is collected in the NCIS and NMD.

Cultural and linguistic diversity

Within the key data sources reviewed, a variety of data items are used to obtain information about the cultural and linguistic diversity of respondents. Often, more than one data item relating to cultural and linguistic diversity is collected in each data source.

Of the data sources reviewed, data items relating to the respondents' birth places included:

- 'country of birth'—collected in 25 data sources
- 'place of birth' collected in the VIC–PHS and 'region of birth' in the YPiCHS

- 'country of birth [of the respondents'] parents'—collected in the YACR and VIC–PHS.

Data elements relating to cultural diversity include:

- 'year of arrival to Australia'—collected in three data sources; the NCIS collects the number of 'years the individual has been in Australia'
- 'parental culture and religion'—collected in the LSIC
- 'ethnic background'—collected in the KHLS and the NT PDSDB (the latter also collecting 'nationality').

Data elements relating to linguistic diversity include:

- 'main language spoken at home'—collected in 12 data sources; 'main and other language spoken at home' are collected in the NDSHS and 'main language spoken by parents' is collected in the NSP and NPEBVS
- 'preferred language spoken'—collected in the AODTS–NMDS
- 'English proficiency'—collected in the NHS and 'difficulty communicating in English' in the NATSISS
- 'Indigenous language(s) spoken'—collected in the NATSISS and WAACHS; the WAACHS also collects 'Indigenous language(s) understood'.

Of the key data sources reviewed, eight do not collect any information on cultural and linguistic diversity.

Geographic indicators

Data sources were reviewed to determine whether they contained indicators of the geographic location of individuals and of agencies.

In most of the data sources reviewed the location of the respondent was defined as the physical location of their residential setting. A number of different data items are used within data sources to obtain this information, with data sources often collecting one or more of these. The most common data items used to indicate the geographic location of respondents are:

- 'postcode'—collected in 15; also enabling state and territory, Rural, Remote and Metropolitan Areas Classification (RRMA) and Accessibility/Remoteness Index of Australia (ARIA) to be identified or generated
- 'residential address' or 'household address'—collected in five
- 'suburb/town of residence'—collected in five
- 'Australian Standard Geographical Classification (ASGC) remoteness area of residence'—collected in three; this is a five-digit code which is derived using a state/territory identifier and the SLA of residence
- 'Statistical Local Area (SLA)'—collected in three
- 'metro/rural/remote classification'—collected in three.

Because the majority of key data sources were population or other surveys, the location of a relevant agency (for example, treatment service) was not applicable and therefore not collected (for example, NDSHS, NATSISS, NATSIHS). Of the 27 collections that did include a geographic indicator for a relevant agency, the most common ways of collecting geographical information about the agency are:

- state/territory—collected for eight collections (for example, state of prison in NPEBVS, state of needle and syringe program in NSP)
- postcode—collected in two collections (for example, postcode of general practice in BEACH, postcode of school in ASSAD)
- full street address of the relevant agency—collected in seven collections (for example, the address of the Indigenous-specific substance use service in DASR).

The NT PDSDB contains information about the 'full address of the seizure' and an indicator of whether the 'seizure [was in an] Aboriginal community'.

Indicators of social context

The way in which key data sources include information that describes the more complex aspects of individual's lives, such as their social context and social participation, varies widely. The most common indicators of social context found in the reviewed collections related to accommodation, family relationships and income.

The data sources that address indicators of social context most comprehensively are the NDSHS, NATSIHS, WAACHS and LSIC (Table A3.5). Of the key data sources reviewed, 11 do not contain any data items relating to indicators of social context, including the AODTS–NMDS, DASR, SAR, NPCS, and QLD-WPHS.

Accommodation

The most common data items providing an indication of an individual's accommodation arrangements are:

- 'household composition'—collected in 11 data sources. This data items also relates to 'family relationship' indicators.
- 'accommodation type'—collected in 12 data sources (referred to variously as 'accommodation type' (for example, IDRS–PDI), 'household type' (for example, NDSHS), 'residential setting' (for example, ALSWH) and 'type of housing' (for example, DUCO and DUMA)
- 'living arrangements', 'living situation' or 'living environment'—collected in eight collections
- 'number of bedrooms'—collected in two sources.

Family relationships

The most common data items about individuals' relationships are:

- 'marital status'—collected in 15 data sources
- 'parental status'—collected in three data sources
- 'number of siblings'—collected in the NSMHW (C&A).

Other data items relating to family relationships that are collected in at least one data source include 'relationship status', 'number of dependent children in household', 'birth order' and 'caregiver relationships'.

Income

The most common data item about individuals' income is 'income source' which is collected in eight key data sources, including one data source which also collects 'main income source'.

Other less common data items relating to income include 'average gross income', 'level of income', 'disposable income', 'assets' and 'source of retirement funding'.

Indicators of social participation

As with the indicators of social context, a variety of data items are used to obtain information about social participation (Table A3.5). Again, most data sources use more than one data item to collect this information. These data items are outlined under the following headings: employment, education and other indicators of social participation. Fifteen of the key data sources reviewed did not collect information relating to social participation.

Employment

A number of different data items are used within data sources to obtain information relating to employment, with data sources often collecting one of these. The most common data items used to indicate respondents' employment were:

- 'employment status' or 'labour force status'—collected in 18 data sources; in the NSW–IHS and QLD-WPHS collections, the labour force status of the respondent prior to imprisonment is collected
- '(current) occupation (type)'—collected in 10 data sources; the data item for the NDSHS asks for the 'type of work undertaken'; the NSW–IHS and QLD–WPHS collect the occupation of the respondent prior to imprisonment
- 'hours worked'—collected in the NATSIHS and NSMHW (C&A)
- 'employment history'—collected in the YPiCHS; the VIC–PHS collects the work history of an individual prior to and post entering prison.

Other employment related data items collected include 'voluntary work', 'industry last employed in', 'main job held' and shift work' (Table A3.5).

Education

Information collected about education includes:

- 'educational attainment'—collected in 16 data sources
- 'current education status' or 'year currently enrolled in at school'—collected in three data sources
- 'accessibility to education'—planned for collection in the LSIC (which may also collect 'accessibility and experience in playgrounds, preschool, primary, secondary and tertiary education').

Other less common data items relating to education include 'school absenteeism', 'educational experience', 'school leaving age' and 'place of education'.

Other indicators of social participation

- 'attendance at day care' and 'participation in social and recreational activities' are collected in the WAACHS
- 'use of or access to childcare' is collected in four data sources, including the NSW-IHS and LSIC
- 'participation in selected activities' is collected in the ALSWH.

Family and personal context and influences

Twenty-one of the key data sources collect information that provides an indication of the family and personal context of individuals and the related influences to which they are exposed. Most collections use more than one data item to collect this type of information and the set of data items varies widely across data collections. For example:

- 'forced removal from natural family' is collected in seven data sources, including the NATSISS, WAACHS, SAR, NSW–IHS and VIC–PHS
- 'experience of racism or discrimination' is collected in the NATSIHS and WAACHS
- 'parenting practices' (for example, parental engagement or discipline practices) is collected in the WAACHS
- [exposure to] 'violence' (family or other)', 'abuse' or 'neglect' is collected in nine data sources, including the NATSISS, Lifeline statistics, DUCO and YPiCHS.

Substance use context and influences

Information that could potentially be used to describe the substance use context and influences of individuals was included in 19 of the key data sources, with little commonality across collections. For example:

- the NDSHS, which collects the most comprehensive information in this area, asks individuals about: their opportunity to use drugs and the availability of drugs; peer pressure to take drugs; knowledge of regulations relating to drug use; awareness of preventive strategies; cultural acceptance of specific drugs
- the IDRS–IDU collects information about respondents' knowledge of purity and availability of injectable drugs and whether they have been a victim of drug-related crime
- the IDRS–PDI asks respondents about their knowledge of purity and availability of drugs, source of drug, location drugs were obtained (scored) and occupational/social/financial/legal problems they attribute to their drug use
- the YACR asks young people about peer group problems relating to alcohol and tobacco, alcohol advertising campaigns, parental rules on drinking alcohol and about their perceptions of substance use
- the NATSIH and NATSISS ask questions about life stressors, where possible responses include the use of substances by self or other
- the WAACHS asks about parent/caregiver use of alcohol and tobacco, perceptions of community problems and experience of substance use among school peers.

The IDDR and NT Police Drug Seizure Data Base both include information about drug-related offences including type of drug seized, location of seizure, drug purity and basic demographics of the offender. Indigenous status of the offender is included in the NT PDSDB but not the national IDDR.

Associated harms/health status

Table A3.6 outlines whether data items relating to associated harms and health status are included in each of the key data sources. Most key data sources enable a basic profile of individuals to be developed in relation to at least one aspect of substance-related associated harms or health status. This section will focus on comorbidity/health conditions, disability, pregnancy, suicide, and crime and justice.

Comorbidity/health conditions

Information about health problems, status or conditions, in conjunction with information about whether or not a person is a substance user, can be used to explore comorbidity of substance use and other health conditions. Most (35) of the key data sources contain some information relating to individuals' health status, with information generally being collected by a number of data items in each source. The most common ways of collecting information about health status are:

- self-reported health status—collected in 16 sources with varying methodology and level of detail (for example, the ABS Short Form–1 (SF–1), which asks respondents to rate their general health according to a scale, is used in the NDSHS; SF–12 in YPiCHS; SF–36 in QLD–WPHS; and the Lifeline and KHLS record 'health' as a main call issue)
- self-assessed health conditions—collected in four sources, all by asking the respondent about any long-term health conditions they have (NDSHS, NATSIHS, NHS, HILDA)
- mental health status—specific information relating to mental health (in addition to other indicators of mental health that would be detected through diagnosis) is collected in 15 sources, in various ways (for example, IDRS–IDU and IDIS ask if an individual has any mental health problems; NDSHS, NHS, NSW–PHS, DUCO and DUMA use the Kessler 10 instrument, Lifeline and KHLS record 'mental health' as main call issue)
- specific questions about blood borne infections and/or sexually transmitted infections—collected in eight sources (IDRS–PDI, NSP, National AIDS/HIV Registry, NPEBVS, NSW–IHS, QLD–WPHS, VIC–PHS, NSW YPiCHS)
- diagnosis (by medical professional)—collected in four sources (NHMD, NCMHCD, NRMHCD, MHNOCC)
- severity of dependence—collected in IDRS–PDI and IDIS using the Severity of Dependence Scale.

Disability

The International Classification of Functioning, Disability and Health (ICF) defines disability as a multidimensional concept, relating to the body functions and structures of people, the activities they do, the life areas in which they participate and the factors in their environment that affect these experiences (WHO 2001). Each of these components is described in the context of a health condition. Information about health conditions and environmental factors (for example, social context and social participation) is reviewed elsewhere in Chapter 5. In this discussion we are really focussing on what we know about the extent to which substance use is associated with activity limitation (for example, difficulty learning or solving problems) or participation restriction (for example, difficulty in acquiring and keeping employment).

Of the key data sources, 12 include some information relating to disability. For example, the ABS surveys (NHS, NATISHS and NATSISS) generally collect information using Short Forms (for example, SF–12, SF–36) which contain information about health conditions and the effects of health conditions on functioning and wellbeing. Such information could be used to indicate the level of functioning and therefore disability among substance users. Examples of the data items that relate to disability in the key collections are:

- disability as a 'stressor—NATSIHS
- disability status (based on ABS concept of disability)—NATSISS, WAACHS
- disability/disability type—NSW-IHS, VIC-PHS (intellectual), YPiCHS (status)

- functional impairment—NSMHW(psychotic)
- parental condition—LSIC
- disability impacts—LSIC
- help needed because of disability—ALSWH
- call issue—Lifeline
- long-term illness/disability—QLD-WPHS.

Pregnancy and the unborn child

Information about substance use behaviour among pregnant women is an important predictor of exposure to health risks for both the mother and child (for example, low birth weight, dependence). The key data sources contain the following information about substance use and pregnancy:

- 'drug intake while pregnant' is collected in the NDSHS, WAACHS and LSIC
- the NMD collects information about 'maternal alcohol addition' and 'maternal drug addiction'
- 'tobacco smoking status during pregnancy' and 'average number of cigarettes smoked per day during the second half of pregnancy' are collected in the NPDC in some jurisdictions
- 'quitting smoking because of pregnancy' and '(receiving) smoking advice while pregnant' are both collected in the NDSHS.

General data items relating to pregnancy include:

- for all births, the NPDC collects the demographic and pregnancy characteristics of mothers, and the characteristics and outcomes of their babies
- 'ever had children' and 'breastfeeding history' are both collected in the NATSIHS and National AIDS/HIV registry; 'use of contraception' is also collected in the NATSIHS
- 'pregnancy history' and 'use of hormone replacement therapy' are both collected in the ALSWH
- 'reproductive health' is collected in the NSW–IHS and information about 'fertility' is collected in the QLD–WPHS
- 'transmission of HIV to child' is collected in the National AIDS/HIV registry.

Suicide

A variety of data items are used within the data sources to provide information relating to suicide, including:

- 'attempted suicide'—collected in eight data sources including the CAYLUS, WAACHS, NMD and YPiCHS
- 'suicidal thoughts'—collected in six data sources and 'suicidal ideation' is collected in a further 5 data sources
- an indicator of 'self harm', which is collected in five data sources including the ALSWH, NSW–IHS, QLD–WPHS, VIC–PHS and YPiCHS; the YPiCHS also collects information relating to 'methods of self harm'
- the DASR collection, which provides a service level indicator of self-harm or suicide.

Other less common data items relating to suicide include 'deliberate overdose' (IDIS), 'suicide call issue' (KHLS, Lifeline Statistics), 'diagnosis of intentional poisoning' (NRMHCD) and 'intent' (NCIS).

Crime and justice

Information about crime and justice is collected in 28 of the key data sources reviewed and is an important indicator of associated harms that may result from substance use. Common data items include:

- 'prison history'—collected in five data sources and 'criminal history' in a further two data sources
- 'most serious offence'—collected in five data sources; in the DUCO this data item relates to the 'most serious charge' and 'most serious regular charge'
- 'ever been in prison/detention'—collected in the IDIS, NSP and WAACHS; in the WAACHS this data item relates to 'overnight stay at juvenile detention centre or police station'
- 'physical violence or fighting'—collected in the WAACHS and NMD
- 'contact with police'—collected in the NATSISS and WAACHS and 'contact with the criminal justice system' in the DUMA
- 'self reported criminal activity'—collected in the IDRS–IDU and IDRS–PDI
- 'experience of abuse'—collected in the NDSHS and the WAACHS.

The NT PDSDB and IDDR both collect comprehensive information about people who have been arrested as part of a drug seizure.

Other data items relating to crime and justice that are collected in at least one data source include 'prisoner status', 'length of imprisonment', 'victim of violence', 'reason for committing an offence' and 'number of arrests/charges in the past 12 months'.

Intervention and treatment services

Intervention and treatment service options and uptake

The scope of the key data sources reviewed for this study covers a broad range of treatment and intervention services, including those within the health and welfare sector and more broadly in sectors such as income support and corrections. Among the key data sources information is collected directly (either as by-product administrative data or through survey) about uptake of services from agencies providing the following treatment and/or intervention service types:

- mainstream drug and alcohol treatment services (AODTS–NMDS) and opioid pharmacotherapy services (BTOM–C)
- specialist Indigenous-specific substance use services (DASR)
- services provided by general practitioners (BEACH)
- needle and syringe programs (NSP)
- youth services (CAYLUS)
- Aboriginal and Torres Strait Islander primary health care services (SAR)
- hospital services (NHMD) and emergency department services (NAPEDCD)

- specialist mental health care in the community (NCMHCD) and in residential settings (NRMHCD) and in both settings (MHNOCC)
- telephone support services (Lifeline and KHLS)
- crisis accommodation support (SAAP) services and
- corrections (NPEBVS, NPCS, DUCO, DUMA, NSW–IHS, QLD–WPHS, VIC–PHS, YPiCHS).

The above sources can be used to make inferences about the uptake of services by people with substance use issues, but only where information about substance use is also available (see Chapter 6 for further discussion).

Many of the remaining key data sources also provide information about the uptake of treatment and intervention services because they ask respondents questions about their recent efforts to access health services (Table A3.7). For example:

- the IDRS–IDU and IDRS–PDI ask drug users whether they are currently accessing drug treatment and about drug treatment they have accessed in the last 6 months
- the IDIS asks about the use of treatment services generally
- the NAC ask respondents about awareness of health promotion campaigns relating to alcohol and tobacco
- the NATSISS, NATSIHS, NHS, WAACHS and ALSHW collect information (in various formats) about the use of health services such as hospitals, general practitioners and dental services (the LSIC also plans to collect such information).

Affordability, accessibility and appropriateness of interventions and treatment services

Information about affordability, accessibility and appropriateness of intervention and treatment services is limited. For example, information which could relate to affordability is collected in five key collections:

- NATSIHS and LSIC—cost may be indicated as the reason a person did not attend services
- DASR—collects some information about how much services cost for clients
- BEACH and ALSWH—collect 'cost' of GP services.

Information relating to accessibility is collected in 15 key data sources. For example:

- the NATSIHS, IDIS, WAACHS, LSIC, NSW–PHS, NSMHW(C&A), NSMHW(psychotic) ask respondents about their reasons for not attending health services or barriers to health services or similar
- some collections include data items that could potentially be used to infer something about accessibility to services (for example, Lifeline and KHLS could possibly use location of callers, number of phone calls received, number of phone calls answered, response to rural and remote calls, NAPEDCD could potentially use waiting times to service delivery for particular triage categories).

Information about the appropriateness of services or interventions is collected in 14 key data sources, in various ways. For example, the following data items could potentially be used as rough indicators of appropriateness:

- IDIS collects information about ways of improving the service and the advantages and disadvantages of treatment

- DASR and SAR includes information about the Indigenous status of staff, as well as information about their training and qualifications
- Responses to the question on why services were not used can include 'service not culturally appropriate' (NATSIHS and LSIC)
- Satisfaction with service is collected in the ALSWH, NSW–PHS, YPiCHS
- Access to Aboriginal health services within prisons is collected in NSW–IHS, QLD–WPHS and the VIC–PHS.

Outcomes of interventions and treatment services

Information about the outcomes of treatment or interventions is available from eight key data sources, for example:

- BTOM–C provides a measure of treatment outcomes for clients of methadone or buprenorphine treatment programs in New South Wales
- DASR and SAR ask services to provide information about particular achievements or success stories in the past year
- SAAP–NDC can report on the extent to which the goals of a client's case management plan were achieved by the end of a support period (for clients with an agreed case management plan)
- DUCO asks about the perceived effectiveness/usefulness of drug use services.

While no information is collected on outcomes for clients of alcohol and other drug treatment services at a national level (under the AODTS–NMDS), outcomes information is collected in a number of jurisdictions, for example, the Significant Treatment Goal Achievements in Victoria.

It is possible that indicators of outcomes (at the service level or client level) may exist or could be developed using the information from some of the remaining collections.

Resources

Key data sources were searched for information about expenditure by governments on substance use interventions. Such information is not readily available for drug treatment programs from the sources reviewed. However, as noted in Chapter 2, a detailed study of alcohol and other drug intervention programs funded by government was undertaken by the Australian National Council on Drugs in relation to the 1999–2000 financial year (Gray et al. 2002). Such expenditure data cannot be broken down in terms of amounts directed specifically to programs targeting Aboriginal and Torres Strait Islander peoples.

Of the key data sources, only two included routine questions relating to expenditure on services. The DASR asks Indigenous-specific substance use services to state the service's income for substance use (excluding client payments) in the reporting period and also asks services to comment on funding issues arising during the reporting period.

6 To what extent can existing data sources answer key questions?

6.1 Introduction

This chapter assesses the key questions and information needs detailed in Chapter 4 against the information from the data sources presented in Chapter 5. This chapter thus tackles the question: to what extent can the available information be used and analysed in a way that will better answer and shed light on the priority information areas?

The data sources are examined against the key questions, as identified in Chapter 4, relating to the five-domain framework. To recap, the key questions relate to:

- nature of Indigenous substance use (domain 1—tobacco, alcohol and other drug use and associated risk behaviours)
- characteristics and context of Indigenous substance users (domain 2—context and influences)
- associated harms, such as mortality (domain 3—associated harms and health status)
- other associated harms, such as homelessness and crime (domain 3—associated harms and health status)
- affordability, accessibility and appropriateness of interventions (domain 4—intervention and treatment services)
- effectiveness of interventions (domain 4—intervention and treatment services)
- expenditure on treatment and interventions (domain 5—resources).

Sections 6.2 to 6.6 identify the extent to which of the reviewed data sources can inform each of the key questions, summarised under each of the 5 domains.

Three cross-cutting questions

Three main information needs were identified through the November workshop, that run across the key questions. These three information needs are for:

- community-level and individual information
- whole-of-government and cross-sectoral information
- timely information on emerging trends and patterns.

Broadly speaking, with a few exceptions, existing data sources do not easily lend themselves to supporting these three information needs. For example:

- very few data sources collect information at the community level. However, with sufficiently large sample sizes and agreed definitions of 'communities', information collected at the individual level could potentially be aggregated up to community-level data (for example, NATSISS). The feasibility of this type of analysis requires further exploration with the ABS.
- much of the information collected across different sectors is not directly comparable (particularly in terms of collection counts, but also in terms of data items and definitions).

- timely information about emerging trends is collected only in a very small number of sources, relating to specific population sub-groups (for example, IDRS–IDU, IDRS–PDI, IDIS).

These gaps overlay much of the following discussion and are discussed further in Chapter 7.

Examination of the data sources

The following discussion takes into consideration the comparability of data sources in terms of methodology, collection count, data items and so on (as described in Chapter 5). However, the discussion does not extend to highlighting all of the possible specific analytical issues the collections might present. For example, potential analysts might need to consider the limitations of particular sample sizes (for example, it is possible that reliable population estimates might not be generated, particularly for specific geographic areas). Potential analysts may also need to develop their own definitions for what constitutes 'substance use' among the given population (for example, any use of tobacco, alcohol or other drugs, problematic use of licit or illicit drugs for non-medical purposes). Finally, analysts may need to account for the likelihood that Indigenous substance use information is under-reported due to, for example:

- the sensitivities around and disincentives to accurately reporting substance use information
- the likely under-reporting of Indigenous status in many collections due to the level of 'not stated' responses that occur in most data collections for this data item.

A full assessment of each key data source in terms of its quality (for example, representativeness of the selected sample, extent of 'not stated' responses for variables other than Indigenous status) was beyond the scope of this project.

The majority of discussion in this chapter relates to the 44 key data sources identified in Chapter 5. While there are various possible ways of summarising the extent to which these key data sources can answer the key questions, we have chosen to group them in terms of the broad population groups to which they relate. The 44 key data sources are useful in terms of describing the characteristics of substance use within the following broad population sub-groups (there is overlap between these groups):

- the Australian population overall (the NDSHS, NATSISS, NATSIHS, NHS, NSMHW(C&A), NSMHW(psychotic), NSW–PHS)
- children and adolescents (ASSAD, WAACHS, KHLS, LSIC)
- women (NPDC, ALSWH)
- substance users (IDRS–IDU, IDRS–PDI, IDIS, CAYLUS) and substance users who access specialist treatment (AODTS–NMDS, DASR, BTOM-C)
- people accessing health interventions (BEACH, SAR, NHMD, NAPEDCD, NCMHCD, NRMHCD, YACR, National AIDS/HIV Registry, NSP, Lifeline Statistics)
- people accessing crisis accommodation support programs (SAAP–NDC)
- people in custody (NPC, NPEBVS, NPCS, DUCO, DUMA, NSW–IHS, QLD–WPHS, VIC–PHS, YPiCHS) or coming into contact with the police system in relation to a drug-related arrests and seizure (NT PDSDB and IDDR)
- people who have died (NMD, NCIS).

6.2 Tobacco, alcohol and other drug use and associated risk behaviours

Key questions in this domain of the framework relate to the nature or patterns of substance use among Indigenous substance users, including:

- What is known about the prevalence of substance use?
- What is known about the type(s) of substances used?
- What is known about the quantity and frequency of substance use?
- What is known about the age at which substances were first used?
- What is known about expenditure on substances?
- What is known about risk behaviours associated with substance use?

The capacity of existing data sources to answer these questions is now examined. The main identified data gaps, in relation to each element of the five-domain framework, are summarised in Table 6.1.

Prevalence of substance use

As a set, the 44 key data sources reviewed for this project could be analysed to generate estimates of the prevalence of substance use for both Indigenous and non-Indigenous people in various population sub-groups. In some cases, the estimates would be based on the self-reported responses to a series of direct questions about substance use behaviour (for example, NDSHS) while in most data sources analysts would need to develop proxy measures for substance use based on the information available in the data source (for example, all hospital separations with a drug-related primary diagnosis for the NHMD). Unless specifically stated, the following prevalence estimates could be developed for both Indigenous and non-Indigenous populations within each collection's scope.

Prevalence among the population

The prevalence of substance use among the overall Australian population can be estimated using the NDSHS, which covers tobacco, alcohol and other drugs. In 2004, 463 people responding to the survey reported that they were Aboriginal and/or Torres Strait Islander people (AIHW 2005b). The size of this sample means that national prevalence estimates can be generated for tobacco, alcohol and selected other drugs, but further analysis of, for example, prevalence rates among different age groups or in different states and territories, is not possible. While the NDSHS has a relatively large sample size overall, and is the only population survey that asks alcohol and other drugs questions of people under 18 years of age, the overall response rate to the survey was 46% in 2004, leading to some concerns over potential response bias and coverage (AIHW 2005f).

The NATSIHS and NATSISS were specifically designed to collect information about the health and social characteristics of Indigenous people. These collections include information about tobacco, alcohol and other drugs although, as would be expected, this information is not as detailed as for the NDSHS. Both the NATSIHS and the NATSISS produce national estimates of the prevalence of smoking and alcohol use. However, due to methodological issues encountered in the rural/remote element of the survey, prevalence estimates for the use of 'other drugs' by Indigenous people in rural/remote locations are not published. The NHS, particularly in conjunction with its Indigenous supplement, also provides information about smoking and alcohol use among Aboriginal and Torres Strait Islander peoples.

There have been concerns raised regarding the methods employed and the results indicated by the 2002 NATSISS for Indigenous alcohol consumption (for example, Chikritzhs & Brady 2005). Specifically, the 2002 NATSISS generated lower estimates of risky and high risk drinking for Indigenous people, than comparable surveys (for example, the 2001 NHS). The 2002 NATSISS results are also difficult to reconcile with the relatively high Indigenous death and morbidity rates for alcohol-attributable disease and injury (Chikritzhs & Brady 2006).

The scope of population surveys means that they explicitly exclude people from various locations. For example, the NDSHS sample excludes the homeless, institutions, correctional facilities, aged care facilities, military bases, schools or places of business. The number of people who might be defined as substance users who are currently present in some of these locations can be estimated using some of the data sources described below. However, information about the prevalence of substance use among Indigenous people who are homeless and not presenting for any services or treatment is not presently available.

Prevalence among children and adolescents

The ASSAD enables prevalence estimates to be generated for use of tobacco, alcohol and illicit drugs (ever and current use) among secondary school students in Australia (aged 12–17 years), although the capacity of this survey to provide reliable estimates among Indigenous students is likely to be limited. Broadly comparable prevalence estimates for the use of tobacco, alcohol and illicit drugs for an Indigenous-specific sample of young people (also aged 12–17 years) could be generated from the WAACHS. The WAACHS also collects information about the prevalence of use of substances by parents.

The LSIC, currently under development, proposes to include items on smoking and alcohol use by parents. If these data items are comparable with the WAACHS, it is possible that prevalence estimates about exposure to alcohol and tobacco use by Indigenous children could be available across Australia and over time.

Prevalence among women

The two key data sources touching on substance use among women are the NPDC and the Australian Longitudinal Study on Women's Health (ALSWH). While the ALSWH includes Aboriginal and Torres Strait Islander women as participants, it was not designed as, and should not be used as, a source of data about the health of Aboriginal and Torres Strait Islander women. The NPDC enables estimates to be generated of the number of women who smoke during pregnancy, although this information is not available for all states and territories.

Prevalence among people accessing treatment for substance use

There is fragmentation in the way information is collected about people receiving substance use treatment in Australia. For example:

- the AODTS–NMDS collects information from all publicly funded (at state, territory and/or Australian government level) government and non-government agencies that provide specialist alcohol and/or other drug treatment services
- the DASR collects information at the service level about clients attending Indigenous-specific substance use services
- the NOPSAD collection is a collation of information on the numbers of people attending opioid pharmacotherapy treatment.

It may be possible to generate an estimate of the number of substance users (Indigenous and non-Indigenous) who access treatment using the AODTS–NMDS. However, this collection is based on 'closed treatment episodes', rather than clients, and does not contain a facility such as a statistical linkage key to assist in reducing double counting of people.

The DASR currently provides service-level estimates of the number of Indigenous people receiving treatment from Indigenous-specific substance use services.

Another population of interest are those people accessing opioid pharmacotherapy programs. The national collection that currently describes this population (NOPSAD) does not include basic demographic information such as sex or Indigenous status (and was therefore not reviewed in depth for this report). Data development is currently underway to enhance the NOPSAD (led by the AIHW and funded by DoHA).

A number of jurisdictions already collect more information than is available nationally, and their experiences in developing and implementing such collections are of potential national interest. For example, the NSW Minimum Data Set for Alcohol and Other Drug Treatment (NSW MDS–AODTS, now known as the NSW MDS for Drug and Alcohol Treatment Services (NSW MDS–DATS) currently collects information about principal source of income, living arrangements and usual accommodation. The NSW MDS-DATS is also collected from opioid maintenance pharmacotherapy services in NSW as part of the Brief Treatment Outcome Measure–Concise (BTOM–C) (see further discission in the section on treatment outcomes).

There are currently no national data available about agencies with a main function of providing accommodation or overnight stays such as 'halfway houses' and 'sobering up shelters' (unless funded under the SAAP Program and therefore reporting under the SAAP–NDC) or about clients of private agencies that do not receive government funding.

Ongoing information is not currently available about drug treatment services based in prisons or other correctional institutions, although work on a National Prisoner Health Minimum Data Set has commenced.

Prevalence among substance users not necessarily accessing treatment for substance use

CAYLUS currently provides estimates of the number of petrol and glue sniffers in remote and central Australia. While relating to a limited geographic area, this collection is of particular significance as it reports on a substance use problem that is known to be more prevalent amongst Indigenous populations.

Prevalence among people accessing general health interventions

Most of the reviewed collections relating to health interventions could be used to generate estimates of the prevalence of substance use among their clients. However, such estimates are generally high-level, not comparable across data sources and usually based on proxy indicators of substance use. For example:

- the prevalence of substance use among Indigenous people attending GP services could be indicated using the BEACH survey, based on responses to the data item 'reason for encounter/problem managed'.
- the prevalence of substance use among people attending Aboriginal primary health care services could be estimated using service-level estimates from the SAR collection, based on which substance use issues the service provided treatment/assistance for in the reporting period (tick box for alcohol, tobacco/nicotine, cannabis/marijuana, petrol and so on).

- the number of hospital separations with a drug-related diagnosis (NHMD) may provide an indication of prevalence in this group, but, among other issues, double counting may be an issue difficult to deal with.

Prevalence among people accessing crisis accommodation support

The SAAP–NDC can be used to generate an estimate of the prevalence of substance use among Indigenous people presenting for crisis accommodation support. The proxy measure for 'substance use' would be based on broad data items such as main presenting reason ('problematic drug/alcohol/substance abuse') or the type of support provided to the client ('drug/alcohol support or intervention') and is thus likely to underestimate the prevalence of substance use among this service population.

Prevalence among people in custody

Both the DUCO and DUMA provide estimates of the prevalence of past and present illicit drug use among people sentenced or detained in prison or other correctional facilities. The NSW–IHS and QLD–WPHS provide estimates of past and present substance use for tobacco, alcohol and other drugs among adult prisoners and the YPiCHS also collects this information in relation to young detainees in NSW. The VIC-PHS provides estimates of whether Victorian inmates have ever used alcohol or illicit drugs.

Prevalence among people who have died

Both the NMD and the NCIS are capable of generating estimates of drug-related deaths, which is a rough proxy for the prevalence of substance use among Indigenous people who have died.

The prevalence of substance use among Indigenous people who have died is likely to be underestimated using these sources as, to be recorded, drugs need to be considered as the primary cause of death or as directly contributing to the death. Long-term substance use often contributes to other chronic health conditions, which are then more likely to be included as the cause of death.

Prevalence among people accessing income support

Among the initial data sources explored for this project was the Longitudinal Data Set 1% sample, which contains extracts from the operational databases held by Centrelink, including customers' characteristics and payment details. The data custodian for this collection is FACSIA. While the LDS includes a non-mandatory data item on Indigenous status, it does not include information about substance use.

In addition to estimating the prevalence of substance use, there is interest in further detail about the patterns of substance use. The usefulness of information about types of such patterns (for example, substances used, quantity and frequency of substance use and age at which drugs first used) is affected by the limitations in generating accurate prevalence data outlined above. For instance, the extent to which any further information can be obtained about types of substances used by Indigenous people, is limited by the extent to which Indigenous people are identified in administrative data sources or included in sufficient numbers in population survey samples.

Type(s) of substances used

As detailed in Chapter 5 (and summarised in Table A3.3), a range of reviewed data sources provides information about the types of substances used by Indigenous and non-Indigenous people. Most collections provide information about whether tobacco, alcohol or other drugs are used. However, not all collections report on all of these substances. For example, while the NATSIHS collects information about tobacco, alcohol and 'other drugs', DUCO only collects information on the use of illicit drugs. Further, the level of detail available about the types of 'other drugs' used varies.

CAYLUS is the only reviewed collection that focuses on a substance type with particular relevance to Indigenous populations (in this case petrol and glue sniffing).

As a set, the reviewed key data sources provide considerable information about the types of substances used by Indigenous and non-Indigenous people. However, this information is not always comparable, and the extent to which it is able to meet the needs of analysts depends to some extent on their precise information needs. For example, an analyst focussing on the use of amphetamines among Indigenous people would have greater difficulty in locating comparable information than an analyst focusing on the use of alcohol.

Quantity and frequency of substance use

Information about both the quantity and frequency of substance use is important in terms of defining the level of risk or harm associated with substance use. For example, national guidelines defining the 'short-term' and 'long-term' risk of harm in relation to alcohol consumption relate to the quantity of drinks consumed over specified periods of time (see Appendix 1). As noted in Chapter 5, there is considerable variation in the way information about quantity and frequency of substance use is collected across the reviewed collections. Thus, while there is a reasonable amount of information about quantity and frequency of use for the various substances (tobacco, alcohol and other drugs), its lack of comparability may limit its ability to answer certain questions. As with information about substance types, the extent to which analysts' needs can be met depends to some extent on the specific questions people want to answer.

Age at which substances first used

The age at which people first use substances is an important predictor of lifetime use of substances and provides information about past and current patterns of uptake, and thus important information for people developing appropriately targeted prevention and intervention strategies. As noted in Chapter 5, information about age at which substances were first used is collected in 11 of the reviewed data sources, three of which ask only about age at which injected drugs or ecstasy were first used (IDRS–PDI, IDRS–IDU and IDIS) and two of which ask only about age at which tobacco use commenced (NATSIHS and ALSWH). The most relevant sources of information about age at uptake for a range of substances (at the population level) are the NDSHS and WAACHS. Relevant information is also available about age at which substance use commenced for people in custody (for example, the DUCO, NSW–IHS and YPiCHS).

Expenditure on substances

There is generally very limited information about expenditure on substances by Indigenous and non-Indigenous people. Information about expenditure on substances, particularly in

relation to income, is an important predictor of financial stress and, potentially, other associated harms such as criminal activity. As noted in Chapter 5, only five collections include information on expenditure (for example, the IDRS–PDI collects information about expenditure on ecstasy, IDIS on heroin and DUCO on all substances).

Risk behaviours associated with substance use

Information about risk behaviours associated with substance use provide an indication of the likely intensity of substance use and are predictors of related possible harms (for example, death or injury associated with drink driving, contracting sexually transmitted diseases from unsafe sex practices, contracting HIV/AIDS or other blood borne viruses through sharing needles).

In Chapter 5 we outlined the types of information collected about risk behaviours associated with substance use (for example, method of drug use particularly sharing needles, drink/drug driving, stealing, tattoos and piercing, safe sex practices, sex work). For example, the NDSHS collects information about risk taking behaviours while under the influence of alcohol or illicit drugs in last 12 months (for example, working, swimming, driving a boat or car, operating hazardous machinery, creating a public disturbance, causing damage to property, stealing money, goods or property, or abusing someone verbally or physically) as well as information about tattoos and body piercing and injecting behaviour. The data sources focusing on injecting drug users (IDRS–IDU, IDIS and NSP) also collect information about risk behaviours, with a focus on injecting behaviour and sexual practices. The WAACHS collects extensive information about risk behaviours or symptoms for Indigenous children, including information about whether they feel isolated from others or lonely, whether they are wagging school or running away from home, deliberate self harm and sexual behaviour.

In contrast, data sources relating to people accessing drug treatment services (for example, AODTS–NMDS, DASR) and health interventions (for example, BEACH, SAR) collect minimal information about risk factors (for example, AODTS–NMDS collects information on whether clients' injecting practices). The Indigenous-specific population surveys (that is, NATSISS and NATSIHS) do not directly collect information about risk behaviours associated with an individual's substance use, although they do collect extensive information about the context or environment in which the individual lives that could potentially infer levels of risk (for example, information about the extent of cultural identification, family stressors).

Thus, depending on the specific area of interest, the data sources reviewed could be analysed to inform understanding of the types of risk behaviours associated with drug taking among Indigenous and non-Indigenous people (for example, comparing needle sharing behaviour as reported in the IDRS–IDU for Indigenous and non-Indigenous intravenous drug users with that reported in the IDIS sample of Indigenous intravenous drug users). However, there is limited information in about risk behaviours associated with substance use in Indigenous-specific population surveys or relevant drug treatment collections.

6.3 Context and influences

This section explores the extent to which existing data sources are able to describe the characteristics of Indigenous substance users and associated contextual and other influential factors. To properly delineate how such characteristics and contextual factors relate to problematic substance use among Indigenous peoples, it is desirable that descriptors (for

example, demographics, social context, exposure to substance use in the community) are available in relation to both Indigenous substance users and non-users as well as non-Indigenous substance users and non-users.

Demographics of substance users

Sex, age and cultural and linguistic diversity

The majority of key data sources reviewed provide comprehensive, and broadly comparable, information about the demographic profile of substance users, and non-users, in a range of settings and population subgroups. Most of these data sources are able to describe the characteristics of substance users, generally in relation to sex, age, and cultural and linguistic diversity. Where the information is not directly comparable across data sources, there may be a need for analysts to use less detailed information (for example, aggregating 'age in years' in the VIC–PHS to the 'age groups' used to collect age related information in the NSW–IHS).

Geographic location of substance users and services they access

Knowing where substance users reside and access services is important for planning appropriate interventions and treatment services. Patterns in relation to substance types, and the variation in substance use problems across, for example, metropolitan areas and more regional and remote areas, should be understood in order to plan appropriately targeted and timely interventions.

Geographic indicators among the population

Broad information on the geographical location of substance users can be examined using population surveys. The NATSISS, NATSIHS and NHS collect information relating to the state/territory of residence of the respondent as well as the ASGC remoteness area of residence. The NDSHS collects the census collection district of the respondents household, which can be translated using concordance files to the same ASGC remoteness areas as reported in the other population surveys. As already noted above, prevalence estimates for 'other drug' use among Indigenous people living in rural and remote locations are not published from the NATSISS and NATSIHS.

Geographic indicators among substance users accessing drug treatment

The AODTS–NMDS and DASR collections each record information about the geographical location of outlets providing services. Although geographic information is collected differently in each of these collections (that is, SLA of agency is reported in the AODTS–NMDS and postal address of service is reported in the DASR) it is still possible to analyse these data using the same classification (for example, using concordance files to allocate ASGC remoteness area classifications using postcode and SLA data). A recent research paper on mapping national drug treatment capacity examined the locality of drug treatment services using this type of information (ANCD 2005).

Analysis focussing on the geographic location of people being treated is currently not possible using the key drug treatment data sources, namely AODTS–NMDS and DASR.

Geographic indicators among substance users not necessarily accessing drug treatment

The IDRS–IDU and IDRS–PDI surveys collect information pertaining to the geographical location of the respondent's residential address (that is, state/territory of residence and

suburb/town of residence); however, options for translating this information into other classification types is limited (for example, suburb/town can not easily be coded to ASGC remoteness areas without a postcode). Analysis of geographic data from the IDRS–IDU and IDRS–PDI can be used to monitor patterns of substance use and associated behaviours at a high level (that is, for the capital city in which they were collected).

The scope of the IDIS (South Australia only) and CAYLUS (central Australia only) limits the amount of geographical analysis that can be undertaken.

Geographic indicators among children and adolescents

Each of the key data sources relating to children and adolescents includes a geographic indicator for the respondent, and therefore may support some analysis of substance use by location. The WAACHS and LSIC collect full residential address of the respondent, and therefore may be able to support analyses of geographic information at various levels, including local area estimates and ASGC remoteness areas. Similarly, the ASSAD collects residential postcode of the respondent, which could also potentially be analysed at various geographic levels. The KHLS only records the state/territory where the phone call was made, meaning that only very broad state-based estimates could be derived.

Geographic indicators among women

The NPDC could potentially be used to explore the geographical location of Indigenous women who use tobacco during pregnancy (in the limited number of jurisdictions for which this information is currently available).

Geographic indicators among people accessing health interventions

With the exception of the YACR, all reviewed data sources relating to health interventions include information about the geographic location of the relevant health intervention (for example, BEACH collects postcode of the general practitioner's major practice address, SAR collects full address details of the Aboriginal and Torres Strait Islander primary health care service). While there is variation in the way geographic information is collected, data from many of these collections could be described according to a single classification (for example, using concordance files to allocate ASGC remoteness categories).

Most reviewed collections relating to health interventions contain information about the geographic location at which respondents usually live (with the exception of the SAR and NSP). Such information is collected in various formats. For example, the National AIDS/HIV Registry records the respondent's current residential postcode, postcode of residence at time of blood donation as well as the state/territory of bloodborne infection diagnosis; the YACR only captures information relating to the suburb or town where the respondent lives; and other data sources, including the NAPEDCD, NCMHCD and NRMHCD, capture information about 'area of usual residence'. As with the service-level data, it is likely that information about respondents (including substance use prevalence and patterns where available) could be analysed and compared according to a single classification, such as the ASGC remoteness classification. However, the wide variation in the way such geographic information is collected would make this a complex technical and analytical task.

Geographic indicators among people accessing crisis accommodation support

The SAAP–NDC could be used to generate estimates of substance use for people presenting at crisis accommodation services using a geographic indicator for the service outlet. The SLA of the SAAP agency is collected, and could be translated, through concordance, to ASGC

remoteness areas or state/territory estimates. Because of the nature of SAAP services, the current residential location of the SAAP client is often the service centre. The extent to which estimates of substance use could be generated by geographic location would be limited to the proxy measure used to identify substance use in this data source.

Geographic indicators among people in contact with the corrections system

Various geographic indicators are used in the data sources relating to people in custody. In most cases, as the respondents are either incarcerated or detained, the geographic identifier of the respondent is the same as the geographic identifier of the watch house, police station, prison or juvenile detention centre. The type of identifier used within these data sources vary. For example, the NPCS, DUCO and DUMA all collect 'postcode' of watch house or police station, the NSW–IHS, QLD–WPHS and VIC–PHS all collect 'location of prison', and the YPiCHS collects 'address of juvenile detention centre'. Although different data items are used to collect geographic information within these data sources, it is likely that, through concordance a common indicator of geographical location could be used.

The NT PDSDB collects the residential address of people apprehended with drugs, as well as the address of where the drug seizure took place. These data could be analysed at a local level to provide a profile of drug seizures within the territory. Similar information is obtained at a national level through the IDDR collection.

A geographic indicator of respondents' residential address prior to incarceration or detainment is not collected in most data sources.

Geographic indicators among people who have died

Both the NMD and NCIS collect geographic indicators of where people have died, and in the case of the NCIS residential address of the deceased is also recorded. Calculating estimates of substance-related deaths in relation to geographic location is possible insofar as deaths are identified as being a 'drug related death'.

Social context of substance users

Information relating to the social context of an individual is important, as it can provide an indication of the predispositions to substance use and related harms. The types of indicators of social context identified in the population data sources tended to relate to accommodation (for example, accommodation type), family relationships (for example, household composition, marital status, parental status) and income (for example, main source of income, disposable income). Generally, most of the key data sources reviewed can provide some information about the social context of substance users.

Of the key data sources reviewed, those relating to substance users accessing the health system tend to contain the least amount of information about the social context of respondents. Most notably, the key treatment data sources at a national level—AODTS–NMDS and DASR—do not contain any data items relating to social context, although such contextual information is collected by some states and territories participating in the AODTS–NMDS and by many Indigenous-specific drug treatment services that contribute to the DASR. Similarly, a number of health intervention related data sources contain no (for example, NAPEDCD) or very little (for example, NCMHCD and NRMHCD) information on social context.

Social participation

The extent to which people are participating in social or community activities is an important indicator of their sense of connectedness to those around them and society as a whole. The types of indicators of social participation that were found in the key data sources tended to relate to employment and education status, with a small number of sources also collecting information about participation in social or recreational pursuits.

The WAACHS and NATSISS ask the most comprehensive range of questions relating to social participation. In relation to Indigenous children, the WAACHS includes questions on day care and learning, educational attainment, current educational status, social and recreational activities, parent/caregiver employment and availability and use of public transport. In relation to Indigenous people aged 15 years or more, the NATSISS includes questions about voluntary work, educational attainment, current study, educational experience, employment status and barriers to employment. These sources provide a great depth of information about social participation of Indigenous people. As previously noted, however, this information is not available in relation to Indigenous people using 'other drugs' in rural and remote areas.

The remaining population data sources tend to include information about employment and education status only (for example, NDSHS, ALSWH, ASSAD).

The two national substance use treatment collections (AODTS–NMDS and DASR) and the CAYLUS collection (Central Australia only) do not include information about the social participation of clients in terms of employment, education or other social and recreational activities, although indicators of social participation at the community level are available in the DASR. The IDRS–IDU, IDRS–PDI and IDIS include information about education and employment status for their more narrowly focused sample (that is, injecting drug users for IDRS–IDU and IDIS and users of ecstasy and related drugs for IDRS–PDI).

Very little or no information is collected about social participation in relation to people attending other health interventions such as general practitioners (BEACH), Aboriginal and Torres Strait Islander primary health services (SAR), emergency departments (NAPEDCD) or hospitals (NHMD).

Family and personal context and influences

In relation to this element of the information framework, the project team searched data sources for information about:

- the extent to which people have been exposed to or influenced by, for example, positive family functioning and resilience, family stressors, such as grief, and social disruption such as crime and violence
- people's social and emotional wellbeing, including whether they feel a connection to their land and people, and their experience of discrimination.

This element of the information framework relates very closely to 'indicators of social context', with more of a focus on family and individual interactions and feelings.

Between them, the NATSIHS and the NATSISS pick up on many of the above themes in relation to Indigenous people aged 15 and over (for example, cultural identity, family and individual stressors, removal from family, discrimination, neighbourhood/community problems, support in time of crisis, victim of physical or threatened violence). The WAACHS picks up a similarly broad range of family and personal contextual information in relation to Indigenous children (for example, parental engagement, parental discipline, forced

separation from family, partner/spouse relationship, social and religious supports, family life stress events, positive family interactions, experience of racism).

Comparable contextual information is not generally available for the non-Indigenous population through the data sources reviewed for this project.

Information about family and personal context and influences of individuals is not available for substance users attending mainstream drug treatment services (AODTS–NMDS) or Indigenous-specific drug treatment services (DASR). However, the DASR (and SAR) provide indicators of the community environment in which the service operates (for example, the drug problems that most affect the service) and the CAYLUS collection specifically records information about the history of the community in which its clients live. The DASR, SAR and CAYLUS are rare examples of data sources that collect information at the community level.

There is a reasonable amount of information about family and personal context in data sources relating to people in custody. The most common types of information collected are history of sexual or physical abuse (DUCO, QLD-WPHS, YPiCHS) and Indigenous removal from family (NSW–IHS, QLD–WPHS, VIC–PHS).

Substance use context and influences

Data sources were reviewed to see if they held information about:

- the extent to which individuals are exposed to substance use by family, friends, peers and others in the community and perceptions of substance use (for example, cultural acceptance of specific drugs, availability and opportunity to use specific drugs)
- the substance use context at a community level (for example, patterns of supply; patterns of demand; prevention strategies already in place such as dry communities, licensing laws and education campaigns or programs).

The NDSHS has by far the most comprehensive information about perceptions of, and attitudes towards, specific drugs, as well as information about opportunity to use specific drugs and awareness of preventive strategies. However, as noted previously, the NDSHS does not include a fully representative Indigenous sample.

Similarly, ASSAD includes information about secondary school students' exposure to substance use education programs and the YACR collects information about exposure to health promotion programs relating to alcohol. The capacity of these data sources to be analysed reliably in terms of Indigenous people is limited by their relatively small Indigenous samples.

The NATSISS and NATSIHS may provide some contextual information about substance use context and influences for Indigenous adults via their data items on stressors (that is, respondents can report substance use issues are a major stressor). The WAACHS includes relevant information for Indigenous children (for example, parental/caregiver use of alcohol and tobacco; perceptions of community problems can include substance use problems; experience of substance use by school peers).

The IDRS–IDU and IDRS–PDI provide information about patterns of demand such as where specific drugs are scored from but these sources are limited in terms of their geographic coverage (that is, capital cities only) and Indigenous sample sizes.

Information about patterns of supply of illicit drugs could be informed by the NT PDSDB and IDDR collections, which include information about drug-related arrests and drug seizures by geographic location.

Information about patterns of supply for tobacco and alcohol are not available in the sources reviewed, although it is known that sales data are collected in some states and territories. National data is available from the ABS, which produces information on the apparent per person consumption of alcohol by persons aged 15 years and over, based on alcohol sales data (ABS 2005c).

No collated information about the location of dry communities was found among the sources examined.

6.4 Associated harms and health status

The information framework for this study (Table 1.1) includes a number of elements relating to the harms and health status that may be associated with substance use, or non-use. The key data sources were reviewed to establish the extent to which they inform discussion about the association between substance use and:

- mortality
- comorbidity/health conditions
- disability
- sexual health and pregnancy
- economic impact on individual and community
- suicide
- homelessness
- crime and justice including violence, detention and imprisonment.

Mortality

The main sources of information about death due to substance-related causes are the NCIS and NMD. For example, the NCIS defines drug-related deaths as those where there has been a positive toxicology reported, or no or negative toxicology, but a known history of drug/poison/alcohol abuse. In relation to the NMD, cause of death is coded according to the ICD-10 and information about contributing factors such as substance use may not be consistently identified. Due to the coding practices for mortality-related collections, it is likely that drug-related deaths are underestimated.

Suicide

Information about suicide or harm (for example, attempted, ideation) is available to some extent in the mortality-related collections (NMD and NCIS). Information about suicide attempts and suicidal ideation is most often collected in the corrections-based collections.

Comorbidity/health conditions

Data sources operationalise the concepts of 'substance use' and 'health conditions' or 'health status' in various ways and there is therefore great variation in the ways in which comorbidities (of substance use problems/disorders and other health conditions) appear in the data sources (see AIHW 2005e for a discussion of the various ways of measuring health conditions).

Briefly, many of the reviewed data sources that contained information about substance use also contained information about physical and mental health issues. As noted in Chapter 5, across the data sources, information was most likely to be collected about health status/mental health status, rather than about health conditions (for example, diagnosis) per se. While not directly comparable, it may therefore be possible to analyse selected data sources in terms of the health and mental health status of Indigenous and non-Indigenous substance users (and non-substance users) in various settings.

For example, the NDSHS, NATSISS, NATSIHS and WAACHS in combination should enable high-level indicators of the relative health status of Indigenous substance users (as well as Indigenous non-substance users and non-Indigenous substance users and non-users). Such information is also available about people appearing in corrections-based collection such as the NSW–IHS, QLD–WPHS and VIC–PHS.

The IDRS–IDU, IDRS–PDI and IDIS contain physical and mental health information relevant to their target group (for example, information about injection related health problems).

Detailed information about health conditions is available in a number of health intervention collections, such as the NHMD and NAPEDCD, while BEACH collects information about problems managed and reason for encounter. While it is possible that such detailed information could potentially be compared to broader indicators of health status, overall, there is little comparability between health intervention collections and others reviewed for this study.

Analysts would need to be aware of the limitations of using diagnostic information to establish a health indicator, as most collections reviewed (with the exception of hospital-based service collections and BEACH for example) rely on self-reporting.

Information about health status or health condition is not available from the main national drug treatment collections (AODTS–NMDS and DASR).

Disability

Information about disability is collected in various ways across the reviewed collections. Broadly speaking, information about disability is available at the population level via, for example, the NATSISS and WAACHS; and for corrections-based collections via the VIC–PHS, NSW–IHS and YPiCHS. There is limited comparability in the way information is collected about disability in these data sources. Other health intervention services and drug treatment services do not generally collect information about disability.

Pregnancy and the unborn child

Only very few data sources collect information about substance use while pregnant (for example, NDSHS, WAACHS, LSIC and NPDC). For example, the NDSHS asks respondents about the use of any substances while pregnant or breastfeeding and the WAACHS asks about smoking or use of other drugs during pregnancy. Information currently available about substance use during pregnancy in the NPDC is limited to tobacco and is only collected by five states and territories. Because the NPDC is an ongoing collection and covers all pregnant women in Australia, it appears to be a potential vehicle for improving information in this area.

Economic impact on individual and community

Information about the economic impact of substance use on individuals or at a community level could potentially be obtained by directly asking individuals or communities (for example, by survey or via community leaders) about the perceived economic consequences of substance use. The IDRS–IDU was the only reviewed data source that specifically asked individuals about the financial impact of their drug use. There were no collections that specifically sought such information at the community level.

Alternatively, at least in the case of economic impact on individuals, it is conceivable that proxy measures of economic impact could be derived using available data about, for example, disposable income and expenditure on drug use. However, as none of the data sources included information on both of these variables, this approach is not currently feasible.

Homelessness

The SAAP–NDC collects information about all people attending agencies funded under the Supported Accommodation and Assistance Program to assist people who are homeless or at risk of becoming homeless.

Homelessness can sometimes be detected in other collections through items on 'residential setting'. The main data sources relating to drug treatment services (AODTS–NMDS and DASR) do not include information about residential setting (although this information is routinely collected in some jurisdictions such as NSW where the NSW MDS-DATS includes data items on usual accommodation and living arrangements).

Population surveys, such as the NATSISS, NATSIHS and NDSHS, are typically household surveys and only include people who are currently residing in households.

Crime and justice including violence, detention and imprisonment

The most comprehensive information about this element of the information framework is found in the corrections-based collections, which generally include a wide range of contextual information and substance use information. Relevant information is also available from population data sources such as the NATSIHS and NATSISS (for example, whether a victim of crime or violence).

The NT PDSDB and IDDR collections record information about drug-related arrests and drug seizures, which are other key indicators of criminal behaviour relating to substance use. However, national reporting of the IDDR does not include Indigenous status of the offender.

6.5 Intervention and treatment services

The data sources reviewed for this project were evaluated to see if they assist in describing the uptake, affordability, accessibility and appropriateness of treatment and intervention services by people with substance use issues. The project team initially explored data sources relating to a very broad range of intervention services, including health and welfare services generally (including prevention services), specialist alcohol and drug treatment services, specialist mental health services, specialist disability services, hospitals, housing support and income support, assistance through the Pharmaceutical Benefits Scheme and Medicare Benefits Scheme, telephone help lines, the criminal justice and child protection systems, and

the education and training systems. Data sources were also reviewed to establish whether it is possible to detect the involvement of substance use in mortality and coronial data.

While it is possible that the full range of these services are being delivered to people with substance use issues, only 43 data sources were identified in which it is possible to detect this target group (that is, all key data sources excluding the IDDR).

Among these key data sources, the main national substance use treatment data sources are the AODTS–NMDS and DASR. The clients of other health intervention and treatments services are described in, for example, SAR (Aboriginal and Torres Strait Islander primary health care services), BEACH (general practitioners), NSP (Needle and Syringe Program Survey), CAYLUS (youth services), NHMD/NAPEDCD (hospital and emergency department services), NCMHCD/NRMCHD (specialist mental health care in the community and residential settings) and Lifeline/KHLS (telephone counselling services). Some information is also collected about the reach of health promotion campaigns via the YACR.

However, as previously noted, the collection counts for all of these sources vary widely. For instance, the AODTS–NMDS reports on closed treatment episodes, the DASR reports at the service level, and the NHMD/NAPEDCD are based on 'hospital separations'. This means that it is both difficult to estimate the number of people attending specific intervention service types and to compare numbers across service types.

Information about the uptake, accessibility, affordability and appropriateness of health interventions is not generally collected and is limited to a number of relevant questions about access to health services in the NATSIHS and LSIC (under development). For example, the NATSIHS asks respondents for the reasons they did not attend health services in the last 12 months even though health services were needed.

There is currently no information available about the outcome of intervention services, including specialist drug treatment services, with two notable exceptions. In New South Wales, government-funded opioid pharmacotherapy services collect information about clients using the BTOM-C. This tool collects a range of information including the frequency and quantity of substance use and dependence, at various points in the treatment cycle (for example, baseline, 12 months). The tool, developed initially by the National Drug and Alcohol Research Centre, is being trialled for use in relation to other treatment types and substances. In Victoria, all publicly funded alcohol and other drug treatment services report client outcomes according to the Significant Treatment Goal Attainment tool. The AODTS–NMDS Working Group has improvement of information about clients' drug treatment outcomes as a high priority on its work plan and conducted a small workshop on this topic in early 2006 (see Chapter 7 for further discussion).

Information about interventions to reduce the supply of substances, particularly at the community or local level, is not readily available.

6.6 Resources

The key data sources were reviewed in terms of the information they contain about expenditure (by government or others) on services relating to Indigenous substance use. Such information was not available from the reviewed data sources, which is not entirely unexpected. Possible methods for estimating the level of government expenditure on treatment/interventions relating to Indigenous substance use could involve, for example, analysis of selected financial data from state/territory government annual reports and

inferences based on the proportions of service users of specific service types who identified as Aboriginal and Torres Strait Islander peoples.

6.7 Summary

Table 6.1 presents a summary of the gaps identified in the key data sources throughout Chapter 6. The extent to which it is desirable, feasible and realistic to address these gaps is discussed in Chapter 7.

Table 6.1: Main information gaps according to framework domain

Domain 1: Tobacco, alcohol and other drug use and associated risk behaviours	
Prevalence among the population	Some minor improvements could be made to the comparability of the NDSHS, NATSIHS, NATSISS and NHS in the way they collect information about tobacco, alcohol and other drugs.
	It is not currently possible to accurately estimate the prevalence of 'other drug' use by Indigenous people in rural and remote areas.
	It is not currently possible to estimate the prevalence of substance use among the homeless (Indigenous and non-Indigenous) population who do not present for services.
Prevalence among children and adolescents	Information about the prevalence of substance use among children younger than 12 years of age (Indigenous and non-Indigenous) is not presently available (although it may be possible to make inferences based on information collected about the age at which substances are first used).
Prevalence among women	Information about the use of tobacco by women (Indigenous and non-Indigenous) during pregnancy is currently only available for five states and territories. Information about the use of alcohol and other drugs by Indigenous women during pregnancy is not available.
	Longitudinal information about Australian women's health is not available separately for Indigenous women.
Prevalence among people accessing treatment for substance use	There is currently difficulty in estimating the number of people (Indigenous and non-Indigenous) accessing mainstream substance use treatment services (reporting under the AODTS–NMDS) and opioid pharmacotherapy treatment services (reporting under the NOPSAD). These collections could be strengthened by the inclusion of, for example, a statistical linkage key in relation to the AODTS–NMDS, and the inclusion of a data item on Indigenous status in the NOPSAD.
	Should prevalence estimates be developed for the mainstream services covered by AODTS–NMDS and NOPSAD, these would not be comparable with the service-level estimates generated from the Indigenous-specific substance use services covered by the DASR, because of their different counting rules.
	Further work could be done to close remaining gaps in information available about drug treatment services overall (for example, in relation to clients of private treatment agencies, sobering up shelters).
Prevalence among substance users not necessarily accessing treatment for substance use	Prevalence information relating to petrol sniffing is available is available only from a limited geographic area.
Prevalence among people accessing general health interventions	The types of estimates available for the prevalence of substance use among Indigenous people attending various types of health service are not comparable and are generally high-level (i.e. are based on varied collection counts and do not provide information about past use or about the use of tobacco, alcohol and other drugs separately).

(continued)

Table 6.1 (continued): Main information gaps according to framework domain

Prevalence among people accessing crisis accommodation support	Estimates of the prevalence of substance use among Indigenous people accessing crisis accommodation support are likely to be under-estimates and it is not possible to delineate prevalence separately for tobacco, alcohol and other drugs.
Prevalence among people in custody	Prevalence information about substance use among detained or sentenced populations is not available for all states and territories. Among the states and territories for which information is available, there is variation in the way the information is collected, including the substances for which prevalence estimates could be generated (that is, illicit drugs only in DUCO and DUMA, alcohol and other drugs in VIC–PHS, all drugs in remaining collections).
Prevalence among people who have died	The prevalence of substance use among Indigenous people who have died is likely to be underestimated using existing sources as, to be recorded, drugs need to be considered as the primary cause of death or as directly contributing to the death.
Prevalence among people accessing income support	It is not currently possible to estimate the prevalence of substance use among income support recipients.
Type(s) of substances used	Information about type(s) of substance(s) used lacks comparability across data sources.
Quantity and frequency of substance use	Information about quantity and frequency of substance use lacks comparability across data sources.
Age at which substances first used	There is quite limited information about age at which substance use commences.
Expenditure on substance use	There is limited information about expenditure on substances.
Risk behaviours associated with substance use	There is limited information about risk behaviours associated with substance use for Indigenous people at the population level.
	There is limited information about risk behaviours for (Indigenous and non-Indigenous) people accessing drug treatment.
Domain 2: Context and influences	
Geographic indicators among the population	Population data about the prevalence of substance use among Indigenous people living in rural and remote locations are not currently available.
	Sample sizes for the key population surveys relating to Indigenous substance use mean it is difficult to disaggregate data to a community level or develop other types of small area estimates of substance use.
Geographic indicator among substance users accessing drug treatment	The key drug treatment data collections do not collect information relating to respondents' geographical location.
Geographic indicators among substance users not necessarily accessing drug treatment	The IDRS–IDU and IDRS–PDI are only collected in capital cities and therefore caution must be taken if interpreting these data at a state/territory level.
Geographic indicators among people accessing health interventions	There is a lack of comparability in the geographic information collected about people (Indigenous and non-Indigenous) accessing health interventions and no indicator of the respondent's geographic location in some key data sources relating to health interventions (for example, NSP, SAR).
Geographic indicators among people in contact with the corrections system	A geographic indicator of respondents' residential address prior to incarceration or detainment is not collected in most data sources.
Information about social context among people accessing treatment	There is little or no information to indicate social context among substance users (Indigenous and non-Indigenous) attending drug treatment services or other health interventions.
Information about social participation among substance users	There is little or no information to indicate the level of social participation among substance users (Indigenous and non-Indigenous) attending drug treatment services or other health interventions.

(continued)

Table 6.1 (continued): Main information gaps according to framework domain

Family and personal context and influences	There is a lack of comparability in the type of information collected about family and personal context and influences across population sub-groups and collections. Information about family and personal context and influences is generally not available, for comparison purposes, for non-Indigenous substance users. Information about family and personal context and influences is not collected in relation to people (Indigenous and non-Indigenous) accessing substance use treatment or more general health interventions.
Substance use context and influences	Information relating to substance use context and influences is relatively limited. Information about the supply and sale of licit drugs (alcohol and tobacco) is limited.
Domain 3: Associated harms and health status	
Mortality relating to substance use	Owing to the coding practices for mortality-related collections, it is likely that drug-related deaths are underestimated.
Suicide	Information about suicide is not routinely available in the reviewed data sources, with the exception of the NMD and NCIS.
Comorbidity of substance use and health conditions	The main national drug treatment data collections do not include information about the general health status or related health conditions of people accessing treatment. There is limited comparability between the data sources that do record substance use and health information in terms of how this information is requested and/or recorded (for example, 'health status' or 'health conditions').
Disability	There is limited comparability across data sources containing disability information in the way such information is collected. There is no information about substance use-related disability among people attending drug-treatment or other health-related services.
Substance use and pregnancy	Currently information about substance use during pregnancy (collected in the National Perinatal Data Collection) is limited to tobacco and is collected by only five states and territories.
Economic impact of substance use on individual and community	There is very little information available about the economic impact of substance use at either the individual or community level.
Homelessness	There is very limited information about substance use among homeless people. National drug treatment data sources (AODTS–NMDS and DASR) do not include information about the residential circumstances of individuals.
Crime and justice	Indigenous status is not nationally available for drug-related arrests.
Domain 4: Intervention and treatment services	
Intervention and treatment services	Information about uptake, accessibility, affordability and appropriateness of health intervention services is very limited. Information about interventions to reduce the supply of substances is not readily available. Outcomes of intervention services, including drug treatment services, are not currently available nationally.
Domain 5: Resources	
Information about resources	Information about resources applied to substance use services is extremely limited and essentially restricted to information about staff numbers collected in DASR.

7 What are the information gaps and how do we fill them?

7.1 Introduction

The last decade has seen considerable improvements in the availability of information about substance use (particularly illegal drug use) among Aboriginal and Torres Strait Islander peoples. Over this period considerable research has been undertaken, and published, providing a better picture of the scale of the problem, the consequences of substance use, and interventional approaches proposed and used to prevent and treat substance abuse among Aboriginal and Torres Strait Islander peoples. There have also been ongoing efforts, by national, state/territory and local groups with responsibility for Indigenous health, Indigenous information and data development, and drug and alcohol issues for Aboriginal and Torres Strait Islander peoples, to improve the quality and availability of relevant information.

However, as we have highlighted in the preceding chapters of this report, the picture remains incomplete in many important respects (see Table 6.1).

It is known that there are patterns of substance use which are of particular concern among Aboriginal and Torres Strait Islander peoples (for example, higher prevalence of inhalant use, increasing prevalence in use of injectable drugs such as heroin, and use of amphetamines). A picture is also emerging of the higher rates of adverse effects from substance use among Aboriginal and Torres Strait Islander peoples, including the significant mortality and years of life lost due to substance use (see Chapter 2 and Appendix 1). For example, Arnold-Reed and colleagues (1998), using Western Australian mortality data from 1991 to 1995, estimated that, with a combined elimination of tobacco smoking and unsafe alcohol use, Indigenous life expectancy would increase 5.9 years for males and 3.4 years for females to 64.4 and 68.7 years respectively.

Improvements in the interventions (at the primary, secondary and tertiary levels) used to prevent, treat and combat substance use have the capacity to reduce the prevalence of substance use and ameliorate these adverse effects, and have a significant effect on life expectancy. High-quality information about the nature of the problem and the effectiveness of various interventions would greatly assist in planning, implementing, monitoring and evaluating such interventions and the associated improvements in the health and circumstances of Aboriginal and Torres Strait Islander peoples.

Similarly, a better understanding of the contextual factors impinging on the prevalence and patterns of substance use including, for example, living arrangements, employment opportunities, family stressors and the supply of drugs, would assist in better understanding the success or otherwise of interventions to reduce the supply of, and demand for, substances and the harms associated with substance use.

Chapter 7 is the conclusion to this report, in which we draw together the information gathered from the literature review, stakeholder workshop and analysis of data sources. Section 7.2 summarises the priority information needs and main information gaps in relation to substance use by Aboriginal and Torres Strait Islander peoples and Section 7.3 presents a series of options for improving the availability of information in this area and making better

use of the information that already exists. These options are also presented in numbered format in the report summary.

7.2 Priority information needs and the main information gaps

Sorting priorities

From the literature review and the discussion in the workshop, it is clear that the broad, five-domain framework of Table 1.1 developed for the project (see Chapter 1) is a useful depiction of the information needed to understand and develop policies for substance use among Aboriginal and Torres Strait Islander peoples. Besides substance use and immediately related harms and interventions, personal, social and community factors are all also relevant to the issue.

The key questions and information needs for the field, as detailed in Section 4.1, are broad, spanning all domains from the framework, and the task of prioritising them is a difficult one. While all the information needs appear to be important, reflecting the diverse range of interests relating to this topic, there is some information that is fundamental to understanding the nature of substance use among Indigenous people. This is information that enables substance use and Indigenous status to be consistently recorded, and thus basic prevalence estimates of various types of substance use across locations and population groups to be developed. Limitations in this highest priority information reduce the usefulness of the remaining information about, for example, patterns of substance use, contextual factors and access to services.

Within the broad framework (Table 1.1) and the related key questions, it is possible to identify priority areas for action. This chapter attempts to narrow down information needs, gaps and recommendations to those that are:

- essential, in the sense that without them progress cannot be made
- practical, in the sense that implementation is feasible
- least burdensome to data providers, including survey participants and
- most likely to 'make a difference'; while the November workshop participants wished to see improvements in information, they wanted a focus on those that would support action.

Main information gaps or deficits

Based on the above criteria, the main information gaps or deficits are outlined below. We first outline the main information gaps in relation to the key questions, before presenting a set of broader information gaps. It should be noted that the limitations applying to prevalence data follow through to the capacity of information sources to answer all other questions. For instance, without high-quality identification of Indigenous substance users across data sources, it is not possible to accurately describe the related contextual factors and associated harms.

Gaps relating to the key questions

What is known about the nature or patterns of substance use among Indigenous peoples?

Some improvements in population survey data are needed. Population survey data provide prevalence rates for selected populations (and associated contextual information to varying

degrees) and allow changes in these prevalence rates to be monitored over time. Australia has a number of relevant population surveys (in particular the NDSHS, NATSISS and NATSIHS), which together provide information about substance use and related personal, contextual and community factors. However, while reliable national estimates of alcohol and tobacco use among Aboriginal and Torres Strait Islander peoples are available, such estimates are not available for the use of other drugs. Specifically, the usefulness of prevalence information at the population level is currently limited in the following ways:

- There is room for some improvement in the comparability between population surveys relating to Indigenous substance use (NATSISS, NATSIHS, NHS) and substance use generally (NDSHS).
- The Indigenous sample size in the key population survey on drugs (NDSHS) does not support disaggregated analysis in relation to Indigenous people (for example, by age, characteristics, state/territory).
- The NATSIHS and NATSISS can not generate reliable estimates of the prevalence of 'other drug' use for Indigenous people living in rural and remote areas.

Prevalence information from other data sources also has limitations:

- There is incomplete information about substance use during pregnancy (for Indigenous and non-Indigenous women).
- Information about the number of *people* (Indigenous and non-Indigenous) in substance-use treatment and health interventions is generally not available.
- Prevalence information about substance use among people (Indigenous and non-Indigenous) in custody is well developed but could be improved in terms of completeness and comparability across data sources.

Information about patterns of substance use among Indigenous people (for example, types of substances used, quantity and frequency used, age first used, expenditure, associated risk behaviours) is limited and lacks comparability across data sources (including population and other data sources, such as surveys and administrative data collections). In particular, information about substance types of particular interest to Indigenous people (for example, petrol and glue sniffing, chewing tobacco, kava) is limited.

What is known about the characteristics of Indigenous substance users and their contextual factors?

There is a lack of comparability in the contextual information available about substance users in the Australian population overall (NDSHS) and the Indigenous population (NATSISS, NATSIHS). This lack of comparability in information about contextual factors also exists across the broader set of data sources reviewed (that is, relating to drug treatment services, health services and corrections).

Information about contextual factors is not available nationally for people accessing drug treatment services or other health interventions.

Information on supply of licit drugs—local, regional and national patterns—is another gap and is important for identifying existing and, particularly, changing and emerging patterns of drug use. Data on the sale of licit drugs (alcohol and tobacco) is collected in some states and territories but a national collection is not currently available (for example, data on alcohol sales, once collected on a national basis, is now restricted to Queensland, Western Australia and Northern Territory). Information on the supply of illicit drugs may scan a broad spectrum of sources, from drug seizures data collected at the State/Territory (for example, NT PDSDB), national level (for example, IDDR) to local level knowledge provided

by key experts (for example, IDRS–IDU). Such information is not currently collected systematically in relation to supply issues affecting Aboriginal communities (see emerging issues below).

What is known about the harms associated with substance use by Indigenous peoples?

There is limited reliable information about substance-related deaths among Indigenous and non-Indigenous people.

Information about comorbidities associated with substance use or general health status of substance users is not available for people (Indigenous and non-Indigenous) attending drug treatment services.

Information about individual expenditure on substance use is not generally available, making it difficult to explore the financial impact on individuals or at the community level.

Information about substance use among Aboriginal and Torres Strait Islander peoples in custody could be strengthened in terms of its coverage and comparability.

What is known about the affordability, accessibility and appropriateness of current approaches for intervention and treatment of substance use in Indigenous persons?

Information about the uptake, accessibility, affordability and appropriateness of substance use treatment services and other health interventions is very limited (for Indigenous and non-Indigenous people).

In terms of treatment, prevention and intervention, what is working well and why is it working? What extra measures/initiatives could make a difference?

Information on treatment services and other interventions—availability, location and (in particular) the effectiveness of treatment services and other interventions—are important gaps. 'Interventions' may include education/information, health promotion programs and activities, and communication. Knowing 'what works' and why, and alternatively 'what doesn't work' and why not, is a pre-requisite to selecting, planning and locating appropriate interventions.

There is no national information about the outcomes of intervention services, including substance use treatment services (for Indigenous or non-Indigenous people). There have been efforts at the state and territory level to measure outcomes (for example, New South Wales has implemented the BTOM-C for public prescribers under its opioid pharmacotherapy program and Victoria has implemented the Significant Treatment Goal Attainments process across all mainstream substance use treatment services), but these measures are not currently developed or agreed for the broader range of service and substance types and/or not likely to be suitable for national adoption and reporting.

Information about interventions to reduce the supply of drugs, particularly at a community or local area level, is not readily available.

What is known about expenditure relating to treatment and other interventions?

Information about government or individual expenditure on treatment or other interventions is not readily available (for Indigenous and non-Indigenous substance use-related interventions).

General or overarching gaps

Emerging issues are not well identified by most data collection vehicles, the exception being the IDRS which uses 'key experts' to identify emerging trends in illicit drug markets. There

are many key figures in Aboriginal communities who are aware of critical information about emerging trends—for instance, changes in the local drug market or supply chain, changes in drug availability or new drug use patterns or escalation of risk (for example, sharing becomes riskier when injecting rather than inhaling is the method of use). Capturing this information in a systematic and timely way would enable prevention or intervention programs and responses to be much more rapidly and effectively mounted.

Cross-cutting information is scarce. The broad nature of the framework (Table 1.1) reflects that drug use is just one aspect of personal and community health and is related to many others. There is a great need for information and data that 'talks across' policy and service sectors—for instance about substance use and housing, homelessness, corrections, drug education and school programs and interventions. Such information would support a whole-of-government approach to drug use and related matters. Privacy issues would need to be considered if the methods to address this gap had such implications.

There is interest in community-level information. Much of the information needed to inform this topic is needed not only at an individual level but also at a community level (that is, where the 'unit of analysis' is the community rather than the individual). Profiles of communities—in terms of economic and geographic descriptors, risk factors and community resources—could contribute to understanding drug use trends and risks, and in identifying areas where intervention is most needed and lessons that could be learnt.

Administrative data sources are diverse. Some administrative data sources have the capacity to produce richer data (for example, Aboriginal and Torres Strait Islander primary health care and substance use services). Others contain limited information about substances, include information about substances, but limited information about contextual factors, and/or use data items that that do not correspond to those in other collections or national data standards.

Information dissemination in different formats, to suit different users, is needed. For instance, information provided back to communities might assist them to answer *their* key questions.

Data quality, in particular Indigenous identification in relevant surveys and administrative data collections, remains a high priority. Without improvement, the potential value of many data sets is jeopardised or lost. While efforts to improve data quality can seem a difficult and longer-term option, the improvement of Indigenous identification in key collections is critical to the useability of many existing data sets.

At the workshop, indicators were seen as an area where there was a great deal of activity but perhaps not yet agreement on key high-level indicators of 'problem' and 'outcome'. There was agreement, however, that further work on such key indicators could be more effectively done via the existing national structures (for example, work under way by SCATSIH and OATSIH on Aboriginal and Torres Strait Islander health indicators).

7.3 Options for improvement and better use of existing sources

Options for improving and making better use of existing data sources are detailed below. These options are further summarised in the report summary.

Prevalence and related issues—population surveys

Indigenous population surveys

The Australian Bureau of Statistics' NATSIHS and NATSISS are good vehicles to accommodate future population data requirements. These are multidimensional surveys that are not specifically designed as substance use surveys and cover a wide range of topics. They are national surveys based on more representative samples than the other sources considered in this report. The two surveys have only minor inconsistencies in the way they collect information about substance use (in relation to the alcohol measures) and provide complementary information on contextual factors (for example, the NATSISS collects information on involvement in social or recreational activities and perceptions of neighbourhood or community problems; the NATSIHS collects information on health status, access to health services and health risk factors; both surveys collect a range of other contextual information, including information about cultural identification and forced removal from natural family). The surveys are each conducted every 6 years, meaning that new information is available from one or the other on a 3-yearly cycle.

Further effort is needed to improve the prevalence estimates of 'other drug' use among Indigenous people living in rural and remote areas. There are difficulties associated with collecting accurate data on drug and alcohol use because of sensitivity issues, and these become even more complex in remote areas. The ABS approaches these complexities through the use of facilitators and translators for interviewing in surveys of Indigenous people and has developed strategies for communication within communities. The experience of a number of researchers who have carried out epidemiological studies in remote communities may further inform the development of improved methods of studying and surveying remote communities in future (see for example, Clough et al. 2002a on trafficking of cannabis in Arnhem Land). Continued efforts are also needed to balance the need to allow for diversity within Indigenous populations against the need to produce prevalence estimates based on nationally consistent concepts.

In relation to all population surveys, there is a need to continue and expand on the considerable efforts already made to: more appropriately define the concept of 'household' in a way that accommodates cultural differences; improve methods of obtaining information in culturally acceptable ways; improve information about substance use patterns among Indigenous people living in rural and remote locations; and improve the comparability of information across population surveys (for example, NATSISS, NATSIHS, NHS and NDSHS). To support such developments, existing advisory and consultative processes should be maintained and, if necessary, enhanced.

A useful first step towards improving comparability between the NDSHS, NATSIHS and NATSISS may be to review the existing alcohol and drug modules in the surveys in the light of the identified information needs and the gaps highlighted in this report in existing sources. This would be the first step towards developing a drug-specific survey supplement ('drug-specific data module') for Aboriginal and Torres Strait Islander peoples responding to population surveys. This work would need to complement work already underway by the ABS on alcohol consumption and tobacco smoking as part of its Review of Strategic Statistical Issues for Future National Health Surveys (ABS 2005b). Efforts to improve comparability would also need to take into account concerns raised by some academics regarding the estimates of Indigenous alcohol consumption generated from the 2002 NATSISS (see Chikritzhs & Brady 2005).

Development for the 2008 NATSISS starts in 2007, while the next NATSIHS is scheduled for 2010–11. It will be desirable to have planned, or begun the specific developmental work on, substance use data requirements before the overall processes commence for these surveys, to ensure it fits into the ABS timetable and can be considered for inclusion in future surveys.

Other population surveys

The NDSHS provides detailed information about substance use in the Australian community. The NDSHS is currently the most comprehensive survey on Australian substance use issues, with respondent numbers increasing to 30,000 for the 2004 survey. However, the number of Indigenous people included in the survey is low, with 463 people in the 2004 survey identifying as Aboriginal and/or Torres Strait Islander people (AIHW 2005b). The size of this sample means that national prevalence estimates can be generated for tobacco, alcohol and selected other drugs, but further analysis of, for example, prevalence rates among different age groups or in different states and territories, is not possible. As noted in Chapter 6, results from the NDSHS are subject to potential response bias and coverage issues due to its response rate (46% in 2004) (AIHW 2005f).

One option for improving data in this survey is to investigate improvements to the methodology of the survey, to allow better estimates of prevalence of Indigenous substance use and related factors. As the next NDSHS is scheduled for 2007, pursuit of this option would need to commence rapidly.

Population survey drug use module

There is considerable merit in developing a drug-specific data module for use in population surveys (a drug-specific survey supplement to existing surveys). Such a module would need to pick up the sorts of information collected in the NDSHS, ensuring comparability between the NDSHS, NATSISS and NATSIHS. The structure of the module should, however, be flexible enough for use in other population surveys, such as the National Health Survey (NHS) and National Survey of Mental Health and Wellbeing. For example, a drug-specific data module could be developed in such a way that data items could be adopted at varying levels of detail, depending on the purpose or constraints of the collectors or respondents.

Most importantly, any drug-specific data module developed for use in Indigenous population surveys would need to suit the needs of Indigenous people, including focusing on substances of particular significance to Indigenous people and, if appropriate, ensuring that relevant contextual factors (for example, forced removal from natural family) are included.

A draft drug-specific data module could be rapidly developed, based on the work done for this report.

Contextual factors

There is interest and value in collecting information about the contextual factors associated with Indigenous and non-Indigenous substance use (and non-use). Development of a brief module outlining the priority contextual factors (as per Table 1.1) for collection could be used to increase consistency across population surveys and other data sources. For example, many of the data items typically used to indicate social context (for example, living arrangements, residential setting, marital status) and social participation (for example, labour force status, education status) are already collected in most population surveys and many other surveys and administrative data sources, but not necessarily according to

available nationally defined data standards. Data items for collecting such contextual information could be included in a drug-specific data module.

Administrative and services data

Administrative data from Indigenous-specific services

Participants at the November 2005 workshop considered that there was a wealth of information collected in the course of delivering services such as the Aboriginal and Torres Strait Islander primary health care and substance use services, and that these data are under-utilised. Some data are extracted, at establishment level, and transmitted to DoHA for the SAR and DASR collections. These collections have been under review.

There is potential, however, to mine the client-level data to analyse patterns of client profiles, related service provision and, potentially, outcomes. Consideration of options for such analysis would require attention to privacy and confidentiality issues, for both the services' and clients' data. Alternatively, client-level data could be used in consolidating collation and analysis, perhaps involving the development of a Minimum Data Set. Principles for Indigenous research and data collection (specified, for example, in the National Health and Medical Research Council's 'Criteria for Health and Medical Research of Indigenous Australians') would guide any resulting proposal. Similarly, any proposed changes to administrative data collections would need to be implemented in accordance with agreed protocols such as the 'National Aboriginal and Torres Strait Islander Health Protocols for the Routine Collection of Standardised Data on Aboriginal and Torres Strait Islander Health' (1997).

More generally, the experience of the Aboriginal and Torres Strait Islander primary health care and substance use services could guide the development of the proposed drug-specific data modules for surveys and other collections. The reverse is also true: that the development of drug-specific data modules could guide any proposed analysis of data from Aboriginal and Torres Strait Islander primary health care and substance use services.

Administrative data from mainstream alcohol and other drug treatment services

It is not possible to accurately quantify the number of people receiving treatment across the spectrum of specialist alcohol and other drug treatment services. The difficulty in obtaining this information relates largely to the scope (for example, exclusion of pharmacotherapy services from the AODTS–NMDS), methodology (particularly counting rules), and quality of Indigenous identification in the key national collections in this area (DASR, AODTS–NMDS and NOPSAD). For example, mainstream alcohol and other drug treatment services (reporting under the AODTS–NMDS) report in terms of closed treatment episodes and Indigenous-specific substance use services (reporting under the DASR) provide service-level estimates of client numbers. Information about people receiving opioid pharmacotherapy treatment is reported separately, in aggregate form, via the NOPSAD collection.

Currently, information about the basic demographic characteristics of people accessing mainstream alcohol and drug treatment services (reporting under the AODTS–NMDS) is available, but there is no further information on contextual factors at a national level. Very little information is available about the characteristics or contextual factors of people accessing opioid pharmacotherapy programs (reporting under the NOPSAD data collection).

One option for improving information on the numbers of people accessing mainstream drug and alcohol treatment services is to introduce a statistical linkage key into the existing AODTS–NMDS to estimate the number of people attending treatment services. A statistical

linkage key would also enable estimation of the numbers and types of treatment episodes per person.

An option for improving contextual information about people attending AODTS–NMDS programs is to introduce additional nationally defined data items, such as living arrangements, income source and employment status (as per the existing New South Wales Minimum Data Set for Drug and Alcohol Treatment Services), or select priority data items from a drug-specific data module, if developed.

It should be noted that improvements to the AODTS–NMDS may not significantly improve the availability of information about Aboriginal and Torres Strait Islander peoples in treatment as most Indigenous substance users attend Indigenous-specific substance use services (reporting under the DASR).

Clearly any changes to existing data sources, such as the AODTS–NMDS, have resource implications, including the need to promote changes and train staff in the collection of new data items. In addition, introducing new data items, particularly a statistical linkage key, requires special attention in terms of promoting the security of its collection in relation to privacy legislation and issues.

Corrections

Information about substance use and contextual factors is relatively well developed in relation to people in custody (for example, DUCO, DUMA, NSW-IHS, VIC-PHS, QLD-WPHS). Given that this population is clearly one at high risk of substance use and further associated harms, and given the relatively high feasibility of improving data in this area, this seems an ideal area to pursue a greater level of comparability across data sources (for example, in the collection of information about substance use and contextual factors). This area could also benefit from the development of data modules for substance use and contextual factors suggested above.

Environmental scan of emerging issues

As previously noted, emerging issues are not well identified, in a timely way, by existing data collection vehicles. A method is needed to capture critical information about emerging trends, of which many key figures in Indigenous communities are aware. Designing a suitable methodology would, of course, entail reaching agreement on who those 'key figures' are. Gathering and collating this information in a systematic, ethically appropriate and timely way would enable prevention or intervention programs and responses to be much more rapidly and effectively mounted.

Community leaders would need to be involved in developing an appropriate method, along with key researchers who have pioneered ethical and effective research methods acceptable to Aboriginal communities. Existing relevant committees, such as the NIDAC, would also play a key role in the development of an acceptable and effective proposal.

Lessons could be also learned from the 'mainstream' drug field. The Illicit Drug Reporting System attempts to act as an early warning system for illicit drugs, by identifying emerging trends in illicit drug markets, locally and internationally.

This proposal received strong support from workshop participants who considered that it had the potential to significantly improve communities' and policy makers' ability to respond in a more timely way in this sometimes rapidly changing field.

Understanding outcomes

One of the most significant data gaps identified in the literature and at the workshop resonates with a significant gap in the drug field more generally—routine information on the outcomes of interventions. Developing and defining outcome measures is a complex, yet valuable, undertaking. It requires careful consideration of the most appropriate way to evaluate the success of treatment options, as well as cultural interpretations of that success and inherent differences between individuals and their likelihood of responding to treatment. Defining outcomes for primary interventions, such as the establishment of recreational programs for young people, and primary/secondary interventions, such as the establishment of out-stations (for petrol sniffers in particular), is also of interest (see Chapter 2 and Appendix 1).

The IGCD Alcohol and Other Drug Treatment Services NMDS Working Group set aside a day to workshop alcohol and other drug treatment outcome measures in early 2006. The workshop highlighted the complexity in developing outcome measures that are relevant for different substance types, service types and service settings, as well as for particular population groups, such as Aboriginal and Torres Strait Islander peoples, women and youth. There are currently widely varied practices in each of the states and territories, ranging from no available information on treatment outcomes (most) to the collection of data according to a multidimensional clinical tool (BTOM-C) in publicly provided pharmacotherapy services in New South Wales. An attendee at the outcomes workshop, also an invitee from the November workshop on this project, made an important point about developing outcomes in relation to substance use among Aboriginal and Torres Strait Islander peoples. He noted the need to explore 'what wellness looks like to Aboriginal and Torres Strait Islander peoples' and ensure that this concept of wellness or idea of 'what life should be like', is reflected in specified outcomes at the community level and therefore reflected in what measures should be used to indicate progress towards these outcomes.

The outcomes workshop identified a range of options for furthering work in the area of drug treatment outcomes for people accessing AODTS–NMDS. It is planned that this area of work will be progressed through discussions between the IGCD AODTS–NMDS Working Group, the DoHA (which funds the AIHW to coordinate the collation, analysis and publication of national data under the AODTS–NMDS) and the IGCD.

Mortality data

The coding of data about deaths (NMD, NCIS) is likely to underestimate the involvement of substance use in Indigenous and non-Indigenous deaths. However, efforts to alter coding practices are unlikely to achieve as much success as other methods for improving information in this area. Rather, there is scope to increase the availability of information based on attributable fractions and related methodology (whereby the number of deaths or years of life lost due to specific risk factors or diseases is estimated) (see, for example, Arnold-Reed et al. 1998 study referred to above and in Chapter 2). The AIHW is currently in the process of estimating the number of deaths, and burden of disease, attributable to alcohol, tobacco and other drugs for all Australians and future work is planned to determine estimates for the Indigenous population (see Appendix 1).

'Modules' and promoting 'cross-cutting' whole-of-government information

'Whole-of-government' information requires a commitment to a reasonable degree of consistency across related administrative data collections, population and other surveys.

Modules, for use in administrative data sets and surveys, represent a key way of making better use of existing data collections and ensuring consistency. Workshop participants particularly supported the inclusion of a drug-specific data module or set of questions in administrative data sets covering mainstream programs.

Drug-specific data modules could be developed in parallel for mainstream drug-specific collections (for example, the AODTS–NMDS, data collected and reported through Aboriginal and Torres Strait Islander primary health care and substance use services, and for more generic collections, such as the Juvenile Justice National Minimum Data Set, National Prisoner Health Minimum Data Set and the SAAP–NDC. Such a module or modules would enable specific, core information to be collected across sectors, and hence provide a more detailed picture of the use of health and community services by Aboriginal and Torres Strait Islander peoples (and non-Indigenous people) who have used, or currently use, substances. Importantly, any data module should be designed so that it can be used at various levels of detail, depending on the environment.

Accurate Indigenous identification within these collections is a pre-requisite to their efficacy. Modules and other efforts to improve comparability among collections will not yield useable information unless Indigenous clients are accurately identified (see also below).

It would be important that modules incorporated into collections are asked of all relevant clients or respondents and not only Aboriginal and Torres Strait Islander peoples.

Data quality and Indigenous identification

Without accurate and complete reporting of Indigenous status, the value of many data sets and their relevance to Indigenous people is lost. Considerable effort has been made in the health and community services sectors to improve data quality in this regard, but much remains to be done. In particular, there needs to be examination of the methods that best capture data on Aboriginal and Torres Strait Islander peoples. Similarly, continued efforts are needed to eliminate the use of methods that are not good practice for collecting Indigenous status, such as using a default of 'non Indigenous' where Indigenous status has either not been requested or not provided.

One of the prime objectives of the NAGATSIHD is to improve Indigenous identification among all health–related data sources. Further efforts could be made to support this NAGATSIHD process, for instance, via regular reporting of identification rates and seeking the Group's advice on how to improve these rates and other aspects of data quality. It should be noted, however, that the ultimate responsibility for improving the rates of Indigenous identification rests with data providers and data custodians.

Community-level information

Community-level information can be assembled in a number of ways—by aggregating upwards from individual information (for instance to describe unemployment in a region); by describing features of geography (for example, distances from major towns or employers); by using aggregate regional indicators (for example, of transport or of economic activity in a region); or by recording features of the administrative structure (for example, council policies, initiatives and powers, role in alcohol control or distribution). Better use may also be made of existing smaller-community and regional-level collections such as the Queensland Alcohol Management Program data and the recently commenced project on 'Reducing alcohol-related harm in rural communities' (Shakeshaft et al. forthcoming).

The purpose of assembling such information would be to identify communities at risk and also 'strong communities'. It may, for instance, give insights into community attributes associated with better health status of people living in a given area. The challenges would include the variability in the relevant factors across Australia and the need to balance local relevance with design costs, and the need for some level of comparability.

Further work is required to consider the scope of community-level indicators that would be both informative and feasible to collect, and to consider issues such as privacy and sensitivity around the presentation of information from small communities.

Dissemination

Dissemination of information can be in many formats, transmitted in a number of mediums and designed for a number of audiences. There was a suggestion from the workshop that dissemination is uneven, in terms of being designed more for central policy makers and researchers. Formats and media suitable for local policy makers were considered to need more emphasis, as was the process by which information is disseminated back to the community, including its content and timeliness. This would represent another important way in which better use could be made of existing information, so that the information can be used by the communities.

Synthesis of information already available

There are a large number of sources of data that include information, or touch upon, substance use among Aboriginal and Torres Strait Islander peoples. The value of synthesising available data was recognised as high priority by workshop participants, who wanted to ensure value for effort (in terms of the effort already expended on these data sources) and the possibility of promoting earlier action (given the lead-time for some of the development required to 'fill gaps'). A synthesising analysis could use the framework of this study (Table 1.1), and provide further discussion of key questions and information gaps, and the information about data sources. Any approach would require a considered methodology to ensure meaningful interpretation of different data sources is achieved.

Two options for presenting such analyses were highlighted at the November workshop:

- Explore the feasibility of including a special chapter on Indigenous substance use in the next publication of *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples* report (ABS & AIHW 2005). This report is a biennial report, jointly prepared by the ABS and AIHW.
- Develop a stand-alone report involving a more detailed synthesis of available information, based on the framework for this study and drawing on the literature and data sources described throughout the study. Such a project could involve exploring substance use and non-use among Indigenous and non Indigenous people, using available information.

Considerable work would be involved in implementing either of these options, at least in part due to the information gaps and effort required to synthesise information from data sources with, for example, varied methodology, scope, frequency and counting rules.

Such a report outline would need to be developed in consultation with peak advisory bodies such as NAGATSIHID, NACCHO, SCATSIH and NIDAC to ensure that the report informed, wherever possible, priority questions of interest and was presented and disseminated in a way that maximised its usefulness to Indigenous people.

Appendix 1: Literature review and policy context

There is consensus that a significant substance use problem exists among Aboriginal and Torres Strait Islander peoples. The use and misuse of tobacco, alcohol and other drugs is influenced by a wide range of socioeconomic and cultural factors. The effectiveness of methods for preventing or treating this use/misuse are sometimes weakened by a series of problems as to where, how and by whom prevention, intervention and treatment strategies are provided.

This appendix provides context, by reporting on and discussing the literature review and outlining the current policy context concerning Indigenous drug use and its associated harms. The review covers relevant literature on the topic, as well as program information and past consultation, and aims to highlight what stakeholders want and need to know about Aboriginal and Torres Strait Islander drug use and associated harms.

The information derived from the literature review also served to construct the framework for describing and understanding drug use among Aboriginal and Torres Strait Islander peoples presented in Table 1.1. While the framework allocates factors to specified domains, it does not imply fixedness and should be interpreted as illustrating the interconnectedness between domains.

A1.1 Literature review

In the early 1990s, Dr Maggie Brady reflected on the general absence of data on drug use (particularly illegal drug use) by Aboriginal and Torres Strait Islander peoples, citing 'newspapers reports that occasionally mention it' as the primary source of information available (Brady 1991a:285). Since then, a considerable amount of research has been undertaken and published providing a better picture of the scale of the problem, the consequences of drug use, and interventional approaches proposed and used to prevent and treat drug abuse among Aboriginal and Torres Strait Islander peoples. Nonetheless, the picture still remains incomplete. A dual purpose of this review is to discuss what is already known about these topics and identify the areas where information is missing, generally anecdotal or obtained from only a small section of the population.

The literature published to date is presented with reference to the framework in Table A1.1, specifically the high-level domains of use, associated harms, context and influences, intervention and treatment services, and resources. The review is intended to describe what information relevant to these domains is currently available. For some information areas this has meant referring to literature specific to particular communities, geographical places or time periods in which the information was collected. Such information is not necessarily applicable to the wider Aboriginal and Torres Strait Islander population, and is acknowledged as such.

Tobacco, alcohol and other drug use and associated risk behaviours

Estimating the prevalence of alcohol, tobacco and other drug use among Aboriginal and Torres Strait Islander peoples has received possibly the most committed research attention, largely confirming the 'size of the problem' and detailing the range of substances used.

This section examines the drugs more commonly used by Aboriginal and Torres Strait Islander peoples.

Prevalence of drug use

Overall, it appears that the prevalence of substance use among Indigenous peoples is higher than among non-Indigenous peoples, although there is some inconsistency in the available evidence relating to alcohol (see below).

Tobacco

Recent data from the 2004–05 NATSIHS indicates that over half (50–57%) of Aboriginal and Torres Strait Islander peoples aged between 18 and 54 years are current smokers, compared with 29% or less of other Australians (ABS 2006).

Alcohol

Alcohol is arguably the most commonly recognised drug problem among Aboriginal and Torres Strait Islander peoples. The 2004 NDSHS[1] found alcohol to be the most prevalent substance used by Aboriginal and Torres Strait Islander people aged 12 years and over, with over 71% of respondents consuming alcohol in the previous 12 months (AIHW 2005b). While Indigenous people were less likely to report consuming alcohol than non-Indigenous people (71% compared to 82% in the last 12 months), the NDSHS found that more Indigenous Australians consume alcohol at risky[2] or high-risk[3] levels than other Australians—in both the short term[4] (38.7% of Indigenous Australians compared with 20.5% of other Australians) and the long term[3] (22.7% and 9.7%, respectively) (AIHW 2005a). Other studies focussing on smaller population groups report similarly high levels of risky drinking (see, for example, Blignault & Ryder 1997; d'Abbs 2001; Hunter 1991; Perkins et al. 1994; Roche & Deehan 2002; Watson et al. 1988).

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1 The NDSHS represents the only nationwide source of drug use in Australia; however, the survey is characterised by low response rates (see Section 5).

2 'Risky' drinking, associated with short-term risk (see footnote 4), is defined for males as 7 to 10 standard drinks a day and for females as 5 to 6 standard drinks a day. For long-term risk (see footnote 4), 'risky' drinking is defined as 29 to 42 drinks per week for males and 15 to 28 drinks per week for females (AIHW 2005a).

3 'High-risk' drinking, associated with short-term risk, is defined for males as 11 or more drinks per day and for females as 7 or more drinks per day. 'High-risk' drinking, associated with long-term risk, is defined for males as 43 or more drinks per week and for females as 29 or more drinks per week (AIHW 2005a).

4 'Short-term' risk of harm is defined as the risk of harm in the short-term, associated with given levels of drinking on a single day. 'Long-term' risk of harm is associated with regular daily patterns of drinking (AIHW 2005a).

In contrast, recent Indigenous-specific surveys conducted by the ABS have generated similar estimates among Indigenous and non-Indigenous peoples for risky or high-risk drinking. The 2002 ABS National Aboriginal and Torres Strait Islander Social Survey estimated that, in 2002, 15% of Indigenous people aged 15 years or over reported risky/high-risk alcohol consumption in the last 12 months (ABS 2004). The 2004–05 ABS NATSIHS estimated that, in 2004–05, the proportion of adults drinking at risky or high-risk levels was similar for Indigenous peoples (15%) and non-Indigenous peoples (14%), after adjusting for age differences (ABS 2006). Chikrhitz and Brady (2006), however, have cautioned against the accuracy of data collected in some larger, self-report surveys, particularly the NATSISS, arguing that methods used to ask respondents about alcohol use is likely to have led to under-representation of both the numbers of persons who consume alcohol and those who consume alcohol at risky or high-risk levels. Recent estimates from the NATSISS are particularly 'difficult to reconcile' with current information on alcohol-related morbidity and mortality among Aboriginal and Torres Strait Islander peoples (Chikrhitz & Brady 2002).

Illicit substances

The use of illicit substances generally appears to be somewhat higher for Indigenous Australians than non-Indigenous Australians. The 2002 NATSISS and the 2004 NDSHS both indicate that approximately one quarter of Indigenous peoples used illicit substances in the last 12 months, compared to 15% of non-Indigenous Australians (based on the 2004 NDSHS) (AIHW 2005a).

Cannabis

Cannabis is a commonly used drug among Aboriginal and Torres Strait Islander peoples, in urban and regional areas alike. Nationally, almost half of Indigenous respondents to the 1994 NDSHS reported having used cannabis, with 22% indicating current use (Commonwealth Department of Health and Human Services 1995). A much higher estimate was recorded in the 2004 NDSHS, with 41% of Aboriginal and Torres Strait Islander peoples over the age of 12 years reporting they had ever used cannabis (AIHW 2005b). Similarly high estimates of current use were recorded from two (unspecified) urban centres in NSW (38%: Perkins et al. 1994) and the ACT (87%: Dance et al. 2004). Twenty eight per cent of young Aboriginal people aged 8–17 years surveyed by Gray et al. (1997) in Albany, Western Australia were either occasional or frequent users of cannabis. Estimates from east Arnhem Land are higher still and seemingly in response to the introduction of cannabis into the area in the early 1990s. At the peak, 74% of persons in the surveyed area were using cannabis (Clough et al. 2002a) (see section on contemporary changes in drug use for more detail).

Cannabis users tend to be male and young (that is, late teens to 30s) (Clough et al. 2002b; Perkins et al. 1994). To some extent, cannabis is less stigmatised than other illicit drugs, at least among users. Many cannabis users in the ACT interviewed by Dance et al. (2004) did not want to give up cannabis, although they indicated a preference to use cannabis in 'a safer, less stigmatised and less expensive manner' (Dance et al. 2004:24).

Heroin and amphetamines

While heroin and amphetamines are the most common drugs injected by Aboriginal and Torres Strait Islander peoples, heroin tends to be the drug of choice if available (Roberts 1998, 1999, cited in Holly 2001; Shoobridge et al. 1998). Prevalence estimates of heroin use are few, partly because most studies of heroin use focus on the user population rather than the general population. Of those that have been published, Perkins estimated that 6% of Aboriginal and Torres Strait Islanders living in two urban centres in New South Wales had

'ever used' heroin (Perkins et al. 1994), and in the ACT, 49 of 95 respondents to a survey of Indigenous drug use in the ACT reported having used heroin in the last 12 months (Dance et al. 2004). Heroin use in the ACT is considered to be particularly problematic, especially among young Indigenous persons (Carrick 1998, cited in Dance et al. 2004). Among injecting drug users, 84% in a Western Australian survey (Gray et al. 2001) and 66% of injectors in a Brisbane survey (Larson et al. 1999) had 'ever used' heroin. It was also the most recent drug injected by 43% of users in the National Syringe Program survey (Correll et al. 2000) and 52% of users in the Nunga Users HIV Intervention Team (NU-HIT) Client Survey (Adelaide) (Lane 1993) and the 1999 National Drug and Alcohol Research Centre IDRS (NSW, Vic and SA) (cited in Holly 2001).

Amphetamine use, initially confined to urban centres, is becoming more common in regional areas.[5] Prevalence estimates, however, are limited (one exception is Dance et al. (2004) where 80 of 95 respondents to the survey had used amphetamines, of whom 48 were current users) and the majority of estimates are derived from surveys of Indigenous intravenous drug users in South Australia (Adelaide and Murray Bridge), Queensland (Brisbane) and the Northern Territory (Darwin). While heroin tended to be the drug of choice among intravenous drug users, amphetamines were more commonly the first drug ever injected (83% of IDUs: Larson 1996; 48%: Shoobridge et al. 1998) and the drug last used or currently used (61.3% of IDUs: Lane 1993; 73%: Larson 1996; 76%: Shoobridge et al. 1998). Price and availability of amphetamines possibly explains this difference between drug preferred and actual drug used. An immediate outcome of amphetamine use, like heroin use, is a high level of dependence (Dance et al. 2004; Holly 2001); for intravenous drug users living in the Murray Bridge region, dependence among Indigenous users was higher than among non-Indigenous intravenous drug users (Shoobridge et al. 1998).

Daily use of heroin and/or amphetamines varied between published studies. Thirty eight per cent of injectors in the Brisbane study injected at least once a day and 77% at least once a week (Larson et al. 1999). This contrasts with injectors in Darwin interviewed in the Health for Injectors in the Northern Territory (HINT) snapshot surveys, where over 60% injected at least once a day, and between 13 and 28% injected once a week (Roberts 1998, 1999, cited in Holly 2001). In the ACT, 29% of intravenous drug users were using daily, almost or sometimes daily (Dance et al. 2004).

Inhalants/solvents

Recently, substantial attention has focussed on the use of inhalants and solvents, in particular petrol sniffing and its reported use by many Aboriginal youth living in remote communities. Actual estimates of petrol sniffing are limited[6], but the practice is common, although not exclusive, to males aged between 8 and 30 years (Brady & Torzillo 1994). Many sniffers start their drug use at a very young age, often under the age of 12 years (Burns et al. 1995a; d'Abbs & MacLean 2000; Gray et al. 1997), and it has been suggested that younger children rely so heavily on sniffing because they do not have the financial means, like their

5 A report funded by the National Drug Law Enforcement Research Fund and to be released in 2006 will include a comprehensive review of information on illicit drug use by Aboriginal and Torres Strait Islander peoples in rural and remote locations (Dr Judy Putt, AIC, personal communication).

6 The general absence of prevalence estimates for petrol sniffing may be in part due to the 'clandestine' nature of sniffing behaviour (that is, usually occurring at night) and the likelihood that the number of people involved fluctuates within and between communities (MacLean & d'Abbs 2002).

older peers, to buy and use preferred drugs such as cannabis and alcohol (Select Committee on Substance Abuse in the Community 2004).

Earlier reports of petrol sniffing came from 29 Aboriginal communities in the Northern Territory, and another 26 elsewhere in Australia (Brady 1988); an update confirmed sniffing in Arnhem Land, Central Australia and the Riverina region of New South Wales (Brady 1989, cited in d'Abbs & MacLean 2000). A more recent inquiry into the extent and consequences of petrol sniffing reported that in 2000 petrol sniffing was occurring in 23 communities, involving an estimated 160–255 people living in 14 communities and another 100 people in various communities in the Tri-State region, bordering the Northern Territory, South Australia and Western Australia (Select Committee on Substance Abuse in the Community 2004). Petrol sniffing has also been reported in Arnhem Land by Burns et al. (1995a), where 76% of 58 men surveyed in Maningrida were current or ex-sniffers, although only 3–4% of users in the Miwatj Region of Arnhem Land admitted to currently sniffing (Clough et al. 2002b). Other parts of Australia where petrol sniffing has occurred, or does occur, include Cape York in Queensland (ANCD 2002), western New South Wales and northern Victoria (Commonwealth Department of Health and Human Services 1995 and Garrow 1997, cited in d'Abbs & MacLean 2000). In a recent interview, Blair McFarland of the Central Australian Youth Link Up Service (CAYLUS) estimated there were 500 sniffers in the Northern Territory, and another 222 (or 8.4% of the community) in the Anangu Pitjantjara Lands of South Australia (Reuters Health 2005).

In urban areas, petrol sniffing is not nearly so prevalent, but still exists—in the ACT, 20 of 95 respondents had used at least once (Dance et al. 2004), 6% in two urban centres in NSW were currently sniffing (Perkins et al. 1994), and 7% of young Aboriginal people aged 8–17 years in Albany, Western Australia engaged in sniffing (Gray et al. 1997).

Less information is available on the use of other inhalants/solvents. Gray et al.'s (1997) survey of young Aboriginal people in Albany found 16% were involved in sniffing, either glue, toluene, spray cans, correction fluid, paint thinners and, as previously mentioned, petrol. Sniffing behaviour was, however, cyclical, tending to increase when the practice was introduced to new recruits who would sniff for a matter of weeks and then give it up. Inhalants/solvents were also often used in place of cannabis when money was not available (Gray et al. 1997). Somewhat more sustained use is reported by Butt (2004) who interviewed young people aged 12–18 years in Brisbane who sniffed spray paint. Length of use in this group ranged from 6 weeks to 2 years. Of the people interviewed, 29% were considered chronic users (used every day, either socially or alone), 14% short-term binge users (used a lot for short-term before stopping 'when the novelty wears off') and 14% experimental users (used once or twice, but doesn't continue).

Multiple drug use

There has been some suggestion that multiple drug use is more common among Aboriginal and Torres Strait Islander peoples. For example, in a study of intravenous drug users in south-western Sydney (Correll et al. 2000) 18% of Indigenous intravenous drug users used more than one drug, compared with 8% of non-Indigenous intravenous drug users. Certainly, the literature indicates that for some users, multiple drug use is the norm, but this evidence is still limited. What is evident is that specific combinations of drugs may be used by specific users, and this probably depends to some extent on availability. For example, cannabis is regularly used in conjunction with tobacco (Clough et al. 2004), and often mixed together (Dance et al. 2004). Cannabis is also used alongside kava in three eastern Arnhem Land communities, and in some instances with petrol sniffing, but rarely with alcohol (Clough et al. 2004). In another community in Arnhem Land, the majority of petrol sniffers

used tobacco (smoked cigarettes) and drank alcohol, and over half drank kava (Burns et al. 1995a). Sniffers were generally more likely to use any of these substances than non-sniffers.

Intravenous drug users use a combination of licit and illicit, soft and hard, drugs. Many intravenous drug users inject both heroin and amphetamines (speed), depending on what is more easily sourced, and for 16% of intravenous drug users interviewed in Brisbane, heroin and speed were used 'at the same time' (Larson et al. 1999). Among intravenous drug users in South Australia there is 'lots' of alcohol, tobacco and cannabis use (Holly & Shoobridge 2003; Shoobridge et al. 1998).

Age of first use

The average age when Aboriginal and Torres Strait Islander peoples first use drugs is younger than the national average (see Table A1.1). It should be remembered, however, that data for the former group are mostly gathered from a handful of smaller surveys, whereas the latter is obtained from a considerably larger, nationwide sample, some with low response rates. Nonetheless, it is evident that for many Aboriginal and Torres Strait Islanders who have used or use drugs, initiation into drug use can start in the very early teens, and sometimes much younger. Table A1.1 lists the mean age of first drug use for alcohol, tobacco, cannabis, inhalants/solvents (petrol) and injected drugs (heroin and amphetamines) for Indigenous and all Australians.

Table A1.1 indicates that the mean age of first drug use among the Indigenous population is apparently between 2 and 6 years younger than the national average, but follows the general pattern of tobacco and alcohol being tried at younger ages and injected drugs when individuals are entering adulthood. Range estimates presented in a number of surveys also indicate that some users first tried specific drugs at a very young age—8 to 10 years. This was particularly true for tobacco (cigarette smoking) and petrol sniffing (Burns et al. 1995a; Gray et al. 1997).

Table A1.1: Mean age of first use of alcohol and other drugs, Indigenous and all Australians

Drug	Indigenous Australians	All Australians[(a)]
Alcohol	11.5[(b)]	17.2
Tobacco	9.7[(b)]	15.9
Cannabis	12.4[(b)] 14.0[(c)] 17.0[(d)]	18.7
Inhalants	13.0[(b)] 12.0[(e)]	18.5
Injected drugs	17.8[(f)] 18.6[(g)]	21.7

(a) AIHW 2005a

(b) Albany, Western Australia—Gray et al. 1997

(c) ACT—Dance et al. 2004

(d) East Arnhem Land, Northern Territory—Clough et al. 2004

(e) Maningrida, Arnhem Land, Northern Territory—Burns et al. 1995a

(f) Brisbane, Queensland—Larson 1996

(g) Murray Bridge, South Australia—Shoobridge et al. 1998

Contemporary changes in drug use

Identifying and interpreting changing patterns of, or fluctuations in, drug use is made difficult by the still emerging picture of drug use among Aboriginal and Torres Strait

Islander peoples, and a general absence of longitudinal studies. What has been observed is often anecdotal, but some longer-term research focussing on specific communities illustrates the changes that are occurring. One recent example is the work of Clough and colleagues in eastern Arnhem Land, which identified the emergence of a new drug problem in the region, and concurrent changes in the use of other, more conventionally used drugs. Before the 1990s, there was relatively little use of cannabis in eastern Arnhem Land, but with the introduction of local trafficking of cannabis in the late 1990s, there occurred such a rapid uptake that, by 1999, 55% of males and 13% of females were using cannabis (Clough et al. 2002a). These rates rose again between 1999 and 2000, and again between 2001 and 2002, when it was estimated that 62–76% of males and 9–35% of females aged 13–34 years used cannabis on a regular basis (Clough et al. 2002b). By 2004, a 'modest' decline in cannabis use was detected, more significantly among females and older males (over the age of 16) (Clough et al. 2006). This decline in use was, as for its uptake, associated with changes in availability, in this case a reported reduction in supply. During the same period there was a significant decline in kava use, a less obvious but detectable decline in tobacco use (among women), and fluctuations in petrol sniffing behaviour, with a decrease in sniffing to 2000 and a possible resurgence between 2001 and 2002 (Clough et al. 2002b). The drop in kava use occurred alongside, and probably as a result of, a decline in the kava trade in the 'Top End'.

Documented changes in petrol sniffing reflect variable patterns of usage (MacLean & d'Abbs 2002). Where sniffing does occur there is usually a core group of chronic sniffers, onto which new recruits and occasional sniffers cyclically associated with and disengage from, possibly in response to movements of young people and families in and out of the community (ANCD 2002). In 1985, sniffing was reported in 29 communities in the Northern Territory and 26 communities in Western Australia and other parts of the Northern Territory (Brady 1988). Since then, a number of reports suggest that petrol sniffing has expanded into remote communities where sniffing behaviour had previously been absent, and to some regional and urban settings. However, this expansion may not necessarily be associated with a large increase in the sniffer population, since other communities have been able to eradicate the practice or, at least, reduce the problem (Burns et al. 1995b; Shaw 1999, cited in d'Abbs and MacLean 2000; Stojanovski 1999, cited in d'Abbs and MacLean 2000). Of those individuals who practice sniffing, use may be becoming more sustained, with participants engaged in longer sniffing careers (Brady & Torzillo 1994). Many sniffers now tend to be over 25 years, and have been involved in sniffing for as long as 10 to 15 years (Dr Paul Torzillo, statement to inquest concerning the petrol sniffing deaths of Kunmanara Ken, Kunmanara Hunt and Kunmanara Thompson: South Australian Coroners Court 2002).

Changes in patterns of drug use among Aboriginal and Torres Strait Islanders may also be inferred from the sorts of drugs for which Indigenous Australians seek treatment. A comparison of data collected in the 1990, 1992, 1995 and 2001 Clients of Treatment Service Agencies (COTSA) censuses by Shand & Mattick (2002) revealed considerable changes in the principal drug problem identified by Indigenous users seeking treatment. Over the 11-year period, alcohol as the 'principal drug problem' decreased from 83% to 57% of Indigenous users receiving treatment for substance use, and tobacco from 8.5% to 3.5%. Other drugs became more commonly reported as the principal drug problem, especially opiates, which increased as the principal drug problem for 7.9% to 18% of Indigenous users in treatment, and cannabis, which rose from 2.5% to 9.0%. Poly-drug use also increased among Indigenous persons presenting to treatment services on census day, from 3.9% in 1990 to 19.2% in 2001.

Similar information for the periods 2001–02, 2002–02 and 2003–04 is collected in the AODTS–NMDS, which superseded the COTSA. These data, however, cannot be compared with the COTSA data because of methodological and some sampling differences. No significant

differences were observed between reporting periods in the principal drug of concern identified by Indigenous persons seeking treatment, with around 45–46% of closed treatment episodes for alcohol treatment, 22–23% for cannabis, 11% for heroin and 9–11% for amphetamines (AIHW 2003, 2004d, 2005c).

Expenditure

Drug expenditure varies depending on the drug used, its availability, the amount used and price charged, which is not only tied into availability, but also geographic location of purchase.

A detailed estimation of expenditure on cannabis (and other drugs) in East Arnhem Land was explored by Clough et al. (2002b, 2004). Cannabis users in two communities in this region normally bought one or two packets of cannabis a week, at $50 per packet. This outlay constituted between 31% and 62% of median weekly income for persons aged 13–36 years, depending on the number of packets bought, and 6–10% of the communities' monetary resources (Clough et al. 2004).

In terms of consumption and expenditure, Clough et al. (2002b) estimated an individual spent an average of $42 a month on consumed cannabis, and the community a total of $6,000 a month. Expenditure on consumed alcohol was similar to cannabis, with individuals spending an average $48 a month and the community an average $5,000. Consumed tobacco expenditure was higher, at $62 a month for individuals and $16,000 a month for the community, but it was consumed kava expenditure that was particularly expensive for individuals, with an average of $137 a month. The total for the community was the same as that for consumed tobacco, at $16,000 a month. For persons who used combinations of kava, alcohol and tobacco, monthly outlays on drugs were particularly expensive.

In a South Australian study in 2001, Indigenous intravenous drug users surveyed spent anywhere between $50 and $5,000 a week on injectable drugs, with 14% spending between $1,000 and $5,000 (Holly & Shoobridge 2003). Median average income for the sample group was $350 per week, with a range from $50 to $900. The median amount spent on a hit was $75 (range: $25–$400). Around 80% of respondents spent $50 to $100 per hit, and 5% spent $200 or more.

The majority of Brisbane-based Indigenous intravenous drug users surveyed by Larson (1996) spent less than $100 per week (36%) or between $100 and $500 a week on their drug habit. Eighteen per cent spent more than $1,000. While Indigenous intravenous drug users spend a considerable amount on intravenous drugs, IDRS data suggests higher expenditure on drugs among the general IDU population (Holly & Shoobridge 2003).

Associated risk behaviours

Consideration of risk behaviours associated directly with drug use usually focuses on practices by intravenous drug users, specifically the sharing of needles and other drug equipment. Indigenous intravenous drug users engage in unsafe using and sharing of needles and syringes, although there has been little exploration of the proportion that do compared with the non-Indigenous intravenous drug using community. A survey of 77 Indigenous intravenous drug users in Brisbane found 18% had shared needles in the previous week, 21% had shared in the previous month and 51% had shared in the previous 12 months (Larson et al. 1999). Females were much more likely to have ever shared, 62% compared with 27% of males. Similarly high levels of sharing were reported among 410 Indigenous intravenous drug users in South Australia, where 48% said they had shared

at least once and 32% had shared in the last 12 months (Shoobridge et al. 1998). Young intravenous drug users more commonly shared needles and syringes (Eldridge 1997); 63% of the Brisbane group who had shared in the last month were under 20 years of age (Larson et al. 1999).

A number of reasons have been proposed for explaining the high levels of sharing behaviour among Indigenous intravenous drug users. Some users share because of a tendency to inject 'on the run' (that is, unplanned or spur-of-the-moment injecting) and/or because they admit to only collecting a small quantity of syringes when visiting needle exchange programs (Holly & Shoobridge 2003). Needles and syringes are mostly shared with partners, close friends or family members, whereas there is more pervasive sharing of other equipment, such as spoons and filters. Larson et al. (1999) argue that needle-sharing behaviour among Indigenous intravenous drug users, at least in Brisbane, is a composite of cultural identity and environmental factors. The culture of sharing among Aboriginal and Torres Strait Islander peoples is thought to explain some aspects of Indigenous drug use; among the Brisbane group, intravenous drug users rarely injected with non-Indigenous injectors and usually bought their equipment from Indigenous friends. Larson et al. (1999) also suspect that the availability of services, such as the absence of a needle exchange services, and a lack of knowledge about, or desire to, access conventional health services, meant Indigenous injectors mostly sourced injecting equipment from chemists. This potentially limits access to new, clean equipment, and hence creates the temptation to share.

The mode of petrol sniffing used by many sniffers has its own inherent risks. Sniffers often fashion a tin that fits to the face, which allows easy exposure to fumes and a consistent high. On occasion where the fumes are too strong, or a person falls asleep with the tin still attached, respiratory distress may result, sometimes leading to death. A 2002 coronial inquest to the death of three persons in South Australia established that death occurred from respiratory depression, and possible asphyxia, as a result of the deceased falling asleep with their tins of petrol over their faces (South Australian Coroners Court 2002). Deaths from asphyxiation have also occurred in Central Australia, with one victim being only 14 years of age (Reuters Health 2005). The volatile nature of petrol also means sniffers can suffer from burns and other injuries if petrol is accidentally ignited (d'Abbs & MacLean 2000).

Other associated risk behaviours include unsafe sex, tattooing and piercing, and driving under the influence of drugs, but very little information on these behaviours is available.

Associated harms and health status

Mortality

Identifying the effect of substance abuse on health and mortality is somewhat complicated by the range of other factors that contribute to the generally poor health of many Aboriginal and Torres Strait Islander peoples. The information presented below is therefore obtained from studies where a direct association is observed, or is likely to have occurred.

Between 1999 and 2003, in Queensland, South Australia, Western Australia and the Northern Territory, the age-specific death rate for Indigenous Australians was 6,273 per 100,000 compared with 4,534 per 100,000 for non-Indigenous Australians (ABS & AIHW 2005). The leading causes of death for Aboriginal and Torres Strait Islander peoples in this period were diseases of the circulatory system (for example, ischaemic heart disease), external causes of mortality (accidents, intentional self-harm and assault) and neoplasms (cancer). The greatest difference in death rates between Indigenous and non-Indigenous Australians was in the

35–54 year age group, where ischaemic heart disease, diseases of the liver (alcoholic liver disease and cirrhosis of the liver), diabetes and intentional self-harm were the main causes of death. Sustained use and abuse of alcohol, tobacco and possibly other drugs are associated with these diseases and self-harm, although the data here do not allow investigation of drug use history.

Alcohol has been estimated to account for 8–10% of Aboriginal deaths (Hicks 1985, cited in Gray 1990; Gray 1990; Unwin et al. 1995). An examination of deaths in the Western Australian population between 1989 and 1991 found that 9.2% of deaths for Indigenous Western Australians were alcohol-related compared with 5% of deaths for non-Indigenous Western Australians (Unwin et al. 1995). Rates of alcohol-caused deaths were 2.7 times higher for Indigenous males and 1.9 times higher for Indigenous females. These deaths also occurred at much younger ages—62% and 70% of Indigenous male and female deaths, respectively, were attributed to alcohol occurred before age 55. For the non-Indigenous population, the proportion was 35% and 23%, respectively. A more recent study by Chikritzhs et al. (1999) found that between 1990 and 1997, alcohol-related deaths continued to be higher among Indigenous Australians.

Alcohol use is also responsible for traumatic injuries, road accidents, falls, burns, suicide and violent death. Hunter (1991) observed between 1957 and 1986 the proportion of deaths due to such external causes rose from 4.2–6.8% and 2.3–5.3% of male and female deaths to 22.6% and 15.2% (1982-1986), after the introduction of drinking rights in the Kimberley.

Tobacco use is equally responsible for high mortality rates. From the same Western Australian study, tobacco smoking accounted for 13.9% of Indigenous deaths, slightly fewer than the 15.4% estimated for the non-Indigenous population (Unwin et al. 1995). However, the rate of tobacco-caused death was 2.3 and 3.5 times higher for Indigenous males and females and, again, deaths occurred at an earlier age. Almost 50% of tobacco-caused deaths for both Indigenous males and females occurred before age 55, whereas it was 11% and 10%, for non-Indigenous males and females, respectively. In the Northern Territory, between 1986 and 1995, tobacco smoking accounted for an even higher proportion of Indigenous deaths (20%), although this was similar to the non-Indigenous population (19%) (Measey et al. 1998). Age-adjusted death rates were higher for the Indigenous population, for both males (457 compared with 145 per 100,000) and females (251 compared with 38 per 100,000).

Chronic obstructive pulmonary disease (COPD) was the main cause of death in this Northern Territory Indigenous population, followed by ischaemic heart disease and lung cancer (Measey et al. 1998). For the Western Australian Indigenous population, it was ischaemic heart disease that was the most common cause of death, at a rate 3.2 and 6.8 times that of non-Indigenous males and females respectively (Unwin et al. 1995).

Using Western Australian mortality data from 1991 to 1995, Arnold-Reed and colleagues (1998) estimated that, with a combined elimination of tobacco smoking and unsafe alcohol use, Indigenous life expectancy would rise 5.9 years for males and 3.4 years for females to 64.4 and 68.7 years respectively. More modest increases would occur for elimination of tobacco-caused deaths (a gain of 2.5 and 1.7 years respectively) and unsafe alcohol consumption (2.9 years and 1.6 years). These gains would be more significant than with the elimination of all deaths caused by infectious diseases, with an increase in life expectancy by 0.2 years for both sexes.

Deaths attributable to other drugs are not so easily established from mortality data, and information is therefore not as readily available. Between 1999 and 2003, deaths arising from 'mental and behavioural disorders due to psychoactive substance use' were 13.7 times more common for Indigenous males than non-Indigenous males and 11.1 times more common for

Indigenous females than non-Indigenous females (ABS & AIHW 2005). Deaths from petrol sniffing have been documented sporadically in the literature. Brady & Torzillo (1994) estimated that between 1981 and 1988 there were at least 35 deaths from petrol sniffing, although this was likely to be an underestimate given that most of this information was drawn from coronial records. A similar number of deaths from petrol sniffing were estimated for the Anangu Pitjantjatjara Lands in north-west South Australia between 1981 and 2002 (Dr Paul Torzillo, South Australian Coroners Court 2002). Goodheart and Dunne (1994) reported on the high fatality ratio of chronic petrol sniffers (8 of 20) admitted to Royal Perth Hospital between 1984 and 1991, often from sudden death and the result of cardiac arrest or respiratory failure due to pneumonia.

The AIHW is currently in the process of estimating the number of deaths, and burden of disease, attributable to alcohol, tobacco and other drugs. Previous work estimated in 1998 a total of 19,019 Australians died as a result of tobacco smoking and another 1,023 deaths to illicit drug use (AIHW: Ridolfo & Stevenson 2001). Deaths as a result of alcohol consumption were estimated at 3,271 for the same year. These estimates include all Australians; future work is planned to determine estimates for the Indigenous population.

Suicide

Between 1997 and 2000, 276 Indigenous males and 55 Indigenous females died due to intentional self-harm or suicide (Helps & Harrison 2004). This equates to a death rate by suicide 1.8 times higher for Indigenous males and 1.3 times higher for Indigenous females compared with non-Indigenous males and females. Suicide rates were 2.2 times higher in more remote areas compared with urban areas.

While the source of the data cited above is unable to provide the drug history of suicide victims, it is thought suicide among Aboriginal and Torres Strait Islander peoples is often associated with alcohol or drug abuse. For intravenous drug users, intoxication often facilitated the decision to attempt suicide; more than 52% of injectors surveyed by Shoobridge et al. (1998) had attempted suicide at least twice and 92% reported being intoxicated when attempting suicide. Twenty nine per cent of spray-paint sniffers interviewed in Brisbane revealed to Butt (2004) they had attempted suicide at least once, and 21% had current suicidal thoughts.

Suicidal ideation was linked to alcohol consumption among Aboriginal males living in the Kimberley region of Western Australia (Hunter 1991). Around 80% of the 100 males interviewed (age range 12–65 years) had a 'significant' drinking problem and over half had considered or attempted suicide. Of the 57 males with a history of suicidal ideation and/or self-injury (such as mutilation), 75% admitted that alcohol influenced the impulse to self-harm. Hunter (1990) noted in a separate paper that a family history of heavy alcohol consumption was also associated with self-harm, particularly self-mutilation.

A link between cannabis use and suicide has also been put forward. Medical record entries of a select group of cannabis and non-cannabis users in Arnhem Land indicated a higher, albeit small, incidence of self-harm (including suicide attempts) among cannabis users (Clough et al., 2006). A more formalised view of suicide by Tatz (1990) also linked cannabis use with suicide. Suicides have also been associated with petrol sniffing—Gary Meyerhoff in his submission to the Senate Community Affairs Reference Committee inquiry cites five suicides and eight attempted suicides among petrol sniffers occurring recently in the Anangu Pitjantjatjara Lands.

Comorbidity

The adverse health consequences of chronic alcohol and tobacco use are well recognised. Aboriginal and Torres Strait Islander peoples who drink regularly at hazardous levels are at a much higher risk of developing liver disease, pancreatitis, diabetes, alcoholic cardiomyopathy, alcoholic gastritis and cirrhosis of the liver (ABS & AIHW 2005; Gray 1990; Veroni et al. 1992; Swensen & Unwin 1994). They are also more prone to serious injuries (and death) sustained through road accidents, falls and burns. Rates of hospitalisation due to external causes of injury, such as accidental falls and transport-related injuries, was, in 2003–04, 1.7 times higher among Indigenous males and 2.3 times higher among Indigenous females than other Australians (ABS & AIHW 2005).

Heavy tobacco consumption among Aboriginal and Torres Strait Islander peoples has led to a high burden of tobacco-related cardio-vascular disease, particularly ischaemic heart disease and chronic obstructive pulmonary disease, and respiratory diseases (ABS & AIHW 2005). For example, Indigenous tobacco users, compared with non-tobacco users in Arnhem Land, are four times more at risk of developing ischaemic heart disease (Clough et al. 2004) and six times more at risk of dying from this condition (unpublished data, cited in Clough 2005).

Sustained cannabis use and its effects on physical and mental health are not well understood. An examination of potential effects of cannabis suggest that acute effects may include anxiety and panic, impaired attention and memory when intoxicated, and increased risk of psychosis, particularly for those with a family history of psychosis. Probable chronic effects include some respiratory conditions (such as chronic bronchitis) and 'subtle' impairments to attention and memory that may not be reversible, even after a long period of abstinence (Hall & Solowij 1998). Cannabis use may also be associated with acute cardiovascular effects during episodes of intoxication (Jones 2002) and respiratory problems (Tashkin et al. 2002). Participants in a study on the consequences of changing cannabis use in east Arnhem Land described experiencing headaches, confusion, impaired memory, sleep disruption and hallucinations (Clough et al. 2006). Furthermore, cannabis users had more clinically recorded cases of respiratory and cardiovascular illnesses (in adult life), blood test abnormalities, traumatic injuries, depression, anxiety, hallucinations, seizures and other neurophysiological experiences, and intended or actual incidents of self-harm, compared with persons who had never used cannabis.

The known health consequences of kava use may include loss of body fat and dermopathy, abnormal liver function, and increased susceptibility to infectious diseases, such as melioidosis (Clough et al. 2003; Currie 2000; Mathews et al. 1988). Acute neurological impairments (Spillane et al. 1997), seizures (Clough et al. 2001) and psychotic episodes, including hallucinations (Brunton 1988), have also been proposed as possible adverse health effects. However, Cairney et al. (2003) found no evidence of impairment to cognitive or saccadic function in both heavy users of kava and persons who had been heavy users but abstained for at least 6 months before cognitive testing began.

Recognised risky behaviour among some Indigenous intravenous drug users, some denial as to the risk of contracting a blood-borne communicable disease, and the high incidence of injecting drug use among Indigenous prison inmates, suggest that rates of HIV and hepatitis B and C (HBV and HCV) infection may be relatively high among Indigenous injectors. Around 1.5% of Indigenous intravenous drug users surveyed in the 1999 IDRS were HIV+ (Correll et al. 2000). Among Indigenous injectors in Darwin, the proportion reporting HIV+ status were higher: 5.6% (Roberts 1998, cited in Holly 2001), 12.5% (Roberts 1999, cited in Holly 2001) and 6.3% (Roberts & Crofts 2000) of users participating in three separate HINT

(Health for Injectors in the Northern Territory) surveys. No cases of HIV were reported by Larson (1996) and Shoobridge et al. (1998).

The prevalence of HBV, and particularly HCV, is much higher. Self-reported HBV infection rates range from 6.25% (Roberts 1999, cited in Holly 2001) to 32% (Shoobridge et al. 1998), and self-reported HCV infection rates range from under 40% (Larson 1996; Shoobridge et al. 1998; Roberts 1998, cited in Holly 2001) to just over 70% (Roberts & Crofts 2000). There is little comparison of these rates with those of non-Indigenous intravenous drug users, although Roberts and Crofts (2000) state they are similar in the Darwin sample, at least for HBV infection. Alongside the risk of contracting such serious diseases, more short-term adverse effects of injecting drugs include loss of appetite, hot and cold flushes, aching muscles, sleep problems, mood swings and 'a lack of enthusiasm for life' (Holly & Shoobridge 2003).

For users of inhalants, particularly petrol, even short-term or periodic use can have substantial health effects. While intoxicated, sniffers may experience dizziness, nausea, slurred speech, loss of memory, convulsions, hallucinations and ataxia (Brust 1993; Cairney et al. 2002), and more prolonged inhalation can result in delirium, loss of consciousness and coma. Fifty per cent of sniffers surveyed by Burns et al. (1995a) reported either falling down or 'shaking uncontrollably' when intoxicated and 33% of spray-paint sniffers interviewed by Butt (2004) experienced loss of memory and hallucinations more than 20 times during their sniffing career, and 22% had passed out regularly. Furthermore, 62% had depressive symptomatology, 23% experienced anxiety and 46% experienced stress.

Long-term effects of sniffing range from non-specific symptoms, such as loss of appetite and weight, lethargy and irritability, to more serious conditions, such as encephalopathy, neuropsychological deficits, ataxia and other mobility impairment. Recreational petrol sniffers can experience impairments in cognitive and neurological function, but it is chronic sniffers who are especially susceptible to developing severe encephalopathy (Cairney et al. 2004). Between 1984 and 1991, 25 petrol sniffers were admitted to three hospitals in Perth (20 were Indigenous) suffering from ataxia, altered consciousness, seizures and movement disorders (Goodheart & Dunne 1994). Those who had been hospitalised with acute intoxication (five persons) recovered from their encephalopathy related symptoms within 24 hours of admission, but, of the sniffers with a history of chronic sniffing behaviour, eight died and the rest were still experiencing ataxia and showing signs of dementia on discharge. Only one was described as 'functionally independent'.

Some chronic sniffers never experience encephalopathy (Burns et al. 1995a; Maruff et al. 1998). Cairney et al. (2004) compared cognitive and motor abilities of Aboriginal males aged 13–32 years in Arnhem Land who had a history of sniffing leaded fuel, sniffing unleaded fuel and men who had never engaged in petrol sniffing. While the former two groups of males both had impaired cognitive and motor functions compared with males who did not have a history of sniffing, males who had habitually used leaded fuel had additional and longer-lasting damage to neurological and cognitive functions. It is thought that these long-term and more debilitating effects are due to organic lead poisoning (Burns & Currie 1995; Burns et al. 1996; Cairney et al. 2004).

Recent investigation into long-term effects of chronic exposure to leaded petrol has revealed that neurological and cognitive impairments may not necessarily be permanent. A group of sniffers who had abstained from petrol sniffing for 2 years demonstrated improvements in cognitive and neurological function, although those with more severe impairments and a history of lead encephalopathy were not as likely to recover completely (Cairney et al. 2005).

Overdose

Indigenous Australians who inject drugs are thought to experience higher overdose rates than other injectors (Holly & Shoobridge 2003). Just over 50% of injectors in a Brisbane study who had last used heroin reported having overdosed or witnessed an overdose (Larson 1996). Among Indigenous injectors living in urban South Australia, 21% had overdosed, of whom 67% experienced their overdose over a year ago and 37% had overdosed 'deliberately' (Holly & Shoobridge 2003). Heroin was the most common drug on which people overdosed, but overdoses on amphetamines, alcohol and benzodiazepines were also reported. Since many Indigenous injectors often inject alone, and more often than non-Indigenous injectors, their risk of overdosing is considered to be potentially greater and may explain the actual higher overdose rates (Larson 1996; Shoobridge et al. 1998).

Overdosing can also include episodes of alcohol poisoning and severe intoxication of drugs such as inhalants; however little or no information on such episodes is available.

Hospital admissions

The rates of admission to hospitals in Western Australia for alcohol-related conditions are 8.6 times higher for Indigenous men and 12.8 times higher for Indigenous women (Veroni et al. 1992). Hospital admissions due to smoking are also higher among Aboriginal and Torres Strait Islander peoples. In the Northern Territory during the periods 1986–1988 and 1993–1996, age-adjusted admission rates for males were 1,022 and 1,520 per 100,000 respectively, compared with 654 and 672 per 100,000 for non-Indigenous Australians. For Indigenous females, rates were 689 and 1,013 per 100,000 in the same two periods, compared with 234 and 229 per 100,000 for non-Indigenous females (Measey et al. 1998). Chronic obstructive pulmonary disease was the main cause of hospitalisation.

A disproportionately high representation of Indigenous adolescents (12%) presented with alcohol or other drug-related problems to accident and emergency departments in Perth over an unspecified period of time (Hulse et al. 2001). Alcohol was the most common drug used (37% of cases) and all three presentations involving inhalants were by Indigenous adolescents. A quarter of presentations were for injuries sustained related to alcohol or other drug use, with other presentations due to overdose, intoxication, suicide attempt, adverse reaction and abdominal pain/nausea. The breakdown of presentation diagnosis was not described.

Data from the National Hospital Morbidity Database (NHMD) does not readily indicate the proportion of Aboriginal and Torres Strait Islander people who were admitted because of alcohol or other drug-related problems, but conditions or other diagnoses associated with, or the consequence of, substance use tend to be higher among this group. For example, in 2003–04, injuries were the second most common principal diagnosis for observed hospitalisations among Indigenous Australians—17,318 observed hospitalisations or 8% of all hospitalisations in that period (ABS & AIHW 2005). Within these injuries, accidental falls, transport accidents and assault were predominant—the rate of hospitalisation for assault being seven times higher for Indigenous than non-Indigenous males and 31 times higher for Indigenous than non-Indigenous females. Hospitalisation rates for circulatory system diseases and especially respiratory diseases were also higher among Aboriginal and Torres Strait Islander peoples (ABS & AIHW 2005).

Disability

Little is known about the incidence of disability arising from alcohol or drug use. Certainly some of the health conditions associated with alcohol consumption and tobacco smoking discussed earlier would be likely to have a disabling effect on sufferers, but actual numbers of Aboriginal and Torres Strait Islander persons considered to have a drug-associated disability are generally unavailable.

The potentially severe health consequences of chronic petrol sniffing have elicited a small number of reports on sniffing-related disability, including:

- In 1997, 43 people resident in the cross-border region of the Northern Territory, South Australia and Western Australia were listed on the Ngaanyatjarra Pitjantjatjara Yankunytjatjara Women's Council database as having been disabled by petrol sniffing (Mosey 1997, cited in d'Abbs & MacLean 2000). Two years later, that number had risen to 60, with seven in cared accommodation.
- Sixty of 100 sniffers from the Anangu Pitjantjatjara Lands were considered by Roper (1998, cited in d'Abbs & MacLean 2000) to have been 'seriously disabled' by their petrol sniffing. A recent article in the *The Australian* stated that the South Australian Government had identified 25 people who are disabled as a result of long-term petrol sniffing (Bockmann 2006).
- Thirty-five adults on the Anangu Pitjantjatjara Lands were identified as having an acquired brain injury from petrol sniffing, accounting for 58% of all people with a disability in the area (Mr John Tregenza, South Australian Coroners Court 2002). Acquired brain injury from petrol sniffing is the single largest cause of disability in the Anangu Pitjantjatjara Lands.
- Fifteen known ex-sniffers were in cared accommodation in Central Australia in 2004 (Select Committee on Substance Abuse in the Community 2004). It was suggested that this number was likely to rise to 60 persons in the next 10 years.

None of these reports detail the sorts of disabilities experienced by ex-sniffers, but it is likely that most involve neurological and cognitive impairments, and/or mobility limitations. The cost of long-term care is estimated at $160,000 per annum, based on the funds Territory Health Services expend caring for one man with a sniffing-related severe brain injury (McFarland 1999, cited in d'Abbs and MacLean 2000). The costs, both financial and emotional, for family who cannot, or do not want to, institutionalise a family member disabled by sniffing is yet to be explored.

Pregnancy and the unborn child

The known effects of licit drugs on pregnant mothers or their unborn child are well documented. For tobacco, they include pregnancy complications, foetal growth restrictions, congenital anomalies, preterm, low birth weight and perinatal death. For alcohol, known effects include foetal alcohol syndrome, alcohol withdrawal in the newborn and perinatal death. In 2003, 12.5% of mothers from New South Wales, Western Australia, South Australia, the ACT and Northern Territory who smoked during their pregnancy were Indigenous; Indigenous mothers represented 3.6% of all mothers in this period. Data from the NSW Midwives data collection and the WAACHS also noted a higher prevalence of smoking among Indigenous than non-Indigenous pregnant women. Around 57% of Indigenous mothers in NSW in 2003 smoked during their pregnancy compared with 14% of other mothers (Centre for Epidemiology and Research, NSW Health 2005). In Western Australia,

mothers of 46.5% of children included in the WAACHS smoked during pregnancy, while only 22% of the total population reported doing so (Zubrick et al. 2004).

Indigenous mothers, however, are much less likely to drink alcohol when pregnant, which probably reflects to some extent the lower prevalence of alcohol consumption among the Aboriginal and Torres Strait Islander population. Fewer than a quarter of children in the WAACHS had mothers who drank while they were pregnant; over three-quarters of other mothers interviewed elsewhere indicated some level of alcohol consumption during pregnancy (Zubrick et al. 2004).

Zubrick et al. (2004) used linked data to ascertain the effect of drug use on birth weight. Indigenous mothers who had smoked during their pregnancy gave birth to babies who were, on average, 200 g lighter than other babies. Alcohol consumption did not have as great an effect on birth weight, although babies born to these mothers still weighed on average 40 g less. With multiple drug use, the reduction in birth weight was even more pronounced, as was the likelihood of having a low or very low birth weight baby.

The incidence of other adverse health effects is less commonly reported. One recent study investigated the incidence of foetal alcohol syndrome (FAS), which occurs at much higher rates among Aboriginal and Torres Strait Islander children. FAS is caused by maternal alcohol ingestion during pregnancy and, in most cases, results in an intellectual impairment to the child. Children of mothers who are regular drinkers, or engage in risky drinking intermittently, are most at risk of FAS (Clarren & Smith 1978) and with higher rates of risky drinking among Indigenous than other Australian women, the risk of FAS is potentially greater. Harris & Bucens (2003) reviewed medical records spanning the period 1990–2000 for babies born with FAS in the 'Top End' of the Northern Territory. Seventeen children with 'definite' FAS and twenty six with 'partial' FAS or alcohol-related neurodevelopmental disorder were identified, giving an overall rate of 0.68 per 1,000 live births. Rates for Indigenous Australians were higher, at 1.87 per 1,000 births or 4.7 per 1,000 births, if cases of 'partial' FAS are included. Data from the Western Australian birth defects register (1980–1997) confirms these higher rates among the Indigenous population (2.76 per 1,000 live births) than the non-Indigenous population (0.02 per 1,000 live births) (Bower et al. 2000).

Criminal and violent behaviour

There is a long recognised association between drug use and involvement in criminal activities that are undertaken to sustain substance use (for example, ensuring the next 'fix') and/or influenced by intoxication. Stealing, break and entry, vandalism, gambling, dealing and violent crime (such as assault) are the more common forms of criminal activities undertaken by Indigenous drug users (Brady 1985; d'Abbs et al. 1994; d'Abbs and MacLean 2000; Larson 1996). To some degree, the use of specific drugs may instigate specific criminal activities (Copeland et al. 2003), such as property damage associated with cannabis and inhalant use, stealing and sex work with intravenous drug use, and violence with alcohol misuse (see discussion of violence below).

Based on data from the DUCO and DUMA collections, violent crime and property damage were the main offences committed by Indigenous male detainees and prisoners, although not at levels significantly different from non-Indigenous detainees or prisoners (Putt et al. 2005). However, an examination of respondent criminal history revealed that Indigenous male prisoners were much more likely to be incarcerated for physical assault than non-Indigenous male prisoners (72% compared with 58%). Indigenous female prisoners were also more likely than non-Indigenous female prisoners to have been incarcerated for violent crime (57% compared with 21% of prisoners, respectively) (Johnson 2004). Incarceration for

assault was four times more frequent for Indigenous female prisoners, and twice as likely for break-and-enter offences. Around 60% of both male and female prisoners reported being under the influence of some form of substance at the time of the offence; in most cases, alcohol was the primary substance that had been used. While half of Indigenous male prisoners attributed committing crime to intoxication, the number of prisoners overall (both Indigenous and non-Indigenous) who did so was proportionally small (Putt et al. 2005). (See section on incarceration for further discussion of imprisonment and drug use).

Information from other research studies available suggests that criminal behaviour associated with drug use is a considerable problem, particularly for the community. For example, 57% of petrol sniffers interviewed by Burns et al. (1995a) had entered premises illegally and stolen petrol at least once, and 29% of inhalant users in Brisbane were 'often' or 'sometimes' involved in crime. All intravenous drug users participating in Larson's (1996) study had engaged in illegal activities, and of those activities identified (stealing, including stealing cars, break and entry, sex work, dealing and gambling), each user had participated in an average of four incidents. Property damage to houses, vehicles and stores is a very real hazard in remote communities where drug use is problematic—in one community in the Northern Territory, $1 million worth of damage sustained over a year was attributed to petrol-sniffing-related crimes (Hudson 1994, cited in d'Abbs and MacLean 2000).

As alluded to earlier, violent crime is a particularly devastating consequence of drug misuse. Physical assaults occur regularly in some communities, and domestic violence is a very real issue for Aboriginal and Torres Strait Islander women and children (see review in d'Abbs et al. 1994). Rising rates of sexual abuse are also becoming apparent, and homicide is not unknown (for example, Stojanovski 1999, cited in d'Abbs and MacLean 2000). Alcohol is often cited as the primary component in substance-fuelled violence (d'Abbs et al. 1994), and, while men are the main instigators, intoxicated women are not infrequently involved. Brady's (1990) discussion of alcohol-related violence in remote communities revealed Aboriginal women were sustaining high levels of injuries.

The role of other drugs in violent crime is known but less formally documented, although inhalant use and, to some extent, cannabis use are also implicated. In her statement to the coronial inquest to the petrol sniffing deaths of three men in the Anangu Pitjantjara Lands (South Australian Coroners Court 2002), Jane Lloyd, the coordinator of the NPY Women's Council Domestic Violence Service, stated that one in four of women living in the AP Lands in South Australia were clients of the service. Eighty per cent of these women were victims of domestic violence perpetrated by males under the influence of petrol, alcohol or cannabis. Furthermore, while most of their clients were not sniffers, those who were and identified as chronic sniffers often suffered from both physical and sexual violence. Such accounts reveal the added levels of vulnerability for persons living within an environment of substance misuse.

Incarceration

Aboriginal and Torres Strait Islander peoples are incarcerated at a highly disproportionate rate compared with the rest of the Australian population. At 30 June 2005, Indigenous prisoners represented 22% of the total prison population, with almost four-fifths aged 20–39 years (ABS 2005a). Their age-standardised rate of imprisonment was 1,561 per 100,000, a rate of imprisonment 12 times that of the non-Indigenous population.

Detention and imprisonment were experienced by a large number of drug users interviewed in a range of epidemiological surveys. Just over half of intravenous drug users in urban South Australia had previously been imprisoned—61% for males and 42% for females (Holly

& Shoobridge 2003). Cannabis users in Arnhem Land were more likely to have experienced an episode in jail than those who had never used cannabis (Clough et al. 2006). For petrol sniffers in Maningrida, 80% had been in trouble with the police as a direct result of sniffing, and eight of 20 had gone to juvenile detention or jail at least once because of crimes associated with sniffing (Burns et al. 1995a). Most juvenile offenders who came before magistrates in communities, and who lived in communities where petrol sniffing was endemic, were appearing for offences related to petrol use (Select Committee on Substance Abuse in the Community 2004).

The level of alcohol use in the Kimberley was associated with risk of incarceration (Hunter 1991). Of the population interviewed:

- one in 23 of male lifetime non-drinkers and one in 106 of female lifetime non-drinkers had been arrested and none had been imprisoned
- 30 of 38 male 'moderate' drinkers had been incarcerated and six imprisoned and 12 of 31 female 'moderate' drinkers had been incarcerated
- 52 of 56 male 'extreme' drinkers had been incarcerated and 30 imprisoned and 28 of 34 female 'extreme' drinkers had been incarcerated and five imprisoned.

Incarceration peaked on 'pension day', and at specific times of the year, such as the end of the cattle season when paid-up workers moved back into town (Hunter 1991).

Male Indigenous prisoners were more likely than male non-Indigenous prisoners to have tried alcohol and inhalants (Putt et al. 2005). For male Indigenous detainees, cannabis was more likely to have been used. Use of specific drugs by female prisoners did not differ significantly between Indigenous and non-Indigenous prisoners, although there was some proportionally higher use of alcohol, cannabis and amphetamines among the former group (Johnson 2004).

A longer history of juvenile detention and imprisonment characterised male Indigenous prisoners compared with their non-Indigenous inmates—42% had previously been in juvenile detention and 80% previously imprisoned (Putt et al. 2005). The corresponding percentages for non-Indigenous male prisoners were 20% and 58% respectively. A similar pattern was observed for detainees. Thirty-five per cent of Indigenous male detainees had been to juvenile detention, compared with 20% of non-Indigenous male detainees, and 63% had been arrested in the last 6 months, as opposed to 55%. Initiation into criminal behaviour tended to be at a younger age for Indigenous male incarcerated, but not so for females.

While drug use is a strong predictor for engagement in criminal activity and repeated periods in detention and prison, living in an environment where drug use is widespread is just as strong an influence. Female Indigenous offenders largely came from backgrounds in which family members had chronic alcohol addiction (Johnson 2004), and while this was not unique to this group of offenders, it was more pronounced. It is these more external influences, and the broader social context, that will be described next.

Context and influences

In the 28 January episode of Radio National's *All in the Mind* program, Muriel Jaragba, an Aboriginal mental health worker from Groote Eylandt, was asked why kids in her community were turning to petrol sniffing:

> There are a lot of issues like when they see their parents torn apart, relationship problems, domestic violence, gunga smoking, grog, drinking—all those. They do it just to attract their parents because if their parents are not listening to the kids, kids are trying to get close to their parents sometimes. Kids look for that kind of teaching from their parents or from their grandparents.

In this response, Muriel Jaragba describes the sorts of influences present in environments that are thought to create and sustain problematic drug use among Aboriginal and Torres Strait Islander peoples—family stress and violence, social disruption and exposure to family and community-wide alcohol and other drug use. She also poignantly refers to the guidance children expect from their parents and other close relatives and, where that is absent, the potential for children to emulate their elders' anti-social behaviour.

The reasons behind current patterns of alcohol and drug misuse among Aboriginal and Torres Strait Islander peoples are undoubtedly many and complex, and 'everyone has an 'opinion' on the causes' (Brady & Torzillo 1994). Researchers such as Maggie Brady (1991b; 1992a, 1992b), Peter d'Abbs (2001), Ernest Hunter (1993), Marcia Langton (1990) and Sheree Saggers and Dennis Gray (1998) have explored some of these explanations, which include alcohol and drug use as a consequence of colonisation and dispossession, and the subsequent separation from culturally meaningful practices; (alcohol use) as an expression of normative, culturally meaningful group behaviour; and the absence of 'social rules' relating to the consumption of substances (again, specific to alcohol), as well as contemporary realities of poor living standards, unemployment, 'welfare dependence', family conflict and dissolution, lack of facilities and boredom. It is these contemporary realities that will be discussed here.

Much has been said about the social, economic and other disadvantages experienced by Aboriginal and Torres Strait Islander peoples, and it is this environment in which substance abuse is thought to thrive. Recent, comprehensive reports such as *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples* (ABS & AIHW 2005) and *Overcoming Indigenous disadvantage: key indicators 2005* (SCRGSP 2005) cite signs of improvement, but record the many areas of life, such as education, employment, housing and health status, where Indigenous Australians still experience hardship compared with the rest of the Australian population. The findings from this report will not be discussed here and, instead, reference is made to community profiles (where available) where drug use is endemic. However, it is important to be mindful of the dangers of generalisation, since the combination of factors that promote (or prevent) drug misuse may differ from community to community.

An ANCD (2002) study of drug use problems in Cape York identified the need for 'a way of structuring time in a day-to-day sense that is consistent with more productive activity, satisfaction and cultural support and growth' as crucial to guarding against immersion in sustained drug use. A consistent theme for explaining problematic drug use among Aboriginal and Torres Strait Islander peoples is the lack of opportunities to promote or enable meaningful social participation, or the barriers hindering the exploitation of such opportunities.

Education is seen as critical to opening up such opportunities, particularly employment. Apparent school retention rates among Indigenous students have improved between 1996 and 2004, with retention to Year 10 increasing from 75.8% to 86.4%, and to Year 11 from 47.2% to 61.4% (ABS & AIHW 2005). Retention, however, remains a real challenge in more remote Indigenous communities, and attendance at school is often sporadic, with children permanently leaving school in their early high school years. The link between poor school attendance/educational outcomes and drug use among Aboriginal and Torres Strait Islander peoples has not been comprehensively explored, but it is arguably the absence of the regular stimulus and routine of school that leads to behaviours to stem the boredom. For those studies in which information on school attendance and qualifications were obtained, children and youth who used alcohol or other drugs attended primary and secondary school much less reliably (Burns et al. 1995a; Butt 2004), were more likely to have left school and less likely to have entered some sort of training scheme (Clough et al. 2004; Gray et al. 1997). Retention rates for Indigenous intravenous drug users were lower than the rates stated previously. Just over half of Indigenous intravenous drug users in Murray Bridge, South Australia completed their secondary schooling up to Year 10; 16% had left before completing Year 9 and only 8% completed Year 12 (Shoobridge et al. 1998). For intravenous drug users in Adelaide, 29% completed to Year 9 and another 29% to Year 10 (Holly & Shoobridge 2003) and among Brisbane Indigenous intravenous drug users, the average age of leaving school was 15 years (Larson 1996).

The association between drug use and employment, like that of education, is itself circular—unemployment or underemployment may encourage and sustain drug use, and established drug use may discourage the ability or desire to seek and maintain employment. If coupled with poor educational attainment, the likelihood of employment is even more uncertain. Low employment rates were characteristic of Indigenous Australians in Perth and Carnarvon who regularly drank alcohol (Blignault & Ryder 1997), as they were among Indigenous intravenous drug users in Brisbane and South Australia (Holly & Shoobridge 2003; Larson 1996; Shoobridge et al. 1998). Two-thirds of intravenous drug users in Larson's (1996) Brisbane study had never been employed, and two-thirds of injectors in the Adelaide study were unemployed at the time of the survey (Holly & Shoobridge 2003). Petrol sniffers in Maningrida were found to be especially at risk of unemployment, compared with other community members (Burns et al. 1995a). It is possible that the tendency for sniffers to start their sniffing career at especially young ages further disadvantages employment opportunities, since their education is disrupted earlier. Poly-drug use may also be more common among the unemployed, as found in Gray and colleagues' (1997) study of drug use among youth in Albany, Western Australia.

Brady (1992b) has made the point that involvement in 'meaningful and productive activity, (and) not necessarily paid work' is a common feature of communities where drug use is insignificant or absent. For example, communities in the Northern Territory with a history of involvement in the pastoral industry have not experienced the endemic of petrol sniffing that has occurred in other Territorian communities.

Another important form of social participation to be considered is the availability of, and involvement in, recreational activities, such as sport, or cultural activities. Such activities are considered a crucial form of primary intervention (see below), and there is much support for recreational and cultural activities to be made widely available, particularly in places where little other structured social activity is on offer. A recent study of the health and social benefits of swimming pools into the remote communities of Jigalong, Burringurrah and Mugarinya in Western Australia (Lehmann et al. 2006) demonstrates how the provision of appropriate infrastructure—a place to have fun and the opportunity to learn and participate

(for example, swimming lessons)—provides enormous good to those involved, and their extended community, and potentially distracts them from more harmful pursuits. There have been studies examining the introduction of recreational activities into communities where drug use is problematic (see next section), but little information is available on the existence of such activities and absence or permanence of drug use.

The influence of the family can never be underestimated and, among Aboriginal and Torres Strait Islander peoples, a strong connection to the immediate and extended family is important and culturally expected. Any exploration of familial influence on family members must focus on both the positives, such as family functioning and resilience, and stressors, such as grief, domestic violence and 'absentee' parents. In communities where alcohol and drug taking is problematic, or for individuals who are regular users, family instability is often commonplace, characterised by frequent conflict and episodes of domestic and other violence, parental absenteeism and home-based alcohol and drug use (ANCD 2002; d'Abbs et al. 1994; Hunter 1991; Kelly & Kowalyszyn 2003). Younger members of the family may be neglected by parents who, through their drug use, have shed their parental responsibilities. Furthermore, constant exposure to alcohol and drug use within the family home, without any occasion for respite (such as staying with other family members), may encourage the uptake of drugs, particularly among the young looking for guidance or attention from their parents or elders.

The behaviour of the peer group can be just as influential. Young users, regardless of the type of drug used, regularly cite inducement by friends, or peer pressure, as the main, or one of the main, reasons they started using drugs (Brady & Torzillo 1994; Burns et al. 1995a; Shoobridge et al. 1998) and why they continue to do so. While the sway of the peer group is not unique to young Aboriginal and Torres Strait Islander peoples, a stressful home life and family circumstances may mean the peer group is sought more often and participation in peer activities becomes more appealing.

Brady (1992b), however, also argues that typical teenager risk-taking behaviour is as valid a reason for drug taking as the influence of the peer group. However, she also states that the pressures of family life and the limited array of options for young Indigenous Australians intensify the situation and 'mark it out as distinct from that of young people in other regions'.

Exposure to alcohol and drug use, and the availability and opportunity to use drugs, are both factors in explaining drug use patterns. The role of exposure has already been discussed, with various studies suggesting that familial, elder and peer group drug use encourages the uptake of drugs, although the reasons behind this uptake are likely to be much more complex than simple contact. How availability and supply influences Aboriginal and Torres Strait Islander drug use has received less attention. Some of the geographic differences in drug use can be partly explained by availability: for example, the concentration of using injectable drugs, such as amphetamines and particularly heroin, in urban and some regional areas contrasts with little or no use occurring in remote communities. The control of availability through primary and secondary interventions, such as the implementation of dry communities and strict alcohol licensing laws, regulation of trade (for example, kava) and the removal of leaded fuel from communities where petrol sniffing is rife, can have significant effects on the prevalence of alcohol and other drug use, and the recruitment of new users (see next section).

Information on availability and supply is not as easily obtained. The IDRS uses 'key informants' to determine the prevalence of drug use in Australian capital cities, and, by extrapolation, the supply of specific drugs. But in non-urban settings, the collection of such

information, particularly of illegal or stigmatised drugs, is more difficult (see, for example, Clough et al. 2002b). Clough and colleagues have investigated in detail how the introduction of a previously unavailable drug (in this case, cannabis), and changes to the supply of another already established drug (kava) affected patterns of drug use in communities in Arnhem Land. As described earlier, local trafficking in cannabis in the early 1990s led to an explosion in cannabis use in the region, which was associated with changes in kava and tobacco use and petrol sniffing (Clough et al. 2002a, 2002b). The absence of any formalised controls on cannabis supply, and a glut in the local markets during the late 1990s, continued the high prevalence of use (Clough et al. 2006). A small reduction in cannabis use between 2001 and 2003 suggested a decline in supply, with some ex-users indicating they had stopped smoking cannabis as it was 'harder to obtain'. The reasons behind why the influx of cannabis occurred in the first place, and why the emergence of a new drug resulted in such significant uptake, are not yet clear (Clough et al. 2005).

Kava has been used in Arnhem Land since 1982 and its supply has wavered between illegal and legal distribution, with periods of regulation. Prior to 1990, kava was distributed through an informal supply network (Alexander 1985, cited in Clough & Jones 2004), but became subject to regulation between 1990 and 1993. While regulation initially decreased the amount of kava getting to communities in Arnhem Land, requests to have legal supplies shipped in actually led to a resurgence in kava supply, with the amount supplied reaching 28 tonnes per year (d'Abbs 1993). A comparison of kava use in one community before and after regulation found that kava use increased substantially. In 1989–90, most kava consumers used around 100 g of kava a week, a usage rate described by Mathews et al. (1988) as 'occasional'. In just one to two years (that is, 1990–91) and following the regulation of kava, many kava users in the same community increased their consumption to 310 g per week, and so became 'heavy' users of kava. Furthermore, more community residents started drinking kava—the number of male consumers doubled and the number of women consumers increased five fold. After this first attempt at regulation, a black market operation ran between 1994 and 1998 followed by the implementation of the Kava Management Act in 1998 (Clough & Jones 2004). Kava use was monitored during this period, but results have not been published.

Much of the literature in this field evaluates the reasons why alcohol and drug misuse exists so prominently among some Aboriginal and Torres Strait Islander communities. An equally valuable enquiry would be to consider under what circumstances, and in which environments, drug use does not occur, or has been reduced or eliminated.

Intervention and treatment services

The term 'intervention' can describe a varying range and number of strategies to deal with alcohol and other drug use. In its broadest context, it may cover everything from prevention programs to the provision of services for people who have been 'damaged' by their drug use. In some of the literature, intervention has been described as falling into one of three tiers—primary, secondary and tertiary intervention (for example, Brady & Torzillo 1994; d'Abbs and MacLean 2000). Primary intervention generally includes strategies to 'prevent the emergence of a problem or stop it spreading'. There is some interpretative variation as to what constitutes secondary and tertiary intervention. In his statement to the coronial inquest to the petrol-sniffing deaths in the AP Lands (South Australian Coroners Court 2002), Dr Paul Torzillo described secondary intervention, for petrol sniffers at least, as strategies to achieve abstinence and rehabilitation, and tertiary intervention for those persons who had been seriously harmed or 'disabled' by their drug use. d'Abbs and MacLean (2000) include

within secondary intervention strategies that address the 'needs and problems of the user, family and community', and tertiary intervention as encompassing both treatment and rehabilitation and long-term care arrangements for persons severely impaired by drug use.

The range of interventions discussed in the literature is considerable and it is not the purpose of this review to provide a list of interventions both proposed and implemented. Instead, more commonly used or better-regarded interventions will be grouped and discussed according to the intervention tiers described above, alongside published evaluations where available. This section also examines some of the criticisms levelled at alcohol and other drug interventions for Aboriginal and Torres Strait Islander peoples, and ways these interventions could be improved.

Primary interventions

The most conventional form of primary intervention is education and information, where (generally) younger persons are educated on the sorts of drugs that may be offered to them and the risks associated with using these drugs. Such programs may be incorporated within a more comprehensive educational approach, for example, the Karalundi Peer Support and Skills Training Program in Western Australia, where drug education is taught alongside methods to improve positive communication and decision-making skills (Gray et al. 1998). d'Abbs and MacLean (2000), however, warn against the use of 'scare tactics' when educating young people about drug use, which is likely to alienate the listener. Furthermore, education may not be very effective in some instances, such as with new or established users. For example, in an interview for the ABC Radio National program *All in the mind* (airplay: 28 January 2006), Dr Sheree Cairney of the Menzies School of Health referred to the apparent ineffectiveness of education for petrol sniffers:

> A recent survey of petrol sniffers showed something like 100% thought that petrol sniffing would kill them. Now for these guys education's not important because often they don't want to be alive…the reasons that they're sniffing run quite deep and educating them about the effects of petrol sniffing is fruitless.

Another form of prevention is the introduction and maintenance of recreational programs. This sort of approach is particularly important in remote communities where there are fewer opportunities for recreational activities. Recreational programs have been implemented in both urban centres, such as Brisbane (Butt 2004), and in remote areas, including Maningrida (Burns et al. 1995b) and Yuendumu/Mount Theo (Stojanovski 1999, cited in d'Abbs and MacLean 2000) in the Northern Territory, and many have achieved success in reducing drug use, particularly petrol sniffing. However, success is better ensured if a wide range of activities are provided, thus catering for a greater range of interests, including those of girls and young women (d'Abbs and MacLean 2000).

Halting the supply of alcohol and drugs is an interventional approach mostly adopted in regional and remote areas, and is both a primary and secondary form of intervention. A restriction in alcohol sales and the establishment of 'dry' communities is the most widespread and well-known application of reducing supply. Each state and territory in Australia has its own liquor licensing laws, which contain provisions so that licensing authorities can impose further restrictions on individual licenses (Gray 2000). In many instances, petitioning for alcohol restrictions is done by the community itself, whereby specified outlets are not allowed to provide alcohol at all, or not on specific days (for example, pay day or social security day) or sales on specific alcohol purchases (for example, cask wine) are restricted.

Evaluation of these schemes has identified variability in effectiveness, but the most successful occurrences of alcohol restriction occurred when the community was responsible for, and widely supported, the introduction of alcohol restriction, and the scheme comprised part of a broader strategy to deal with alcohol misuse (Gray 2000). Gray and colleagues' (2000) evaluation of the 3-year period following the trialling of alcohol restrictions in Tennant Creek saw a 19.4% decline in annual per capita consumption of alcohol plus fewer hospital admissions from acute alcohol-related conditions, and a reduction in the number of persons taken into custody and offences reported on 'pension day'. In Curtin Springs (NT), alcohol sales dropped 79% in the first 6 months after restrictions were put in place (d'Abbs et al. 1998, cited in d'Abbs et al. 1999). On the other hand, only a slight reduction in alcohol sales occurred in Derby (d'Abbs and Togni 1997) and Halls Creek (Douglas 1998) although in the former location there was an associated 37% decline in assaults, sexual offences, property damage and threatening behaviour. A broader, but older, review of alcohol restriction in selected communities (d'Abbs 1990) concluded that alcohol restriction was 'a qualified success' with some communities experiencing very real improvements in their quality of life, but others gaining very little.

The introduction of Avgas and Opal Unleaded Petrol (ULP) into communities where petrol sniffing is rife is an alternative approach to stemming supply and, like alcohol sales restriction, has the added role of minimising harm. Avgas and Opal fuel contain less of the hydrocarbons found in conventional leaded and unleaded petrol that produces the high normally associated with sniffing petrol. Without the fix, petrol sniffing wanes. Furthermore, a recent Access Economics report estimated an annual saving of $26.6 million if Opal fuel was rolled-out across Central Australia, incorporating the regions of Tennant Creek and Central Northern Territory, the Far North of South Australia, and Laverton, Ngaanyatjarraku, Halls Creek and the communities of Kiwirrkurra and Kunawarritji in Western Australia (Access Economics 2006).

Avgas has been introduced into at least 36 communities in the Northern Territory, South Australia and Western Australia, but, like alcohol restriction, the introduction of Avgas has elicited mixed results. When used together with other intervention strategies, such as recreational activities and efforts to improve employment opportunities, a reduction in sniffing occurred (for example, Burns et al. 1995b; Roper & Shaw 1996, cited in d'Abbs and MacLean 2000; Shaw et al. 2004). In other areas, the prevalence of sniffing remains problematic, such as in the Anangu Pitjantjatjara Lands of South Australia, and Yuendumu in the Northern Territory, where the introduction of Avgas initially resulted in successful outcomes before previous levels of sniffing returned. One of the barriers to the success of Avgas and Opal ULP is the ability of individuals to obtain petrol from outside the community (for example, Shaw et al. 2004). With demand so high, petrol trafficking has become a considerable problem, and the cost of a 600 mL bottle of petrol in remote areas of the Northern Territory was recently estimated to be as high as $50 (Hughes 2005).

Another issue is the financial cost of replacing leaded fuel in remote communities with Avgas, and now Opal UPL, which is considerably more expensive per litre at the petrol pump. In 1998, following petitioning from several communities, the Australian Government launched the Comgas scheme whereby communities were provided with a subsidy to purchase Avgas at prices comparable with unleaded petrol. Opal UPL is a new fuel that has been developed to replace Avgas, and in 2005 there was extensive lobbying for a 'universal roll-out' of Opal petrol in remote Australia to replace the current uneven distribution of non-sniffable fuels.

Outstations or 'homeland centres' are places located away from the main community that may be used in primary, secondary or tertiary intervention for alcohol and drug misuse (d'Abbs and MacLean 2000). In some cases, outstations are specifically created for assisting people with alcohol and drug problems, such as Mount Theo near Yuendumu. Often used to stem epidemics of petrol sniffing, the main function of the outstation, in this context, is to separate (usually) young people at risk or fully engaged in drug use away from their peer group, and to involve them in cultural and other meaningful activities. It provides users time away from drugs and the community time away from the users (Shaw et al. 1994, cited in Shaw et al. 2004). Families disrupted by drug use and its consequences may also move to outstations for extended periods.

Like many other interventions, there has been little formal evaluation of the use of outstations and their role in preventing or treating drug use has received both support and criticism. Critics of outstations argue that users, such as sniffers, will resume their old habits once back in the community (for example, Senate Select Committee on Volatile Substance Fumes 1985), but Shaw et al. (1994, cited in Shaw et al. 2004) believe accommodating petrol sniffers at outstations can contribute to stopping use. For example, in one community in the Northern Territory sniffing behaviour declined by three-quarters following prolonged stints at an outstation (Shaw 1999, cited in Shaw et al. 2004). At Yuendumu, the number of sniffers fell from 44 to 0 between 1994 and 1998, following the establishment of the Mount Theo outstation (Stojanovski 1999, cited in d'Abbs and MacLean 2000), and the success of Mount Theo continues today. Moral lessons can also be learnt by communicating to the user the unacceptability of drug use to their community (Shaw et al. 1994, cited in Shaw et al. 2004). Furthermore, outstations resemble 'a cultural model of banishment' (Shaw et al. 1994, cited in Shaw et al. 2004) and involve the land, a traditional source of healing, as a pivotal player in resolving drug use behaviour (Brady 1995).

In line with numerous recommendations for a whole-of-government response to improving the economic and social circumstances of Aboriginal and Torres Strait Islander peoples, is the proposal that interventions go beyond preventing the drug use per se and address some of the factors that propel Indigenous Australians into drug use. These influences were discussed in the previous section, but education, particularly secondary education, youth training, meaningful employment and recreation are considered essential for stemming the boredom, frustration and sense of directionless that many young Aboriginal and Torres Strait Islanders experience.

Secondary interventions

Secondary interventions, as defined by d'Abbs and MacLean (2000), have generally been described in the literature with respect to problem alcohol users and petrol sniffers, and again focus more on intervention in regional and remote areas. One set of interventions that Gray et al. (2000) describe as acute interventions that reduce immediate harm include night patrols and sobering up shelters. Night patrols, also known as street patrols, foot patrols and mobile assistance patrols, tend to be more active in, but not exclusive to, remote communities and have been established to:

- maintain safety in the community
- check on and intervene with 'risk groups'
- intervene in and resolve conflict
- provide transport to people at risk
- divert intoxicated people to a designated safe place and away from detention

- contact police in situations when needed
- consult with, and refer people to, appropriate services (Blagg & Valuri 2003).

The absence of adequate policing may also act as a precursor to the establishment of night patrols, as was the case for the Julalikari community in Tennant Creek (Curtis 1992, cited in Blagg & Valuri 2003).

A survey of 63 night patrols from the Northern Territory, Western Australia, Queensland, South Australia, New South Wales and Victoria found that 89% identified alcohol as a significant focus of their work, 82% anti-social behaviour, 56% family violence and 55% drugs (Blagg & Valuri 2003). Alcohol misuse was the main focus for night patrols operating in the Northern Territory, Western Australia, Queensland and South Australia, and inhalant/solvent misuse was an additional issue for night patrols in Queensland, South Australia and Victoria.

The effectiveness of night patrols has undergone little published evaluation. A review by d'Abbs and MacLean (2000) and findings from the survey undertaken by Blagg and Valuri (2003) suggest that, while defined measures of effectiveness are missing, most communities consider night patrols to have had some positive effect on drug-associated harms. These gains include reductions in anti-social behaviour, violent conflict, arrests and detention and increased delivery of users back to their homes or other safe environments.

Sobering-up shelters are one example of a safe environment where intoxicated persons can be taken, and which provide an alternative to detention in police cells and, in some cases, serve as an entry point to other services. The decriminalisation of public intoxication in some Australian states and territories (currently New South Wales, Western Australia, South Australia, the Northern Territory and Australian Capital Territory) led in part to the establishment of sobering-up shelters, although this often did not occur until many years after the legislation had been passed (see review in Brady et al. 2006). Sobering-up shelters have also been set up in Victoria and Tasmania, where public intoxication has not been decriminalised, and in Queensland, where they are modelled on 'diversionary centres'.

According to Gray et al. (2000), sobering-up shelters are generally well accepted in communities where they are located and have been successful in diverting a large number of people away from interaction with the police. A recent assessment by Brady et al. (2006) of a sobering-up sheltering in Ceduna, South Australia found that 97% of users in the period 1991 to 2000 were Aboriginal, many of whom were highly intoxicated when they reached the shelter. The presence of the shelter in Ceduna diverted many of these persons from the previous pathway to custodial care, and provided a refuge from involvement in harmful activities.

Sobering-up shelters may also work in tandem with other interventional approaches, such as night patrols, transportation and health services (Brady et al. 2006). The associated cost of running shelters, however, can be considerable.

Other secondary interventions that have been used or recommended for petrol sniffing include:

- making sniffing illegal (by-laws against sniffing exist in some South Australian communities and became established in the Northern Territory in 2006 with the NT Volatile Substance Abuse Prevention Act)
- measures to shame, banish or ostracise sniffers (although these risk alienation of sniffer)
- cultural methods, such as Aboriginal art forms, to teach and counsel potential and current users about social problems (d'Abbs & MacLean 2000).

More concentrated policing in areas where alcohol and drug use is problematic is another form of intervention that is re-gaining acceptance. A study funded by the National Drug Law Enforcement Research Fund aims to evaluate current policing approaches in rural and remote areas where illicit drug use is occurring, and develop best policing practices to assist in minimising harms arising from that drug use (Dr Judy Putt, AIC, personal communication).

Tertiary interventions

Tertiary intervention covers treatment, rehabilitation and counselling used to wean people off their drug use, as well as the longer-term care services for who have been impaired by chronic drug use.

Treatment and rehabilitation services are conventionally based on the achievement of abstinence, but also include counselling, controlled drinking or use of other drugs, harm reduction/minimisation and cultural and family/community support. These programs may be delivered in residential treatment and rehabilitation centres or in non-residential (community) settings, and be provided by mainstream or Aboriginal community-controlled health services. Twenty-seven Aboriginal and Torres Strait Islander Substance Use Specific Services funded by the Australian Government in 2003–04 focused on residential treatment and rehabilitation and 30 services provided non-residential counselling and rehabilitation (OATSIH 2005). An ANCD review of 277 Indigenous alcohol and drug projects operating in 1999–2000 identified 107 projects providing treatment as either a primary or secondary component of their service (Gray et al. 2002). Forty-eight of these focused solely on non-residential treatment services and 33 on residential treatment. Treatment services received the bulk of funding of all interventions considered—33.8% for residential treatment ($11,959,149) and 12.6% for non-residential treatment projects ($4,459,537).

In 2003–04, a third of closed treatment episodes[7] involving Aboriginal and Torres Strait Islander clients of government-funded alcohol and other drug treatment services were based on counselling (AIHW 2005c). Another 20% were assessment only and 15% information and education only; rehabilitation only accounted for 10% of closed treatment episodes. Compared with non-Indigenous clients, however, counselling was a much less used treatment service, as was withdrawal management (detoxification). Assessment only was a much more commonly used service among Aboriginal and Torres Strait Islander clients than other clients. Overall, closed treatment episodes involving Aboriginal and Torres Strait Islander clients were most likely to involve alcohol (46%), cannabis (22%), heroin (11%) and amphetamines (9%)

Cultural support/involvement was the most common treatment approach provided by DASR services in 2003–04 (93% of all services), followed by family/community support and involvement (80%) and abstinence (78%) (OATSIH 2005). Of treatment approaches actually used during this period, most services reported abstinence (39%) or harm reduction (32%).

Additional information on use of services comes from surveys of intravenous drug users. Twenty-six per cent of IDUs surveyed in Brisbane had used a service for a 'drug-related problem', and those who had, tended to be older and more experienced in their drug use (Larson et al. 1999). Aboriginal IDUs interviewed by Shoobridge et al. (1998) and Holly and

7 A closed treatment episode refers to a period of contact between a client and a treatment agency, and must have a defined date of commencement and cessation and have no change in (a) the principal drug of concern, (b) the treatment delivery setting, and (c) the main treatment type.

Shoobridge (2003) reported on their use of a broader range of services, and not necessarily those specific to treatment. Around 70% of IDUs in Adelaide had been in contact with some sort of service in the 6 months prior to the interview (Holly & Shoobridge 2003). Almost half (47%) did so for health reasons, 35% to stop drug use and 34% to reduce their drug use. GPs were considered the 'most helpful', followed by counselling services. In the Lower Murray region, services were not as frequently attended—28% of IDUs had never used a service and 48% had only ever accessed one type of service (Shoobridge et al. 1998).

The literature suggests that Aboriginal and Torres Strait Islanders prefer not to use mainstream drug treatment and related services and, when they do, drop-out rates are high (for example, Saggers & Gray 1998). Accessing appropriate services is further complicated by a general absence of Aboriginal run services. Some of the reasons why Aboriginal and Torres Strait Islanders avoid using mainstream services include 'high levels of mistrust', feelings of shame, a lack of 'holistic' treatment methods available and the absence of Indigenous extended family-based approaches to dealing with problem issues (Szirom et al. 2004).

Introducing more culturally appropriate methods in mainstream services is frequently discussed as one of the major requirements for improving the effectiveness of such services, both in terms of encouraging more Indigenous clients to attend and promoting better success rates.[8] This is argued in the context that the efficacy of some Aboriginal run services has also been challenged. Interviews with Indigenous intravenous drug users suggest that feelings of shame, and fears surrounding breach of confidentiality, are even more pronounced when accessing Aboriginal services (Lane 1993; Larson 1996; Larson et al. 1999; Shoobridge et al. 1998). To some extent these fears arise from the possibility that members of staff know the individual and their family, and knowledge about their drug use problem and subsequent treatment may filter back to their family and extended community. The rate of accessing Aboriginal services among Indigenous intravenous drug users in Brisbane was particularly low, and characterised by a level of ambivalence towards them (Larson et al. 1999). Lack of knowledge about the existence of such services may partly explain the low rate of access, but Larson et al. (1999) also identified issues of shame and confidentiality, and a questioning of staff expertise as over-riding, in some cases, the acknowledgement that Aboriginal services may be better suited to their needs.

Like other interventions, evaluation of treatment and related services for Aboriginal and Torres Strait Islander peoples has received only some attention. A review by Gray et al. (2000) of previous evaluations of alcohol treatment services revealed little consistency in outcomes and, where successful intervention occurred, results were 'modest' at best. Another identified problem is the limited range of treatment options available to Aboriginal and Torres Strait Islander peoples—both d'Abbs (1990) and Brady (2002), amongst others, argue against adherence to certain treatment approaches (such as abstinence) without exploration of alternatives.

Chronic use of alcohol and drugs can, and does, leave some persons severely impaired and a previous section indicated that estimates of persons disabled by their drug use are generally not available. Disabilities arising from long-term petrol sniffing require long-term care and the facilities to provide that care.

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8 There are currently three community-run treatment centres for petrol sniffers in Australia—Mount Theo outstation outside Yuendumu, and the Ilpolera and Ilpurla facilities; a new facility will be built in 2006 in South Australia on the Anangu–Pitjantjatjara Lands (Bockmann 2006).

Improving interventions for Aboriginal and Torres Strait Islander peoples

The ultimate success of interventions to reduce the prevalence of harm from substance misuse among Aboriginal and Torres Strait Islander peoples depends on a multitude of factors, such as location and availability of intervention programs, appropriate funding, recruitment and retainment of qualified staff and individual and community acceptance of interventions. Geography is a barrier to accessing services, especially in remote areas. The 'problem of placing intervention services in every community and finding the staff to run them' (Select Committee on Substance Abuse in the Community 2004) is a very real issue for remote communities where the logistics of doing so are demanding.

Of paramount importance is to follow a multi-faceted approach, that targets not just the three levels of interventions described before, but also focuses on the specific needs of the community and enjoys 'full support and involvement at all levels'. It is also imperative that Aboriginal and Torres Strait Islanders are not viewed as a homogenous population, their needs are not considered uniform and that intervention programs be designed and implemented accordingly (Gray et al. 1995). These requirements are not necessarily easily met, particularly in more remote locations.

Some of the identified problems with interventions documented in the literature are discussed here, but it should be kept in mind that there have been considerable efforts to improve approaches to preventing, stemming and treating substance misuse among Aboriginal and Torres Strait Islander peoples. These include:

- Cultural appropriateness. While more and more services for Aboriginal and Torres Strait Islander peoples are becoming available, there still exists a need for these and future services to be more Aboriginal 'specific', 'friendly and accessible' and 'controlled'. Cultural appropriateness embraces how people are treated within the service, staff awareness and sensitivity to cultural needs, and intervention methods that are culturally meaningful and complementary and, hence, more likely to succeed.
- Single model of treatment (Mattick & Jarvis 1993). There has been, at least in the past, a 'one size fits all' approach to treating substance misuse, typified by the abstinence model used to treat alcoholism (Brady 2002). While the absence of alternative treatment options affects all persons who need help with their substance misuse, it is considered that a broader range of treatment options would better encourage Indigenous clients to consider and enter treatment, and to reduce treatment abandonment rates. Furthermore, the wider variety of substances now being used by the Aboriginal and Torres Strait Islander population necessitates investigation and implementation of alternative treatment options that are best suited for specific drugs (Brady 2002).
- Staff recruitment. Staff recruitment is particularly problematic for remote areas. Non-community members (that is, 'outsiders') face not just the difficulties of working in remote areas, dealing with sometimes complex cross-cultural issues, and the need to gain acceptance by community leaders and the wider community, but also the logistics of transport, appropriate accommodation and working without a wider service support network. Dr Paul Torzillo, in his statements to the coronial inquest into the petrol-sniffing deaths on the Anangu Pitjantjatjara Lands (South Australian Coroners Court 2002), described the problems recent youth workers experienced in the resident communities, including a lack of support from the community advisor and senior people in the community, no back up from the police and the need to fill a larger number of roles than their job description required. As a result, staff turn over is often frequent, and knowledge and rapport with the community constantly needs to be regenerated. For community members, challenges include a lack of personal and family

resources to form long-term commitment to such work, and dealing with the associated pressures of keeping their own family together, particularly if their family is itself affected by the consequences of drug use.

- Staff training and expertise. There have been concerns from both researchers (for example, Brady 2002) and Indigenous users of alcohol and drug services (for example, Larson et al. 1999) regarding the expertise of staff working in alcohol and drug services. For example, among 77 Indigenous intravenous drug users interviewed in Brisbane, 49% disagreed with the statement 'Aboriginal health services are knowledgeable about the problems of injecting drug users' and 38% were not sure. This lack of expertise involves both Indigenous and non-Indigenous alcohol and drug workers but much of the discussion put forward refers to the employment of Indigenous workers in Aboriginal specific services who may not necessarily have acquired the combination of skills essential to undertake such work. Brady (2002) suggests there be, for at least some staff, compulsory and formalised skills-based training in alcohol and drug work and counselling, and that this training is Aboriginal-specific (see below).
- The role and content of the intervention. In her discussion of Indigenous residential treatment programs for drug and alcohol problems, Brady (2002) regarded the problem of differing expectations of persons involved in interventions. Her example considered a scenario witnessed by Sputore et al. (1998) in which a treatment program for problem drinkers consisted of participants who wanted to change their drinking behaviour and persons who were just looking for a break from drinking. The inclusion of two different categories of participants meant catering for two different levels of need and ultimately disadvantaged the former group, who were unhappy with the lack of formality. Brady (2002), in turn, suggests there be a 'clear purpose' for the intervention involving an examination of what an intervention, particularly a treatment program, can, and should, provide and accomplish. This would ensure that a consistent (although not rigid) approach is taken, and that participants are made aware of the aim(s) of the intervention.
- Support for families. The enormous impact alcohol and drug use can have on the families of users suggests that interventions should not just be directed at the user, but also involve ongoing support for their families. Some of the support initiatives suggested by community members in response to intravenous drug use include support groups for mothers of users, support programs addressing issues such as parenting skills, and crisis care (Edwards et al. 1999; Lane 1993; Smith & Newton 1997). Respite is a particularly sought after form of support (Shoobridge et al. 1998). Respite options are available for families in the Anangu Pitjantjatjara Lands and other remote communities, where families can escape from the consequences of petrol sniffing by moving temporarily away from the community to established outstations or homelands. However, in urban settings they may be fewer options on offer.

Resources

Estimating national expenditure related to drug use among Aboriginal and Torres Strait Islander peoples should consider monies spent on programs specifically targeting prevention, intervention and treatment, and expenditure on associated services, such as health, medical and long-term care.

A detailed study of all alcohol and other drug intervention programs operating in Australia was commissioned by the ANCD. During the financial year 1999–2000, the study estimated

a total of $35,429,530 was directly spent on alcohol and other drug intervention programs (Gray et al. 2002). The estimated break-up of monies were as follows:

- 33.8% ($11,959,149) on residential treatment projects
- 26.9% ($9,537,988) on acute intervention projects (which largely comprised night patrols and sobering-up shelters)
- 12.7% ($4,485,617) on multi-service projects (treatment, prevention, acute intervention and/or support services)
- 12.6% ($4,459,537) on treatment services
- 10.5% ($3,710,669) on prevention services (mostly health promotion services, sporting and recreational activities or diversion
- 3.3% ($1,176,570) on other services (support, referral, staff and program development).

South Australia had the greatest per capita expenditure on intervention projects at $256.33. Victoria was next ($133.39), followed by Western Australia ($158.30) and the Northern Territory ($132.89).

The majority of funding came from the Commonwealth (58%) or state/territory departments (42%), with health and/or drug and alcohol agencies contributing most of the state and territory funding. Indigenous affairs agencies also provided considerable funding in Queensland and Western Australia. Ninety five per cent of funding was recurrent.

In the period 2003–04, DASR services received $25.5 million in recurrent funding from OATSIH and approximately $2.0 million of recurrent funding from other sources (OATSIH 2005). OATSIH was the primary funding source, with monies also sourced from Aboriginal Hostels Limited, state health departments and agencies, ATSIC, donations, and self-generated funding. Funding was spread between residential and non-residential services that provided a range of services including residential treatment/rehabilitation, non-residential counselling/rehabilitation, community-based education and prevention, residential respite, sobering-up centres, advocacy, diversion, mobile assistance patrols and other. The distribution of monies to these service types is not published.

Information on other forms of expenditure is mostly missing. There are no published results on expenditure for health services used by Aboriginal and Torres Strait Islander peoples as a consequence of, or associated with, their alcohol and other drug use. Some estimates have been made of costs associated with caring for persons permanently impaired by petrol sniffing, which range from $160,000 to $300,000 per annum, based on individual cases.

An alternative approach to estimating costs considers not just the monies spent on interventions and treatments but adds the social and health costs associated with alcohol and drug use. Collins & Lapsley (1996) calculated an annual cost $18 billion associated with alcohol and drug use, which included costs stemming from loss of productivity in the workplace, crime, accidents and law-enforcement activities. More recently, an Access Economics report estimated that the total social and health cost of petrol sniffing in the 'Rollout Region' of Central Australia (Tennant Creek and Central Northern Territory, the Far North of South Australia, and Laverton, Ngaanyatjarraku, Halls Creek and the communities of Kiwirrkurra and Kunawarritji in Western Australia) was around $79 million a year (Access Economics 2006). This cost includes:

- $38.1 million associated with burden of disease (loss of healthy life)
- $16.2 million associated with impacts on the crime and justice system
- $8.3 million on productivity losses

- $4.1 million for health
- $4.2 million for long-term care
- $3.7 million for rehabilitation
- $2.3 million for informal care.

A1.2 Policy context

National drug strategies

The National Drug Strategy, formerly known as the National Campaign Against Drug Abuse, was instigated in 1985 and is a cooperative venture between the Australian, state and territory governments and non-government organisations to address drug use, and associated harms, in Australia. The strategy provides a 'framework for a coordinated, integrated approach to drug issues in the Australian community', which was developed under the direction of the MCDS. The most recent inception of the strategy is the National Drug Strategy (2004–09) (MCDS 2004), which followed the National Drug Strategic Framework (1989–1999 to 2002–2003) (MCDS 1998).

Harm minimisation, or specifically the implementation of policies and programs that work to reduce drug-related harms, represents the overriding focus of the National Drug Strategy (MCDS 1998, 2004). Supporting this concept of harm minimisation, is a recognition of the need to consider both licit and illicit drugs, and other substances, such as inhalants and kava; to promote partnerships between community-based organisations, health, law enforcement and education agencies, and industry; and to address harms via strategies that aim to reduce supply, reduce demand, provide effective treatment, and/or prevent actual harms associated with drug use.

One of the priority areas under the National Drug Strategy is the implementation of the National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan (2003–2006) (MCDS 2003). This complementary action plan was developed under the National Drug Strategic Framework and provides a national direction to deal appropriately with specific alcohol and other drug use issues that concern Aboriginal and Torres Strait Islander peoples. It is recognised that any attempt to address drug use among Aboriginal and Torres Strait Islander peoples also needs to recognise, and address, the social, economic, environmental and physical health inequalities experienced by Indigenous Australians.

Six 'key result areas' shape the action plan:

- building individual, family and community capacity to address current and future issues in the use of alcohol, tobacco and other drugs, and promote their own health and wellbeing
- actively promoting a whole-of-government commitment, alongside collaboration with community-controlled services and non-governmental organisations, in reducing drug-related harm
- improving access to the appropriate range of health and wellbeing services that play a role in addressing alcohol, tobacco and other drugs issues
- recognising the role of holistic approaches from prevention through to treatment and continuing care that is locally available and accessible

- introducing and improving workforce initiatives to enhance capacity of community-controlled and mainstream, organisations to provide quality services
- increasing ownership and sustainable partnerships for research, monitoring, evaluation and dissemination of information (MCDS 2004).

Each key result area comprises a set of objectives, and within those objectives, areas for action and examples of those actions. For example, under the key result area to build individual, family and community capacity to address current and future issues in the use of alcohol, tobacco and other drugs, one objective is to 'identify and resource appropriate models of treatment services and clinical interventions in line with community needs and priorities'. Key actions areas recommended are to identify and address impediments to Aboriginal and Torres Strait Islander people considering and accessing treatment, and to identify and publicise treatment options that are known to have been successful among Aboriginal and Torres Strait Islander peoples. An example of an action is the use of appropriately resourced dry camps or outstations for rehabilitation purposes.

The action plan thus spans the broad areas of concern reflected in the previous discussion.

State and territory drug strategies

Most states and territories have implemented drug strategies that either target drug use among Aboriginal and Torres Strait Islander peoples, or address drug use among the general population, but include reference to the special needs of Aboriginal and Torres Strait Islander peoples. The objectives or priority areas of these strategies are generally similar, focussing on harm minimisation, reduction in drug supply and demand, and improving prevention, intervention and treatment options. Table A1.2 lists and provides detail on current drug strategies.

Appendix Table A1.2: Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
New South Wales	*Alcohol Action Plan (Adult 1998–2002)* (NSW Health 1998)	The *Adult and Youth Alcohol Action Plans* provide policy directions and strategies for adults, and young people aged 12 to 24 years. The plans aim is to reduce the adverse social, economic and health consequences of alcohol use to both the individual and the community.	• reduce premature death, illness and injury related to alcohol use • reduce the proportion drinking alcohol above the NHMRC defined level of low-risk drinking • reduce incidence and consequence of heavy and binge drinking • reduce rate of road crashes involving drivers who have consumed alcohol • promote responsible service and consumption of alcohol in the community • promote safe drinking environments • ensure equity of access to all alcohol and drug treatment services • reduce incidence of alcohol-related violence and crime • provide comprehensive range of treatment services that suit different needs • improve quality of existing alcohol treatment services for alcohol-dependent persons
	Amphetamine, Ecstasy and Cocaine: A Prevention and Treatment Plan 2005–2009 (NSW Health 2005)	The *Amphetamine, Ecstasy and Cocaine: A Prevention and Treatment Plan 2005–2009* arose in part due to an increase in use in psychostimulant drugs in NSW, as evidenced from alcohol and drug services, emergency departments, mental and health services and needle and syringe programs. The Prevention and Treatment Plan includes actions derived from a forum involving government and non-government stakeholders. The primary aim of the Plan is to reduce harm associated with use or abuse of psychostimulants.	• increase range of effective interventions to reduce psychostimulant-associated harms • interrupt transition to heavy or problematic use • increase knowledge and skills of drug users and health and allied health professionals on harms associated with psychostimulant use • increase range, availability and attractiveness of treatment options • increase understanding in the field of psychostimulant use and promote research • increase capacity of drug users to make decisions that reduce harms • promote development of targeted initiatives for specified populations • encourage partnerships and collaboration

(continued)

Appendix Table A1.2 (continued): Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
Victoria	*Koori Alcohol and Drug Plan 2003–2004* (Victorian Government Department of Human Services 2003)	The *Koori Alcohol and Drug Plan 2003–2004* represents the initial phase of the broader Koori Alcohol and Drug Strategy (Victorian Department of Human Services 2003). The Plan originated from the 2000 Victorian Drug Policy Expert Committee, which recommended the Victorian government, in consultation with the Koori community and relevant peak bodies, develop a drug strategy specific to the Victorian Koori community.	• improving services for youth (particularly residential rehabilitation facilities) • workforce development to continue skills of Koori alcohol and other drug workers • family building to promote capacity to cope with drug issues • programs for targeting specific substances
	'Improving health, reducing harm' Victorian Drug Strategy 2006–2009 (Victorian Government Department of Human Services 2006)	Additional to the above is the 'Improving health, reducing harm' Victorian Drug Strategy 2006–2009 (Victorian Department of Human Services 2006). The VDG builds on the Victorian Government Drug Initiative.	• reducing supply (through law enforcement and diversion to reduce supply and drug-related crime and recidivism) • reduce demand (primarily through prevention, e.g. education) • improve access to services (and integration with other support services) • reduce harm
Queensland	*Protecting the future: Queensland Illicit Drug Action Plan 2003/2004 to 2006/07* (Queensland Health 2003a)	The *Queensland Illicit Drug Action Plan 2003/2004 to 2006/07* derives from the *Beyond a Quick Fix: Queensland Drug Strategic Framework*. The new plan extends on the strategies first proposed for the period 2000–2004. The Action Plan highlights the importance of a cross-sectional range of participants in the cessation of drug use in Queensland, particularly in the fields of health, welfare, education, law enforcement and corrections. Actions for each of the strategies target each of these fields, plus introducing new approaches, such as the extension of drug diversion programs. There is no particular targeting of actions specific to the needs of Aboriginal and Torres Strait Islanders.	• demand reduction (promotion of individual resilience and reduce uptake and use of drugs) • supply reduction (disrupt production and distribution of drugs) • treatment • harm reduction • workforce development • research

(continued)

Appendix Table A1.2 (continued): Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
Queensland (continued)	*Finding the balance: Queensland Alcohol Action Plan 2003/2004 to 2006/07* (Queensland Health 2003b)	The *Queensland Alcohol Action Plan 2003/2004 to 2006/07* also derives from the *Beyond a quick fix: Queensland Drug Strategic Framework*. Actions complement those in the *National Alcohol Strategy*.	• informing the community • protecting those at higher risk • preventing alcohol-related harm in young people • improving the effectiveness of legislation and regulatory initiatives • responsible marketing and provision of alcohol • pricing and taxation • promoting safer drinking environments • drink driving and related incidents • intervention by health professionals • workforce development • research and evaluation
Western Australia	*'Strong spirit, strong mind': Western Australian Aboriginal alcohol and other drugs plan 2005–2009* (Western Australian Department of Health 2005)	Western Australia has recently implemented the 'Strong spirit, strong mind': Western Australian Aboriginal alcohol and other drugs plan 2005–2009, which complements the Western Australian Drug and Alcohol Strategy 2005–2009 and is guided by the national Complementary Action Plan (Western Australian Department of Health 2005). The plan was developed by the Western Australian Government following consultation with Western Australian Aboriginal communities and other relevant stakeholders. The plan rests on four 'targeted activity fields': within each activity field, the plan recognises four key 'focus headings' to form a matrix of areas that are recommended for targeting. These focus headings are 'capacity building', 'working together', 'access to information and development', and 'workforce development'.	• prevention and early intervention (particularly health enhancement to reduce risk or levels of drug use) • supply and control (disrupt production and supply, reduce and impose limits on access to legal drugs (alcohol and tobacco), and law enforcement measures) • support and treatment (access for individuals and families to access 'culturally secure' services) • harm reduction (reduce impact on the individual, family and community; information on safer methods of use and different levels of risk and harm)

(continued)

Appendix Table A1.2 (continued): Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
South Australia	*South Australian Drug Strategy 2005–2010* (South Australian Department of Health 2005)	The *South Australian Drug Strategy 2005–2010* evolved from findings and recommendations that came out of the South Australian Drugs Summit in 2002; its goal is to 'improve the health and wellbeing of all South Australians by preventing the use of illicit drugs and the misuse of licit drugs' (South Australian Department of Health 2005). Implicit within this goal is a need to increase focus on groups who are more at risk of social exclusion, such as Aboriginal and Torres Strait Islanders.	• reducing supply (reducing availability of illegal drugs and ensure the supply of legal drugs minimises harm associated with use) • reducing demand (programs to reduce and cease drug use and enhance individual, family and community resilience and wellbeing) • reducing harm (specifically major harms such as drug-related crime, alcohol-related violence and assaults, blood-borne communicable diseases, and premature death and injury from drug overdose and intoxication) • increasing knowledge • Initiatives have been developed to address the four key strategies, with a set of measuring tools for use in evaluating the impact of these initiatives.
	Substance misuse: South Australian strategy for Aboriginal and Torres Strait Islander people 2005–2010 (South Australian Aboriginal Health Partnership 2005)	The South Australian Aboriginal Health Partnership (SAAHP) first developed the Substance misuse strategy, known then as the 'Bringing it all together' Substance misuse strategic policy framework', in 1996 and revised its content in 2002. The Strategy forms part of a planning resource package for use by state, regional, community and other stakeholders, based on the tenet of 'well functioning communities'. The goal of the Strategy is 'to minimise the number of Aboriginal and Torres Strait islander people misusing substances throughout South Australia' and acts to inform implementation of appropriate measures to stem this misuse. Eight strategic directions are defined, from which 5 primary outcomes are sought. The strategic directions include methods to reduce supply and demand, and improve individual, family and community wellbeing, and implementation of appropriate interventions:	• establish and monitor community-supported supply, demand and harm-reduction mechanisms • develop and support coordinated regional approaches to substance misuse • provide community credible services to communities • develop and implement social and emotional wellbeing programs, activities and support networks for individuals • provide programs, activities and resources to build knowledge, skills and resilience for individuals • development and implement community-supported programs and activities that build the resilience and capacity of families • establish and coordinate state and regional workforce capacity building initiatives • develop and support collaborative community partnerships

(continued)

Appendix Table A1.2 (continued): Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
South Australia (continued)	*Substance misuse: South Australian strategy for Aboriginal and Torres Strait Islander people 2005–2010* (South Australian Aboriginal Health Partnership 2005)	From these strategic directions (see next column), five primary outcomes are sought: • reduced number of first-time substance users • reduced number of substance-misuse-related deaths • reduced number of substance-misuse-related incarcerations • reduced number of family members involved in substance misuse • increased individual participation in education and employment opportunities.	
Tasmania	*Tasmanian Drug Strategy 2005–2009* (Tasmanian Department of Health and Human Services 2005)	The Tasmanian Drug Strategy 2005–2009 is a whole-of-government and community initiative to reduce harm associated with drug use in Tasmania. The Strategy is governed by the priorities of community safety, prevention and reduction, and improved access to quality treatment. Stemming from the Strategy are three strategic initiatives—the Alcohol Action Plan, Tasmanian Tobacco Action Plan and yet-to-be-implemented plans for illicit drugs.	• establish and maintain partnerships and collaboration in shaping responses to drug use • build capacity in the community and alcohol and other drug sector • harm minimisation • prevention and early intervention • equity of access to services • research and data collection
Northern Territory	*Aboriginal Health and Families 5 Year Framework for Action* (Northern Territory Department of Health and Community Services 2005)	The Northern Territory does not have a drug strategy specific to Aboriginal and Torres Strait Islanders, but does refer to approaches to combat substance use within the Indigenous population in the Northern Territory in the Aboriginal Health and Families 5 Year Framework for Action. In this framework, the focus is on improving interventions, to protect families and vulnerable members in those families (for example, pregnant women).	

(continued)

Appendix Table A1.2 (continued): Current state and territory alcohol and other drug strategies and frameworks

State/territory	Action plan/strategy/framework	Background	Priority areas/objectives/action areas
Australian Capital Territory	*ACT Alcohol, Tobacco and Other Drug Strategy 2004–2008* (ACT Health 2004)	The ACT Alcohol, Tobacco and Other Drug Strategy 2004–2008 follows recommendations derived from the ACT Alcohol, Tobacco and other Drug Taskforce on the best approach to minimising harm associated with alcohol, tobacco and other drug use. Consultations leading to the recommendations included an Aboriginal and Torres Strait Islander forum in which it was agreed that an Aboriginal and Torres Strait Islander Strategy be developed alongside the aforementioned strategy to better serve the needs of the Indigenous community. That Strategy is still in the process of being completed. The 2004–2008 Strategy focus on the three tenets of harm minimisation—reduction of supply, reduction of demand and reduction of harms. A series of actions, and how they may be evaluated, have been determined for each tenet.	• reduction of supply • reduction of demand • reduction of harms

Appendix 2: Stakeholder workshop

A2.1 Workshop background

A workshop was held in Canberra on 24 November 2005 to consider and discuss the information needs and data sources relating to drug use among Aboriginal and Torres Strait Islander peoples. Participants invited to the workshop included community leaders and members, service providers, policy makers and researchers, as well as people with expertise in relation to data capture and analysis (see Attachment 1 to this Appendix for participant list). The workshop was facilitated by Professor Mick Reid (Director-General, NSW Ministry for Science and Medical Research), who has wide experience in Aboriginal and Torres Strait Islander health, and in facilitating workshops on similar issues.

The workshop was structured around three key questions:

1. What are our priority information areas?
2. What information is already out there?
3. How can the information be improved?

Ted Wilkes, in opening discussions, stated that without quality data we, as a society, do not have a basis for action. From current data, we know enough to start some interventions, but more accuracy and relevance is needed.

Initial discussion

Prior to opening the discussion on the three key questions, workshop participants were invited to express their thoughts on the quality and usefulness of data currently being collected on alcohol, tobacco and other drug use among Aboriginal and Torres Strait Islander peoples. While the workshop agreed that a considerable volume of information is available, not enough was being done to use those data to create 'positive results'. One problem may be that much of the information collected confirms the size of the problem, but not enough looks at the changes needed to reduce the problem or the efficiency of interventions.

Issues as they face people 'on the ground' included: the advent of drug dealers in rural towns; health risks of sharing behaviour; inadequate operationalisation of interventions such as education and needle exchange; and identification of cause of death.

Another recognised difficulty is the quality of the data and its comparability with other data on Aboriginal and Torres Strait Islander peoples. Methodological problems, particularly with the wording and delivery of questions, mean information collected may be inaccurate. Furthermore, some of the Indigenous data may not be easily compared with other sources of data, such as overall morbidity and mortality data. Protocols are needed to ensure quality in the collection of data and its reporting. However, it was also argued that maybe there has been too much focus on the accuracy of the data, and that there is surely enough data now to 'start the ball rolling'. What is needed is a sustainable data source all people can use, and one that is 'talking reliably for us'.

One approach that may be used to assess the suitability of current data would be to answer the following questions:

- Who is likely to use the data?
- At what level should the data be collected?
- Have we got what we need?
- Who needs what to improve the situation?
- What is being done at different levels, that is, at the individual, community, regional and national level?
- What is working?

The following points summarise the opening session:

- don't delay intervention—don't let concerns on accuracy and scope of data prevent intervention
- drive data upwards—data should be used at all levels, but in particular it should look at individuals and communities, then more broadly at regional, jurisdictional and national levels
- data sets—improve general data quality, increase accuracy of Indigenous identification and ensure consistency across data item definitions
- possible trade-off between data accuracy and data provision
- ensure micro level is not being lost through macro picture.

A2.2 Discussion and proposals

What are our priority information areas?

Priority information areas

What are the key unanswered questions relating to alcohol, tobacco and other drug use among Aboriginal and Torres Strait Islander peoples, and the harms associated with substance use? Workshop participants were asked to consider the sorts of information critical to understanding the current pattern of drug use among Aboriginal and Torres Strait Islander peoples, the associated harms, and the most appropriate methods to avoid and treat substance abuse.

Appropriate evidence should be considered in the context of how much information is required to better inform us. Areas of information considered by workshop participants to be of greatest importance are those that focus on patterns of substance use, the factors driving or influencing use, identifying the harms associated with use, and the interventions available and/or successful in halting substance abuse. These may be summarised as:

- What is the level of the problem?
- What are the broader social indicators influential in usage patterns?
- What are the harms experienced by the individual and the community?
- What interventions exist and do they work?

Within these broader-level questions more specific inquiries were raised as being of similar importance.

The diversity of substance use among Aboriginal and Torres Strait Islander peoples is considerable and, to fully understand that diversity, information on the variety of substances used, and the geographic[9] and seasonal variation associated with use of particular substances, is of particular significance. Seasonal variation in substance use may relate to changes in work availability (for example, cotton chipping season), school and other holidays, movement in and out of the community (for example, advent of the wet season), and so on.[10]

Another issue noted regarding the dimension of the problem is recognising the variation in communities at risk. Some communities are at greater risk of substance abuse problems occurring then others, and different risks are associated with different communities. Other communities have developed strong strategies to tackle the problems.

Alongside a need to better understand the social determinants of alcohol, tobacco and other drug use (such as unemployment and poverty), information on the mechanics of sustaining substance use within communities is critical to describing patterns of use. Of particular importance are the means and patterns of supply, the criminal community and the legal settings in place (or the absence thereof) that have been established to halt the entry of alcohol or drugs into the community.

Identification and evaluation of interventions either in place or proposed is another information area of particular relevance. It was noted that rigorous or widespread evaluations of interventions have rarely been attempted in Australia and this constitutes one of the biggest information gaps in the area of substance use among Aboriginal and Torres Strait Islander peoples. This may mirror an information gap in the field more generally. Following the need to know the sorts of interventions that exist, and which of these interventions actually work, consideration should focus on the reasons behind successful interventions and how widespread these sorts of interventions are, including:

- Why are these interventions working?
- Which interventions work for a particular problem?
- How much of what should be happening is happening?

Of equal value is information about which interventions do not work, why they do not work and what alternatives can be offered their place.

Sources and units of priority information

Data is generally collected at the individual level, but it was agreed that an important part of the picture could be obtained from information collected at the community level, rather than aggregating individual level data up. Community variability is often not considered when assembling or presenting information on Aboriginal and Torres Strait Islander peoples, and population-based research generally does not give an accurate picture of, for example, the range of risks. Focussing on the community, therefore, strengthens the ability to identify differences and similarities between and within communities.

A related, but alternative, option is to drill down to the regional or even local level. There was support for regional-level analysis, in part because Indigenous Coordinating Centres (ICC) operate at a regional level, services are delivered at a regional level, and relevant

9 For example, intravenous drug use is increasingly becoming a problem in Moree and environs in northern NSW whereas cannabis is the problem in Arnhem Land.

10 An increase in risky drinking behaviour in Moree is associated with the delivery of Christmas 'alcohol hampers' during December, and with the advent of the wet season in northern Australia.

administrative data are also collected on a regional basis. However, there is some concern about regional definitions: for example, the ATSIC-defined regions and the propensity for different regional definitions to be used in different instances. The point was also raised that some of these regions are effectively 'artificial' and a more realistic and meaningful approach would be to discuss information in terms of discrete communities or groups of communities.

There was also a call for the development of a systematic set, or 'dashboard' of key indicators. These indicators may be generic in form or, preferably, developed for specific substances and addressed at the regional and national level.

Strategic qualitative analysis is a generally under-used form of interpreting and reporting information and, for a subject such as substance use among Aboriginal and Torres Strait Islander peoples, can be immensely informative. Such analysis should focus on both the people and the communities or areas in which they live, and could be a useful approach to identify emerging issues in a timely way.

Finally it is important that we 'hear the voices of those involved'. An acknowledged and praised strength of the 2004 report '*I want to be heard*' was listening to and recording the stories of people who currently used, or had used, alcohol, tobacco and other drugs (Dance et al. 2004). Certainly, this was something many of the participants in the study expressed as being important to them, and may provide additional insight into understanding the factors that cause and sustain drug use among Aboriginal and Torres Strait Islander peoples.

The priority information areas were summarised as follows:

- Unit analysis—community versus individual, individual harm versus community harm, feedback to local level, feedback to local level and ethics
- Seasonal issues—picture of at risk communities and better analysis at the community level
- What are the problems? What are the causes? What works? What interventions should be there? Are they there, why not and are they working?
- Regional approach—is it possible to get a regional approach on service provision and other sources (for example, petrol, liquor licensing)?
- When is information required? For example, every 5 years, administratively, from police, from a process to identify emerging trends, and/or from people being heard
- 'Dashboard of indicators'—key indicators at regional and national levels
- More systematic qualitative assessments
- DASR and SAR outcome measures
- Criminal and legal settings existing in the community
- Supply patterns for drugs.

What information is already out there?

The purpose of this session was to examine a preliminary list of existing data sources that were provided to workshop participants in order to identify relevant data sources that should be added to the list, as well as data sources that are considered irrelevant and should be removed from the list.

Although the general consensus among participants was that there is a wide range of data available on drug use among Indigenous peoples, it was also noted that there are information gaps in the areas of patterns of use and supply, harms, interventions, accessibility and expenditure. In addition, existing data sets seem to focus on illicit drugs, while excluding alcohol, which has the most wide-ranging associated harms. Furthermore, the causes of substance use are likely to be different in each community, and data is needed to capture this heterogeneity. The following section provides more information on filling these gaps.

Participants to the workshop proposed exploring the usefulness of additional data sources, including the NSW Ambulance Services data, Emergency Department data, the NSW Fatal Road Crashes data or Australian Transport Safety Board data and the NSW Brief Treatment Outcomes Measures-Concise (BTOM-C) (a multidimensional instrument designed to monitor treatment outcomes for clients receiving opioid pharmacotherapy and for use in treatment evaluation research). The BTOM-C standardises data collection from opioid maintenance pharmacotherapy services, providing data on service utilisation, client population profiles, treatment needs, the types of treatment delivered and outcomes achieved. The BTOM-C is currently used in New South Wales.

A suggestion was made that all data sources should be assessed in terms of a series of key questions, such as whether it can be analysed to provide information on: use, harm, functioning and nature of intervention; when the latest information becomes available; and whether it has capacity to tell us more. The AIHW informed workshop participants that a template has been developed to systematically query and assess identified data sources in terms of their capacity to address the key questions relating to drug use among Aboriginal and Torres Strait Islander peoples (see Table 5.2).

Participants also noted that some of the data currently collected are not accessible because of ethical and confidentiality issues. Each of the 108 Aboriginal and Torres Strait Islander primary health care and substance use services collects a wide range of information on their clients through patient information systems. At Winnunga Nimmityjah Aboriginal Health Services (ACT), all staff members use PIRS to record client-level data. A small subset of summary information is drawn from this system and reported as part of the SAR and the DASR. It was agreed that the information Aboriginal and Torres Strait Islander primary health care and substance use services collect needs further exploration.

How can the information be improved?

How can information about drug use among Aboriginal and Torres Strait Islander peoples be improved?

Participants were asked to consider how information about drug use among Aboriginal and Torres Strait Islander peoples can be improved. It was acknowledged by participants that there is a plethora of data that can help inform the issue. A recurring theme was the belief that to get value out of the data it must be analysed and interpreted in a meaningful way,

taking into consideration the varying audiences. Participants expressed the desire to have a 'helicopter view' of what is happening across sectors in relation to drug use among Aboriginal and Torres Strait Islander peoples—that is, an analysis of all available data relevant to the issue.

Two options for improving the dissemination of information are (a) the inclusion of a dedicated chapter on substance use in the next report of *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples* and (b) production of a more regular report, specific to Indigenous substance use and associated harms, which slices into and incorporates data from a broader range of data sources. Such collations would give the NIDAC Board and other committees 'something to work with'.

Timely dissemination of results to government bodies, communities and researchers is also required—this is especially true for reporting emerging issues and monitoring trends. Participants were keen to use analytical findings to inform a series of 'announcements on the issue, rather than excuses'.

There is a wealth of data now available in Western Australia because of their unique record linkage system. This system links together birth and death registries with administrative hospital data from several sources and hence provides a comprehensive record of health services contact for the Western Australian population. While cross-sector data linkage has been trialled in other jurisdictions, arrangements in these jurisdictions for this type of analysis are not yet in place.

In relation to improving information (either in terms of presenting analysis or in any future data development or data-collection arrangements) the following issues were raised by participants:

- the need for timely and relevant analysis
- the need to be able to present analysis disaggregated to regional or community levels
- the importance of focussing on the balance between individual and community factors
- enabling greater access to existing data sources, and to a wider analytical audience
- exploring the possibility of data linkage of existing data sources
- promoting comparability between data sources
- improving the current gaps identified in data sets, such as information on interventions or causal factors
- the appropriate methods for identifying emerging issues
- the need to get the most amount of information out of current survey data.

Critical to improving information on drug use among Aboriginal and Torres Strait Islander peoples is the need to improve identification of Indigenous status, particularly in existing administrative collections. Current, recurring problems with collecting Indigenous status data compromises accurate estimates of the number of Aboriginal and Torres Strait Islander peoples using services and programs.

What are the options for improving and obtaining more information?

Several options for improving and obtaining more information about drug use among Aboriginal and Torres Strait Islander peoples and its associated harms were presented to workshop participants for discussion. These options and subsequent discussions are summarised below. It was recognised that these options varied in their ability to produce reliable national population estimates (such as surveys), treatment data (usually

administrative data), or rapidly available but qualitative accounts of emerging issues (such as an environmental scan).

Module/set of questions for inclusion in Indigenous population surveys

The inclusion of a drug-specific module in Indigenous population surveys was supported in theory. However, a number of points were made in relation to the practicality of this option. First, a standard module incorporated within a population survey would imply cultural homogeneity across Aboriginal and Torres Strait Islander communities, which is not the case. If a module were to be developed these cultural sensitivities would need to be considered. Second, the NATSIHS and the NATSISS already include an alcohol and other drug module. Before a new module is considered, it would be appropriate to review the NATSIHS and NATSISS modules to see if they can be improved and to determine the amount of overlap between the modules in each survey. Greater overlap between these, and any other relevant surveys, would increase the analytical abilities of the data. The ABS noted that a trade-off with other priority subject areas may need to occur if the alcohol and other drug module were to expand. Development for the 2008 NATSIHS will begin in 2007. Aside from these considerations, it was generally considered that a module may be a good avenue to incorporate items on social determinants.

The focus of discussion moved from the ABS population surveys to the NDSHS, which provides a broader range of drug-related data. In 1994, an urban Indigenous supplement to the 1993 NDSHS was run; however, the quality of data collected were poor. It was suggested that over-sampling for Aboriginal and Torres Strait Islander people in future National Drug Strategy Household Surveys may improve population drug-use data. The next NDSHS is scheduled for 2007. The timing of survey development, should over-sampling be considered appropriate, may mean it would not be possible until 2010, although not completely unrealistic for 2007.

There was discussion around the fact that a boost in sample size or questionnaire length inevitably imposes a burden on more respondents. However, as representatives from NIDAC noted, if respondents were informed appropriately of the purposes of the survey and how the information collected has potential to improve the quality of life for Indigenous people, then they would be happy to participate as it would be 'making Aboriginal and Torres Strait Islander people partners in the move'.

Module/set of questions for inclusion in Aboriginal and Torres Strait Islander primary health care and substance-use services data collections or a snapshot survey of clients accessing these services

The Aboriginal and Torres Strait Islander primary health care and substance use services currently provide data to OATSIH as part of their funding agreements in one of two ways: either as part of the SAR (for Aboriginal and Torres Strait Islander primary health care services) or the DASR (for Aboriginal and Torres Strait Islander substance use services). Currently, data from the SAR and DASR collections are reported at the establishment level; however, OATSIH noted that these collections have been under review and may evolve over time.

The Aboriginal and Torres Strait Islander primary health care and substance use services provide services to specific geographic regions and collect a lot of client level data that are not reported under the SAR and DASR collections. For example, a representative from an Aboriginal Medical Service, told participants that his organisation has data on over 7,500 clients. In many of these agencies a collection tool called 'Patient Information Recall System' is used.

Participants suggested that there may be alternative options for interrogating data held by Aboriginal and Torres Strait Islander primary health care and substance use services independent of the SAR and DASR collections. One such option may be to mine existing data holdings within these organisations to see how they can inform the issue of drug use among Aboriginal and Torres Strait Islander peoples. Another option may be to survey clients of Aboriginal and Torres Strait Islander primary health care and substance use services to find out their perception of treatment and intervention efficacy, and to grasp a sense of service needs for drug and alcohol services. Such approaches would need to address confidentiality issues, and other legal and ethical considerations, and be developed in close consultation with communities.

Module/set of questions for inclusion in administrative data sets including people who identify as Aboriginal and Torres Strait Islander peoples

The inclusion of a drug-specific module or a set of questions in administrative data sets covering mainstream programs was generally supported. It was thought that a common set of items included within collections such as the AODTS–NMDS, the Juvenile Justice National Minimum Data Set and the SAAP–NDC, would enable core information to be collected across sectors to provide a fuller picture of drug use among Aboriginal and Torres Strait Islander peoples and their use of treatment and other health and community services. The main concern relating to this option is the quality of Indigenous identification in administrative collections; for example, the proportion of 'not stated' responses, as well as general issues of people not identifying as being an Aboriginal and/or Torres Strait Islander person.

Monitoring emerging issues

Possible methods for monitoring emerging issues (such as the increased use of methamphetamines), or monitoring drug use among people who do not seek treatment for substance use and/or who are not currently included in population surveys conducted by the ABS were explored. NIDAC have identified a range of emerging issues that they would like to understand better, such as youth and misuse of inhalants, Indigenous youth drug use in cities and the increase in injecting drug use and related traumatic experiences.

One method for identifying emerging issues could be through an environmental scan, that is, in a systematic way drawing on the knowledge of people (such as community leaders/elders, health workers, local police, youth workers) to report on emerging issues or areas of concern. An environmental scan also has the capacity to look at the risks and harms to the community, as well as other social factors, and to provide information relevant at smaller geographic or community levels. It was suggested that information gleaned through an environmental scan could be used with administrative data to shed more light on drug use issues within communities and around Australia. (The Illicit Drug Reporting System is an example of such a monitoring system currently employed in urban areas of Australia.)

There was also interest in monitoring the structure of the illicit drug markets and routes of supply. The emergence of cannabis in the Top End is an example of a drug that, once introduced, did not take long to become a drug of common use.

Monitoring prisoner treatment and health was also flagged as an area where more information is needed. Four states (New South Wales, Queensland, Western Australia and Tasmania) recently conducted a survey of prison entrants, which was adapted from the national Needle and Syringe Program (NSP) survey. A significant proportion of those surveyed were Indigenous (17%) and provided information on their recent drug use and

other risk behaviours. It is hoped that this survey will be repeated every 2 years across all correctional jurisdictions.

The Prisoner Health National Minimum Data Set, currently under development, will also include information relating to alcohol and other drug use. It will be important to ensure that the data collected in this NMDS is consistent with other collections.

Adding extra data items to existing collections

The option of adding items—such as substance use and/or Indigenous status—to existing data collections was supported. A recent example of this is the recommended introduction of a data item on smoking during pregnancy in the Perinatal National Minimum Data Set.

Replicating the Western Australian Aboriginal Child Health Survey

The WAACHS was a large scale epidemiological survey of health and wellbeing of Western Australian Aboriginal and Torres Strait Islander children undertaken in 2000–02. The option of replicating the survey in other jurisdictions was discussed. Participants were advised that a project is currently being undertaken, whereby synthetic estimates for other states and territories are being calculated using the data obtained from Western Australia. It was agreed that replicating the survey in other jurisdictions would be very costly.

Adding data items to the Longitudinal Study of Indigenous Children

The LSIC managed by the Australian Government Department of Family and Community Services, is currently under development. It is anticipated that two cohorts will be followed throughout their lives starting at ages 0–1 year and 4–5 years. At the current stage of development, it is planned to collect data on the following areas: culture, health, childcare, education, families and community. The final contents of the survey are currently being decided upon. It is hoped that the survey will include items relating to parental substance use and social factors.

Attachment 1: 24 November 2005 workshop participants

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Samantha Bricknell*	Australian Institute of Health and Welfare
Kimberly Clarke	Alcohol and Other Drugs Council of Australia
Alan Clough	Menzies School of Health Research
Mark Cooper-Stanbury*	Australian Institute of Health and Welfare
Richard Cooke	Alcohol and Other Drug Treatment Services National Minimum Data Set Working Group (and Drug and Alcohol Services South Australia)
Ray Dennison	National Aboriginal and Community Controlled Health Organisations
Helen Gardner	Centre for Aboriginal Health, NSW Health
Fatima Ghani*	Australian Institute of Health and Welfare
Kate Gilbert	Social Health Section, Office of Aboriginal and Torres Strait Islander Health
Brendan Gibson	Analysis and Reporting Section, Office of Aboriginal and Torres Strait Islander Health
Diane Gibson	Welfare Division, Australian Institute of Health and Welfare
Dennis Gray	Indigenous Australian Research Program, National Drug Research Institute, Curtin University
Narelle Grayson	National Perinatal Statistics Unit, Australian Institute of Health and Welfare
Jill Guthrie	Muru Marri Indigenous Health Unit, University of New South Wales
Yvonne Helps	Research Centre for Injury Studies (and AIHW National Injury Surveillance Unit)
John Hendry	National Aboriginal Community Controlled Health Organisation
Lisa Jackson Pulver	Muru Marri Indigenous Health Unit, University of New South Wales
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(continued)

Name	Affiliation
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Melanie Walker	Social Health Section, Office of Aboriginal and Torres Strait Islander Health
Ted Wilkes	National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data (and Centre for Development al Health, Curtin University) National Indigenous Drug Advisory Council
Andrew Webster	National Centre for Aboriginal and Torres Strait Islander Statistics, Australian Bureau of Statistics
Louise York*	Australian Institute of Health and Welfare

* AIHW project team members

Other advisors

The following people sent their apologies for the workshop, but contributed by providing advice and comments during the project.

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Peter d'Abbs	School of Public Health, Tropical Medicine & Rehabilitation Sciences, James Cook University
Jacinta Elston	Faculty of Health, Life and Molecular Sciences, James Cook University
Jocelyn Jones	Standing Committee on Aboriginal and Torres Strait Islander Health
Craig Ritchie	Standing Comm65
	75ittee on Aboriginal and Torres Strait Islander Health
Anthony Shakeshaft	National Drug and Alcohol Research Centre, University of New South Wales
Neil Thomson	Australian Indigenous Health InfoNet, Edith Cowan University
Julie Tongs	Winnunga Nimmityjah Aboriginal Health Service
Steve Vaughan	Petrol Sniffing Implementation Team, Office of Aboriginal and Torres Strait Islander Health
Scott Wilson	Aboriginal Drug and Alcohol Council (SA) Inc.

Appendix 3: Comparative analysis of key data sources

Appendix Table A3.1: Collection methodology for key data sources

No.	Data source	Surveys (population)	Surveys (other)	Administrative collections
1	National Drug Strategy Household Survey (NDSHS)	✓		
2	Australian Schools Students Alcohol and other Drugs Survey (ASSAD)		✓	
3	Illicit Drug Reporting System–Injecting Drug Users (IDRS–IDU)		✓	
4	Illicit Drug Reporting System–Party Drugs Initiative (IDRS–PDI)		✓	
5	Indigenous Drug Injectors Study (South Australia) (IDIS)		✓	
6	Australian Needle and Syringe Program Survey (NSP)		✓	
7	Youth Alcohol Consumption Research (YACR)		✓	
8	Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS–NMDS)			✓ (a)
9	Drug and Alcohol Service Report (DASR)			✓ (b)
10	Brief Treatment Outcome measure–Concise (BTOM–C)			✓ (b)
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database (CAYLUS)			✓ (a)
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05 (NATSIHS)	✓		
13	ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)	✓		
14	ABS 2001 National Health Survey (NHS)	✓		
15	Western Australia Aboriginal Child Health Survey (WAACHS)		✓	
16	Footprints in Time: the Longitudinal Study of Indigenous Children (LSIC)		✓	
17	Australian Longitudinal Study on Women's Health (ALSWH)		✓	
18	Bettering the Evaluation and Care of Health (BEACH)		✓	
19	Service Activity Reporting (SAR)			✓ (b)
20	National Hospital Morbidity Database (NHMD)			✓ (a)
21	AIHW National Mortality Database (NMD)			✓ (a)
22	National Coroners Information System (NCIS)			✓ (a)
23	National AIDS/HIV Registry			✓ (a)
24	National Perinatal Data Collection (NPDC)			✓ (a)
25	Kids Help Line Statistics (KHLS)		✓	
26	Lifeline Statistics (Call Database–Client Service Management Information System)		✓	
27	National Non-admitted Patient Emergency Department Care Database (NAPEDCD)			✓ (a)

(continued)

Appendix Table A3.1 (continued): Collection methodology for key data sources

No.	Data source	Surveys (population)	Surveys (other)	Administrative collections
28	New South Wales Population Health Survey (NSW–PHS)	✓		
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998 (NSMHW (C&A))	✓		
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98 (NSMHW (psychotic))	✓		
31	National Community Mental Health Care Database–based on the National Minimum Data Set (NCMHCD)			✓ (a)
32	National Residential Mental Health Care Database (NRMHCD)			✓ (a)
33	Supported Accommodation Assistance Program National Data Collection (SAAP–NDC)			✓ (a)
34	ABS National Prisoner Census	✓		
35	National Prison Entrants' Bloodborne Virus Survey 2004 (NPEBVS)		✓	
36	National Police Custody Survey (NPCS)		✓	
37	Drug Use Careers of Offenders (DUCO)		✓	
38	Drug Use Monitoring in Australia (DUMA)		✓	
39	2001 New South Wales Inmate Health Survey (NSW–IHS)		✓	
40	2002 Queensland Women Prisoners' Health Survey (QLD–WPHS)		✓	
41	2002 Victorian Prisoner Health Study (VIC–PHS)		✓	
42	NSW Young People in Custody Health Survey 2003 (YPiCHS)		✓	
43	NT Police Drug Seizure Data Base (NT PDSDB)			✓ (a)
44	Illicit Drug Data Report collection (IDDR)			✓ (a)

(a) unit record

(b) aggregate data

Appendix Table A3.2: Collection scope, coverage, frequency and count for key data sources

No.	Collection name	Abbreviation	Scope	Geographic coverage	Frequency	Count
1	National Drug Strategy Household Survey	NDSHS	Population aged 12 years or more	All states and territories, Australia	Approximately triennial from 1985	Estimated number of people
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	Years 7 to 11 students aged 12–17 years	All states and territories, Australia	Triennial since 1984	Number of students
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	Sample of injecting drug users and key informants	All states and territories, Australia	Annually since 1996 (with staggered implementation across states and territories)	Number of people (users and informants)
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	Sample of party drug users and key informants	All states and territories, Australia	Annually since 2003 (piloted in some states in 2002)	Number of people (users and informants)
5	Indigenous Drug Injectors Study (South Australia)	IDIS	Sample of Indigenous injecting drug users and key informants	Adelaide	July 2004	Number of people
6	Australian Needle and Syringe Program Survey	NSP	Sample of injecting drug users from a sample of NSP sites	All states and territories, Australia	Annually since 1995 (specified week)	Number of people
7	Youth Alcohol Consumption Research	YACR	Teenagers aged 15–17 years of age	All states and territories, Australia	Five national surveys were conducted each February, starting in 2000 prior to the launch of the campaign and continuing up to 2004	Number of people
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	Publicly funded alcohol and other drug treatment services and their clients	All states and territories, Australia	Annually since 2000–01	Closed treatment episodes, number of agencies
9	Drug and Alcohol Service Report	DASR	Australian Government-funded Indigenous substance use services	All states and territories, Australia	Annually since 1999–2000	Service level estimates of total client numbers and episodes of care, number of agencies

(continued)

Appendix TableA3.2 (continued): Collection scope, coverage, frequency and count for key data sources

No.	Collection name	Abbreviation	Scope	Geographic coverage	Frequency	Count
10	Brief Treatment Outcome Measure-Concise	BTOM–C	All new publicly prescribed clients, defined as: Clients who have never received methadone or buprenorphine treatment Clients who have not received methadone or buprenorphine for at least 3 months.	New South Wales	Ongoing. Data are provided to NSW health on a monthly basis	Treatment episodes
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	Sample of past and present inhalant abusers and dealers	Remote and Central Australia (NT only)	Ongoing since late 2003	Number of inhalant abusers, number of dealers
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	Population of Indigenous Australians in remote and non-remote areas	All states and territories, Australia	Every 6 years since 2004–05	Estimated number of people, estimated number of households
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	Population of Indigenous Australians aged 15 years and over	All states and territories, Australia	1994, 2002	Estimated number of people, estimated number of households
14	ABS 2001 National Health Survey	NHS	Population	All states and territories, Australia	1989–90, 1995, 2001	Estimated number of people, estimated number of households
15	Western Australia Aboriginal Child Health Survey	WAACHS	Sample of Indigenous households with at least one child of Aboriginal or Torres Strait Islander descendant under the age of 18	Western Australia	May 2000 July 2002	Number of people aged under 18 years
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	Children (within two cohorts—under 1 year and between 4 and 5 years)	All states and territories, Australia	Wave 1 scheduled for May–June 2006	Number of children

(continued)

Appendix Table A3.2 (continued): Collection scope, coverage, frequency and count for key data sources

No.	Collection name	Abbreviation	Scope	Geographic coverage	Frequency	Count
17	Australian Longitudinal Study on Women's Health	ALSWH	Population of Australian women in three age cohorts	All states and territories, Australia	2002, 2003, 2004	Number of people
18	Bettering the Evaluation and Care of Health	BEACH	General practitioners (GPs)	All states and territories, Australia	Annually since 1998	Estimated number of GP–patient encounters
19	Service Activity Reporting	SAR	Australian Government-funded primary health care services	All states and territories, Australia (with the exception of Tasmania and the Australian Capital Territory)	Annually since 1997–98 (with the exception of 2001–02)	Service level estimates of: total client numbers, episodes of care, client contacts and transport contacts, number of agencies
20	National Hospital Morbidity Database	NHMD	All public and private acute and psychiatric hospitals	All states and territories, Australia	Annually since 1993–94	Number of separations
21	AIHW National Mortality Database	NMD	All people who die in Australia, including people from other countries	All states and territories, Australia	Annually since 1964	Number of deaths
22	National Coroners Information System	NCIS	All deaths referred to a coroner (where case has been closed)	All states and territories, Australia (Queensland included from 2001)	Weekly since 2000	Number of deaths referred to a coroner (except those marked as restricted by a coroner or medical certificate cases)
23	National AIDS/HIV Registry		People living in Australia diagnosed with HIV infection or AIDS	All states and territories, Australia	Ongoing administrative database, since 1997	Number of cases of newly diagnosed HIV infection or AIDS
24	National Perinatal Data Collection	NPDC	All births in Australia (hospitals, birth centres and the community)	All states and territories, Australia	Annually since 1991	Number of notifications (births)
25	Kids Help Line Statistics	KHLS	All callers who contact Kids Help Line phone/internet counselling service	All states and territories, Australia	Ongoing since May 1993	Number of phone calls, number of emails, number of web counselling sessions

(continued)

Appendix Table A3.2 (continued): Collection scope, coverage, frequency and count for key data sources

No.	Collection name	Abbreviation	Scope	Geographic coverage	Frequency	Count
26	Lifeline Statistics (Call Database–Client Service Management Information System)		All callers who contact Lifeline's phone counselling service	All states and territories, Australia	Ongoing since July 2001	Number of phone calls received
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	Non-admitted patients registered for care in emergency departments in selected public hospitals	All states and territories, Australia	Annually since July 2003	Number of non-admitted patient emergency department service episodes
28	New South Wales Population Health Survey	NSW–PHS	Sample of residents aged 16 years and over living in households with a private telephone	New South Wales	Annually since 2002	Number of people
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C&A)	Population of Australians aged 4–17 years	All states and territories, Australia	1998	Estimated number of people
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	People who attended a mental health service aged 15–64 diagnosed with a psychotic disorder	Australian Capital Territory, Queensland, Victoria and Western Australia	1997–98	Estimated number of people
31	National Community Mental Health Care Database–based on the National Minimum Data Set	NCMHCD	All specialised public community mental health services	All states and territories, Australia	Annually since 2000–01	Service contacts, number of establishments
32	National Residential Mental Health Care Database	NRMHCD	Publicly funded residential mental health services	All states and territories, Australia	Annually since 2004–05	Episodes of residential care, number of establishments
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	All SAAP-funded agencies, their clients and accompanying children	All states and territories, Australia	Annually since 1996–97	Number of clients, number of accompanying children, SAAP closed support periods, SAAP ongoing support periods, SAAP services requested

(continued)

Appendix Table A3.2 (continued): Collection scope, coverage, frequency and count for key data sources

No.	Collection name	Abbreviation	Scope	Geographic coverage	Frequency	Count
34	ABS National Prisoner Census	NPC	Population of persons remanded or sentenced to adult custody in a gazetted adult prison in Australia	All states and territories, Australia	Annually since 1982	Number of prisoners
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	All new receptions entering prisons from the community	New South Wales, Queensland, Tasmania, Western Australia	May 2004	Number of people
36	National Police Custody Survey	NPCS	People taken into police custody and physically lodged in a police cell for any periods of time	All states and territories, Australia	1988, 1992, 1995, 2002 (over 1 month)	Number of occasions
37	Drug Use Careers of Offenders	DUCO	Adult offenders sentenced to prison and sentenced and remanded juveniles	Four jurisdictions for males, six for females and all jurisdictions for juveniles	Male DUCO 2001, Female DUCO 2003 and Juvenile DUCO 2004 (each survey conducted once only)	Number of people
38	Drug Use Monitoring in Australia	DUMA	Detainees held in custody	Queensland, Western Australia, New South Wales, South Australia	Quarterly since 1999	Number of people
39	2001 New South Wales Inmate Health Survey	NSW–IHS	NSW male and females inmates in full-time custody	New South Wales	1996, 2001	Number of people
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	All females incarcerated in Queensland	Queensland	2002	Number of people
41	2002 Victorian Prisoner Health Study	VIC–PHS	Prisoners incarcerated in Victoria	Victoria	Ongoing since 2002	Number of prisoners
42	NSW Young People in Custody Health Survey 2003	YPiCHS	All young people remanded or sentenced to a period of control in a juvenile detention centre	New South Wales	2003	Number of people
43	NT Police Drug Seizure Data Base	NT PDSDB	All offenders of drug seizures	Northern Territory	Ongoing since 2003	Number of seizures, number of people
44	Illicit Drug Data Report collection	IDDR	Illicit drug arrests and seizures	All states and territories, Australia	Ongoing since 2001–02	Number of illicit drug arrests and seizures

Appendix Table A3.3: Substance use and associated behaviours: relevant data items included in key data sources

No.	Collection name	Abbreviation	Substance type	Prevalence (ever use/current use)	Frequency of use	Quantity used	Age first used	Method of use	Injecting information	Cost of drugs	Risk behaviours
1	National Drug Strategy Household Survey	NDSHS	All	Ever/current (past year, month, week)	✓	✓	✓	✓	✓	X	✓
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	All	Ever/current (past year, month, week)	✓	X	X	X	X	X	✓
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	All	Ever/current (past 6 months)	✓	X	✓	X	✓	✓	✓
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	All	Ever/current (past 6 months)	✓	✓	✓	✓	✓	✓	✓
5	Indigenous Drug Injectors Study (South Australia)	IDIS	Alcohol and other drugs only	Ever/current	✓	✓	✓	X	✓	✓	✓
6	Australian Needle and Syringe Program Survey	NSP	Illicit drugs only	Ever	✓	X	X	X	✓	X	✓
7	Youth Alcohol Consumption Research	YACR	All	Current (past year, 3 months, 2 weeks, 1 week, day: depending on substance)	✓	✓	X	X	X	X	✓
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	All	Principal and other drug of concern (for closed treatment episode)	X	X	X	✓	✓	X	✓
9	Drug and Alcohol Service Report	DASR	All	Service level estimates of substances for which treatment sought	X	X	X	X	X	X	X

(continued)

Appendix Table A3.3 (continued): Substance use and associated behaviours: relevant data items included in key data sources

No.	Collection name	Abbreviation	Substance type	Prevalence (ever use/current use)	Frequency of use	Quantity used	Age first used	Method of use	Injecting information	Cost of drugs	Risk behaviours
10	Brief Treatment Outcome Measure–Concise	BTOM–C	All	Current use (in last month)	✓	✓	X	✓	✓	X	✓
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	Other drugs only	Estimates of the number of people who currently sniff petrol or glue and attend CAYLUS	✓	✓	X	X	X	X	✓
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	Tobacco and alcohol only	Ever/current (last 12 months, last week: depending on substance)	✓	✓	✓	X	X	X	X
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	All	Ever/current (12 months, 2 weeks: depending on substance)	✓	✓	X	X	X	X	X
14	ABS 2001 National Health Survey	NHS	Tobacco and alcohol only	Ever/current (last week)	✓	✓	X	X	X	X	X
15	Western Australia Aboriginal Child Health Survey	WAACHS	All	Ever/current (12 months, 2 weeks: depending on substance)	✓	✓	✓	X	X	X	✓
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	Tobacco and alcohol only	Ever used	✓	✓	X	X	X	X	X
17	Australian Longitudinal Study on Women's Health	ALSWH	All	Ever/current (last 12 months)	✓	✓	✓	X	✓	X	✓
18	Bettering the Evaluation and Care of Health	BEACH	All	Estimates of the number of GP-patient encounters with a drug-related problem managed	X	X	X	X	X	X	X

(continued)

Appendix Table A3.3 (continued): Substance use and associated behaviours: relevant data items included in key data sources

No.	Collection name	Abbreviation	Substance type	Prevalence (ever use/current use)	Frequency of use	Quantity used	Age first used	Method of use	Injecting information	Cost of drugs	Risk behaviours
19	Service Activity Reporting	SAR	All	Service level estimates of substances for which treatment sought	X	X	X	X	X	X	X
20	National Hospital Morbidity Database	NHMD	All	Hospital separations where principal diagnosis or additional diagnosis was drug related	X	X	X	X	X	X	X
21	AIHW National Mortality Database	NMD	All	Drug-related death	X	X	X	X	X	X	X
22	National Coroners Information System	NCIS	All	Drug-related death	X	X	X	X	X	X	X
23	National AIDS/HIV Registry		Other drugs only	Estimate of number people on registry who inject drugs	X	X	X	X	✓	X	✓
24	Perinatal National Minimum Data Set	PNMDS	Tobacco only	No	X	✓	X	X	X	X	X
25	Kids Help Line Statistics	KHLS	All	Estimate of number of calls where the main reason is drugs	X	X	X	X	X	X	X
26	Lifeline Statistics (Call Database–Client Service Management Information System)		All	Estimate of number of calls where the main reason is drugs	X	X	X	X	X	X	X
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	All	Estimate of the number of episodes where the presenting problem or diagnosis was substance related	X	X	X	X	X	X	X

(continued)

Appendix Table A3.3 (continued): Substance use and associated behaviours: relevant data items included in key data sources

No.	Collection name	Abbreviation	Substance type	Prevalence (ever use/current use)	Frequency of use	Quantity used	Age first used	Method of use	Injecting information	Cost of drugs	Risk behaviours
28	New South Wales Population Health Survey	NSW–PHS	Tobacco and alcohol only	Ever/current	✓	✓	X	X	X	X	✓
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	All	Ever/current	✓	✓	✓	X	✓	X	X
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	All	Ever/current; lifetime diagnosis of dependence	✓	✓	X	X	X	X	✓
31	National Community Mental Health Care Database–based on the National Minimum Data Set	NCMHCD	All	Estimate of number of service contacts where principal diagnosis was drug related	X	X	X	X	X	X	X
32	National Residential Mental Health Care Database	NRMHCD	All	Estimate of number of episodes where principal or additional diagnosis was drug related	X	X	X	X	X	X	✓
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	Alcohol and other drugs only	Estimate of number of clients where presenting reason or support provided are drug related	X	X	X	X	X	X	X
34	ABS National Prisoner Census	NPC	No	No	X	X	X	X	X	X	X
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	Other drugs only	Estimate of number people surveyed who inject drugs	X	X	X	X	✓	X	✓

(continued)

Appendix Table A3.3 (continued): Substance use and associated behaviours: relevant data items included in key data sources

No.	Collection name	Abbreviation	Substance type	Prevalence (ever use/current use)	Frequency of use	Quantity used	Age first used	Method of use	Injecting information	Cost of drugs	Risk behaviours
36	National Police Custody Survey	NPCS	Alcohol and other drugs only	Estimate of number of occasions where reason for being in custody or main offence was drug related	X	X	X	X	X	X	X
37	Drug Use Careers of Offenders	DUCO	Other drugs only	Ever/current; addicted to illegal drugs or alcohol in last 6 months (males); drug dependency (females); intoxicated on drugs or alcohol when committed crime	✓	X	✓	X	✓	✓	X
38	Drug Use Monitoring in Australia	DUMA	Other drugs only	Ever/current (illicit drugs only)	X	X	X	X	✓	X	✓
39	2001 New South Wales Inmate Health Survey	NSW–IHS	All	Ever/current	✓	✓	✓	X	✓	X	✓
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	All	Ever/current	✓	✓	X	X	✓	X	✓
41	2002 Victorian Prisoner Health Study	VIC–PHS	Alcohol and other illegal drugs	Ever	✓	X	X	X	✓	X	✓
42	NSW Young People in Custody Health Survey 2003	YPiCHS	All	Ever/current	✓	✓	✓	X	✓	X	✓
43	NT Police Drug Seizure Data Base	NT PDSDB	No	No	X	X	X	X	X	X	X
44	Illicit Drug Data Report collection	IDDR	All illicit drugs	Ever	X	X	X	X	X	✓	X

Appendix Table A3.4: Basic demographics: relevant data items included in key data sources

No.	Collection name	Abbreviation	Indigenous status	Indicator of age	Sex	Indicator of cultural and linguistic diversity	Geographic location of respondent	Geographic location of agency or other relevant unit
1	National Drug Strategy Household Survey	NDSHS	✓	✓	✓	✓	✓	N/A
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	✓	✓	✓	✓	✓	✓
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	✓	✓	✓	✓	✓	N/A
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	✓	✓	✓	✓	✓	N/A
5	Indigenous Drug Injectors Study (South Australia)	IDIS	✓	✓	✓	X	✓	N/A
6	Australian Needle and Syringe Program Survey	NSP	✓	✓	✓	✓	X	✓
7	Youth Alcohol Consumption Research	YACR	✓	✓	✓	✓	✓	X
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	✓	✓	✓	✓	X	✓
9	Drug and Alcohol Service Report	DASR	✓	✓	✓	X	X	✓
10	Brief Treatment Outcome Measure–Concise	BTOM–C	✓	✓	✓	✓	X	✓
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	✓	✓	✓	✓	✓	X
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	✓	✓	✓	✓	✓	N/A
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	✓	✓	✓	✓	✓	N/A
14	ABS 2001 National Health Survey	NHS	✓	✓	✓	✓	✓	N/A

(continued)

Appendix Table A3.4 (continued): Basic demographics: relevant data items included in key data sources

No.	Collection name	Abbreviation	Indigenous status	Indicator of age	Sex	Indicator of cultural and linguistic diversity	Geographic location of respondent	Geographic location of agency or other relevant unit
15	Western Australia Aboriginal Child Health Survey	WAACHS	✓	✓	✓	✓	✓	N/A
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	✓	✓	✓	✓	✓	X
17	Australian Longitudinal Study on Women's Health	ALSWH	✓	✓	✓	X	✓	N/A
18	Bettering the Evaluation and Care of Health	BEACH	✓	✓	✓	✓	✓	✓
19	Service Activity Reporting	SAR	✓	X	✓	X	X	✓
20	National Hospital Morbidity Database	NHMD	✓	✓	✓	✓	✓	✓
21	AIHW National Mortality Database	NMD	✓	✓	✓	✓	✓	✓
22	National Coroners Information System	NCIS	✓	✓	✓	✓	✓	N/A
23	National AIDS/HIV Registry		✓	✓	✓	✓	✓	✓
24	National Perinatal Data Collection	NPDC	✓	✓	✓	✓	✓	N/A
25	Kids Help Line Statistics	KHLS	✓	✓	✓	✓	✓	N/A
26	Lifeline Statistics (Call Database–Client Service Management Information System)		X	✓	✓	X	✓	N/A
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	✓	✓	✓	✓	✓	✓
28	New South Wales Population Health Survey	NSW–PHS	✓	✓	✓	✓	✓	N/A
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	✓	✓	✓	✓	✓	N/A

(continued)

Appendix Table A3.4 (continued): Basic demographics: relevant data items included in key data sources

No.	Collection name	Abbreviation	Indigenous status	Indicator of age	Sex	Indicator of cultural and linguistic diversity	Geographic location of respondent	Geographic location of agency or other relevant unit
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	✓	✓	✓	✓	✓	N/A
31	National Community Mental Health Care Database–based on the National Minimum Data Set	NCMHCD	✓	✓	✓	✓	✓	✓
32	National Residential Mental Health Care Database	NRMHCD	✓	✓	✓	✓	✓	✓
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	✓	✓	✓	✓	✓	✓
34	ABS National Prisoner Census	NPC	✓	✓	✓	✓	✓	X
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	✓	✓	✓	✓	X	✓
36	National Police Custody Survey	NPCS	✓	✓	✓	X	X	✓
37	Drug Use Careers of Offenders	DUCO	✓	✓	✓	X	✓	✓
38	Drug Use Monitoring in Australia	DUMA	✓	✓	✓	✓	✓	✓
39	2001 New South Wales Inmate Health Survey	NSW–IHS	✓	✓	✓	✓	X	✓
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	✓	✓	✓	✓	X	✓
41	2002 Victorian Prisoner Health Study	VIC–PHS	✓	✓	✓	✓	X	✓
42	NSW Young People in Custody Health Survey 2003	YPiCHS	✓	✓	✓	✓	X	✓
43	NT Police Drug Seizure Data Base	NT PDSDB	✓	✓	✓	✓	✓	X
44	Illicit Drug Data Report collection	IDDR	X	✓	✓	X	✓	N/A

Appendix Table A3.5: Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
1	National Drug Strategy Household Survey	NDSHS	Personal and household income Number of people in household Dependent children in household Household type and composition Marital status	Current employment status Industry last employed in Type of work undertaken Educational attainment	—	Opportunity and availability of alcohol, tobacco and illicit drugs Peer pressure with licit and illicit drug taking Regulations relating to drug use Preventative strategies Cultural acceptance of (specific) drugs
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	Disposable income	Year of school currently enrolled School absenteeism	—	Participated in school lessons about smoking/drinking/illicit drugs
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	Accommodation type Income source	Educational attainment Employment status	—	Knowledge of purity and availability of drugs Victim of drug-related crime
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	Accommodation type Income source	Educational attainment Employment status	—	Knowledge of purity and availability of drugs Source of drug Location scored Occupational/social/financial/ legal problems attributed to drug use
5	Indigenous Drug Injectors Study (South Australia)	IDIS	Living arrangements Income source Number of children	Educational attainment Employment status Childcare arrangements	—	Relationships with others and injecting behaviours
6	Australian Needle and Syringe Program Survey	NSP	—	—	—	—

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
7	Youth Alcohol Consumption Research	YACR	Household composition Family living arrangements	Student status Place of education Labour force status Socio-economic status of main household income earner	—	Peer group problems (alcohol, smoking) Alcohol advertising campaigns Parental rules on drinking alcohol Perceptions of substance use
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	—	—	Client type (whether seeking treatment on behalf of self or other)	—
9	Drug and Alcohol Service Report	DASR	—	—	Emotional/social health issues affecting substance use clients	—
10	Brief Treatment Outcome Measure–Concise	BTOM–C	Principal source of income Living arrangement Usual accommodation	—	Money problems Conflict with partner/spouse Conflict with relatives Conflict with employer/school	Time lived with drug user in last 3 months Time spent with non-drug user friends in last 3 months
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	Main income source Income receiver	—	History of communities where client lived	—
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	Household composition Number of bedrooms in dwelling Dwelling location Household income Marital status	Educational attainment Labour force status Occupation type Hours worked	Family type Stressors Cultural identification Discrimination	Stressors

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	Household composition Housing characteristics Level of income Source of income	Voluntary work Educational attainment Current study Educational experience Employment status Barriers to employment Involvement in social activities Participation in physical activity Access to child care	Cultural identity Stressors Neighbourhood/community problems Support in time of crisis Removal from family Financial stress Victim of physical or threatened violence	Neighbourhood/community problems Stressors
14	ABS 2001 National Health Survey	NHS	Household composition Number of bedrooms in dwelling Dwelling location Type of dwelling Marital status	Educational attainment Labour force status Occupation type Shift work	—	—
15	Western Australia Aboriginal Child Health Survey	WAACHS	Caregiver relations and arrangements Living arrangements Receipt of income benefits Household composition Perceived financial stress Number of bedrooms in dwelling Housing standard	Day care and learning Educational attainment Current educational status Social and recreational activities Parent/caregiver employment Availability and use of public transport	Parental engagement Parental discipline Forced separation of child from natural family Partner/spouse relationship Social and religious supports Family life stress events Positive family interactions Experience of racism	Parental/caregiver use of alcohol and tobacco Perceptions of community problems Experience of substance use by school peers

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	Housing Parents work Income	Access and experience in playgrounds, preschool, primary, secondary and tertiary school Child care	Family relationships Parental health	—
17	Australian Longitudinal Study on Women's Health	ALSWH	Number of children Household composition Average gross income Source of retirement funding Marital status	Type of paid work Educational attainment Current occupation Partner's current occupation Participation in selected activities	—	—
18	Bettering the Evaluation and Care of Health	BEACH	Health care/card status	Veterans' Affairs card Social participation (unemployment and education problem, social handicap)	—	—
19	Service Activity Reporting	SAR	—	—	Emotional and wellbeing issues (stolen generation, and so on)	—
20	National Hospital Morbidity Database	NHMD	Marital status	Employment status Type of (usual) accommodation	—	—
21	National Mortality Database	NMD	Marital status Date of first marriage Age at first marriage Place at first marriage Number of children	Occupation	—	—

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
22	National Coroners Information System	NCIS	Marital status	Employments status Usual occupation	—	—
23	National AIDS/HIV Registry		—	—	—	—
24	National Perinatal Data Collection	NPDC	Marital status of mother	—	—	—
25	Kids Help Line Statistics	KHLS	Living arrangements Length of time living in current arrangements Income source	School status	Marital/relationship status of child's parents Status of parents Main reason/problem client called about	Main reason/problem client called about
26	Lifeline Statistics (Call Database–Client Service Management Information System)		Living arrangements	Employment	Call issue—Domestic violence, child abuse, spirituality, sexuality, loneliness or problem behaviour	Call issue—drug and alcohol issues
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	—	—	—	—
28	New South Wales Population Health Survey	NSW–PHS	Household composition Home ownership Accommodation type Household income Marital status	Educational attainment Employment status Main job held	Personal safety (e.g. victim of violence)	Attitudes towards preventative strategies
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	Household composition Number of siblings Primary caregiver income and receipt of pensions/benefits	Educational attainment Labour force status Primary caregiver labour force status, occupation type and hours worked	Family emotional worry or concern	Place of tobacco obtainment
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	Marital status Parental status Residential setting Income source Lifetime marital status	Highest educational qualification Employment status Main occupation	Relationships with family/friends Victim of violence Unmet need for police/legal assistance	Social problems due to drug use

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
31	National Community Mental Health Care Database–based on the National Minimum Data Set	NCMHCD	Marital status	—	—	—
32	National Residential Mental Health Care Database	NRMHCD	Marital status	—	—	—
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	Parental status Main income source	Labour force status	Accompanying children information Interpersonal relationship (reason for assistance) Domestic violence and relationships, and emotional support (support types)	Problematic drug/alcohol use (presenting reason) Drug/alcohol support or intervention (support to client)
34	ABS National Prisoner Census	NPC	—	Educational attainment	—	—
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	Accommodation type prior to prison	—	—	—
36	National Police Custody Survey	NPCS	—	—	—	—
37	Drug Use Careers of Offenders	DUCO	Housing prior to prison Marital status Parental status Income source	Educational attainment School history Prior juvenile detention	Abuse (sexual, emotional) and perpetrator relationship History of abuse and neglect and perpetrator relationship Level of contact with significant others	Family substance abuse
38	Drug Use Monitoring in Australia	DUMA	Residential setting Marital status Household composition Source of income	Educational attainment Work status	—	Method of contacting dealer Location and place of purchase Source of score Ease of obtaining drugs in local drug market

(continued)

Appendix Table A3.5 (continued): Social context, participation and family influences: relevant data items included in key data sources

No	Collection name	Abbreviation	Indicators of social context	Indicators of social participation	Family and personal context and influences	Substance use context and influences
39	2001 New South Wales Inmate Health Survey	NSW–IHS	Marital status Living situation Number of dependents Number of children	Educational attainment Labour force status (prior to prison) Occupation (prior to prison) Child care experiences	Aboriginal removal from family Characteristics of parents	—
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	—	Educational attainment Labour force status (prior to prison) Occupation (prior to prison)	Aboriginal removal from family Sexual, physical and/or emotional abuse	—
41	2002 Victorian Prisoner Health Study	VIC–PHS	Marital status Previous living arrangements	School leaving age Work history prior entering prison Work history post entering prison	Indigenous removal from family	—
42	NSW Young People in Custody Health Survey 2003	YPiCHS	Living environment	Employment history Educational attainment Educational achievement	Family influences Experience of abuse, trauma or neglect	—
43	NT Police Drug Seizure Data Base	NT PDSDB	—	—	—	—
44	Illicit Drug Data Report collection	IDDR	—	—	—	Local offence code (consumer or provider)

Appendix Table A3.6: Associated harms and health status for key data sources

No.	Collection name	Abbreviation	Comorbidity/health conditions	Disability	Pregnancy and the unborn child	Suicide	Crime and justice
1	National Drug Strategy Household Survey	NDSHS	✓	X	✓	X	✓
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	✓	X	X	X	X
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	✓	X	X	X	✓
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	✓	X	X	X	✓
5	Indigenous Drug Injectors Study (South Australia)	IDIS	✓	X	X	✓	✓
6	National Needle and Syringe Program Survey	NSP	✓	X	X	X	✓
7	Youth Alcohol Consumption Research	YACR	X	X	X	X	X
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	X	X	X	X	✓
9	Drug and Alcohol Service Report	DASR	✓	X	X	✓	✓
10	Brief Treatment Outcome Measure–Concise	BTOM–C	✓	X	X	X	✓
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	X	X	X	✓	✓
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	✓	✓	✓	X	✓
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	✓	✓	X	X	✓
14	ABS 2001 National Health Survey	NHS	✓	X	X	X	X
15	Western Australia Aboriginal Child Health Survey	WAACHS	✓	✓	✓	✓	✓
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	✓	✓	✓	X	✓

(continued)

Appendix Table A3.6 (continued): Associated harms and health status for key data sources

No.	Collection name	Abbreviation	Comorbidity/health conditions	Disability	Pregnancy and the unborn child	Suicide	Crime and justice
17	Australian Longitudinal Study on Women's Health	ALSWH	✓	✓	✓	✓	X
18	Bettering the Evaluation and Care of Health	BEACH	✓	X	X	X	X
19	Service Activity Reporting	SAR	✓	X	X	X	X
20	National Hospital Morbidity Database	NHMD	✓	X	X	X	X
21	National Mortality Database	NMD	✓	X	✓	✓	✓
22	National Coroners Information System	NCIS	✓	X	X	✓	✓
23	National AIDS/HIV Registry		✓	X	✓	X	X
24	National Perinatal Data Collection	NPDC	X	X	✓	X	X
25	Kids Help Line Statistics	KHLS	✓	X	✓	✓	X
26	Lifeline Statistics (Call Database–Client Service Management Information System)		✓	✓	✓	✓	✓
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	✓	X	X	X	X
28	New South Wales Population Health Survey	NSW–PHS	✓	X	X	X	X
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	✓	X	X	X	X
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	✓	✓	X	✓	✓
31	National Community Mental Health Care National Database–based on the National Minimum Data Set	NCMHCD	✓	X	X	X	X
32	National Residential Mental Health Care Database	NRMHCD	✓	✓	X	✓	X
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	X	X	X	X	X
34	ABS National Prisoner Census	NPC	X	X	X	X	✓

(continued)

Appendix Table A3.6 (continued): Associated harms and health status for key data sources

No.	Collection name	Abbreviation	Comorbidity/health conditions	Disability	Pregnancy and the unborn child	Suicide	Crime and justice
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	✓	X	X	X	✓
36	National Police Custody Survey	NPCS	X	X	X	X	✓
37	Drug Use Careers of Offenders	DUCO	✓	X	X	X	✓
38	Drug Use Monitoring in Australia	DUMA	✓	X	X	X	✓
39	2001 New South Wales Inmate Health Survey	NSW–IHS	✓	✓	✓	✓	✓
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	✓	✓	✓	✓	✓
41	2002 Victorian Prisoner Health Study	VIC–PHS	✓	✓	X	✓	✓
42	NSW Young People in Custody Health Survey 2003	YPiCHS	✓	✓	X	✓	✓
43	NT Police Drug Seizure Data Base	NT PDSDB	X	X	X	X	✓
44	Illicit Drug Data Report collection	IDDR	X	X	X	X	✓

Appendix Table A3.7: Intervention, treatment services and resources for key data sources

No.	Collection name	Abbreviation	Options included in collection	Uptake	Affordability	Accessibility	Appropriateness	Treatment/ intervention outcomes	Expenditure on services
1	National Drug Strategy Household Survey	NDSHS	X	✓	X	X	X	X	X
2	Australian Schools Students Alcohol and other Drugs Survey	ASSAD	X	X	X	X	X	X	X
3	Illicit Drug Reporting System–Injecting Drug Users	IDRS–IDU	✓	✓	X	X	X	X	X
4	Illicit Drug Reporting System–Party Drugs Initiative	IDRS–PDI	✓	X	X	X	X	X	X
5	Indigenous Drug Injectors Study (South Australia)	IDIS	✓	✓	X	✓	✓	X	X
6	Australian Needle and Syringe Program Survey	NSP	X	✓	X	X	X	X	X
7	Youth Alcohol Consumption Research	YACR	✓	X	X	X	X	X	X
8	Alcohol and Other Drug Treatment Services National Minimum Data Set	AODTS–NMDS	✓	X	X	X	X	✓	X
9	Drug and Alcohol Service Report	DASR	✓	X	✓	X	✓	✓	✓
10	Brief Treatment Outcome Measure–Concise	BTOM–C	✓	✓	X	X	✓	✓	X
11	Central Australian Youth Link-Up Service Inhalant Substance Misuse Database	CAYLUS	✓	X	X	X	X	X	X
12	Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Health Survey 2004–05	NATSIHS	✓	✓	✓	✓	✓	X	X
13	ABS National Aboriginal and Torres Strait Islander Social Survey	NATSISS	✓	X	X	X	X	X	X
14	ABS 2001 National Health Survey	NHS	✓	X	X	X	X	X	X

(continued)

Appendix Table A3.7 (continued): Intervention, treatment services and resources for key data sources

No.	Collection name	Abbreviation	Options included in collection	Uptake	Affordability	Accessibility	Appropriateness	Treatment/ intervention outcomes	Expenditure on services
15	Western Australia Aboriginal Child Health Survey	WAACHS	✓	X	X	✓	X	X	X
16	Footprints in Time: the Longitudinal Study of Indigenous Children	LSIC	✓	✓	✓	✓	✓	X	X
17	Australian Longitudinal Study on Women's Health	ALSWH	✓	✓	✓	X	✓	X	X
18	Bettering the Evaluation and Care of Health	BEACH	✓	X	X	X	X	✓	X
19	Service Activity Reporting	SAR	✓	X	X	X	✓	✓	X
20	National Hospital Morbidity Database	NHMD	✓	X	X	X	X	X	X
21	National Mortality Database	NMD	X	X	X	X	X	X	X
22	National Coroners Information System	NCIS	X	X	X	X	X	X	X
23	National AIDS/HIV Registry		X	✓	X	X	X	X	X
24	National Perinatal Data Collection	NPDC	X	X	X	X	X	X	X
25	Kids Help Line Statistics	KHLS	✓	✓	X	✓	X	X	X
26	Lifeline Statistics (Call Database–Client Service Management Information System)		✓	✓	X	✓	X	✓	X
27	National Non-admitted Patient Emergency Department Care Database	NAPEDCD	✓	X	X	✓	X	X	X
28	New South Wales Population Health Survey	NSW–PHS	X	✓	X	✓	✓	X	X
29	Child and Adolescent Component of the National Survey of Mental Health and Wellbeing, 1998	NSMHW (C & A)	X	✓	X	✓	X	X	X

(continued)

Appendix Table A3.7 (continued): Intervention, treatment services and resources for key data sources

No.	Collection name	Abbreviation	Options included in collection	Uptake	Affordability	Accessibility	Appropriateness	Treatment/ intervention outcomes	Expenditure on services
30	National Survey of Mental Health and Wellbeing–Low Prevalence (Psychotic) Disorders 1997–98	NSMHW (psychotic)	X	✓	✓	✓	✓	X	X
31	National Community Mental Health Care Database–based on the National Minimum Data Set	NCMHCD	X	X	X	X	X	X	X
32	National Residential Mental Health Care Database	NRMHCD	✓	X	X	X	X	X	X
33	Supported Accommodation Assistance Program National Data Collection	SAAP–NDC	✓	X	X	✓	X	✓	X
34	ABS National Prisoner Census	NPC	X	X	X	X	X	X	X
35	National Prison Entrants' Bloodborne Virus Survey 2004	NPEBVS	X	✓	X	X	X	✓	X
36	National Police Custody Survey	NPCS	X	X	X	X	X	X	X
37	Drug Use Careers of Offenders	DUCO	X	✓	X	✓	✓	✓	X
38	Drug Use Monitoring in Australia	DUMA	X	✓	X	✓	X	X	X
39	2001 New South Wales Inmate Health Survey	NSW–IHS	✓	✓	X	✓	✓	X	X
40	2002 Queensland Women Prisoners' Health Survey	QLD–WPHS	✓	X	X	X	✓	X	X
41	2002 Victorian Prisoner Health Study	VIC–PHS	✓	✓	X	X	✓	X	X
42	NSW Young People in Custody Health Survey 2003	YPiCHS	✓	✓	X	✓	✓	X	X
43	NT Police Drug Seizure Data Base	NT PDSDB	X	X	X	X	X	X	X
44	Illicit Drug Data Report collection	IDDR	X	X	X	X	X	X	X

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