



SIGGINS MILLER

**Evaluation and Monitoring of the
National Drug Strategy 2004-2009**

Final Report

**Volume 2: Case studies, literature reviews,
and headline indicators**

Siggins Miller, April 2009

Table of contents

Case studies

Component 1 case study 1: National Alcohol Strategy 2006-2009	1
Component 1 case study 2: National School Drug Education Strategy May 1999	11
Component 2 case study 1: Project STOP	18
Component 2 case study 2: Non-Government Organisation Treatment Grants Program	30
Component 2 case study 3: Tobacco legislation	47
Component 3 case study 1: Psychostimulants Expert Reference Group	59
Component 3 case study 2: The advisory role of the NDRCEs in AOD workforce issues.....	68
Component 4 case study: The impacts of an NDS data collection: the IDRS/EDRS	74
Literature review summaries	84
A: Public policy practice	86
B: Service delivery systems	90
C: Resource allocation.....	96
D: Research into the effectiveness and cost-effectiveness of AOD interventions.....	99
Headline indicators for the NDS	110
Bibliography for Volumes 1 & 2	149

Case studies

Component 1 case study 1: National Alcohol Strategy 2006-2009

Background

Alcohol has substantial economic and social impacts in Australia: it is embedded in many aspects of cultural life and makes a significant contribution to the Australian economy. It is also associated with a wide range of health-related harms and community safety issues. The *National Alcohol Strategy: 2006-2009* (the Strategy) is therefore of particular interest and importance as a core sub-strategy of the *National Drug Strategy 2004-2009* (NDS).

Development of the Strategy (to replace the *National Alcohol Strategy 2001-2003/2004*) was proposed by the IGCD in September 2004 and endorsed by the MCDS in November 2004. Professor Margaret Hamilton presented the draft Strategy to the IGCD in September 2005. The final Strategy document and its public release were endorsed by the MCDS in May 2006.

Aims of the Strategy

The Strategy is intended as a plan for action with a focus on developing safer and healthier drinking cultures in Australia to prevent and minimise alcohol-related harm to individuals, families and communities.

It has four aims, which translate to four priority areas: (1) reduce the incidence of intoxication among drinkers, (2) enhance public safety and amenity at times and in places where alcohol is consumed, (3) improve health outcomes among all individuals and communities affected by alcohol consumption, and (4) facilitate safer and healthier drinking cultures by developing community understanding of the special properties of alcohol through regulating its availability.

A fifth component of the strategy ('Where to from here?') highlights the need for coordinated and integrated approaches (eg disseminating, communicating and promoting the Strategy, building partnerships, coordinating outcomes), building the research agenda, enhancing data collection and monitoring and evaluating the Strategy's impact on community drinking cultures.

Each priority area comprises a set of sub-areas with recommended responses that are presented along with supporting research evidence and examples of best practice. The four priority areas and their recommended responses cover: supply reduction, demand reduction and harm reduction interventions. They involve health, law enforcement and education sectors across different levels of government and non-government agencies and industry groups.

Purpose of the case study

This case study examines the extent to which the Strategy promotes coordinated or consistent approaches for alcohol-related strategies and policies across jurisdictions (Commonwealth, State, Territory and local government) for the health, law enforcement and education sectors.

Proposition tested by the case study

There is a difference between the *National Alcohol Strategy* document itself (an agreed position by the Australian Government and State and Territory Governments), and the Strategy as a set of actions and activities comprising its development, implementation, and evaluation. This case study deals with this second meaning.

The proposition to be investigated is that the Strategy in practice provides advice on coordinated and consistent approaches in alcohol-related strategies and policies across the jurisdictions – State, Territory and local government – for the health, law enforcement, and education sectors (including both government and NGOs).

For the purpose of this case study, we have considered the width and depth of interest group, expert, and public involvement in the policy development process – for example, in identifying the need for the Strategy, using evidence from scientific studies, and achieving a high level of agreement across jurisdictions and the public and private sectors (government

and NGOs). We have also considered how far the Strategy has been used to guide policy and program implementation, resource allocation and capacity development across the jurisdictions and sectors, and the extent to which the Strategy provides an integrated basis for evaluating outcomes.

Method

Content analyses of relevant documentation and informant interviews were used to test the proposition, and a set of research questions guided the document analyses and interviews.

Box 1: Research questions

- 1 To what extent does the Strategy cover the health, law enforcement and education sectors?
- 2 To what extent has the Strategy informed resource allocation and processes for the development, implementation and evaluation of alcohol strategies and policies at the State, Territory and local government levels?
- 3 What mechanisms or processes were used to disseminate and implement the Strategy at State, Territory and local government levels? How effective were these mechanisms?
- 4 To what extent has the Strategy (in its priority areas and recommended responses) been adopted by State, Territory and local governments?
- 5 Which aspects of the Strategy were readily adopted by State, Territory and local governments? Why?
- 6 Which aspects of the Strategy were more difficult to adopt by State, Territory and local governments? Why?
- 7 What mechanisms were used to adopt the strategy across the jurisdictions (eg through government services or partnerships with the non-government and private sectors)?
- 8 What are the similarities and differences in alcohol strategies and policies across State, Territory and local governments?
- 9 Are there alcohol strategies, policies or initiatives that occurred outside the framework of the Strategy? To what extent have they enhanced or diminished the aims of the Strategy?
- 10 What other factors (at the system, organisation, personnel and community level) influenced the Strategy's capacity to provide coherence in alcohol policies and strategies across jurisdictions and sectors?

The documents reviewed included the current and previous National Alcohol Strategy documents, and equivalent State, Territory and local government alcohol policy and strategy documents. Key international publications were reviewed on major components of contemporary national alcohol strategies and policies.

A set of discussion topics derived from the research questions were used to facilitate informant interviews¹. Informants included members of the Strategy's project development and advisory groups, and those involved in developing and implementing alcohol-related strategies and policies at jurisdictional levels. The latter group included representatives from law enforcement, health and education sectors and local government.

Representatives of the alcohol industry were also interviewed. Informants were initially identified by the evaluation team and reviewed by the Evaluation Project Working Group to ensure adequate representation of all interested parties.

Information gathered through the documentation review and informant interviews was synthesised using the research questions to guide analysis of the Strategy's role in achieving coherence as defined in this case study. Key themes and issues identified through the analyses were used to structure the report and address the research questions.

¹ See Appendix E for the Case Study interview protocol

Public policy challenges: The Australian context

The National Alcohol Strategy was not developed or implemented in a vacuum. The structure and nature of Australia's federal system of government constrain the possibilities for its development, processes for achieving high-level agreement on the Strategy, and approaches to implementation.

Context of federalism

In the context of the Australian federal system, the three levels of government – Commonwealth, State and Territory, and local government – have responsibility and accountability for different domains of public policy (health and aged care, education, infrastructure and regulation) as well as different components within each public policy domain.

The separation of responsibilities across levels of government also extends to alcohol-related policies and issues. For example, the issue of alcohol taxation is largely the responsibility of the Commonwealth government, but each State and Territory has its own liquor licensing legislation and regulations. Policing, treatment and educational approaches occur largely, but not exclusively, within state jurisdictions and community safety is often a local government concern.

Differences in, or conflicting priorities and interests among Commonwealth, State and Territory and local governments often occur. Furthermore, there are often differences of interest and priority between the public, private and non-government sectors. These differences create tensions over conflicts of interest and opportunities for collaboration that require negotiation to minimise barriers to consistency in policy and program development and implementation. Negotiating national policy and strategy requires political leadership, skilled public and private sector negotiators, clear structures in which negotiation can take place and well-articulated processes and accountabilities. The National Alcohol Strategy achieved its development through the leadership structures and processes set up under the MCDS.

History of drug strategies and policies in Australia

Over time, national drug strategies and policies in Australia (from the National Campaign Against Drug Abuse in 1995 to the current NDS) have developed approaches based on collaborations and partnerships across levels of government and sectors. It is accepted that a successful strategy usually requires the different sectors to be represented at the table. Agreement among key players in Australia over the guiding principle of harm minimisation in policy and the need for comprehensive strategies to address supply, demand and harm reduction have aided consensus building.

As a key sub-strategy under the NDS, the National Alcohol Strategy (in its various versions) adopts these approaches and stresses the need for integrated and coordinated responses. It is this that has made the Australian approach to national policy building, through the National Drug Strategy generally and the National Alcohol Strategy in particular, stand out in the international arena.

Alcohol strategies: the Australian approach

Achieving coherence is challenging given the realities of a federal system of government and the need for comprehensive strategy across demand and supply involving a wide range of players in the public and private sectors. It involves developing links among levels of government while maintaining the independence of each level, and reaching beyond government into the non-government and private sectors. A sound national strategy in a federal system should therefore provide clear and practical guidelines on how different levels of government and sectors can contribute and act to develop their own strategies and plans that contribute to overarching national goals.

The Strategy acknowledges the three-tiered system of government and the roles each level of government plays in alcohol-related policies and activities. At the national level, for example, the Strategy highlighted the importance of related national strategies (eg mental health, suicide prevention, road safety, injury prevention, nutrition); nationally relevant publications and resources on alcohol issues; and national bodies (eg ANCD, ADCA) in providing guidance and advice on alcohol policies and issues. Developing and implementing strategies to deal with alcohol-related harms and liquor licensing reviews were identified as the responsibilities of State and Territory governments. The role of local governments was recognised in direct service delivery and working with businesses and industry groups, community groups and residents in responding to alcohol issues at the local level.

The Strategy provides recommended responses that correspond to the roles and responsibilities at each level of government (as well as at the community level). The Strategy recognises, for example, the need for a national approach to the collection of alcohol wholesale sales data and other alcohol consumption data and nationally consistent training programs in responsible service of alcohol. At the State and Territory government level, the Strategy recommends the need to improve the enforcement of liquor licensing legislation and regulations and review liquor licensing laws. The Strategy also suggests ways in which local governments can be involved, for example, when exercising their building and planning authority and considering the costs and benefits of liquor licensing applications in their area. In addition, the Strategy identifies the need to involve the local community in processes such as in liquor licensing decision-making.

The Strategy also provides a wider understanding of the alcohol issue to provide opportunities for partnerships and buy-in from multiple sectors. Notably, the link between alcohol and crime provides an opportunity for the law enforcement sector to be involved. The enforcement component of the Strategy (eg liquor licensing regulations, blood alcohol content limits, penalties for drink driving offences) involves police, industry groups and liquor licensing authorities. Similarly, recommended responses associated with education and training highlight the role that the education sector can play in addressing the alcohol issue.

In light of the drug policy context in Australia, the Strategy allows for a wide range of approaches for action and for strategic collaborations to achieve national goals.

Impact of related policies

The Strategy adopts a public health approach while recognising the potential conflict of this approach with social values embodied in other areas of public policy, namely free trade, open markets, and individual freedom.

A key measure of policy coherence is the extent to which it accords or conflicts with other policies. The capacity of the Strategy to provide coherence in national and jurisdictional alcohol strategies and policies is complicated by other national and jurisdictional policies.

The National Competition Policy (NCP) was identified, both in the Strategy document and by informants, as a key policy that conflicts with alcohol strategies that attempt to regulate supply. The application of the NCP to the availability of alcoholic beverages has led to relaxation of laws governing the issue of alcohol licenses. Under NCP, alcoholic beverages are regulated in a manner similar to many other commodities, and so liquor licenses have been made available to a wide range of businesses. Each State and Territory also has its own liquor licensing authority to administer its liquor acts and regulations. Classification of licenses and associated characteristics (operating sites, trading hours) therefore vary markedly from jurisdiction to jurisdiction and location to location.

Strategies that restrict alcohol supply are in tension with economic benefits of the alcoholic beverages industry such as generating employment, retail activity, export income, and tax revenue. Evidence on the cost-effectiveness of taxation and other regulatory measures in reducing alcohol-related harm does not confirm the present policy setting (eg Room 2007). The challenge is to find the right balance between protecting the public and allowing free enterprise.

Perceived meaning and expectations of the Strategy

The value placed on the National Strategy differs across jurisdictions, sectors and interest groups. These groups understand the intent of the Strategy in different ways. Informant interviews provided a significant source of information on how the Strategy informs practical actions. Informants identified a number of ways in which the Strategy is currently used. These include:

- Providing a national view or position on alcohol-related issues and required actions - for example, making explicit the nature of issues, defining the problems to be addressed, and identifying broad future directions
- Setting a broad framework and set of principles to guide jurisdictional alcohol strategies and policies, and actions by other potential users of the Strategy such as the non-government sector
- Providing a reference point to support or advocate a particular approach such as intersectoral collaboration, or proposed resource allocation, policy or program development, and implementation in sectors such as police, health and education departments
- Providing a menu of evidence-based actions that various stakeholder groups may undertake

While informants generally agreed on the positive role of the Strategy as a broad, guiding framework, some believed the Strategy has had a limited role in either resource allocation decisions or fostering development and implementation of new plans in jurisdictions. Specifically, respondents cited the lack of a proactive dissemination and policy promotion strategy to ensure public accessibility of the Strategy and the use of well grounded interventions by relevant groups and organisations.

Further, informants noted that common mechanisms for delivering and evaluating the Strategy (eg budgetary implications, performance indicators), were not included in the Strategy document.

Many informants expressed the need for the Strategy to:

- function as, or at least lead to, action and implementation plans
- have a more prescriptive role, for example, by setting priorities for recommended responses or action areas and specifying how resources should be allocated across different priority and action areas
- set performance targets, minimum requirements or data indicators; if not at the national level, then at least within the jurisdictions.
- address mechanisms for aligning budgets at different levels of government with strategic intent and goals of the National Alcohol Strategy. The lack of budgetary implications of the Strategy was identified as a key barrier to the uptake of the Strategy at jurisdictional levels.

By contrast, some informants believed the non-prescriptive nature of the Strategy is valuable and appropriate in the Australian political environment, and specifications about resource allocation and performance indicators are neither practical nor essential in the Strategy document.

Informants' differing views about the relative strengths, weaknesses and (actual and potential) impact of the Strategy reflect different beliefs about the meaning, value and functions of a national alcohol strategy.

These expectations about what a national strategy can achieve are more practical within a single national government such as the United Kingdom. For example, the UK National Alcohol Strategy document (UK Department of Health 2007) specifies the delivery mechanisms, governance arrangements, budget allocations and performance targets. It also

specifies data sources and indicators for developing, implementing and evaluating their Strategy. Given the reality of the Australian federal system, it is neither practical nor useful to have a national strategy that is prescriptive in resource allocation and accountability, since these are matters within the preserve of different jurisdictions.

The Strategy document can be seen, instead, as a general agreement about the approaches to, and direction of, actions required to address alcohol-related harm in Australia. The broad and non-prescriptive nature of the Strategy document facilitates buy-in to the Strategy by stakeholders across multiple jurisdictions and sectors and allows for flexibility and tailoring of responses at the jurisdictional level.

The policy cycle

The coherence of the Strategy in terms of its development, implementation and evaluation is assessed using a policy cycle approach (see Althaus *et al* 2007). In the real world, policy making processes do not fit neatly into a convenient set of boxes, but are often influenced by the ebb and flow of sectional interests and political considerations. Nevertheless, the framework can provide a useful normative way of breaking down the policy process into manageable component parts – strategy development, strategy implementation, and strategy evaluation.

Strategy development

The Strategy Development Team was established with input from IGCD and supported by a Project Management Group and four advisory groups. It was responsible for developing the Strategy. The four advisory groups included representatives from a variety of jurisdictions, sectors and relevant industry groups: (1) the Health and Social Issues Advisory Group, (2) the Research Advisory Group, (3) the Alcohol Beverage and Hospitality Advisory Group and (4) the Regulation, Enforcement and Public Amenity Advisory Group.

The Strategy was developed in a collaborative approach involving Australian governments, non-government groups, industry partners, and the broader community. This approach allowed for avenues of influence across the spectrum of stakeholders in a coherent and expert-oriented way.

A comprehensive review of 250 new research reports, articles and books was conducted to inform the development of the Strategy in conjunction with an extensive national consultation process with over 1000 key stakeholders. Consultation methods included meetings with special interest groups and national bodies, national consultation forums, feedback forms and written (paper and online) submissions. The key stakeholders included content experts, position experts (eg government officers) and members of the general community.

This consultation process facilitated an understanding of perspectives across jurisdictions, disciplines, and public concerns by allowing the cross-fertilisation of ideas and informing stakeholders about the views of others. The process was modelled on good policy-making practice - comprehensive in nature in engaging the various communities of interest, and educative in enabling informed discussions about alcohol-related issues and intervention strategies. These were critical to the consensus and policy building process. The Strategy document can be seen as a product of the discussions and negotiations among a wide range of stakeholder groups, that is, as a consensus document developed within the framework of the elected government.

The consensus of informants was that the Strategy developed through an evidence-based, consultative and collaborative process, and the Strategy document was comprehensive in its content, coverage and balance of policy responses. Some informants believed the balance of supply, demand and harm reduction strategies did not align with evidence, which they thought indicated a need for greater emphasis on supply reduction strategies through regulation and restriction of alcohol supply, including taxation reform.

Coherence, then, is the product of negotiated consensus as well as interpretation and application of research evidence. Negotiated consensus is inevitably arrived at through trade-offs of conflicting interests.

Dissemination of the Strategy

While informants who were closely involved in the development or implementation of the Strategy were positive and knowledgeable about the contents of the Strategy, many raised the need for the Strategy to reach the wider population.

The MCDS endorsed the final Strategy and its public release in 2006. The Strategy document identified a number of mechanisms to facilitate its implementation. They included 'disseminating, communicating and promoting the Strategy nationally to key stakeholders' (31). No clearly identified proactive dissemination and promotion plan was developed for the Strategy.

The Strategy document was made available online and hence accessible to the general public, 1,000 copies were mailed out to key stakeholders, and copies were supplied to IGCD members for further distribution.

However, its dissemination and promotion needed to go further than simply making the document available; it also needed to include deliberate actions that promoted its use as a national consensus statement that could be used in action planning. For a national strategy to have a diverse range of stakeholders onboard, it is necessary to move from passive to active dissemination.

Despite the lack of an active, formal dissemination of the Strategy, there is evidence that the document has been used to advocate policy positions. This suggests that it is being disseminated informally, and having some influence across jurisdictions and sectors.

Implementation of the Strategy

Much of the practical coordination, decision-making, implementation and evaluation of the Strategy are the responsibility of the public sector in various jurisdictions (police, health, and education). This is where resource allocation and implementation planning occur at State level in the Australian federal system.

The Strategy documents states 'that the responsibility for action...rests with government agencies at all levels, the community sector, business and industry, the media, research institutions, local communities and individuals' (31).

Informants highlighted the lack of an implementation plan as a key gap in the Strategy's development process. Nevertheless, there are documents indicating that in November 2005 the IGCD agreed to develop an implementation plan for the Strategy. This included a table allocating responsibility for progressing recommendations within the Strategy at national and jurisdictional levels. In February 2006, the IGCD agreed to seek MCDS's endorsement of the draft implementation plan and its financial implications at its May 2006 meeting. In September 2006, the IGCD noted local government's response to a national approach to implement the Strategy, and in May 2007 the MCDS noted progress against the five national priority reporting areas under the Strategy. Implementation processes were thus planned for the Strategy by the NDS advisory structures, but it is unclear whether the implementation plan for the Strategy was endorsed by the MCDS or, if endorsed, disseminated.

Many informants perceived a lack of leadership in facilitating the uptake and implementation of the Strategy. While the Strategy document was intended as a plan for action, informants generally did not perceive the document as an action plan (some noted that the previous National Alcohol Strategy (2001-2003/004) was accompanied by '*A Plan for Action 2001-2003/2004*').

Given the timing and timeframe of the Strategy document, it was preceded in some cases by State and Territory alcohol-specific strategy documents or action plans. Relevant strategy documents or action plans for each State and Territory were:

- *Queensland Alcohol Action Plan 2003/2004-2006/2007* – This makes reference to the *National Alcohol Strategy 2001-2003/2004* and follows the approach/priority areas of specified in its Plan for Action document
- *Western Australian Alcohol Plan 2006-2009* – covers the same timeframe as the current National Alcohol Strategy and adopts the focus on developing a culture of responsible alcohol use
- *Tasmanian Drug Strategy: 2005-2009* – identified and proposed the need to develop and implement an Alcohol Action Plan
- *The Victorian Alcohol Strategy: Stage One (2002)* was compiled to initiate the development of the *Victorian Alcohol Action Plan*. In the *Victorian Department of Health Services Plan 2007-2008*, the development of the *Victorian Alcohol Action Plan* was identified as a priority
- South Australia currently does not have an Alcohol Strategy, but in light of recent and increasing attention to the social impact of alcohol, the inter-ministerial committee has been re-established to prompt the development of the *South Australian Alcohol Action Plan*, which will sit under the *South Australian Drug Strategy* and the current *National Alcohol Strategy*
- *ACT Alcohol, Tobacco and other Drug Strategy 2004-2008* – has a set of actions specific to alcohol (makes reference to the *National Alcohol Strategy 2001-2003/2004*)
- *NSW Drug and Alcohol Action Plan 2006-2010* – has a set of actions specific to alcohol
- *NT Building healthier communities: A Framework for health and community services 2004-2009* – identifies tackling substance abuse as a key area with a focus on Indigenous population

While State and Territory documents did not always directly refer to the National Strategy document, the Strategy did influence their alcohol strategies and policies because of the extensive consultation process in its development. During this process, State and Territory inputs would have been incorporated into the final document. In other words, the process of influence is multi-directional - some State strategies preceding the national effort, some occurring after, and some appearing at about the same time. This is the type of policy making one would expect in a truly interactive Federal system.

The Strategy, above all else, is a consensus document that has an evolving role in shaping State and Territory alcohol policies rather than a static policy statement. It is not surprising, therefore, that generally speaking State and Territory documents align with the Strategy in their emphasis on collaborative and integrated approaches, and developing tailored community initiatives.

A mixture of supply, demand and harm reduction strategies can be found in all State and Territory documents. However, the balance among these three types of intervention strategies varies across jurisdictions. NSW, for example, has focused largely on demand (prevention) and harm reduction (treatment) responses. While the (national) Strategy document allows jurisdictions to select from its recommended responses, there is a risk that the balance of strategies represented in the Strategy document may not be accurately reflected at the State and Territory level. There is no guarantee that picking and choosing from a range of options will necessarily achieve the stated National Alcohol Strategy goals.

Each State and Territory also identified their own governance arrangements or structures for overseeing implementation of their respective strategies. The level of detail varies considerably among documents. For example, the ACT and NSW documents identify the responsible or lead agency, and provide descriptions of the various government and non-

government agencies involved in implementing the recommended actions to reduce alcohol-related harm.

In summary, the National Strategy may guide and inform implementation in State jurisdictions because it is derived through consensus building with the States and Territories and other parties. However, key public policy implementation aspects such as resource allocation around priorities depend upon matters specific to each individual State.

Evaluation of alcohol strategies

The Strategy specified the need to evaluate its impact on drinking cultures and recommended that jurisdictions share best practice examples of programs and strategies (31). While the Strategy did not specify performance targets on data indicators, it outlined the need to strengthen data collection. In particular, it advocated the need for:

- a nationally consistent approach to the collection of alcohol wholesale data and other appropriate measures of alcohol consumption in consultation with stakeholders
- a national approach to collection of alcohol-related offence information
- data collection opportunities by hospital and emergency departments re: alcohol-related presentations and admissions, including place of last drink
- opportunity to collect local data for targeted actions.

All jurisdictional strategy documents also specify the need for evaluation. Performance targets and data indicators at the jurisdictional level are identified. Again, however, there are variations in the type and range of indicators used between jurisdictions that can be partially attributed to differences in jurisdictional priority areas and recommended actions. Queensland, for example, adopted six indicators from the National Data Indicators Project, while WA specified 16 performance indicators in its Action Plan document.

The Strategy provides coherence in terms of the need for policy, but it does not set performance targets or timelines (other than that all recommended responses are achievable within the Strategy timeframe). Nor did it attempt to specify for the States and Territories what would constitute as a fair and reasonable reporting approach, reflecting the independence of jurisdictions.

In summary, the Strategy document broadly articulates the need to implement and evaluate the alcohol strategies and policies at the jurisdictional level. However, because decisions on the development, implementation and evaluation of alcohol strategies lie with State and Territory governments, the strategy was not specific about accountability at the national level.

Summary and observations

The present case study examined the role that the National Alcohol Strategy plays in providing coordination or integration in alcohol strategies and policies across jurisdictions and sectors. Based on the analyses of relevant documentation and informant interviews, there has been a coherent process of consensus building about the Strategy, but little consistency in the implementation and evaluation of the Strategy. In summarising findings, the following points and observations emerge:

1. The Strategy's strengths in facilitating a common approach lie in its consensus building in policy, not only through the depth and width of its engagement strategy, but also the extensive use of an evidence base. It has therefore performed as a useful guide that offered a range of evidence-informed action. The relative preference of evidence-based interventions outlined in the Strategy is perhaps tempered by the need for the final document to be acceptable to a wide and diverse group of stakeholders. Nevertheless, the suggested actions covered health, law enforcement and education sectors. They also addressed issues for the jurisdictions, and allowed buy-in by the community sector and alcohol industry. Consensus building by engaging a wide and diverse group of

stakeholders enhances a national strategy's capacity to be a useful guide that provides agreed options for evidence-informed action.

2. A wide range of sectors and groups participated in developing the Strategy document, but the absence of an active dissemination and promotions plan limited opportunities for a national implementation of effort across jurisdictions and sectors. The Strategy was disseminated to policy makers but not further afield. As a result, the effects of a national strategy and its use in planning actions in the non-government and private sector are more likely to depend on individual effort and informal processes of influence.
3. The adoption of the Strategy in jurisdictions was influenced by the continuing cycle of policy development that preceded the MCDS endorsement and public release of the Strategy. This process sometimes ran in parallel with the Strategy, and sometimes was influenced by events and decisions at State and Territory level after the Strategy's release. The influence of a national strategy on jurisdictional strategies and policies is thus iterative and bi-directional.
4. Emerging from these findings is the question: How to develop in the Australian context a national strategy that goes beyond consensus building in its development? What the Strategy did not clearly articulate was the mechanisms for aligning resource allocation and effort at different levels of government with the strategic intent and goals of the Strategy. It is a difficult task to achieve such alignment in a federal system of government because of the independence of States and Territories. Yet if a national strategy is to achieve anything beyond consensus building, it requires alignment between resources and strategic intent. Achieving this alignment is often an iterative process negotiated at jurisdictional level through performance planning in police, health and education and other relevant sectors.
5. Finally, a coherent approach to the evaluation of the impact of the Strategy requires development of evaluation processes and related indicators that are not outlined in the national evaluation document. Processes and indicators need to be aligned to the strategic intent of the national effort, namely development of safer and healthier drinking cultures. The priority areas outlined in the Strategy document should provide a starting point for developing processes and indicators – namely, improvements in (1) the incidence of intoxication among drinkers, (2) public safety, (3) health outcomes among all individuals and communities affected by alcohol consumption, and (4) cultural drinking practices.

National strategies vary in their content and intended roles, and hence their outcomes. A national strategy can have a facilitating role that offers a consensus statement, a set of principles, and a sound evidential basis for strategies and interventions. It can also have a strategic role in implementation by actively creating opportunities to link principles and evidence-informed practice to programs and initiatives through specific resource allocation, performance targets, outcomes and timelines.

This case study has found that the National Alcohol Strategy has a facilitating role, but it does not fulfil a strategic implementation role. Informants are divided in their hopes and aspirations for the Strategy, and there is debate regarding its role. For a national strategy such as this to catalyse consistent implementation and sound evaluation of associated programs and initiatives, it is important to take a role that extends beyond facilitation alone.

Component 1 case study 2: National School Drug Education Strategy May 1999

Aims of the Strategy

Drug use and misuse have significant effects on health, social, and educational outcomes for young people. As part of a larger effort to tackle drug issues through education initiatives, schools have an important role in educating young people about drug-related harm.

The *National School Drug Education Strategy: May 1999* sought to strengthen educational programs and supportive environments for young people by addressing drug issues in the school setting. Its goal was ‘no illicit drugs in schools’, which the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) endorsed in December 1997.

The stated purpose of the Strategy was to ‘provide a broad statement of principles and strategic intent for Commonwealth initiatives and funding under the National Illicit Drug Strategy in the area of school drug education’ (DETYA 1999). Acknowledging that primary responsibility in this area rested with the States and Territories, the Strategy recognised the need for a national approach to new school drug education initiatives, and an integration of existing programs. These actions were intended to enhance resilience among young people, prevent drug experimentation and use, and provide appropriate referrals and interventions.

A total of \$47.5 million was provided from 1999 to 2008 for school drug education through the Strategy.

The Strategy focused on preventing drug use and misuse by school students through preventive school drug education programs, and through national protocols and supporting initiatives to help school communities develop better ways of handling drug use. The Strategy has eight objectives:

1. Support the development of safe school environments for Australian school students
2. In conjunction with students, parents, related agencies and the broader school community, develop initiatives, programs and guidelines to support and enhance State and Territory drug education strategies
3. Identify, disseminate and promote the use of good practice models of school drug education policies, programs, curriculum and resources
4. Enhance the range of drug education curriculum materials and resources
5. Enhance the professional practice of teachers and school support staff and support the training of pre-service teachers
6. In partnership with other stakeholder such as health, inform, engage and involve parents about drug-related issues
7. Observing community cultural protocols and in conjunction with students, parents and the broader school community, identify areas of particular need and provide strategies for regions and/or targeted groups
8. Maintain and strengthen the role of research in the development and delivery of school drug education programs to ensure that school-aged children are included in other relevant research under the National Drug Strategy

The Strategy document outlines its rationale, target audiences, process of development, funding sources, key activities, its implementation (for example, by the National Advisory Committee on School Drug Education, and State and Territory School Drug Education Coordinating Committees), and its evaluation mechanisms (outcome areas and performance indicators). It also provides a set of principles for school drug education (*Principles for Drug Education in Schools*, Ballard *et al* 1994), many of which relate to good practice in program design, teaching methods and health education rather than drug-specific education.

Purpose of the case study

The purpose of this case study was to examine how the Strategy influenced the ways drug issues were addressed in schools across the various levels of government and the three main school systems (government, independent and Catholic). It also examined how provision of financial and other resources influenced and promoted national consistency through the Strategy. The study addressed the extent to which development of the Strategy has positively influenced school drug education throughout Australia and resulted in a nationally consistent approach.

There is a difference between the *National School Drug Education Strategy* document itself (an agreed position by the Australian Government and State and Territory Governments), and the Strategy as a set of principles, actions and activities comprising its development, implementation, and evaluation. This case study deals with this second meaning.

We have considered the width and depth of interest groups, expert, and public involvement in the policy development process – for example, identifying the need for the Strategy, using evidence from scientific studies, and achieving a high level of agreement across jurisdictions and the three school systems. We have also considered how far the Strategy has been used to guide policy and program implementation, resource allocation and capacity development across States, Territories and school systems, and provide an integrated basis for evaluating outcomes.

Method

We analysed relevant documentation and information from informant interviews. The documents reviewed included the current *National School Drug Education Strategy* and equivalent State and Territory government documents on school drug education strategy and policy. Key national and international publications on contemporary school health and drug education strategies, policies and practices were also reviewed.

A set of discussion topics derived from the research questions was used to facilitate informant interviews². DoHA, with the advice of the PWG provided a list of informants for the evaluation. They included people involved in developing and implementing the Strategy at federal, State and Territory levels, researchers and content experts in health and drug education, representatives of the public, independent and catholic school systems, and youth and parent organisations.

Research questions

- 1 What are the strengths or benefits of the Strategy? What are the limitations of the Strategy?
- 2 What mechanisms or processes were used to develop the Strategy? How effective were these mechanisms?
- 3 What mechanisms or processes were used to disseminate the Strategy at the State and Territory levels, and across the three school systems? How effective were these mechanisms?
- 4 How has the Strategy informed resource allocation and processes for the development, implementation and evaluation of school drug education policies and strategies at the State and Territory levels and across the school systems?
- 5 What are the similarities and differences in school drug education strategies and policies across the States and Territories and the school systems?
- 6 To what extent does the Strategy reflect international best practice in school drug education, and what mechanisms were used to help achieve this goal?
- 7 To what extent has the Strategy been able to address the needs of the various members of school communities, including schools, teachers, students, parents and local communities in different environments (eg rural areas, Indigenous communities, cultural groups, across age groups)?
- 8 How have the funds made available under the Strategy been used to advance its aims?
- 9 What other factors (at the system, organisation, personnel and community level) influenced the Strategy's capacity to provide national consistency in school drug education policies and strategies?

² See Appendix E for the case study interview protocols

We used the research questions to analyse the information drawn from the documents and interviews in order to the Strategy's role in achieving national consistency and increasing school's capacity to address drug issues and provide drug education.

Australia's National School Drug Education Strategy

Overview

The *National School Drug Education Strategy* was endorsed by the MCEETYA and released in 1999. The Strategy was developed by the National Advisory Committee on School Drug Education (NACSDE), which comprised Commonwealth and State and Territory officers, content experts, law enforcement, and representatives of the public independent and Catholic school sectors, as well as members of principal, teacher and parent organisations and the community. The Strategy document was finalised following a 10-week public consultation process on the draft Strategy document, during which a total of 113 submissions were received.

In comparison with other sub-strategies under the NDS, the management of the *National School Drug Education Strategy* occurs largely outside the NDS advisory structure. Although DEEWR is represented at IGCD meetings, and the role of drug education in the NDS is widely acknowledged, the Strategy does not appear to have been a major focus of the IGCD.

The Strategy is implemented through the DEEWR and the State and Territory School Drug Education Coordinating Committee. This coordinating committee comprises approximately 25 members representing drug education program managers across the public, independent and Catholic school systems, and meets biennially.

The *National School Drug Education Strategy* can also be distinguished from other sub-strategies under the NDS in two main ways. First, it not only provides a set of principles, approaches and objectives for school drug policy and education; it also specifies the outcome and performance indicators for each of its objectives. Since its commencement, the Strategy has undergone two evaluations - in 2004 and 2008.³ Additionally, financial resources were provided through the Strategy to support its implementation.

'No illicit drugs in schools'

Developed in the context of the *National Drug Strategic Framework 1998-99-2002-03* (NDSF) and the *National Illicit Drug Strategy* (NIDS), the *National School Drug Education Strategy* is also linked with the COAG *Tough on Drugs in Schools Initiative*.

The Strategy's goal of 'no illicit drugs in schools' reflects this policy context – specifically, the 'tough on drugs' or zero tolerance approach to drugs then taken by the Australian Government. Nevertheless, the shift from the harm minimisation and reduction focus of the *National Initiatives in Drug Education* (NIDE, the Strategy's predecessor) to the Strategy's 'tough on drugs' position was widely perceived to have created tension and confusion among those implementing the school drug education.

The majority of informants expressed concern about the appropriateness and current relevance of the Strategy's goal for school drug education in Australia. In particular, many believed the Strategy's goal did not reflect evidence on best practice, or the reality of drugs issues facing schools. The zero tolerance approach was perceived to contradict the harm minimisation approach to school drug education that had been promoted and adopted through the NIDE. Further, informants consistently pointed out that the emphasis on illicit drugs was contrary to evidence indicating that alcohol was the primary drug of concern for schools.

Although the Strategy identified the need to include education about other drugs (alcohol, tobacco, performance and image enhancing drugs and other substances such as inhalants), and also strategies to prevent drug use as well as reduce drug-related harm, informants perceived a

³ The 2008 evaluation report was not yet available for review in this case study

need for greater alignment between the Strategy's overarching goal and evidence and practice.

In practice, implementation of school drug policy and education under the Strategy continued to follow a harm minimisation approach, which was widely endorsed by stakeholders in the education sector. Informants also agreed that the Strategy provided flexibility for States and Territories to pursue specific priorities and needs in school drug education.

The capacity of the Strategy to accommodate the then Australian Government's position while allowing scope to implement sound evidence-based approaches can be seen as a strength of the Strategy. However, disjunction between the Strategy's goal and its practical implementation was perceived by some informants to limit the Strategy's capacity to provide leadership and strategic direction in school drug education.

Impact of the Strategy

Over a period of nearly a decade, the Strategy has facilitated national consistency in school drug education and enhanced the capacity of schools to address drug issues by providing a range of resources at the national level.

Principles and approaches

The *Principles for Drug Education in Schools* (Ballard *et al* 1994; DEST 2004), which underpins the Strategy, has provided a useful set of evidence-based principles for design and delivery of school drug policies and education programs across States and Territories and the three school systems. These principles have been widely disseminated, endorsed and applied in the design of school drug policy and education across jurisdictions and school systems. By promoting the principles of harm minimisation, whole of school approaches, and developing resilience, the Strategy has played an important role in facilitating national consistency. However, some content experts we interviewed thought these principles should now be reviewed so that they align with the best contemporary evidence on drug education.

There was evidence that the cooperative, coordinated and intersectoral approach to drug education advocated by the Strategy has been adopted at State and Territory level. There have been regular formal meetings and informal discussions between DEEWR officers and State and Territory education authorities, as well as between government education officers and representatives of the three school systems within each State and Territory.

The network of communication also extends to a larger community of practice. These cooperative and close working relationships facilitated the development of shared values, understanding and respect, which enhanced the capacity of the Strategy to achieve national consistency in effort while responding to jurisdictional needs and set priorities. Many informants attributed the success of the Strategy - in particular, its longevity and the wide dissemination and uptake of its principles and resources - to the strength of these relationships.

Financial and other resources

In addition to providing guiding principles and approaches for school drug education, practical implementation of the Strategy has been supported by financial and other resources provided to the States and Territories.

Approximately \$18 million was provided by the Australian Government to DETYA to develop and implement the Strategy over four years from 1999 to 2002-2003. Following an evaluation of the Strategy at the end of this period, funding was provided for an additional four years (to the end of 2008). In total, \$47.5 million has been allocated for school drug education through the Strategy from 1999 to 2008. With the Strategy now built into the core funding of DEEWR, the basis on which the Strategy is funded has become ongoing rather than time-limited.

Generally these funds were to be used within a 12-month period. They provided for nationally strategic projects as well as proposals for funding submitted at the State and Territory level. State and Territory school drug education officers said their capacity to plan and achieve the intended outcomes was often limited when funding was tied to a 12-month timeframe. They emphasised the need for longer-term funding to enable adequate planning, and welcomed the recent shift to a four-year funding period.

Through the Strategy DEEWR commissions projects and assesses and makes recommendations on funding submissions, with the assistance of relevant experts and practitioners in the field. A significant proportion of funding has been used to develop and disseminate a range of national resources to support the delivery of school drug education. These resources include information and education materials (books, videos, CD-ROMs, websites) that target primary and secondary school students and staff, parents, as well as professional development resources for teachers. Key national resources include:

- Resilience Education and Drug Information (REDI) resources
- Keeping in touch (The KIT): Working with Alcohol and Drug use
- Cannabis and consequences
- Rethinking Drinking
- Indigenous Rural and Remote

In addition, funding provided through the COAG *Tough on Drugs in Schools Initiative* has contributed to the development of the *National Framework for Protocols for Managing the Possession, Use and/or Distribution of Illicit and Other Unsanctioned Drugs in Schools* (DEST 2000) to ensure consistency in responses to drug-related incidents in schools. This funding has also been used to develop education resources and materials to support the design and implementation of local school and community drug summits.

Apart from these national resources, some States and Territories have also developed specific school drug education resources to meet their specific needs.

According to an evaluation of the Strategy and the COAG *Tough on Drugs in Schools Initiative* (Health Outcomes International 2004), funding provided to States and Territories between 1999 and 2003 was used for a range of activities that addressed various aspects of the Strategy's objectives. These activities include:

- Professional development resources and training for educators
- Research, data collection and evaluation
- Resource material development and dissemination
- Local school and community drug summits (COAG activities)
- School drug policy development
- Implementation of specific drug education programs

Informants agreed that the national resources were generally based on sound evidence and were well-received and highly accessed by schools.

While these resources were clearly identified as a major achievement of the Strategy, informants stressed the need for professional development and training to accompany the resources. Resources unaccompanied by professional development were less likely to be used. In particular, resources that were distributed to schools directly, rather than through States and Territory education authorities, were less likely to be supported by professional development. In line with this view, professional development has now become the primary focus of funding provided through the Strategy.

The Strategy's national resources have contributed to many similarities in approach, but there have been notable variations in how school drug education is implemented, between and within States and Territories. These variations can be attributed to how school drug education

programs are integrated into the curriculum. Differences among States and Territories in their geography, main drugs of concern, specific sub-population groups, workforce capacity and funding priorities influence the nature and extent of school drug education activities in each jurisdiction.

For example, Queensland and Northern Territory have both developed projects that target school drug education for Aboriginal and Torres Strait Islander groups. With additional state funding for school drug education, Victoria, South Australia and Western Australia have been able to undertake research, resource development and support activities to meet specific needs in addition to national initiatives. Implementation of the Strategy in smaller jurisdictions and those that receive only federal funding focuses largely on implementing national initiatives and disseminating national resources.

Across schools, a range of factors influence the nature and quality of school drug education programs delivered. These factors include competing priorities (for example, with literacy programs), and perceptions of the importance of drug education by the school community. The attitudes, experience and competence of the teachers delivering drug education, the availability of professional development and training, and the capacity of teachers to undertake professional development have important implications for the quality of drug education provided to students.

In summary, it is evident that the financial resources and other support materials provided at the national level have been critical in supporting implementation of the Strategy, especially for those jurisdictions and schools that receive no other sources of funding.

The 2004 evaluation of the Strategy assessed the progress made towards achieving each of its objectives. It found that the principles, approaches and resources developed and disseminated have been widely adopted at State and Territory level, and that the Strategy has supported the design and delivery of evidence-based school drug policy and education programs. It identified a need to extend the coverage of school drug education, and made recommendations on maximising the use of resources, greater sharing of information and best practice across States and Territories, developing a comprehensive approach to professional development, providing training of pre-service personnel, stronger engagement of parents, improving performance measurements, and efforts to meet the needs of specific population groups and local contexts.

Future needs and challenges

This case study identified a number of future needs and challenges in school drug education in Australia.

The Strategy has increased the profile of school drug education in the broader program of effort to tackle drug issues in Australia. However, many informants emphasised the need to have realistic expectations about the impact that schools can have on substance use behaviour among young people – both during and beyond their school years. In particular, they pointed to the wide range of factors that influence the uptake of drugs among adolescents, many of which occur outside the school environment.

There is a large body of research on school drug education, most of which provides only limited support for the efficacy of school drug education programs. Although the principles and approaches, and resources developed through the Strategy are evidence-informed, it remains a key challenge to ascertain the fidelity of implementation and the effectiveness of school drug education programs implemented through the Strategy. Many informants thought the performance indicators specified in the Strategy document do not address the quality of drug education provided in schools.

Some informants highlighted the need for active dissemination and implementation of good practice based on the most up-to-date research evidence. There was also a perceived potential for the Strategy to have a greater role in supporting research and evaluation of effective

school-based drug education programs in Australia and facilitating national implementation of programs that are demonstrated to be effective in Australian schools such as the School Health and Alcohol Harm Reduction Project (SHAHRP, McBride *et al* 2004).

To enhance the implementation and outcomes of the Strategy, there is a need to ensure adequate investment in classroom teachers as well as school management, including school and parent leaders. Informants uniformly highlighted a need for greater investment in professional development for teachers to ensure that school drug education resources are used appropriately. Some informants identified a need to build the workforce capacity for school drug education, for example, through the training of pre-service teachers.

Given that drug use and other physical and mental health outcomes share a set of risk and protective factors, a number of informants also perceived a need for greater cross-fertilisation of fields (for example, with mental health and health promotion).

While the value of school drug education is widely acknowledged, many informants also recognised the challenge in doing drug education in schools that have an overcrowded curriculum. Given this challenge, some informants highlighted the need to integrate drug education in the existing curriculum as much as possible to minimise the burden for schools.

There also seems to be a challenge for a Strategy with a long timeframe to remain relevant, provide strategic direction, and be responsive to changing needs. Regular communication between DEEWR officers and State and Territory education authorities has helped meet jurisdictional needs, but some informants indicated that funding had recently become more *ad hoc*, and the Strategy needed to be reviewed if it was to provide strategic directions for the future.

Summary and observations

This case study examined the influence of the *National School Drug Education Strategy* on school drug education nationally. Based on the analyses of relevant documentation and informant views, we conclude that, though the provision of financial and other resources, the Strategy has facilitated a consistent approach to school drug education nationally and enhanced the capacity of schools to develop and implement evidence-based school drug policy and education.

There was disagreement among informants about the appropriateness of the Strategy's goal, in particular, its zero tolerance rather than harm minimisation approach, and its focus on illicit drugs rather than alcohol and tobacco. Nevertheless, all agreed that the Strategy has contributed positively to school drug education in Australia.

The Strategy has positioned the federal Government as a resource provider - through both financial resources and the development of a wide range of evidence-based resource materials to support the delivery of school drug education programs. The Strategy has therefore an important facilitative role in providing guiding principles and approaches to school drug education, and an implementation role in the delivery of school drug education.

In addition to federal funding for school drug education, which is critical for implementing the Strategy at the jurisdictional level, positive relationships and regular communication between DEEWR and representatives of State and Territory education authorities across the three school systems have also been instrumental in achieving the intended outcomes of the Strategy.

Component 2 case study 1: Project STOP

Aims of Project STOP

Project STOP aims to reduce diversion of pseudoephedrine-based medications into illicit drug manufacture by:

- enhancing pharmacists' ability to identify suspicious requests for medications containing pseudoephedrine, and determine whether customers seeking to purchase pseudoephedrine products were legitimate or illegitimate users
- providing intelligence to police and health agencies about 'pseudo runners' and 'rogue pharmacies'
- complementing related measures under the National Precursor Strategy.

Project STOP delivered an online and real-time recording system that allowed pharmacists to record identification of purchasers of pharmaceutical products that contained pseudoephedrine. It helps control of access to pseudoephedrine-based products that might be used for illicit purposes, while recognising legitimate therapeutic needs for such products.

The policy context of Project STOP

In 2004, reports from law enforcement agencies estimated that around 90% of pseudoephedrine used in illicit laboratories was sourced from community pharmacies, linked to a more than six-fold increase in clandestine laboratory detections in the previous ten years.

Building on the achievements of the PGA's national awareness raising program 'Pseudo Watch', the Queensland Branch of the Pharmacy Guild (PGAQ) independently initiated and fully funded a more sophisticated method of controlling the sale of pseudoephedrine sourced from community pharmacies, titled Project STOP. The Guild implemented Project STOP in Queensland with an investment of about \$500,000 for support staff and development of a web-enabled database. The Project was the subject of a joint launch by the PGAQ and the Queensland Police Service (QPS) in November 2005. Health and law enforcement partnered to disseminate Project STOP information as part of their core business.

The *National Strategy to Prevent the Diversion of Precursor Chemicals into Illicit Drug Manufacture* (the National Precursor Strategy) was adopted as an initiative under the NIDS. The National Precursor Strategy was developed and implemented by the federal Attorney-General's Department. The Australian Government committed \$5.4 million over five years to the National Precursor Strategy from 2003-2008. In 2007, the Commonwealth Government provided the National Precursor Strategy with recurrent annual funding of approximately \$1.1 million.

A Precursor Working Group was established in September 2002 with members from law enforcement, health, and industry. From the outset, it focused on the diversion of pseudoephedrine and other precursor chemicals not only from illegitimate sources, but also from legitimate outlets including pharmacies. It has overseen a variety of projects to reduce the availability of key precursors and related equipment under four broad outcome areas, one of which was: National regulatory approaches to control access to chemicals and equipment while recognising the legitimate needs of business and the public. In 2007, Project STOP was included as one of four initiatives to be implemented under this outcome area.

The national implementation of Project STOP was funded through the federal Attorney-General's Department. It was rolled out nationally through partnerships among federal, State and Territory police and health authorities, community pharmacists.

Purpose of the case study

This case study examines the nature and sustainability of Project STOP's inputs, processes, activities, and its intermediate outcomes. It describes how partnerships have been fostered and operated to reduce the supply of precursor chemicals to the manufacture of illicit drugs, in this case, pseudoephedrine.

Proposition tested by the case study

The starting proposition is that Project STOP uses partnerships in an effective way to reduce the supply of pseudoephedrine into illicit drug manufacture, and illustrates the congruence between the NDS and the National Precursor Strategy.

The Project STOP case study focuses specifically on the partnership between the Federal, State and Territory police, health authorities, community pharmacists.

Method

Documents, literature reviews on drug treatment models and resource allocation, and informant interviews were analysed using qualitative research methods to test the proposition. A set of research questions helped collect this information.

Research questions for Project STOP

- 1 What partnership processes have been used to develop Project STOP?
- 2 What partnership processes have been used to implement Project STOP?
- 3 How have these partnerships been established and fostered overtime?
- 4 How have the Project STOP partnerships contributed to the Project STOP outcomes?
- 5 What factors, other than Project STOP partnerships, have contributed to achieving the Project STOP outcomes?
- 6 To what extent is the National Precursor Strategy informed by and congruent with the NDS?
- 7 To what extent is the development and implementation of Project STOP informed by evidence regarding collaborative partnerships and supply reduction strategies?
- 8 To what extent is there consistency in the allocation of resources to programs to reduce the supply of precursor chemicals into illicit drug manufacture, under the NDS and the National Precursor Strategy?
- 9 Are there activities or programs to reduce the supply of pseudoephedrine into illicit drug manufacture, which have occurred outside the NDS or the National Precursor Strategy? To what extent have they enhanced or diminished the aims or outcomes of Project STOP?
- 10 What other factors (at the system, organisation, personnel and community level) influenced the capacity of Project STOP to deliver effective partnerships?

Data collection and collation

Sources reviewed for this case study included NDS and the National Precursor Strategy documents, Project STOP progress reports 1–4, media releases from the PGA, Attorney-General’s Department, and Ministers, web-based materials, speech and interview transcripts, conference programs and papers, selected data reports, and the available data on Project STOP funding, activities, coverage, performance and outcomes. Literature and data on methamphetamine use in Australia and the diversion of pseudoephedrine to the manufacture of methamphetamines were also reviewed.

A set of discussion topics derived from the research questions facilitated informant interviews.⁴ Eighteen informants said they were knowledgeable about Project STOP. They included members of the development and working groups of the National Precursor Strategy and Project STOP, and people who were involved in developing and implementing Project STOP and related initiatives at State and Territory levels.

⁴ See Appendix E for the Case Study interview protocol

Context

Methamphetamine use in Australia

The 2007 National Drug Strategy Household Survey (NDSHS) suggests that methamphetamine use in Australia is relatively high in comparison with other illicit drugs, with 6.3% of the population having used this drug on at least one occasion (AIHW 2007b). It is estimated that 73,000 Australians are dependent users of methamphetamines (McKetin *et al* 2005). Methamphetamines produce anxiety, panic attacks, paranoia and depression in users. Methamphetamine use is also associated with harms to the community through crime and violence (ANCD 2007).

Although these statistics are cause for national concern given the social and personal harms its use causes, the self-reported prevalence of recent use of the drug fell from 3.2% in 2004 to 2.3% in 2007. This is statistically significant. Among all illicit drugs, the lifetime prevalence rate for methamphetamine was behind that of other illicit substances such as cannabis (33.5%), ecstasy (8.9%) and hallucinogens (6.7%).

Diversion of pseudoephedrine to the manufacture of methamphetamines

Pseudoephedrine is one of the active ingredients in common cold and flu medications. It is also the precursor chemical most often used by criminals to manufacture methamphetamines (ACC 2007; McKetin & McLaren 2004). Clandestine laboratories produce methamphetamines, and pose risks to the community through increased risk of fires, explosions, chemical burns, toxic fumes and environmental damage.

Since 1997-98, Queensland has recorded the highest number of clandestine laboratory detections in Australia. The Australian Crime Commission (ACC 2008) reported a 23% reduction in detections in Queensland, while the number of laboratories detected nationally increased markedly.

National implementation of Project STOP

Dissemination of the Queensland results of Project STOP

The PGAQ presented the results of Project STOP in Queensland at the National Chemical Diversion Conference in December 2005. The presentation described the design, implementation and results of Project STOP in Queensland. It described how Project STOP had used its web-based capacity to provide police with intelligence to detect, track and follow-up individuals making suspicious pseudoephedrine purchases. It also contributed to the quality assurance of professional dispensing of medications, meeting pharmacists' own professional standards of practice. It identified and implemented processes for building on existing partnerships, information and communication technology, and a supportive legislative environment.

The connectivity needed for a system of rapid and secure information-sharing between pharmacies, and between pharmacies and law enforcement bodies, had been made possible by PGA's website, which enabled links between epothacary.com.au and the Australian Government's Broadband for Health initiative. As a result of Broadband for Health, 78% of Australian pharmacies took up the offer of a business grade broadband connection.

Project STOP processes

Project STOP allows pharmacists to record three distinct types of sales: a sale, a non-sale, or a sale under duress. An additional feature of this system was that it detected instances where a pharmacist or assistant logged on but exited without completing the protocol, providing indications of possible professional malpractice. The system tracked previous purchases by the same individual, thus providing pharmacists with information to decide whether to dispense products containing pseudoephedrine. There was a nominated threshold of pseudoephedrine sales within a single 24 hour period. Once this threshold was exceeded, a

text message was sent to a nominated police representative for appropriate follow-up and action. This threshold is considered confidential, and for this reason it was not provided to this evaluation.

There was a high level of uptake by community pharmacists in Queensland in the first year of operation. By October 2006, the PGAQ had provided Project STOP to more than 900 Queensland pharmacies, free of charge and regardless of whether they were Guild members. The QPS reported a 25% reduction in the detection of clandestine laboratories in the first year of Project STOP in Queensland, and a further reduction of 20% in the following year.

On the basis of this presentation about Project STOP in Queensland, the federal Attorney-General's Department and the Precursor Working Group discussed the concept and the feasibility of implementing Project STOP nationally as part of the National Precursor Strategy.

The PGA developed a proposal for national implementation, including the aims of the program and target audiences, project scope, budget and implementation timeline, a list of the key stakeholders, and other information associated with the various inputs, processes and outputs related to the pharmacy aims of the program. The submission highlighted the success of the initiative in Queensland, the infrastructure and technology that was already established, specific key performance indicators (KPIs), and noted that PGA, as a national body, actively supported the national implementation of Project STOP.

Complementary regulation

In early 2006, the Therapeutic Goods Administration (TGA) rescheduled products containing pseudoephedrine from schedule 2 to schedule 3 products, thus classifying them a non-prescription medicine that may only be supplied by a pharmacist and prohibiting them from being advertised in pharmacies. Preparations that contained more than 720 milligrams of pseudoephedrine were rescheduled to schedule 4, requiring a prescription (TGA 2006).

Funding

The PGA received a funding under the National Precursor Strategy of \$380,000 to implement Project STOP nationally over 2 years, commencing in March 2007. This funding covered the costs of instruction kits to be sent to all pharmacies, two positions on a Project STOP help desk, upgrades of the global positioning mapping system, and server and hosting charges.

Governance structure

In March 2007 the Attorney-General's Department contracted the PGA to deliver Project STOP and provide quarterly progress reports against KPIs, including the number of pharmacists who registered, the national uptake percentage, the number of registered pharmacists who continued to use Project STOP, and the number of transactions entered into the system.

Development and dissemination of user agreements and pharmacy instruction kits

The federal Minister for Health and the PGA's representatives in each State and Territory were contacted to inform them of the importance of Project STOP and plans to implement it across Australia. The PGA led the development of user agreements and pharmacy instruction kits through an iterative process. In June 2007, the pharmacy instruction kits received final approval.

The kits included a Project STOP guide, counter card, window decal, an implementation checklist, patient information leaflets, a pharmacy registration card, and a copy of the PGA pharmacist user agreement. Later, the PGA negotiated tailored user agreements with State and Territory representatives in order to accommodate any local issues (such as privacy regulations).

Project STOP began nationally in August 2007 with dissemination of the pharmacy kits to all pharmacies in Australia. After the first 12 weeks, pharmacy registrations began to plateau in

all States and Territories. This prompted the PGA to send faxes to all unregistered pharmacists stating that pseudoephedrine ‘runners’ were in their area, and suggesting that they register to use Project STOP.

The partnership between the PGA and NSW Police was used to identify and target problematic areas in New South Wales. Pharmacies in problematic areas were contacted by the PGA to discuss their reasons for not participating in the national initiative. Help desk staff provided initial assistance over the phone to pharmacies interested in registering, to monitor the targeted pharmacies over a two-week period to ensure registration and participation, and then to make follow up calls to thank pharmacies for their registration and support against pseudoephedrine diversion. These uptake initiatives were aimed to maximise registration and close any gaps in the system in New South Wales. The same strategy was later applied in the Australian Capital Territory.

By March 2008, additional uptake activities had been introduced across Australia. The Victorian Branch of the PGA employed a telemarketer to contact all unregistered pharmacies in Victoria, while the Northern Territory Branch of the PGA included presentations on Project STOP in briefings of its members. The South Australian Branch of the PGA identified clusters of registered pharmacies in close proximity to encourage their registrations. Registrations were promoted in New South Wales by visits to pharmacies from the NSW Drug Squad.

The Queensland Drug Squad continues to have quarterly meetings with the PGAQ, where Project STOP is reviewed, emerging issues are discussed (that is, increases in pharmacy break-ins after the inception of Project STOP), and there is collaborative problem-solving to address these issues (for instance, circulating pharmacy security tip sheets).

Law enforcement, health and PGA representatives partnered to promote Project STOP at the national level through the Precursor Working Group. They provided industry specific presentations and promotional material on the diversion of precursors and Project STOP results. These presentations highlighted the level of evidence about the harms associated with amphetamine use, that is, increased anxiety, panic attacks, paranoia and depression, community harms such as amphetamine fuelled violent crime and the increased risk to the community of fires, explosions, chemical burns and toxic fume inhalation and environmental damage from clandestine laboratories.

The presentations also described how pseudoephedrine was diverted and used to manufacture methamphetamines. They also promoted Project STOP’s potential to reduce the supply from community pharmacies and significantly reduce the operation of clandestine laboratories. To achieve this goal, it was deemed necessary that Project STOP command a high level of reach, penetration and coverage across Australia, as police intelligence had suggested that ‘pseudo runners’ often cross State and Territory borders during runs.

National implementation of Project STOP was facilitated by the long standing joint approaches and partnerships that had been fostered at a national level between police and peak industry bodies over many years, in order to reduce the diversion of precursor chemicals to illicit drug manufacture. When amphetamines came to attention in Australia, police departments established Police Chemical Diversion Desks (CDD) in each State and Territory to communicate with pharmacy, chemical and plastics industries. According to informants, day to day communication occurs between PGA, pharmacists and the officers from the CDD. As part of this process, the CDD may supply data to PGA and pharmacists on the number of clandestine laboratories detected and seized, as well as the number of arrests resulting from Project STOP.

Legislation

At the time of national implementation, Queensland’s *Drugs and Poisons Act* was clear that the law provided for pharmacists require photo identification at the point of sale.

The PGA and the federal Attorney-General's Department made considerable changes to the design of Project STOP to meet the conditions required under National Privacy Principle 8, which applies to the ability of individuals to transact anonymously, and to clarify its application to Project STOP.

Informants said inconsistency in legislation among the jurisdictions affected take up rates. Jurisdictions that have mandatory reporting of licenses have much higher levels of pharmacies signing up to Project STOP.

Partnerships

In interviews we were advised that the federal Attorney-General's Department and the PGA's representatives worked in a responsive and collaborative manner to lead the project in government and in the field. There were strong policy and program links at the State and Territory level through the Precursor Working Group. Some thought the two key partnerships for Project STOP had been between the PGAQ and the QPS initially, and later between the QPS, the PGA and the Attorney-General's Department.

Informants believed that partnerships among the chemical industry, community pharmacies, health and law enforcement agencies were a key factor affecting the coverage of the program. A central factor affecting the sustainability of partnerships and the success of the program was dissemination of outcomes. Strong policy and program links at the State and Territory level were established through the Precursor Working Group. They were further developed and fostered as a result of Project STOP, and have contributed to Australia's capacity to reduce diversion of precursor chemicals such as pseudoephedrine into illicit drug manufacture.

Informants highlighted examples of successful local level efforts to sustain partnership capacity around Project STOP and related community pharmacy, police and health sector activities. The pharmacy industry (pharmacists, the PGA, and business owners) and the Police Chemical Diversion Desk (CDD) in each State or Territory work in partnership to highlight the types of chemicals that are currently being diverted, and encourage pharmacists to take actions to reduce diversion from community pharmacies.

The Project STOP database has the capacity to disseminate information to pharmacists about the success of the initiative, but Queensland is the only State making use of this information channel. Information and general statistics from the QPS is provided to the PGA. The PGA is responsible for posting them in its quarterly newsletters and media releases on the system. This information serves to provide pharmacists with feedback and assurance that their efforts are effective in reducing pseudoephedrine diversion from community pharmacies. The CDD also supplies data on the number of clandestine laboratories detected and seized, as well as the number of arrests that have resulted from Project STOP. (These data were not made available to this evaluation.)

Informants agreed that while the local level communication between police and health authorities had been effective, many pharmacists were still unaware of Project STOP. In addition, they commented that Project STOP had not been covered in the mainstream media. The PGA undertook a nationwide awareness raising campaign taking out advertisements in periodicals and placing signs at the point of sale, not only for the pharmacists but also for the customers who were not experienced in providing identification for their purchases. Informants believed that buy-in should extend beyond the pharmacy level to consumers to ensure a better understanding of Project STOP and its rationale among pharmacy customers, thus increasing their willingness to provide identification when purchasing pseudoephedrine-based medication.

In summary, informants shared a strong perception that the success of the program relies on the relationship between the PGA and law enforcement nationally, and between pharmacists and police at the local level. Pharmacist buy-in was crucial for the success of Project STOP as a voluntary initiative. They believed that without sufficient buy-in, the project would not be

sustainable in the future. They highlighted the importance of disseminating the positive law enforcement outcomes of Project STOP.

Capacity to measure program outputs

The PGA collects and reports on data to meet the KPIs of Project STOP, including the number of pharmacists who register, the national uptake percentage, the number of registered pharmacists who continue to use the Project STOP, and the number of transactions entered into the system. Because registration of all pharmacies is a goal of the program, pharmacy registration is considered to be a key measure of the success of the national program.

Table 2 presents the number of pharmacies registered, national uptake rate percentage and the number of transactions processed through Project STOP. By September 2007, about 980 Queensland pharmacies were registered for Project STOP. While there was an initial increase in all pharmacy registrations during the first month of the national implementation (265 registrations), there were only 71 additional pharmacy registrations across Australia between October and December 2007.

Table 2: Pharmacy registrations, national uptake percentages and transactions across reporting periods

Key Performance Indicator	Report 1 (Sept 2007)	Report 2 (Oct 2007)	Report 3 (Dec 2007)	Report 4 (Mar 2008)
Pharmacies registered (excluding QLD)	1,143	1,402	1,467	1,838
Pharmacies registered (including QLD)	2,043	2,308	2,379	2,771
National take up % (excluding QLD)	26.94%	33.2%	34.85%	47.35%
National take up % (including QLD)	40.78%	45.88%	47.29%	56.5%
Transactions processed to date	534,245	640,533	689,996	914,259

This table also shows that both pharmacy registrations and the number of transactions processed through Project STOP continued to increase to March 2008.

National uptake data is also displayed graphically in Figure 1:

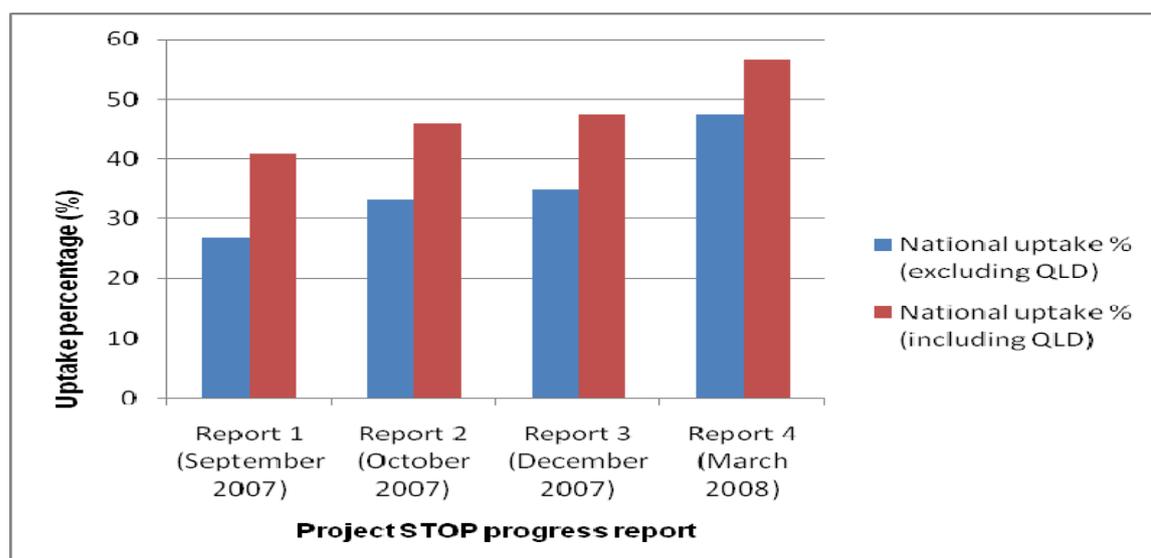


Figure 1: National uptake percentage for Project STOP across all reporting periods

Pharmacy registration data excluding Queensland figures show that registrations in the other States and Territories increased from 1,143 to 1,838 in the first seven months of national implementation. Between January and March 2008 (when strategies to increase uptake were under way) pharmacy registrations increased by 391, taking the national total to 2,771.

During 2007, national uptake rates increased from 40.8% in September to 45.9% in October and 47.3% in December. The latest figures from March 2008 suggest that 56.5% of all Australian pharmacies were registered for Project STOP. Uptake percentages (excluding Queensland) suggest that 26.9% of pharmacies outside of Queensland registered for Project STOP in the first month, increasing to 34.9% by December 2007. Data from progress report 4 show that 47.4% of all pharmacies excluding Queensland were registered to use Project STOP by March 2008.

State and Territory specific information on pharmacy registrations, number of pharmacy instruction kits sent, and the national uptake percentage are shown in Table 3. As of March this year, the ACT, NT and Queensland showed the highest uptake rates, all above 90%. NSW and Victoria - the States with the highest number of pharmacy outlets - demonstrated the lowest uptake rates across Australia at 39.6% and 37.9% respectively.

Table 3: Pharmacy registrations, instructions kits sent and uptake as a function of jurisdiction

State or Territory	Registered	Kits sent	% Uptake
Australian Capital Territory	57	61	93.44%
Northern Territory	25	27	92.59%
Queensland	933	1,021	91.38%
Tasmania	100	135	74.07%
Western Australia	369	516	71.51%
South Australia	221	402	54.98%
New South Wales	639	1,613	39.62%
Victoria	427	1,128	37.85%
Total	2,771	4,903	56.52%

The latest progress report also gave a snapshot measure of database usage, based on the proportion of registered pharmacies logged into the system when the latest figures were being generated. The number of pharmacies registered, snapshot usage data, and the national uptake percentage of Project STOP are presented in Table 4.

Table 4: Pharmacy registrations, snapshot usage data⁵, and registered pharmacies logged in

State or Territory	Registered	Usage snapshot	% Logged in
Australian Capital Territory	57	52	91.23%
Northern Territory	25	20	80.00%
Queensland	933	666	71.38%
Tasmania	100	74	74.00%
Western Australia	369	262	71.00%
South Australia	221	145	65.61%
New South Wales	639	299	46.79%
Victoria	427	187	43.79%
Total	2,771	1,689	60.95%

These snapshot data are used as a proxy for usage but may under- or over-estimate usage. These data indicate that only 61% of all registered pharmacies were logged into Project STOP at the time the latest figures were being generated.

Only aggregate summary output data was available to the evaluation team to assess the performance of Project STOP. Recently efforts have been made to improve the range and accuracy of the information in the progress report to March 2008.

⁵ Snapshot usage data: the proportion of registered pharmacies logged onto the system when the latest figures were generated

Capacity to measure outcomes

Informants believed the significant reduction in clandestine laboratories detected in Queensland after Project STOP began meant that a national focus on the community pharmacy component of the pseudoephedrine supply chain would contribute to reductions in methamphetamine supply, use and related harms:

Pharmacists were helped to judge whether the customer wishing to purchase pseudoephedrine products was a legitimate or illegitimate purchaser. Intelligence on 'pseudo runners' was provided to law enforcement

When Project STOP was first introduced in Queensland, there was a large reduction in the number of clandestine laboratory detections compared to other States and Territories (IDDR 2007). The intelligence provided by Project STOP assisted police in arresting more than 30 individuals. Law enforcement saw the movement of pseudoephedrine 'runners' (persons who travel from pharmacy to pharmacy buying pseudoephedrine products for the illicit trade) across jurisdictions doing runs for pseudoephedrine. This suggested that Project STOP was having a considerable effect on the supply and manufacture of methamphetamine in Queensland. However, it is difficult to assess the separate contributions of Project STOP and rescheduling to the reduction in clandestine laboratories detected. Informants believed that both the rescheduling of products containing pseudoephedrine and Project STOP contributed to the reduction.

It was suggested that, in addition to uptake and transaction data, the performance of the program should be informed by law enforcement data on a number of outcomes, such as number of arrests, charges and notices to appear, number of laboratories detected and shut down, availability, price and purity of their illegal methamphetamines, and the number of pharmacies displaying promotional signs to the public about Project STOP.

Some informants said that, in the absence of information about what proportion of illicit amphetamines sold in Australia are domestically produced and what proportion are imported, it was not possible to draw conclusions about the effect of detection and closure of domestic clandestine laboratories on the supply of and demand for illicit amphetamines in Australia. Some believed that Project STOP was endorsed and implemented nationally before any worthwhile data were available on expected outcomes.

Most informants believed that Project STOP had reduced the supply of pharmacy pseudoephedrine to illicit drug manufacture, increased the detection and seizure of clandestine laboratories manufacturing amphetamines, increased arrests associated with diversion of pharmacy pseudoephedrine products to illicit drug manufacture and decreased the number of clandestine laboratory operations.

In the first year of national implementation, some pharmacists were reluctant to request individual customer identification in the absence of supportive State and Territory privacy clauses in State and Territory drugs and poisons regulations.

Experience in the first year of national implementation also showed that the dissemination efforts of police and pharmacy partners would be needed to ensure sustained uptake and usage. The success of the national implementation required a high degree of sustained uptake and usage and targeted capacity building investment over two years to capitalise on existing national, State and Territory partnership capacity. Dissemination of local level law enforcement outcomes was a crucial element in sustaining usage.

Alignment with NDS principles and objectives

As we have seen above, the National Precursor Strategy contributes to the supply reduction aspect of the NDS. Project STOP also aligns with several of the stated objectives of the current NDS, in particular to reduce the supply of and use of illicit drugs in the community, but also to reduce the risk of criminal drug offences, and build new partnerships to fulfil the goals of the NDS.

The Australian Government initiated and funded the National Precursor Strategy to contribute to the supply reduction aspect of the National Illicit Drug Strategy (NIDS) by preventing legitimately provided pharmaceuticals being used to make illicit synthetic drugs in clandestine drug laboratories. Project STOP is one of the National Precursor Strategy funded initiatives designed to enhance national regulatory approaches to control access to chemicals and equipment while allowing the legitimate use of these drugs by the public. The National Precursor Strategy was not referred to in MCDS communiqués, but the IGCD noted its support for the National Precursor Strategy in its 2005-2006 Annual Report (IGCD 2006).

While the link to the objectives and outcomes of the NDS was not explicit in the Project STOP documentation, informants linked Project STOP to the reduction of supply and the prevention and minimisation of drug-related harms. They believed that even though Project STOP was developed at state level, its program decisions and approaches aligned with the broad objectives of the NDS.

While all informants were aware that Project STOP was the result of collaboration among the law enforcement, health and pharmacy sectors in all jurisdictions, they did not know how much evidence was used in developing Project STOP. Rather, the work to initiate Project STOP in Queensland and monitor its results was a pilot phase to inform national implementation.

Some informants thought Project STOP was a highly effective contribution to reduced manufacture and supply of amphetamines and thus to reducing the harms caused by their use. Others simply saw the Project as an element of more effective policing, since decreased availability of pseudoephedrine led to a reduction in the number of clandestine laboratories.

Evaluation

Project STOP was established as a capacity building project - an investment in upgrading communication technology and developing resources that remain beyond the life of the funding - with funding for two years. The program design identified a number of inputs, processes and outputs, and implied a number of intermediate outcomes. There was a reasonable basis to assume that the program would contribute to reducing drug supply and drug-related harm, and this logic was implicit in the program design.

The program design does not explicitly link processes, inputs and outputs to outcomes. In addition to difficulties accessing law enforcement data, the lack of an explicit program logic also diminishes capacity to evaluate the program. The prospective use of instruments such as program logic to inform program design builds in a basis for evaluation from the outset, and identifies future implementation challenges and opportunities.

Partnerships, registration kits, and a range of local communication strategies were used to engage pharmacies actively before and after registration. Individual pharmacies cannot know what seizures have resulted from their own participation in Project STOP, but the progress reports submitted to the Attorney-General's Department report the numbers of pharmacies registered and the number of transactions processed quarterly state by state. These accumulated results could be communicated explicitly to pharmacies to highlight the results of their efforts and to encourage their partnership. Such communication is a well-established factor in successful monitoring of performance and continuing local implementation.

Data on uptake were collected and used to monitor performance with a view to reviewing the program results in the second year of the program. This process aligns with the use of action learning approaches to support innovative program development.

The impact and outcomes of Project STOP are yet to be evaluated. A comprehensive evaluation of Project STOP, assessing the impact of the program on drug law enforcement outcomes and demand for treatment, has recently received funding from the NDLERF and the Drug Policy Modelling Program (DPMP). This evaluation, led by Professor Lorraine Mazerolle, is due for completion by 2011. It will compare the policy, implementation, and outcomes of Project STOP across two jurisdictions (Queensland and Victoria). The evaluation

will look at the organisational structures within police agencies and how partnerships have been formed and operate, the responses from pharmacists and impacts on them, as well as the other local level impacts including pseudo runners targeting community pharmacies not participating in Project STOP.

Some informants were of the view that the evaluation of Project STOP will be limited by the lack of data available on law enforcement outcomes. Informants were unsure if the outcomes of Project STOP could be linked to any measurable effects on methamphetamine availability at street level.

Summary and observations

Numerous factors affect methamphetamine production and use in Australia. Reducing the diversion of pseudoephedrine from pharmacies is one of those factors, but drugs are also imported, there are different methods for manufacturing amphetamines, and pseudoephedrine can be diverted from other points in the supply chain. The objective of Project STOP was to reduce the diversion of pseudoephedrine from pharmacies as one part of a comprehensive set of precursor measures, including the introduction of phenylephrine into the pharmaceutical market. It is not clear whether the proponents of Project STOP think its contribution to limiting the availability of precursor chemicals in Australia should be specified.

Rather, the Project STOP case study has focussed on the partnership among the Federal, State and Territory police, health authorities, community pharmacists and the pharmaceutical and chemicals industries to reduce the supply of pseudoephedrine to the manufacture of illicit drugs.

Project STOP in Queensland was seen as a pilot or trial phase, and stakeholders anticipated it would produce similar results nationally. It was incorporated into the National Precursor strategy and national implementation was funded for a two year period. National implementation aimed for a high degree of sustained uptake and usage and targeted capacity building investment over two years to capitalise on existing national, and State and Territory partnership capacity.

The case study found that successful partnerships were the key to Project STOP's innovative design and implementation. These partnerships supported a high level of uptake and use of Project STOP's resources and processes. This in turn resulted in a large volume of referrals from the health sector to the law enforcement sector to support their common goal of reducing the role of pharmacy pseudoephedrine in the illegal manufacture of methamphetamines.

Project STOP was developed collaboratively on the basis of Queensland's experience of high levels of uptake of Project STOP. This reflected the concerted efforts of partners in health, pharmacy and law enforcement across sectors. Its implementation processes and stated outcomes aligned with the objectives of the National Precursor Strategy and the NDS.

Design, implementation and key partnerships appear to have supported a high level of uptake and use of Project STOP's resources and processes. This, in turn, has resulted in a high level of referral of matters from the health sector to the law enforcement sector to support their common goal of reducing the role of pseudoephedrine in illegal manufacture of amphetamines. Those that have taken up Project STOP have done so with enthusiasm and there has been cross-fertilisation between the private and public sectors and the health and law enforcement sectors. Strong informant views and some evidence indicate that the programs impact would be strengthened by geographic coverage.

The sustainability of Project STOP relies on the buy-in achieved through its partnerships, legislation which allows pharmacists to require identification, and pharmacists' persistence in securing identification in accordance with law. It also relies in part on its capacity to report on program outcomes.

As an innovative intervention, Project STOP is to be commended for the work its participants have done to increase the ability to report on pharmacist uptake and use, and to solve problems arising in the early stages of implementation (privacy legislation, dissemination of outcomes). Its successes would have been enhanced if more explicit evaluation had been built in from the outset.

Efforts should continue to support States and Territories to address legislative barriers to recording identifying information at the point of sale.

In the next phase of Project STOP, those involved with Project STOP may take steps to:

- consciously acknowledge that they have built an action learning approach to innovative program development,
- draw on the lessons to date and develop a clear program design that ensures that the program is sustainable and can be evaluated, and
- cooperate fully, particularly by providing access to comprehensive unit record data for the Commonwealth and DPMP funded evaluation of Project STOP.

Component 2 case study 2: Non-Government Organisation Treatment Grants Program

The *Non-Government Organisation Treatments Grants Program* (NGOTGP) has been operating since 1997. As one element of funding to the drug treatment service system, NGOTGP complements State and Territory funding to NGO drug treatment services and other sources of Commonwealth funding to these services.

The NGOTGP currently provides funding to 197 NGOs to operate a range of AOD treatment services. The funding aims to strengthen the capacity of NGOs to achieve improved service outcomes and to increase the number of treatment places available.

Between 1997 and the end of the 2007-08 financial year the Commonwealth has allocated approximately \$291,188 million in funding to the program. As part of the 2007-2008 Budget, the Commonwealth Government committed additional funding of \$79.5 million, in addition to its ongoing commitment to NGOTGP of \$48.9 million, to expand the NGOTGP over the next four years to better support families and youth.

Purpose of the case study

The purpose of this case study is to explore issues in Commonwealth Government funding to treatment services, and analyse any changes arising from NGOTGP funding in terms of the number of treatment places available, improved access to quality treatment, and contribution to the intended long-term outcome of reduced drug use and related harms.

The proposition tested by the case study

Funding programs designed and implemented in accordance with the best evidence contribute to achieving intended outcomes for clients, families and communities. The starting proposition for this case study is that NGOTGP funding and the Commonwealth's processes for its allocation have increased availability and access to drug treatment.

For the purposes of this study, we have considered the program logic behind the NGOTGP, the efficiency and effectiveness of aspects of implementing the NGOTGP funding processes in Rounds 2 and 3 (which span 2004-2009, the period of the current NDS), and how these processes and activities link to the NGOTGP outputs and intended intermediate outcomes, including:

Inputs - policies, funding models and mechanisms, resources and qualified staff

Processes - resource allocation processes, including call for and assessment of applications, allocation of funds, monitoring and reporting on progress and evaluation

Outputs - increased funding of a range of evidence-based drug treatment services

Intermediate outcomes – increased availability and access to quality drug treatment services

Long term outcomes - reduced drug use and related harms

The case study describes the Commonwealth's rationale and processes for implementing the NGOTGP funding, including the funding allocation model, its assessment and allocation processes, performance and accountability processes and activities, as well as the extent to which direct funding by the Commonwealth to agencies has enhanced the capacity of NGOs to provide quality treatment.

It also sheds light on questions of congruence between policy and program implementation, federal, State and Territory Governments' investment in core drug treatment services, complementary initiatives designed to build capacity in the AOD treatment services sector nationally, and the extent to which the NDS has stimulated actions on the ground.

Method

Documents, reviews of literature on drug treatment models and resource allocation, and informant interviews were analysed to test the proposition. A set of research questions was formulated to guide the collection of data, informant interviews, and analyses of the data:

Research questions

1. What were the strengths and benefits of the NGOTGP funding allocation processes? What were the limitations of the NGOTGP funding allocation processes?
2. To what extent were there clear evidence-based rationales which informed the Commonwealth's NGOTGP funding allocations and processes (eg application and assessment processes, criteria for assessment performance and accountability)?
3. What processes have been used to allocate the NGOTGP funds?
4. How well have different processes for allocating NGOTGP funding supported the achievement of the NGOTGP's intended outcomes?
5. To what extent was the implementation of the NGOTGP informed by evidence and knowledge of local constraints and opportunities for the effectiveness and efficiency of the investment?
6. To what extent is the NGOTGP funding adequate (eg sufficient, timely) to support implementation of treatment programs and achieve the intended outcomes?
7. What information sources are available to quantify improved access to treatment, and what do they reveal?
8. What other factors (at the system, organisation, personnel and community level) influenced the capacity of the NGOTGP to increase the number of treatment places available and improve access to quality treatment?

Data collection and collation

Documentation of policy, funding model and NGOTGP resource allocation processes

Documents reviewed included the current NDS Framework 2004-2009, IGCD Annual Reports to MCDS 2005 and 2006, web-based materials, and documents supplied by the DoHA's Diversion and Treatment Section of the Drug Strategy Branch. Commonwealth documentation included the administration guidelines for the NGOTGP 2004 and 2005, requests for tender for the evaluation of NGOTGP, state reference group guidelines and deed of conflict and confidentiality, application guidelines and forms, standard funding agreements, the National Minimum Data Set for Alcohol and Other Drugs Treatment Service (AODTS-NMDS) requirements for grant holders, State/Territory project report assessments, and the key performance indicators for funding Round 3 grants 2008-2011.

Performance reports

DoHA State and Territory NGOTGP project officers provided us with progress reports from organisations that received NGOTGP funding in their jurisdiction under Round 2 grants.⁶ The reports were the main source of secondary data available to document the performance of individual services in relation to the funding provided under the NGOTGP. The reports included project schedules, final reports for the period 2003-2006, and annual reports for 2006-2007. We reviewed 130 reports that provided information on the performance of the NGOTGP for one complete cycle of funding.

Literature reviews

The literature on the AOD burden of the disease and injury is summarised in Volume 1 of this report.⁷ Literature on evidence-based models of care and interventions, resource allocation in the AOD treatment sector, and the social determinants of drug-related harm were also reviewed to inform analysis of the outcomes of national initiatives in Component 2.⁸

⁶ NGOTGP project officers in each State and Territory provided progress reports, with the exception of the ACT office. The SA NGOTGP office provided only project schedules and 2006-07 annual reports but no final reports.

⁷ Summaries of the literature and data on drug trends may be found in Volume 1, Chapter 3

⁸ See Page 89 below for summaries of these reviews

Informant interviews

A set of discussion topics derived from the research questions was used to facilitate interviews.⁹ With advice from DoHA and the PWG, informants were drawn from members of the IGCD, ANCD, key NGOs, NGO Peak Bodies, NGOTGP funding and governance committees, and DoHA officers responsible for developing and implementing the NGOTGP nationally and at jurisdictional levels. Additional State and Territory Government informants were included on the advice of the Commonwealth officers responsible for implementing the NGOTGP in each State and Territory. 25 informants commented on the NGOTGP case study.

Analysis of data

Analysis of information gathered through the document, literature and data reviews and informant interviews were synthesised using the research questions to generate findings about the Commonwealth's rationale and processes for implementing the NGOTGP funding, its assessment and allocation processes, performance and accountability, as well as the extent to which direct funding by the Commonwealth to agencies enhanced the capacity of NGOs to improve access to quality treatment.

Research, policy, funding and service system context

Alcohol, tobacco and illicit drug use were in the top 14 risk factors in 2003 in their contribution to the burden of disease and injury in Australia, expressed in disability-adjusted life years (DALYs). Tobacco, alcohol and illegal drugs comprised 12.1% of the total burden. Tobacco accounted for 65% of the drug-related burden of disease and injury, and alcohol and illicit drugs accounted for 19% and 16% respectively (Begg *et al* 2007).¹⁰

Improved access to quality drug treatment is one of eight priority areas of the NDS. It is integral to its program of effort to reduce drug related harms. Research and evaluation have demonstrated that the treatment of substance abuse problems is effective - certainly as effective as treatments provided for other chronic health conditions.¹¹ Evidence supports the effectiveness of the following illicit drug treatment modalities:

- Pharmacotherapy maintenance for opioid dependence, particularly by methadone, buprenorphine and combined buprenorphine/naloxone
- Conventional detoxification from psychostimulants and cannabis dependence
- Rapid detoxification under sedation or anaesthesia for heroin users
- Psychosocial therapies, which add to the effectiveness of methadone maintenance treatment for people dependent on opioids, are effective among some people dependent on psychostimulants including amphetamines and cocaine, and can be effective in the treatment of cannabis dependence and relapse prevention
- Residential rehabilitation and therapeutic communities are important components of the treatment mix, with at least three months residence and active program participation required to achieve change
- Twelve-step (self-help) approaches such as Narcotics Anonymous may be effective in preventing relapse, but participation needs to be voluntary and cannot be considered to be treatment when used in isolation.

⁹ See Appendix E for the case study interview protocol

¹⁰ See Vol 1 Chapter 3 for data on drug related morbidity and mortality

¹¹ See Page 98 below for a literature review on the effectiveness and cost-effectiveness of AOD interventions

Nature and extent of NGOTGP funding

The NGOTGP provides funding to establish, expand, upgrade and operate non-government services. The funding aims to strengthen the capacity of NGOs to achieve improved service outcomes and to increase the number of places available.

Since the program's inception in 1997, the Commonwealth Government has invested approximately \$291 million through the NGOTGP to fund NGOs to establish and operate new treatment services for illicit drug users and/or expand or upgrade their existing treatment services. This has been done in three funding rounds:

- Round 1 (1998-2002): \$58 million was allocated to 138 NGOs (two instalments in 1998)
- Round 2 (2003-2008): more than \$99.4 million was allocated to 177 NGOs (2 instalments in 2003 and 2006)
- Round 3 (2008-2011): funding of \$134.4 million was allocated to 197 NGOs, including 48 new services¹²

Scope of funding under the NGOTGP

Organisations seeking funding under the NGOTGP had to be community-based, non-government and not-for-profit in nature, and had to have their own incorporated management structures that oversaw the operation of their treatment service. Potential grant holders also had to operate their service independently of any Commonwealth or State/Territory Government Departments and instrumentalities, although they could receive financial assistance from these sources to provide services required by Government. Applications for NGOTGP funding were not accepted from individuals, unincorporated organisations, government agencies, universities, commercial or profit organisations, or agencies whose core business was research.

The drug treatment services eligible for funding under the NGOTGP include counselling, outreach support, peer support, home detoxification, medicated and non-medicated detoxification, therapeutic communities and in- or out-patient rehabilitation. NGOTGP Round 3 particularly emphasised filling gaps in drug treatment services across geographic areas and target groups such as women, youth, and families with children, people with comorbidity, psychostimulant users and Aboriginal and Torres Strait Islanders.

NGOTGP funding Rounds 2 and 3 extended the quantum of funding, and increased the number of organisations providing treatment. These funding rounds continued and enhanced funding to services already funded under the NGOTGP, and also allocated resources to new services.

Progress reports and informant data indicated that the increased NGOTGP funding strengthened drug treatment service capacity by complementing State and Territory Government and local funding, broadening the scope of illicit drug treatment services, and filling some service delivery gaps. For example, it provided more residential rehabilitation beds, outreach, assessment, information and education, counselling, withdrawal management (detoxification), support and case management (care planning), and follow-up (aftercare).

Resource allocation model

Research and practice make clear that the complexity of drug-related harms requires (1) a whole-of-system approach to providing drug services (2) effective and efficient delivery of evidence-based interventions (3) a planned allocation of resources to those most in need and (4) access to a comprehensive continuum of drug treatment, health and social care.

The NGOTGP resource allocation model reflects knowledge of the aetiology of drug-related harm, the social determinants of problematic drug use and the extent and nature of needs. These factors have informed decisions about the allocation of resources to NGO drug treatment services.

¹² Figures supplied by DoHA

Funding allocations for the NGOTGP were guided by several key principles of treatment reflected in the selection criteria and assessment processes for Rounds 2 and 3. The intention of the NGOTGP was to fund services that offer evidence-based treatment interventions and use models of good practice, reduce illicit drug use, criminal behaviour and the risk of infectious disease, and improve physiological, psychological and social functioning and wellbeing.

A growing body of evidence for the social determinants of drug-related harm is receiving increased attention - that is, social exclusion as a result of such socio-economic disadvantage as poverty, homelessness, unemployment, poor education level, lack of social support, membership of minority groups (Indigenous and certain ethnic groups), and living environments (Marmot & Wilkinson 2006; Spooner & Hetherington 2004)

Any formula for determining the allocation of resources should take into account the size of the population, the relative level of need across different regions, and the relative cost of providing services to different regions. While the allocation of funds to regions should be based on need, the allocation of funds within regions should be output-based - that is, providers within the region are funded on the basis of what they achieve or are expected to achieve (for example, a specific number of consumers treated within a given year).

There has been a general shift in Australia away from contracts specifying the outcomes that funded services should deliver, towards contracts specifying the activities agencies have been funded to perform. The application form requires the applicant to provide the evidence of the treatment modality, but this may be problematic if there is no sound evidence for these activities. There are many examples of agencies using interventions of low cost-effectiveness (eg long term residential, 12 step (self-help) only programs) or interventions of no known efficacy.

NGOTGP Rounds 2 and 3 funding was allocated across the States and Territories using a funding model based on a formula that incorporates population estimates (eg *per capita* split) and the Commonwealth Grants Commission community health factor weighting.

The community health factor weighting takes into account a range of socio-economic indicators for resource allocation, such as scale-effected expenditure, community health and isolation. In addition, other aspects of equitable national resource allocation are considered, such as access to AOD treatment services for people living in rural and remote areas, Aboriginal and Torres Strait Islander communities, people from diverse cultural and linguistic backgrounds, and young people.

NGOTGP resource allocation processes

The NGOTGP resource allocation model is implemented by processes including a call for applications, assessment of applications by State and National Reference Groups, allocation of funds, monitoring, and reporting on progress and evaluation, and providing final reports.

In the 2008-2011 funding round, funding criteria and allocation processes were revised to provide a greater focus on NGO capacity to deliver programs that were more evidence-informed, collaboratively planned and integrated. The assessment criteria required NGOs submitting for grants in the 2008-2011 round to show evidence of need, and of their capacity to provide quality evidence-based interventions to meet these needs. SRGs involved State and Territory and NGO peak bodies and representatives to provide evidence and specific knowledge about regional and local community needs, constraints and opportunities, service mix and coverage.

Call for applications

The application form asked potential grant holders to provide a project plan and describe:

- the treatment service
- the evidence-base for the development and/or delivery of treatment

- organisational capability and organisational stakeholder relationships
- the relevance of treatment service to local State or Territory government strategic plans and service delivery guidelines and standards
- organisational capacity to plan and report
- detailed budget for the funding period
- the governance of the service.

Informants involved in the assessment processes said they relied on applications to provide service level data about reach and penetration, geographical coverage and high needs groups. The detailed application form required time and resources if organisations were to address the selection criteria adequately. Informants said the requirements to demonstrate capacity to deliver services, knowledge of client needs, and capacity to provide evidence-based treatment modalities were appropriate and accountable. It is important that correct procedures are followed to ensure probity and fairness and that the funds are expended in an efficient, effective and ethical manner; but application of these principles should also take account of the compliance burden for some smaller organisations.

Assessment of applications

The Diversion and Treatment Section of the Drug Strategy Branch of DoHA (Central Office) is responsible for managing the NGOTGP funding allocation processes, providing the Minister with recommendations for funding, and developing and implementing the program processes at the national level.

These tasks includes developing NGOTGP policies, program guidelines, the national evaluation strategy, national consultation with program stakeholders such as MCDS, IGCD, ANCD, ADCA, liaison with the Minister's offices about NGOTGP program development and implementation, and effective communication between Central Office and the State/Territory offices of DoHA.

The *National Reference Group (NRG)* was responsible for reviewing all shortlisted grant applications to ensure that there was an equitable spread of resources nationally, and to identify any gaps in service provision. In so doing, the NRG considered the availability of services in rural and regional areas, the accessibility of services to target groups, and the extent to which the NGOTGP had improved the capacity of NGOs to treat specific groups affected by illicit drug problems (eg families of users and youth). In certain circumstances, the NRG also contacted the independent referees supplied by grant applicants as a means of collecting further information on the organisation's ability to provide the treatment services listed on its application.

The NRG consists of a senior officer from Central Office as chair, representatives from ANCD, OATSIH, the 'Strengthening Families Program' of the Department of FAHCSIA, and other experts as required.

DoHA State and Territory project officers address project management at a local level. They are responsible for liaison with funded NGOs, and interacting with Central Office project officers and other Government Departments. Their major responsibility is liaison with NGOs to prepare and negotiate funding agreements, develop and maintain effective relationships, understand the aims and objectives of funded projects, monitor and evaluate projects, and help grant recipients render invoices for payments and provide progress reports. The expectation has been that State and Territory project officers would visit funded NGOs on a regular basis to gain insight into their operations, speak with stakeholders, and attend functions arranged by services where possible.

All the State Reference Groups (SRGs) - the assessment panels - involve State or Territory representatives, and in some jurisdictions representatives of NGO peak bodies.

SRGs assess eligible applications against the selection criteria and provide completed score card assessments to Central Office, where a shortlist and prioritisation report is prepared for

the consideration by the NRG. The NRG considers SRG assessments and provides final advice to the federal Minister for Health and Ageing on equitable distribution of funds and a list of projects recommended for funding under the NGOTGP.

The DoHA State or Territory NGOTGP project officers advise unsuccessful applicants, and work with the successful applicants to enter into contractual arrangements with DoHA for NGOTGP funding. Each funding agreement contains a detailed and specific project schedule for the particular project, comprising the project plan, aims and objectives, timeframe and completion dates, budget and payment schedule, and the timeframes for reporting requirements as fund holders.

The collaborative nature of the assessment process has been enhanced by sustained relationships between DoHA NGOTGP State and Territory project officers, State and Territory Government representatives and NGO peaks or representatives. The NGOTGP program staff in DoHA have communicated regularly with State and Territory colleagues by six monthly informal meetings where both agencies discuss issues and share relevant information, make joint visits to services funded by both agencies, exchange views on services of concern, and partnering to support initiatives for people with mental health and AOD comorbidity, and initiatives for Aboriginal and Torres Strait Islander peoples with AOD issues.

There were few data on unmet need (such as numbers turned away or waiting list data). The documentation recorded that competitive grant rounds were consistently oversubscribed: 169 applications from over 270 applications received funding in Round 2, and 197 applications from 277 applications in Round 3 resulted in offers of funding. This oversubscription may serve as a proxy measure of unmet treatment need for illicit drug users in the Australian community, and confirm informants' perceptions that significant unmet need exists. On the other hand, an application for funding does not necessarily mean that the applicant can attract people into treatment. Applications may also have been unsuccessful because the SRG/NEG determined there was no need for the types of services applied for.

Some progress reports provided comparisons of referral and admission statistics as proxy data for unmet need. Waiting lists and areas of unmet need were included in several progress reports: they included prison parole programs, residential rehabilitation beds, outreach services to clients at various locations (eg schools in urban and rural areas, juvenile detention centres, prisons, and home visits), but a majority of reports lacked quantitative data.

While the allocation processes call for evidence of existing client need, informants said that organisations with well-established organisational capacity and scale were more likely to succeed than smaller organisations in competitive tendering processes. Larger, longer-established organisations had better infrastructure to compete for funding than smaller organisations with few staff. Smaller organisations also had less infrastructure to deliver new services, recruit and retain appropriately skilled and qualified workforce, and meet requirements for performance reporting, data collection and review.

The Commonwealth provided more NGOTGP funding to more organisations in both Rounds 2 and 3. In Round 2, funding was allocated in two stages: Stage 1 offered organisations currently receiving NGOTGP grants an opportunity to submit applications for continuation of funding into the new grant period 2003-2006. Stage 2 was open to organisations seeking funds in addition to their existing grant, and to organisations seeking funding for new drug treatment services. In addition, unsuccessful applications from stage one could be reconsidered.

Following an open and competitive application process, Round 3 funding agreements began in mid-June 2008, when NGOTGP funding of \$134.4 million was provided to 197 organisations over the next three years (2008-09 to 2010-11). In Round 3 improvements were made to the processes for allocation of funds: funding was allocated for three or more years,

allowing NGOs sufficient time to perform, report and document results in their submissions for the next funding round. There was a greater collaboration in the SRGs.

Overshadowing these improvements were issues of timeliness of allocation of funds, and delays in informing organisations of funding in 2008. The call for applications closed in December 2007. After a lengthy approval process, the announcement of Round 3 grants in June 2008 coincided with expiry of contracts from Round 2. Because AOD NGOs were unsure of continued funding, they were unable to commit to staff salaries at the end of the financial year. This reduced their capacity to retain staff and necessitated the recruitment and training of new staff after the funding was announced.

DoHA has met with key NGO stakeholders to discuss the processes for Round 3, and is in the process of establishing a working group including NGO representation to examine processes for future funding rounds.

Reporting and performance monitoring processes

DoHA State/Territory project officers negotiated performance indicators on an organisation by organisation basis at the time of negotiating funding agreements. Service reports served as agency or service level compliance reports which documented the services delivered, provided information on barriers to delivering contracted activities, and described efforts to address these barriers, thus accounting for the expenditure of funds against the objectives of the projects.

In addition, some States and Territories collaborated with their Commonwealth counterparts to identify indicators of performance and data collection mechanisms to resource, implement and monitor the performance of local systems of treatment and care.

Project performance has been monitored through (1) liaison between the funded NGO and the State/Territory NGOTGP officers and (2) assessment by these officers of funded NGOs' regular progress reports. This monitoring approach encourages feedback between the parties, and allowed program variations to be identified and corrected early. It ensures that safe practices are being adhered to, and enhances both client outcomes and the quality of project reporting. Informants said the effectiveness of these activities has been greatly enhanced by adequate handover from old to new staff, and by site visits.

Funding agreements between DoHA and the funded NGOs have required NGOs to six monthly financial reports, annual progress reports, a final report addressing performance over the funding period, and AODTS-NMDS reports. Funded NGOs receive their payments from the relevant State or Territory Office Financial Management Unit on a quarterly basis in advance, on receipt and acceptance of a correctly rendered invoice and indication by State or Territory project officers that the submitted progress reports are satisfactory.

Each funded NGO has received a *pro forma* to help them prepare the core components of the six monthly and annual progress reports. NGOs have been required to:

- evaluate and report on the progress of their project or service against the main objectives outlined in the funding agreement project schedule
- provide evidence of how the service has met client needs
- identify any problems experienced throughout the reporting period and detail the means by which these issues were addressed
- provide supporting evidence of any project material produced during the reporting period (eg written materials, training packages, videos, audiotapes, including copies of publications and papers presented at conferences)
- provide a financial statement that lists the purpose and manner in which the NGOTGP funding has been expended by the service.

The principal method DoHA has chosen for measuring the effectiveness, efficiency and appropriateness of the NGOTGP has been analysis of the AODTS-NMDS data provided to

AIHW by the funded NGOs. These data are provided annually by funded NGOs as part of their service reporting requirements.¹³ The two main elements of the AODTS-NMDS are establishment level data (eg geographical location of treatment service), and client level data (eg referral source, age, sex, principal drug of concern, and main type of treatment provided). It is compulsory for all NGOTGP grant holders (dually funded and directly funded NGOs), although a small number of projects have held special exemptions from this collection process (eg some Aboriginal and Torres Strait Islander services that reported directly to OATSIH; and correctional institutions). Nevertheless, it remains difficult for NGOs to attribute or even apportion part of a service to an individual in an organisation that receives funding from multiple sources, including but not exclusively NGOTGP.

A final report is required of funded NGOs within three months of the project's conclusion. It is to provide a summary of the project over the entire funding period containing:

- An executive summary outlining the nature and scope of the funded project
- The range of activities undertaken
- Evidence of the project's success in reaching the intended target group
- Evidence of the achievement of the objectives and outcomes of the project
- A detailed description of specific outcomes linked to the activities undertaken
- The annual AODTS-NMDS data report
- A financial statement and a copy of a qualified accountant's report
- Auxiliary materials that have been produced for the project during the funding period
- How the report and outcomes of the project were to be disseminated to stakeholders
- Limitations or problems encountered in service delivery throughout the funding period

Review of 2003-2006 final reports from 130 services indicated that capacity for reporting and consistency of the information provided varied among organisations. Some had difficulty aligning evidence (protocols, activities, resources) with statements of objectives. Others had difficulty aggregating their reports over time. Some organisations' 2003-2006 final reports included information on one year of operation, while others provided information over three years.

Some jurisdictions have used a reporting template that includes an executive summary (project summary, key achievements, key challenges, forward plan), a statistical report against performance indicators presented quantitatively over each funding year to allow comparisons, and sections for comments on the objectives or qualitative information regarding the services performance, service demand, referrals, and brief narratives reflecting client outcomes.

The AODTS-NMDS data were consistent with State and Territory Government funded services data requirements as a minimum. The method of collecting data has varied across the country, although a common feature across jurisdictions has been a requirement for agencies to collect and provide treatment service data consistent with AODTS-NMDS specifications. Data from agencies that received NGOTGP funding were reported to the AIHW in a variety of ways. Some data were reported from the agencies through the DoHA's Central Office to the AIHW. Other data were reported from NGOTGP funded agencies through the respective State or Territory health department to the AIHW. These different mechanisms were the result of agreements between the States and Territories and the DoHA.

In some jurisdictions, services were asked by their respective State or Territory health departments to collect additional items for planning and performance monitoring. Some agencies designed their own data collection forms which incorporated AODTS-NMDS requirements but expanded on them to report against their priority areas. Some service reports called for a more integrated electronic data management system to improve the efficiency of NGOTGP data collection and reporting. Some jurisdictions collaborated on contracts and

¹³ There was a problem obtaining NGOTGP specific reports from the AODTS-NMDS data because of difficulties identifying agencies or programs or both, as described in detail in the section on AODTS-NMDS below

performance indicators but there were inconsistencies in the reporting requirements of different funding bodies (eg number of closed treatment episodes in the AODTS-NMDS versus number of clients in other data collections), and separate reporting was across three or four funding streams. In some jurisdictions, reporting of State or Territory funding and Commonwealth funding had been integrated, thus creating efficiencies and the prospect of more consistent data collection.

Informants recognised that the emphasis on compliance in the service report data limited their usefulness for performance monitoring and evaluation, other than at the agency level. National key performance indicators were developed for NGOTGP Round 3 (2008-2011) in order to build greater consistency across services into program reporting.

AODTS-NMDS

The AIHW describes the AODTS-NMDS as a highly valued data collection which ‘...was implemented to help monitor and evaluate key objectives of the National Drug Strategic Framework 1998-99 to 2003-04, and help to plan, manage and improve the quality of AOD treatment services in Australia. The AODTS-NMDS continues to support key treatment-related objectives of the NDS 2004-2009, particularly trend data are becoming available’ (AIHW 2007a).

AODTS-NMDS is an administrative by-product that collates data collected for the purposes of administering or providing an alcohol and other drug treatment service. It includes data on referral sources, principal drug of concern and method of use, types of services accessed, and their reach and penetration aggregated across all program/funding inputs. The collection consists of de-identified unit record data for treatment agencies and closed treatment episodes.

The main purpose for collecting ongoing AODTS-NMDS data at the individual agency level is to provide useful drug and alcohol treatment information that is appropriate for monitoring and evaluating the type, usage and availability of current treatment interventions used in Australia. NMDS data collections also potentially contribute to agencies’ work in assessing and planning service delivery, as well as providing data that can be used in preparing future grant applications. The AIHW is responsible for collating the data received from DoHA and each of the States and Territories, and for preparing the national data set for analysis and aggregated reporting at national, State and Territory levels.

AODTS-NMDS publications provided a comprehensive picture of drug treatment service provision across the government and non-government sector and national, State and Territory levels. Its usefulness was limited, however, by the fact that there was no NGOTGP-specific analysis as a component of the over-all AODTS-NMDS to use for monitoring and evaluating NGOTGP performance. DoHA advised that such analyses would be of departmental and national interest, but that it is not possible to separate NGOTGP-funded treatment episodes from other treatment episodes at the service delivery agency level.

For the purposes of this case study, the evaluators, Drug Strategy Branch officers and AIHW explored the feasibility of AIHW producing AODTS-NMDS reports on the reach and penetration of the NGOTGP funded treatment episodes aggregated at the State, Territory and national levels. The aim was to assess the extent to which access to treatment had improved as a result of increased funding during the period 2003-2008. Data from agencies funded through the NGOTGP constituted a small component of the total data reported by jurisdictions annually to the AIHW. Data reported by the agencies through DoHA’s Central Office to the AIHW could be identified as treatment episodes funded through the NGOTGP. Once aggregated at a state or territory level, however, there is no indication of the funding source. This makes it difficult to separate NGOTGP-funded treatment episodes from those provided through complementary funding streams. Indeed, in many cases it is probably not possible for treatment agency workers to identify which treatment episodes are NGOTGP-funded, and which are not. This is further compounded by the often complex nature of drug and alcohol treatment. These data would be useful to support performance monitoring, review and evaluation and inform future iterations of the NGOTGP.

Discussions with the AIHW revealed that, in order to extract the NGOTGP data from the national collection, it may be possible to develop a data element that indicates whether a treatment service is fully, partially or not NGOTGP funded (though this would still be only a proxy measure for NGOTGP services). We encourage AIHW and other stakeholders to explore the feasibility of introducing this modification to the data sets with a view to using the resulting data for performance monitoring and evaluation.

Increased availability of treatment and increased access to quality treatment

Over the life of the NGOTGP, more funding has been provided to more organisations. Increased funding over the life of the program is a proxy measure of increased outputs, but data to quantify the increase in NGOTGP funded treatment places or episodes is not yet available.

Informants said that NGOTGP funding increased the number and type of services available and improved the reach and penetration of drug treatment services. The NGOTGP had funded a range of services for which the evidence base was clear. Funding under NGOTGP and IDDI had increased the range of illicit drug treatment services and filled some service delivery gaps, such as additional residential rehabilitation beds, outreach, assessment, information and education, counselling, withdrawal management (detoxification), support and case management (care planning) and follow-up (aftercare).

The call for Round 3 applications focussed on providing services at different stages of treatment, including outreach and referral services, detoxification, residential and outpatient rehabilitation, aftercare and counselling, and services specifically targeted at families with children and youth. This funding round allocated resources to a prison-based service using the therapeutic community model. Recent NGOTGP funding rounds have allocated resources to a wider range of services, moving towards a continuum of evidence-based services through a better balance of investment in the spectrum of drug treatments.

Evidence of the effectiveness of drug treatment services justifies support for an integrated continuum of drug treatment services that includes voluntary and involuntary addiction treatment, withdrawal services (detoxification, rehabilitation, therapeutic communities), relapse prevention, counselling, care planning and management, and aftercare/community liaison.¹⁴

Evaluation of NGOTGP

The amount of funding allowed agencies to implement programs in line with best evidence. It contributed to a growing knowledge base about the impact of different sub-populations and contexts on the achievement of the desired outcomes for clients, families and communities.

If decisions about what type of programs to fund and where to fund them continue to be based on a thorough knowledge of the evidence for effectiveness, then performance monitoring and evaluation should focus on ensuring the integrity of a program's implementation, its intermediate outcomes including access, reach and penetration, and how it has met identified needs.

Evaluation should consider the contribution of a program and the broader contextual factors affecting its success or failure. A majority of the 2003-2006 final reports described system factors that affected their capacity to deliver the objectives of the funded projects. To varying degrees, information in the service reports illustrated ways in which the NGOTGP had strengthened agencies' capacity to address the challenges they faced in program activities, referrals, coordination and networking, community involvement, collaborative links and partnerships with other AOD agencies, workforce, infrastructure and resources

Criteria for reporting were revised in Round 3 contracts to collect more consistent information through the service reports. In addition 2008-2011 funding agreements required recipients to

¹⁴ See Page 91 below for literature on AOD models of care

sign a 'data collection advice form' that gave DoHA permission to obtain NMDS data from the State or Territory Government or from AIHW, irrespective of the processes used for collection. It is hoped this initiative will allow DoHA to obtain AODTS-NMDS data that will contribute to performance monitoring and future evaluations.

Requests for tender to evaluate the NGOTGP were advertised in 2005 and 2007, but on each occasion the tender process did not proceed. DoHA indicated that more consistent reporting performance data will be collected in future to support evaluation. An agency level evaluation of the NGOTGP in Tasmania was due to report in September 2008, but was not available within the timeframe for this case study.

Effectiveness of the NGOTGP

This case study assesses the effectiveness, strengths and weaknesses of the NGOTGP as a high level program to increase capacity. It is not an assessment of the effectiveness of individual fund recipients' performance or the treatment modalities they employ.

The National Health and Hospitals Reform Commission statement of principles of governance (NHHRC 2008) provide a valid benchmark for performance in the AOD sector. The principles speak to the key issues of equity, shared responsibility, comprehensiveness, recognition of the broader environmental influences that shape our health, monitoring and planning, transparency, accountability and reporting, the need for a culture of quality improvement, public participation, and delineation of roles and responsibilities of the Commonwealth and state and territory governments, and the private and non-government sectors. Over the life of the program, the NGOTGP (and the broader AOD sector) has progressively improved in each of these areas.

Resource allocation model and processes

Funding should be based on a planned allocation of resources to those most in need. The concept of evidence-informed resource allocation and its practice was well documented, and senior informants understood it as a desirable approach. The formula used for determining the allocation of NGOTGP resources takes into account the size of the population and socioeconomic indicators, cross cultural factors, community health and isolation. The resource allocation model and the resource allocation processes were also guided by several key principles of treatment that are reflective of the needs of the broader AOD treatment sector, that is treatment should be evidence-based and use models of good practice, reduce illicit drug use, criminal behaviour, the risk of infectious disease, and improve physiological, psychological and social functioning and wellbeing.

Resource allocation processes seem to align with best practice. They have been appropriate and inclusive of jurisdictions. Some stakeholders in the NGO sector wanted to have more NGO involvement in decision making, but this is difficult owing to potential conflicts of interest, given the small size of the sector and the make-up of the peak organisations' governing bodies. It would be appropriate to consult with the NGO sector about the principles to guide decision-making and resource allocation, but then entrust decision-making to the government on behalf of the community.

Processes for allocating NGOTGP funds conform to evidence, governance and accountability standards, but program and contextual factors - variations in state and territory level collaborative planning and performance monitoring, timeliness of resource allocation processes, workforce skills and shortages, output and outcome data collection mechanisms, and performance monitoring and ongoing review – remain limitations on the capacity to implement treatment activities as planned.

Intended outcomes

The program logic for the NGOTGP is sound, and if implemented as intended the processes and activities funded through the NGOTGP should achieve the intended outcomes.

Assessment of the extent of the success of the NGOTGP, including the extent to which resources have been allocated to those most in need, has been limited by the lack of NGOTGP specific data describing unmet need, access, reach and penetration of the program.

Widely accepted evidence indicates that AOD services need to address a comprehensive continuum of drug treatment health and social care. Working in an integrated manner with AOD and mental health sectors but also with the primary and community care sectors remains a challenge, but some States and Territories have been working with DoHA state and territory officers to improve the integration of care through government, private and NGO providers via co-location, coordinated referral pathways and shared care arrangements to meet the clinical and non-clinical needs of their clients.

Informants said that the NGOTGP funding increased the number and type of services available and improved the reach and penetration of drug treatment services. Based on data on inputs, processes, informant information, and progress reports, we assume that NGOs with existing NGOTGP funding have continued to operate and extra NGOTGP funds have enabled considerable expansion. However, as national, State and Territory NGOTGP-specific AODTS-NMDS data were not available, it was not possible to quantify increased access to drug treatment or expanded reach and penetration as a result of increased funding during Round 2 and between Rounds 2 and 3. Nevertheless, increased NGOTGP funding to more NGOs over the three rounds, together with increased treatment episodes, offer a reasonable proxy measure for improved service access, reach and penetration.

Although most services have treatment plans which record interventions undertaken by clients, and some have the client closure forms that record client's satisfaction with the program, there were no quantitative data on client outcomes in terms of changes in substance use, psychosocial issues, or other personal circumstances. The client data in the final reports and in the NMDS focused on episodes of care and activities.

Other funding sources

Providing drug and alcohol services is predominantly the responsibility of State and Territory governments. The NGOTGP is only a small part of the total drug and alcohol treatment services provided through NGO, public and private settings in Australia, and supplements these services. It complements State and Territory funding. It operates alongside other sources of Commonwealth funding to NGO drug treatment services, for example:

- In 2008-09 Amphetamine-type Stimulants Grants Program (ATSGP) funds were provided for two years to NGOs for infrastructure upgrades, better information and educational resources, and to engage staff with particular expertise in the treatment of ATS users. The funds were part of a package of measures under the NIDS
- In 2007-08, additional resourcing were provided for drug and alcohol treatment and rehabilitation services in regional and remote areas under COAG's National Framework on Indigenous Family Violence and Child Protection
- The *Improved Services for People with Drug and Alcohol Problems and Mental Illness* initiative aims to build the capacity of non-government drug and alcohol treatment services to effectively address and treat coinciding mental illness of the Council of Australian Governments' (COAG) *National Action Plan on Mental Health 2006-2001*. The initiative is providing about \$20 million a year to 2011-12 to help non-government drug and alcohol treatment organisations build their capacity to treat concurrent mental illness and substance abuse effectively. Grants of up to \$500,000 over three years were available to individual non-government alcohol and other drug treatment services to carry out service improvement activities to build their organisation's capacity to respond to comorbid clients. 122 non-government alcohol and drug treatment services are being funded a total of \$44.8 million over three years under the capacity building grants component of this initiative, to support workforce training, partnerships with local health services, and policies and procedures for identification and management of comorbid clients.

- A second component of the initiative is the *Cross Sectoral Support and Strategic Partnership* (CSSSP) project. The CSSSP project funds AOD non-government peak bodies (or equivalent state-based support organisations) to help services build partnerships with other health sectors, identify workforce development and training opportunities, and to undertake service improvement activities.
- Since 1999, COAG has funded additional treatment places under the IDDI in order to increase the capacity of NGO treatment programs to cater for non-voluntary clients.

Broader system issues

Sectors responsible for activities that address broader system issues and social determinants also contribute to the success of AOD-specific investment. Coordination of effort across governance and implementation structures remains a significant challenge which is not specific to the AOD field. Both the progress reports and the informants indicated that, in this broader context:

- the pressures faced by AOD NGO providers were common across jurisdictions
- in some jurisdictions, the State or Territory Government continued to be the main funder of NGOs' core AOD business
- AOD NGO provider development in the sector varied across jurisdictions
- there was a persisting need to continue funding complementary initiatives to build an appropriately skilled and qualified staff, and the organisational capacity to deliver the full range of effective and cost-effective service types
- NGOTGP funds recipients also received grants from two or three other funding streams managed by DoHA or FaHCSIA
- the complementary funding provided through the range of Commonwealth programs was critical to the sustainability of AOD NGOs

The Australian Government's NGOTGP began direct funding to NGOs with a first funding instalment of \$2 million to 54 projects, announced in August 1998. Many NGOTGP-funded organisations have also received State or Territory funding. Informants commented that the capacity for integrated planning approaches to service delivery at State and Territory level depended on how closely DoHA officers in the States and Territories worked collaboratively with their State and Territory government counterparts. Some States and Territories had worked with DoHA state officers on ways to improve the integration of care through government and NGO provider co-location, coordinated referral pathways and shared care arrangements to meet both the clinical and non-clinical needs of their clients.

Collaboration is critical to coordination and consistency in efforts to enlist government jurisdictions, public administration and services, and the significant capabilities of the private and not-for profit sectors. To meet demand, treatment services need to work in an integrated manner not only in AOD and mental health, but also with primary and community care. This remains a challenge, but is critical to effective delivery of an evidence-based continuum of care.¹⁵

Workforce

Efforts have been made by States, Territories, the Commonwealth, the funded agencies and the AOD NGO peak bodies to increase the capacity of the NGO AOD sector to recruit appropriately skilled and qualified staff.

Effective resource allocation depends on investment in organisational and workforce capacity (ANCD 2005). In service delivery, workforce is a major factor affecting return on investment. Workforce modelling studies in other areas of the health system (such as mental health or aged care) have provided the AOD sector with analyses to inform investment in the short, medium and longer term, in this critical area of capacity and sustainability.

¹⁵ See Page 91 below for literature on AOD models of care

Informants said that AOD service providers – both Government AOD services and NGO AOD services - had been unable to deliver planned services because of staff shortages and skills gaps in the sector. Matters that posed major problems included a shortage of qualified AOD workers, GP prescribers and AOD specialist clinicians, a lack of minimum competency standards, limited capacity to replace workers released to participate in training, and the limited availability of supervision, mentoring and career progression.

Staff turnover and vacancies reduced their capacity to deliver the number of treatment episodes expected in a funding or reporting period, to create effective referral networks and coordination of services, or to offer culturally appropriate and gender specific services.

Some States and Territories have developed their own AOD workforce strategies. These strategies relied on partnerships and collaborations across sectors. There could be a greater role for peak bodies in some jurisdictions to work with government to strengthen this aspect of the sector.

Informants spoke of the need for competitive pay and conditions, incentives and benefits to be offered by State and Territory governments, NGOs, and private providers in order to recruit and retain appropriately skilled and qualified staff. The fee-for-service basis for funding treatment services allowed NGOs to bid for grants using a funding formula that included pay levels benchmarked to the pay levels in the government sector, but there was limited funding for quality improvement, HR services, or other infrastructure management or governance needed for delivering high quality services. NGOTGP provided sufficient funding to NGOs to pay salaries at levels equivalent to the government sector.

Accreditation of services required employment of appropriately trained and qualified staff. Training and education programs at the Certificate III and IV levels were the focus of the AOD sector workforce development in recent years. The current imbalance in the AOD workforce, where there is still a short supply of tertiary trained clinicians, suggests that return on investment in the NGOTGP would be enhanced if the next iteration of the NDS gave particular attention to a comprehensive workforce development strategy that increased the NGO sector's capacity to attract and retain the services of skilled clinicians.

Summary and observations

This case study set out to test the proposition that the NGOTGP funding and the Commonwealth's processes for its allocation have improved access to AOD treatment. The study has done so by:

- examining congruence between policy and program implementation, federal, State and Territory Governments' programs of effort, and the extent to which the NDS has prompted actions on the ground
- examining the extent and nature of the NGOTGP funding Rounds 2 and 3 which covered the period of the current NDS (2004-2009)
- describing the processes used to implement the NGOTGP across the nation to improve access to quality treatment services and to reduce drug use and related harms
- highlighting issues associated with Commonwealth Government funding to treatment services and analysing any changes arising from this funding in terms of the number of treatment places available, improved access to quality treatment and its contribution to the intended long-term outcome of reducing drug use and drug-related harms

NGOTGP funding is one element of a broader drug treatment service system. It has complemented State and Territory government funding and other sources of Commonwealth funding to NGO drug treatment services by strengthening drug treatment service capacity, broadening the scope of illicit drug treatment services, and filling some service delivery gaps and gaps in an evidence-based continuum of care (eg additional residential rehabilitation beds, increased counselling, outreach, care planning and follow-up).

Evidence-based resource allocation

The collaborative processes for implementing the NGOTGP funding, in particular its allocation, application and assessment processes, have increased the congruence between policy and program implementation, federal, State and Territory governments' programs of effort and succeeded in enhancing the capacity of NGOs to provide access to quality treatment.

While the scope of the funding is broad, it is specifically for illicit drug problems. Treatment services that treated only alcohol abuse and dependence or provided pharmacotherapy programs (methadone, buprenorphine) have been ineligible for NGOTGP funding. Responsibility for treating people whose primary problem is alcohol, and delivery of pharmacotherapy programs, remain largely with State and Territory government services.

As NGOTGP funding has been one element of drug treatment service system funding, collaborative planning, assessment of applications for NGOTGP funding and subsequent performance monitoring and review have been critical in ensuring a needs-based and equitable allocation of resources. Through collaborative assessment of submissions, the opportunity has existed for state and territory quality frameworks, system gaps, planning priorities and population needs data to be incorporated into resource allocation decisions. The extent to which this collaboration was made operational has varied between jurisdictions.

Commonwealth, State/Territory and NGO representatives have offered expert advice about needs, quality, and the performance of NGOs applying for NGOTGP funds. The extent to which officers practically engaged with services has varied from jurisdiction to jurisdiction.

The needs of target populations, sub-populations and gaps in the service delivery system capacity have been progressively addressed through the NGOTGP, planning and funding allocations. However limited data were available to quantify the improvements in access, reach and penetration of treatment programs. Limited data were available to quantify unmet need at the service level.

Resource allocation processes

NGOTGP funded a range of services for which the evidence base is clear. It has improved its processes for collaboration with States and Territories in meeting regional population needs. Assessment criteria and processes including collaboration with the States and Territories and NGO peak bodies have delivered information about the availability of services in rural and regional areas, the accessibility of services to target groups, and the capacity of NGOs to treat specific groups affected by illicit drug problems. NGOTGP has increased the range of illicit drug treatment services and filled some service delivery gaps (additional residential rehabilitation beds outreach, assessment, information and education, counselling, withdrawal management, support and case management and follow-up).

Data to support quality processes

Further work is needed on better methods for data collection, reporting on and monitoring of performance. The quality, usefulness and accessibility of AODTS-NMDS data for monitoring program performance in access, reach and penetration are limited. It would be of national interest to introduce a data element to the AODTS-NMDS that captured information about funding source.

Overall, there has been limited capacity to collect data, report on program performance, and use these results to review and improve service and system level performance. The data available from progress reports and AODTS-NMDS were limited to processes and outputs (activities). In order to inform a national evaluation and monitoring framework, there is a need to identify relevant data indicators and ensure that data are collected on measures that are able to assess program outcomes and impacts. Greater understanding of the performance of the NGOTGP and related programs in access, reach and penetration could be achieved by identifying a minimum set of common performance indicators across all treatment program

funding streams, and streamlining, clarifying and improving the consistency of data collection mechanisms and tools.

There are also inefficiencies in multiple reporting requirements for complementary AOD NGO treatment funding to the same service.

Evaluation

Historically, there has been limited opportunity to build evaluation into program implementation in NGOTGP. The program's documentation identified and described its inputs, processes, outputs (activities) and a number of intermediate outcomes. Data collection has focussed on activities rather than on the outcomes of treatment. Evaluation should consider the impact of other health and social factors on the outcomes of treatment (including individual and family progress on broader social outcomes such as relationships employment and/or accommodation).

Component 2 case study 3: Tobacco legislation covering exposure to environmental tobacco smoke, and tobacco products' health warnings

This case study deals with the development and implementation of various Commonwealth, State and Territory laws covering non-smokers' exposure to environmental tobacco smoke, or health warnings on tobacco products. These varied legislative instruments mandate very different types of intervention to address different kinds of problems. In broad terms, the health warnings are mandated by Commonwealth legislation, and controls on environmental tobacco smoke by State and Territory legislation. The case study illustrates input into policy making by the research community, NGOs and government officials through the use of policy instruments such as advocacy, negotiation and legislative reform to prevent harm from tobacco.

Purpose of the case study

The purpose of this case study is to add to understanding about how one of the NDS sub-strategies, the National Tobacco Strategy 2004-2009 (NTS), contributes to achieving desirable outcomes for society by facilitating development and implementation of legislation that aims to promote public health and well-being.

Under the NTS, the Commonwealth, States and Territories committed to the further use of regulation 'to reduce the use of, exposure to, and harm associated with tobacco' (NTS iii). Each Australian jurisdiction undertook to develop or update an action plan that included further efforts to use regulation:

'To minimise commercial conduct that currently contributes to ill-informed, non-voluntary and unnecessarily harmful and costly use of tobacco products and exposure to tobacco toxins with an aim to:

- **Eliminate** remaining forms of tobacco **promotion** (including through the pack itself), and find ways to reduce and offset the impact of **positive portrayals of smoking in films** and other forms of popular entertainment
- Dramatically **reduce the visibility** of tobacco products and their accessibility to young people
- Recommend measures to make tobacco products **less affordable**
- **Eliminate** remaining exposure to **environmental tobacco smoke** among workers, clients and patrons in many blue collar workplaces and public places including very high rates of exposure in pubs and clubs; and **minimise exposure** among clients **in** some publicly-funded (**residential**) **mental health treatment and correctional facilities**
- Devise and find finance for **a system** that **provides accurate and timely advice** that will help consumers more fully understand the risks and consequences associated with smoking
- Develop a **regulatory system** for tobacco and tobacco replacement products that, **if** it is **feasible**, allows us **to reduce the overall harm** associated with dependence on tobacco and nicotine
- Set in place an **overarching legislative framework** that ensures that the costs of addressing tobacco-related harm are borne by those who manufacture or sell tobacco, rather than by other Australian taxpayers.' (42-3)

'Each Australian jurisdiction is able to develop or update an action plan describing efforts to meet each of these challenges'. (v)

In this case study we examined the influence of the NTS on legislation concerning two of the regulatory interventions – the package labelling of tobacco products, and restrictions on smoking in various environments. We also assessed differences in implementation across jurisdictions to inform the extent to which there is synergy and consistency in efforts among the States and Territories.

Method

This is a single case study with one unit of analysis, namely the influence of the NTS on legislation relating to the package labelling of tobacco products and minimising exposure to environmental tobacco smoke. Two data collection strategies were employed: document analysis and informant interviews. A set of research questions was formulated to guide the collection and collation of data, informant interviews, and analyses of the data:

Research Questions

1. What is the extent and nature of development and implementation of tobacco legislation across jurisdictions?
2. To what extent is the development and implementation of tobacco legislation congruent with the NDS Framework and the NTS?
3. How have the NDS and the NTS influenced/contributed to the development and implementation of tobacco legislation in each jurisdiction?
4. What determines significant variation (if any) in implementation between and/or within States and Territories?
5. To what extent is the national program of tobacco legislation covering packaging and restrictions on smoking environments informed by evidence?
6. In what ways, and to what extent, has tobacco legislation contributed to achieving outcomes identified in the NDS Framework and the NTS?
7. What factors, other than tobacco legislation, have contributed to achieving these outcomes?
8. Are there activities or programs, which have occurred outside the NDS Framework or the NTS, which have enhanced or diminished the achievement of the aims of tobacco legislation?
9. What other factors (at the system, organisation, personnel and community level) influenced the capacity of the national program of tobacco legislation to deliver the intended outcomes?

The documents reviewed included research literature, Chapman's influential 2007 book, *Public Health Advocacy and Tobacco Control: Making Smoking History*; Commonwealth, State and Territory legislation, policy documents and implementation reports, including the NTS web site <http://www.health.gov.au/internet/main/Publishing.nsf/Content/phd-pub-tobacco-tobccstrat2-cnt.htm>; key on-line data bases such as the Tobacco Control Supersite <http://tobacco.health.usyd.edu.au>. Technical Paper no. 2 of the National Preventative Health Task Force's Tobacco Working Group (2008), *Tobacco Control in Australia: Making Smoking History*, was another key source.

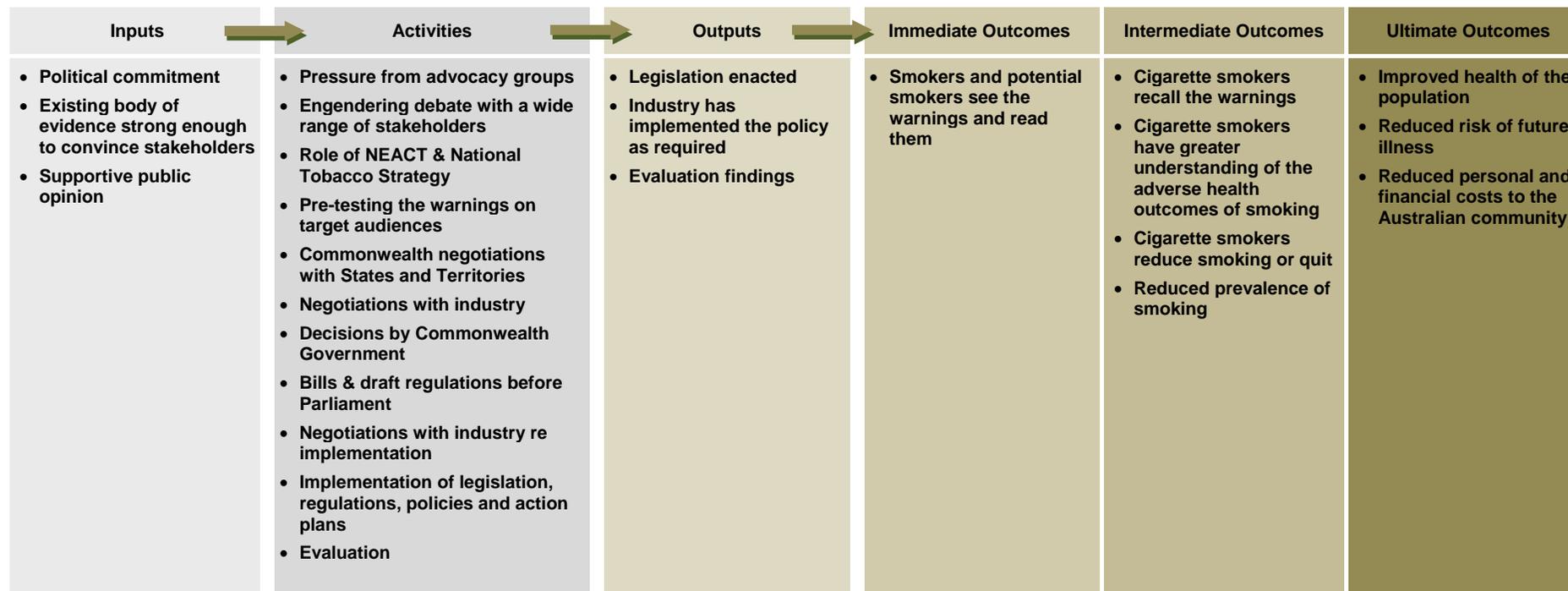
Interviews were conducted with 28 informants who included senior public servants, leaders of advocacy bodies (NGOs and professional associations) and tobacco researchers. The data were analysed using qualitative research methods to identify themes.

Program logic model

Based on the document review, we developed models of the logic of the two legislative interventions under review, namely introducing restrictions on smoking in various environments (reducing environmental tobacco smoke), and the labelling of tobacco packaging with graphic health warnings. Both these logic models draw attention to the importance of political commitment, research evidence that convinces key stakeholders, and supportive public opinion. Activity leading to the passage of legislation mandating smoking bans or requiring graphic health warnings on tobacco packets have occurred in various sectors. Beneficial outcomes are obtained immediately from reducing environmental tobacco smoke exposure. The effects of mandating graphic health warnings on tobacco packaging require a longer time to see any effects.

Program Logic Model: The labelling of tobacco packaging with graphic health warnings

Overarching objective: To make further use of regulation to minimise commercial conduct that results in ill-informed, non-voluntary and unnecessarily harmful and costly use of (and exposure to) tobacco products (*National Tobacco Strategy*, (iv))



Context: A broad movement towards more healthy lifestyles. Community opposition to tobacco use. Tobacco industry now characterised as a problem. Other tobacco control initiatives that may interact positively with this one. Concerns in the retail sector that graphic warnings could reduce sales.

Program Logic Model: The introduction of restrictions on smoking in various environments (reducing environmental tobacco smoke)

Overarching objective: To make further use of regulation to minimise commercial conduct that results in ill-informed, non-voluntary and unnecessarily harmful and costly use of (and exposure to) tobacco products (National Tobacco Strategy, p. iv)

Inputs	Activities	Outputs	Immediate Outcomes	Intermediate Outcomes	Ultimate Outcomes
<ul style="list-style-type: none"> • Political commitment • Existing body of evidence strong enough to convince stakeholders • Supportive public opinion • Funds for personnel & enforcement 	<ul style="list-style-type: none"> • Pressure from advocacy groups • Engendering debate with a wide range of stakeholders • Role of NEACT & National Tobacco Strategy • S/T authorities negotiations with industry groups • Decisions by S/T and local govt • Bills & draft regulations before legislatures • Negotiations with industry re implementation • Implementation of legislation, regulations, policies and action plans • Evaluation 	<ul style="list-style-type: none"> • Legislation enacted • Agreement with industry groups as to implementation steps incl. timetable • Industry has implemented the policy as required: designated S/F areas, building modifications, signage • Enforcement processes decided and implemented • Evaluation findings 	<ul style="list-style-type: none"> • Smokers and potential smokers know of the restrictions • Smoking is eliminated in designated areas • Reduced environmental smoke 	<ul style="list-style-type: none"> • Reduced smoking prevalence • Lower levels of smoking in continuing smokers • Non-smokers and staff of the affected premises ingest less environmental smoke 	<ul style="list-style-type: none"> • Improved health of the population • Reduced risk of future illness • Reduced personal and financial costs to the Australian community • Improved amenity for non-smokers

Context: A broad movement towards more healthy lifestyles. Community opposition to tobacco use in general and in enclosed premises particularly. Political power of the hospitality industry and their tobacco industry associates. False but widespread perception that smoking bans adversely affect hospitality industry profitability. Other tobacco control initiatives that may interact positively with this one.

Findings

The findings derived from this case study focus on the ways the NTS has been a factor in producing NDS program outcomes in the area of tobacco control that are likely to improve the health of the Australian population, and the extent to which it has done so.

Context

The epidemiology of smoking and its consequences

The first important contextual issue is *the epidemiology of smoking and its consequences*. The position has been nicely summarised by the Tobacco Working Group of the National Preventative Health Task Force (2008):

Smoking continues to be Australia's largest preventable cause of death and disease. Over three million people—just under 18% of Australians aged 14 years and over—still smoke at least weekly...About half of the smokers who continue to smoke for a prolonged period will die early, half of them in middle age...when children and grandchildren depend on them, and while they are in the most productive years of their working lives...Tobacco use caused 15,511 deaths in 2003,...and cost the Australian community around \$31.5 billion in 2004–2005...Smoking is responsible for 12% of the total burden of disease and 20% of deaths in Indigenous Australians (1).

The Tobacco Working Group explained that:

The Australian death toll caused by smoking will pass the million mark within the next decade. The social costs of tobacco exceeded \$31 billion in 2005,...but it is impossible to put a value on the grief suffered by the hundreds of thousands of families who have lost a child, a spouse or a parent in what should have been the most productive and rewarding years of their life.

Projections based on current patterns of uptake and quitting suggest that on our current course, prevalence of daily smoking will still be over 14% in 2020 and will remain close to 10% well past the year 2070 (v).

The body of research evidence

The second important contextual factor is a *body of research evidence* that: demonstrates the adverse impacts on health of environmental tobacco smoke (United States Public Health Service, Office of the Surgeon General 2006); shows that bans on smoking in enclosed commercial venues such as pubs and clubs do not adversely affect the profitability of those businesses (Scollo *et al* 2003); and graphic health warnings, including on the tobacco product packaging, are effective in reducing smoking prevalence (White *et al* 2008). As pointed out by our informants from all sectors—research, advocacy and public service—the tobacco field is a domain of public health that has a sounder evidence base for action than most.

The third important contextual factor is the attention paid to tobacco in the NDS Framework document and, more particularly, the acceptance by all Australian governments of the NTS. The work of the National Preventative Health Task Force is likely to be instrumental in increasing the momentum of action to 'make smoking history' in Australia.

Internationally, perhaps the most important step forward in recent decades has been adoption of the WHO Framework Convention on Tobacco Control (<http://www.who.int/tobacco/framework/en/>) which came into force on 27 February 2005 after Australia ratified it on 27 October 2004. This Convention is the first global public health treaty reflecting the global impact, now and into the future, of tobacco in both the more developed and less developed nations. The Treaty's provisions include those that are the subject of this case study: reducing exposure to environmental tobacco smoke and requiring tobacco products to carry health warnings describing the harmful effects of tobacco use. Australia played a significant role in the development of the Convention and the negotiations which led to its adoption, and it was one of the first contracting parties to the Convention.

Cultural shifts

A critical contextual factor has been the cultural shift in Australia favouring reductions in the availability and use of tobacco products. Over the years there has been some debate as to whether this reflects a general trend towards greater awareness of health issues and willingness of people to engage in health promoting activities, the direct effects of tobacco control policies, or some combination of the two. The research evidence suggests that health promotion interventions have been the key drivers, influencing and being influenced by other issues in culture and society (Chapman 2007).

Development and implementation of tobacco legislation across Australia

Graphic health warnings on tobacco products

Australia is well advanced, and has been one of the world leaders, in requiring graphic health warnings to be displayed on tobacco packaging. The history of health warnings in this country goes back over 30 years, with warnings introduced in 1973 when tobacco packaging was required to show the warning 'Smoking is a health hazard'. In 1994 cigarette packets were required to include six health warnings in black text on a white background.

The current health warnings on tobacco products are mandated by Commonwealth legislation, specifically the *Trade Practices Act 1974*. The detailed requirements of the current graphic health warnings are found in the Trade Practices (Consumer Product Information Standards) (Tobacco) Regulations 2004 (Cwlth). They came into full effect on 1 March 2006. According to the Department of Health and Ageing the key features of the health warnings system for most cigarette packs and loose tobacco (roll-your-own) and pipe tobacco packaging are as follows:

- 14 health warnings comprising graphic images, warning messages, explanatory messages
- A rotation system to optimise consumer learning and awareness of the health effects of smoking. Two sets of 7 health warnings (Set A and Set B) are alternated every 12 months
- Each set of 7 warnings appearing on, or as near as possible to, an equal number of each type of product for each 12 month period
- A 4-month transition period occurring between November and February (inclusive) each year to allow the phase-out of the previous set and the introduction of the next set of health warnings
- Health warnings covering 30% of the front and 90% of the back of most cigarette packs, with graphics appearing on both the front and back of packs
- Health warnings covering 30% of the front and 50% of the back of most loose tobacco and pipe tobacco pouches, with graphics appearing on both the front and back of packs
- The national Quitline number and Quitnow website address are included on the back of packs to provide a contact for smokers for assistance with quitting
- An information message on the health effects of chemicals in tobacco smoke appears on the side of the cigarette pack. The information message covers one full side of cigarette packets and 25% of one side of cigarette cartons
- Adhesive labels are not permitted for flip-top, soft pack cigarettes and cartons, but are permitted for pipe and tobacco pouches

<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-drugs-tobacco-warnings.htm>

The key features of the system of health warnings displayed on most cigar packaging are as follows:

- 5 cigar-specific health warnings comprising graphic images, warning messages and explanatory messages
- The 5 cigar-specific health warnings must appear on, or as near as possible to, an equal number of each type of product for each 24 month period
- Health warnings must occupy 25% of the front and 33% of the back of most cigar packages
- Adhesive labels displaying the cigar warnings are permitted for all cigar products
- An information message is not required on cigar packaging.

DoHA advises that mandatory graphic health warnings have three goals: (1) to increase consumer knowledge of the health effects of smoking, (2) to encourage the cessation of smoking and (3) to discourage uptake of smoking and relapse among quitters.

The 2004 regulations were introduced after an extensive period of market research and consultation with stakeholders.

Although it is only two years since these health warnings began appearing on tobacco product packaging, the Tobacco Working Group of the National Preventative Health Task Force has expressed the view that ‘Australia is now well behind when it comes to the potency of warnings’, and has proposed a number of actions to improve the effectiveness of the health warnings’ (2008, 22). The Department of Health and Ageing has commissioned an evaluation of the current set of graphic health warnings to determine their effectiveness, especially their impacts on smoking behaviour, attitudes, knowledge and intentions. The study is currently under way. It is likely that its findings will help guide the future directions for Australia’s graphic health warning system.

Reducing exposure to environmental tobacco smoke

Australia has implemented smoking bans in most enclosed public places and in some places where non-smokers may be exposed to environmental tobacco smoke.

Legislative initiatives to limit people’s exposure to environmental tobacco smoke (or second-hand smoke or passive smoking) are, in the main, matters for the States and Territories. The Commonwealth’s role is to provide policy leadership where appropriate and to legislate in areas for which it has responsibility such as prohibiting smoking on domestic air flights and international flights operating out of Australia (mandated under the *Air Navigation Act 1920* and the *Air Navigation Regulations*) and in airport buildings operated by the Federal Airports Corporation (mandated under the *Federal Airports Corporation Act 1986* and the *Federal Airports (Amendment) By-laws Act 1986*). The *Interstate Road Transport Act 1985* and the *Interstate Road Transport Regulations* prohibit smoking on interstate buses, and there is a similar ban on interstate trains. Bans on smoking in Commonwealth buildings were for some years a matter alone. Subsequently, all States and Territories legislated regarding smoking in public places and workplaces.

There are substantial differences between the various states and territories in their legislation on smoking bans and in the implementation timetables. During the current phase of the NDS each State and Territory has acted to further limit exposure to environmental tobacco smoke. The Northern Territory stands out as being substantially slower than the States and the ACT in introducing these provisions, but it has recently announced that it plans to do so in the future. Smoking in vehicles containing children is prohibited in Tasmania and South Australia, and some other States and the ACT have indicated that they plan to introduce similar legislative provisions.

The Tobacco Working Group of the National Preventative Health Task Force (2008, 16) has pointed out that the uncoordinated introduction of smoking bans has led to the emergence of ‘...several loopholes and inadequacies...in some aspects of operation and enforcement’, as evidenced by a 2008 study by NSW Health demonstrating unacceptably high levels of tobacco smoke in pubs which should be free of these toxins. No jurisdiction bans smoking in prisons although some are planning to review their policies when the results become available of the trial of banning smoking in indoor areas of the Greenough Regional Prison in WA (<http://www.mediastatements.wa.gov.au/Lists/Statements/DispForm.aspx?ID=130069>). Prohibiting smoking in the home in the presence of children is not currently prominent on the policy agenda of any Australian jurisdiction because of the challenges in enforcing such a ban.

Influence of the NDS and the NTS on the development and implementation of tobacco legislation in each jurisdiction

The NTS 2004-2009 was endorsed by the MCDS in November 2004 and so has been in operation for most of the current phase of the NDS. The States and Territories are invited in the Strategy to develop action plans to implement legislative reform in those areas that fall within their constitutional responsibilities.

The implementation of graphic health warnings is relatively straightforward: the Drug Strategy Branch of DoHA has policy responsibility for the health warnings, while compliance with the regulations is administered by the Australian Competition and Consumer Commission. The Drug Strategy Branch operates within the framework of the NDS and the NTS. The NTS 2004-2009 did not influence the introduction of these measures because graphic health warnings were introduced before the commencement of the current phase of the NDS and NTS and the research and policy analysis activity that led to the policy began five years before the current NTS. The current version of the NTS (pp. 23-4) acknowledges decisions already made on the regulation of tobacco packaging and identifies some emerging issues, but does not spell out a fully-developed implementation pathway towards more effective graphic health warnings.

A far more complex relationship exists between the national policy settings on tobacco and the development and implementation of tobacco control legislation within those jurisdictions. This is because most of the authority to limit exposure to environmental tobacco smoke is the responsibility of the States and Territories.

The first point is that nearly all informants agreed that the NTS was an excellent document. It was evidence-based, realistic and provided a clear framework for action by the States and Territories. It was developed collaboratively between highly committed public servants, advocacy representatives and members of the research community. The only caveat was that some observers thought it only included initiatives that governments were willing to implement; that is, it documented existing policy rather than pointing to new policies that could be considered. This was not the general view, however. It also has not reflected the fact that many new initiatives have been developed since the adoption of the NTS in 2004 that are consistent with the strategy.

In most jurisdictions people in government, advocacy organisations, and researchers were very much aware of the NTS and referred to it in their work. In contrast (and this is one of the areas where the tobacco field differs from other drugs) most of our informants were not familiar with the NDS Framework and did not see it as relevant to their work on tobacco. This is not surprising since IGCD/MCDS has given little attention to tobacco control during the current phase of the NDS.

Senior informants from both large and small Australian jurisdictions have characterised the NTS as ‘an enabling strategy’. What they mean by this is that their own State and Territory strategies and tobacco action plans largely reflect the contents of the NTS. It has provided a blueprint that they have been able to use within their own jurisdictions with minimal modification to local circumstances.

The small jurisdictions, with limited resources for research and policy analysis, have used the contents of the NTS without having to develop, from the ground up, arguments for the policies that it advocates. The fact that the Strategy is supported by high quality research-based documents has been a powerful positive influence for people engaged in policy activity. We heard of a number of instances where senior public servants, seeking to convince their colleagues and Ministers in other portfolios about the importance of new tobacco control initiatives, have only needed to refer to the NTS and the fact that it has been endorsed by MCDS to have its provisions accepted by their colleagues. This has been valuable in achieving progress across the country and a degree of congruence between the tobacco strategies and action plans of the various States and territories.

Some people in NGOs reported using the NTS as the framework for their advocacy work. In negotiations with decision-makers they point to its contents as the standard and called for their jurisdictions to implement the provisions of the Strategy.

There were differences of opinion among our senior informants about whether the agenda setting role of the NTS was sufficient, or if something else was required to optimise the national effort in tobacco control. Some argued that the States and Territories were operating independently in the tobacco control area with very little support and guidance from the Commonwealth, IGCD and MCDS. They pointed out that, although there is a high-level National Strategy, there is no detailed national action plan on tobacco specifying what actions will be taken, by whom, in what timeframe and using what resources, and no specific Commonwealth funding to the States and Territories for tobacco control. (Commonwealth officers have pointed out, however, that the State and Territory Governments are at liberty to use funds provided under the Public Health Outcomes Funding Agreements on tobacco control activities.) A review of the NTS will begin in 2008-09. Some argued that, over the years, the Australian Health Ministers' Conference (AHMC) and the Australian Health Ministers' Advisory Council (AHMAC) had given more attention to tobacco than MCDS and IGCD whose focus has been more on illicit drugs and alcohol. In other words, while they thought that the contents of the Strategy were fine, they believed there was insufficient national action to implement it.

This was a minority view, with the bulk of our senior informants feeling that the State and Territory initiatives, operating within the framework of the Strategy, were sufficient to achieve the desired ends. Some informants expressed concern that the Commonwealth had not used its taxation powers to discourage smoking by increasing the cost of tobacco or funding large-scale mass anti-smoking media campaigns, both initiatives for which there is strong evidence for efficacy and effectiveness.

We conclude that the NTS has been a powerful enabler of legislative reforms in the states to minimise non-smokers' exposure to environmental tobacco smoke.

Similarities and differences in tobacco legislation within and between States and Territories

Clearly there are differences among the various States and Territories in the ways they have implemented the broad national agreements about tobacco control in protecting non-smokers from environmental tobacco smoke. Most of our informants do not consider this a problem because of the good progress that has been made in all jurisdictions except the Northern Territory during the current phase of the NDS. The Northern Territory has also announced that it will soon move decisively in the area of smoking bans. We have seen a process of policy 'leapfrogging' in which one jurisdiction will introduce an initiative, such as South Australia's ban on smoking in cars with children, and then other jurisdictions will introduce the same legislation soon after. This process has been characterised as one of 'catch-up', with competition between the jurisdictions in response to advocacy groups' pointing to other jurisdictions as models for what their own should be doing.

The annual AMA/ACOSH National Tobacco Scoreboard, including its ‘Dirty Ashtray Award’ (http://www.acosh.org/news/legislation_australia.html), was cited by informants as being highly influential in government. The ‘carrot and stick’ approach that it uses—highlighting both excellence in public tobacco policy and tardiness in introducing evidence-informed policies—has been highly effective.

We heard no support for uniform legislation, harmonising legislation or introducing tobacco control initiatives simultaneously in all jurisdictions. Attempts to do this in other sectors have generally introduced huge delays because of the challenges in agreeing to a single legislative model for all settings. Most informants thought it better to allow the various jurisdictions to develop their own approaches in ways that reflected local circumstances, and allowed Ministers to make announcements in their own timeframes within their own jurisdictions.

The role of evidence in informing the national program of tobacco legislation covering packaging and restrictions on smoking environments

Tobacco control is one of the areas in public health for which there is a very sound evidence base. The research evidence is both broad and deep. New high-quality, policy relevant research is published continually.

Importantly for policymakers, well respected economic evaluations have been conducted in this area and are frequently cited (eg Applied Economics 2003, Hurley & Matthews 2008, Shearer & Shanahan 2006). These constitute compelling evidence in a political environment where value for money is an important consideration.

One senior informant correctly described research evidence as the ‘bedrock’ of policy in tobacco control. Australia has produced some of the world’s leading tobacco policy researchers. Some of them have strategically and very effectively combined research with public health advocacy to produce outstanding public health benefits.

The utilisation of the research evidence on tobacco has been both direct and via the ‘enlightenment’ route, to use Weiss’ (1979) terminology. An example of direct use has been the evidence presented by Wakefield *et al* (2008) on point-of-purchase cigarette displays as cues to purchasing cigarettes in people not intending to do so. This study has been used by policy officers in proposing that their governments ban point-of-purchase promotions. The return on investments research (eg Applied Economics 2003) has had a major influence through the ‘enlightenment’ route, in that the current general understanding (if not always reflected in action) is that public health campaigns are an effective policy instrument for governments to reduce tobacco-related harm in a highly cost-effective way.

Policy analysts and informants in NGOs in the small jurisdictions that have limited research resources have benefited from the packaging of the evidence and the dissemination activities engaged in by the larger, more prominent, interstate NGOs and State governments.

Some initiatives have been implemented in the absence of convincing research evidence. This is inevitable in the case of innovative strategies but it highlights the need to systematically monitor and evaluate such policies.

There remain a number of areas in which there is insufficient evidence to clearly guide policies. Two prominent examples are ways to reduce smoking prevalence among Indigenous people and low SES communities. Other population groups with high prevalence of smoking, but which have received insufficient attention to date, are people with mental illness, users of illicit drugs and people dependent on alcohol. Innovations which are currently being evaluated include training midwives in major public birthing hospitals in brief interventions for pregnant women who smoke, and smoking cessation guidelines to assist general practitioners to provide brief interventions .

In summary, tobacco control is one of the areas in public health where we can clearly identify what works in what circumstances, and much of this evidence has come in part from top-

quality Australian research. The mutually respectful relationships that exist between public servants, the research community and tobacco control advocates means that the evidence has been disseminated and used well in creating healthy public policies in Australia.

The contribution of tobacco control legislation contributed to achieving the outcomes identified in the NDS and the NTS

Senior informants were unanimous that smoke-free environments legislation in all six States and the ACT has been instrumental in achieving the objectives of the NDS and the NTS. This has reduced exposure to second-hand smoke among non-smokers, prevented the uptake of smoking and encouraged and assisted smokers to quit by providing an environment that de-normalises smoking in the community.

In 2008 the Northern Territory Government was awarded the 'Dirty Ashtray Award' for the third time running by the Australian Medical Association and the Australian Council on Tobacco and Health. The President of the AMA stated that 'The Northern Territory's record on tobacco control is an embarrassment for a nation that is otherwise making good progress' (<http://www.ama.com.au/web.nsf/doc/WEEN-7F65DR>). The NT Government has announced plans to legislate effectively in this area. When it does so, the NT will join the others in using tobacco control legislation to help achieve the public health outcomes identified in the NDS and the NTS.

The contribution of activities or programs outside the NDS and the NTS to the achievement of the aims of the tobacco legislation

In Australia more generally, many factors influence policy on tobacco and its implementation. Some of these are positive, facilitating the development and implementation of sound policies, while others operate in the opposite direction.

Pressures to thwart sound public health policy on tobacco come primarily from the tobacco and other industry groups. These include the hospitality industry, especially the owners and operators of pubs and clubs and gambling venues. Overall, the restaurant industry has been supportive of curbs on environmental tobacco smoke, in contrast to significant sectors of the pubs and clubs industries. Representatives of tobacco retailers have effectively applied pressure on governments to delay curbs on their promotion of tobacco products and to restrict the number of retailer licenses. The gambling and advertising industries are also key players.

The tobacco industry has a long history of influencing political and public opinion. It is highly resourced and is very skilful in protecting its sales and the profitability of its member companies. Examples include campaigns emphasising the 'rights' of smokers to 'choose' to smoke. Chapman (2007) has clarified the flaws in this argument when dealing with nicotine-dependent people whose ability to choose is severely compromised. The industry plays on public concerns about excessive government involvement in how people live and the choices that they make: concerns about 'the nanny state'. The industry also makes substantial political donations. It also sponsors youth anti-smoking campaigns to demonstrate that it is "socially responsible". This is a hypocritical initiative because they know that the product they manufacture and sell kills half of long-term smokers, half of whom will die in middle age. They therefore need to recruit more young people to smoking in order to maintain the profitability of their industry.

Support for healthy public policies on tobacco is widespread in the Australian community as evidenced by responses to the 2007 and earlier NDS Household Surveys. We have a community that is well informed about the health problems caused by tobacco use and supports public policy initiatives required to deal with this. This reflects the long history in Australia of research, advocacy and public communication around tobacco and health.

The work of advocacy groups, alone and in collaboration with governments, has been a crucial factor. Political leadership continues to be important, with senior informants referring

to individual State and Territory ministers who are particularly committed to tobacco control and who have shown strong leadership in this area. They point out that the introduction of some initiatives (such as prohibiting smoking in cars when children are present) are easy because they enjoy widespread community support and limited opposition from other stakeholders. In contrast, it is far more difficult for political leaders to convince their colleagues to introduce more important and far-reaching interventions such as prohibiting point-of-sale promotions, introducing significant price increases through taxation, requiring plain packaging, more strongly regulating the retail tobacco industry, etc.

At the present time an important contextual factor is the renewed commitment of the Commonwealth Government to act more decisively in preventive health and adopt public health policies for which there is good evidence of a positive return on investment. Healthy public policies on tobacco meet these criteria for priority in policy activity.

Observations

The NTS, but in this case not the NDS as a whole, has provided a useful enabling framework for healthy public policies on tobacco. Some senior informants believed that the NTS had not driven the positive developments in tobacco control seen in Australia during the current phase of the NDS, but nonetheless had facilitated them.

The Commonwealth legislative initiative to introduce graphic health warnings in 2006 was strongly supported by all informants and seen to be an important part of the policy mix. The public health community is looking forward to the results of the current evaluation of the health warnings. It is also looking to new initiatives on tobacco for which the evidence base has developed since the NTS was adopted in 2004 (eg bans on point of sale advertising).

The legislative initiatives of the States and Territories, and the Commonwealth in its limited jurisdiction, on environmental tobacco smoke, have been seen as valuable. These initiatives have been implemented in a manner consistent with the NTS and are seen as important components of initiatives to achieve the high level goals of the NDS and the NTS. The fact that they have been implemented in different ways in different jurisdictions at different times is not seen as a serious issue so long as there are no significant lags in implementation. In this context, the Northern Territory has been far behind other jurisdictions in legislating to reduce non-smokers' exposure to environmental tobacco smoke.

Tobacco control is one of the areas in public health that has a sound evidence base including evidence as to cost effectiveness. The mutually respectful, collaborative activities of advocacy bodies, researchers and government officers has been a feature of the tobacco control field that has been important in countering the powerful commercial interests that work against healthy public policy on tobacco.

Component 3 case study 1: Psychostimulants Expert Reference Group

Introduction and background

The National Psychostimulants Initiative (NPI) was established by the Australian Government in 2003-04 to address problems associated with the increased availability and use of psychostimulant drugs in Australia. Over \$15 million has been provided to the NPI from 2003-04 to 2009-10 to undertake prevention, harm reduction and educational activities.

According to the 2001 NDS Household Survey, following cannabis, amphetamines were the second most commonly used illicit drug in Australia, with about 1.4 million Australians aged 14 years or over using amphetamines at least once in their lifetime. At the same time, 1 million Australians aged 14 years or older over had used ecstasy/designer drugs and 700,000 had used cocaine in their lifetime. The most recent funding for the NPI was provided in the 2006-07 budget under the “combating emerging trends in illicit drug use” measure. This measure also included funding for Phase 3 of the National Drugs Campaign implemented in 2007.

DoHA is the lead agency responsible for implementing the NPI. It has undertaken a variety of activities with a focus on:

- identifying and disseminating good practice models and approaches for the treatment of psychostimulant use
- exploring effective treatment options for drug users
- providing support and training to general practitioners and other health workers to improve treatment outcomes for psychostimulant users
- providing information for at-risk youth and families

The current phase of the NPI (2006-2010) focuses on strengthening the capacity of frontline workers to deal more effectively with users of psychostimulants.

The National Psychostimulants Initiative Expert Reference Group (NPIERG) is responsible for providing advice to the Department on implementation of the current phase of the NPI.

Purpose of the case study

The current case study was selected to examine the extent to which the advisory structures and expert advice have been instrumental in the development and implementation of the NPI. In particular, this case study examines the functions, processes and outcomes of the NPIERG.

It describes the NPIERG, the expert advice sought, and the extent to which advice provided has been adopted in developing and implementing the NPI nationally and at State and Territory level, in both government and non-government sectors, and the private and not-for-profit sectors.

Observations on this case study may provide insights into how advice is achieved and used in developing and implementing national initiatives.

Proposition tested by the case study

The proposition of this case study is that the NPIERG and expert advice provided were effective in supporting the development and implementation of the National Psychostimulants Initiative.

A set of research questions was formed to test the proposition.

Research questions

- 1 How was the psychostimulants issue placed on the agendas of the NDS advisory structures, and how was the NPIERG formed?
- 2 How did the advisory structures formulate advice on the development and implementation of this NPI?
- 3 What expert advice was provided and how was it sought?
- 4 To what extent was the advice provided through the advisory structures informed by research evidence? What data sources or evidence were used and how useful were they?
- 5 How useful was the expert advice that was obtained? To what extent was expert advice incorporated into the advice provided by the advisory structures and in decision making?
- 6 To what extent has the NPI been developed and implemented in accordance with the advice provided?
- 7 To what extent and how have the NPIERG facilitated the uptake of this NPI across jurisdictions (including government and non-government, private and not-for-profit sectors)?
- 8 To what extent and how have the advisory structures and expert advisors been able to act proactively to address the aims of the NPI?
- 9 To what extent and how have the advisory structures been able to respond to challenges and overcome barriers associated with implementing this NPI?
- 10 What other factors (at the system, organisation, personnel and community level) influence the capacity of the advisory structures and expert advisors to support the development and implementation of this NPI?

Method

This case study used two data collections strategies: analysis of relevant documents, and interviews with informants. The document analysis reviewed:

- The NPI Strategic Plan
- The NPI Background Paper prepared for the Expert Reference Group (November 2006)
- The Group's Terms of Reference
- Three options papers providing project outlines
- Meeting agendas of the NPIERG for November 2006, February 2007, and September 2007
- Meeting briefs used by DoHA to chair these three NPIERG meetings
- A conversation track documenting a brainstorming session at the first NPIERG meeting in November 2006
- Tools to facilitate advice on matters such as priorities and support for proposals
- IGCD, ANCD and MCDS meeting agendas, resolutions and communiqués for items relating to the development and implementation of the NPI
- IGCD annual report to the MCDS for 2005-06

The discussion protocols for the informant interviews were based on the research questions.

It is important to note the marked limitations on documentation and consultation. First, the NPIERG was established in 2006, and the Group has held three meetings. Secondly, limited documentation of these meetings or resolutions arising from them was available.

Informant interviews were held with people associated with developing and implementing the NPI (including relevant advisory group members). Most of the participants who contributed information to the case study said they were able to make only limited comments. Six informants were able to provide more substantial comments on the NPI or the Expert Reference Group.

National Psychostimulants Initiative Expert Reference Group functions

The NPIERG is a time-limited advisory body established and endorsed by the former Secretary to the Minister for Health and Ageing, Mr Christopher Pyne. A NPI Background

Paper (November 2006) was prepared by the Drug Strategy Branch for the NPIERG and circulated prior to its first meeting on 17 November 2006. The NPIERG Background Paper presented to members the terms of reference for the NPIERG. The terms of reference stated that the NPIERG would provide advice to the Department on implementation of the current 2006-2010 phase of the NPI (that is, strengthening the capacity of workers to more effectively deal with psychostimulant users).

In addition, the terms of reference stated that advice would also be sought on the following issues provided to the NPIERG:

- Current trends
- Activities being undertaken across Australia
- Current workforce capability, training programs, training requirements of frontline workers
- Available pharmacotherapies and the necessity (or otherwise) for further research/trials
- Research on the effect of psychostimulants on the brain and on the behaviour of users
- Creative options for dissemination of information to a range of audiences, eg pre-contemplators, and current users, internet and SMS messaging

The NPIERG Background Paper also outlined some of the current activities within the NPI and more broadly across government, and identified current challenges and possible areas of focus for the NPI. It highlighted to NPIERG members that the purpose of the first meeting would be to focus on immediate, medium and longer priorities under the NPI.

The NPIERG is chaired by DoHA, and its members are experts in treating problem users of psychostimulants, pharmacology, and mental health (see Table 2). Members of NPIERG consist of 10 individual experts currently working at alcohol and drugs related organisations (such as ANCD, AFP, University of Sydney, University of Melbourne, ADCA) and a person with relevant life experience. Members were appointed as individuals rather than representatives of their organisations. Membership is for the term of the NPI (2006-2010). The Drug Strategy Branch of DoHA performs the secretariat function.

From the available documents, it is impossible to tell whether the NPIERG members were part of the NEAP or selected independently. Members are reimbursed for travel and incidental expenses for attending NPIERG meetings. There does not appear to be a sitting fee.

The NPIERG holds face-to-face meetings three times a year, with out-of-session input as required. Since its inception, the membership and invitees to meetings appear to have varied.

Table 2: NPIERG members as at September 2007

Member	Expertise/organisation
Associate Professor Robert Ali	ANCD
Mr Tony Negus (as proxy for the Deputy Chair of ANCD, Commissioner Keelty)	ANCD
Professor Ian Hickie	ANCD
Mr Tony Gill	Treatment
Ms Joanne Lunn	Treatment
Professor Jason White	Pharmacology
Dr Dan Lubman	Mental Health
Ms Tamara Speed	A person with relevant life experience
Dr David Spain	Emergency Department
Mr David Templeman	ADCA

The NPIERG reports to the Drug Strategy Branch which is responsible for the NPI. It has no direct connection with other bodies in the NDS advisory structure. DoHA's IGCD representative chairs the NPIERG, attends ANCD meetings, and provides NPIERG updates to these bodies. Informants said that DoHA's representative informs ANCD and IGCD when an NPIERG meeting has taken place and updates them on the progress of current and possible NPIERG activities.

ANCD agendas indicate that, in December 2005, a background paper on psychostimulant issues was compiled to brief ANCD members, but it was unclear who prepared the background paper and whether it was related to the NPI. At the same meeting, the ANCD encouraged funding bodies to support research into the psychostimulant issue, and requested updates from DoHA. In its May 2007 communiqué, the ANCD acknowledged the significant increase in contributions from the Australian Government for the NGO sector for a range of issues related to psychostimulants, and particularly for treatment. It is difficult to document direct links between ANCD and NPIERG.

Some informants who commented on the development of the NPI and the formation of the NPIERG felt both were *ad hoc* and politically motivated rather than strategically designed to deal with the psychostimulants problem in the community.

Informants also raised concerns about the adequacy of consumer representation. In shaping the NPI, the importance of the consumer's voice had been emphasised (contributing to issues about current trends and contexts in which people use psychostimulants; or funding to AIVL for research on these issues). Several informants said that consumers were not as well represented in the Expert Group or consulted as they should be. However, the NPIERG membership does include an ADCA representative, and a consumer representative with relevant life experience.

NPIERG processes for formulating advice

Before the NPIERG came into existence in late 2006, in September 2004 the IGCD noted completion of guidelines for GPs, police, ambulance officers and emergency department workers on the management of acute psychostimulant toxicity. In the following year, IGCD approved the final resources on developing information and resources on psychostimulants for frontline workers.

The IGCD annual report for 2005-06 described the NPI, and stated that IGCD/MCDS supported the NPI. While the NPI was not discussed, psychostimulants was on the agenda of the ANCD meeting in December 2005. ANCD (2007) also produced a position paper on methamphetamines during this time.

The NPIERG met first in November 2006. Limited documentation was available to determine how issues were placed on the NPIERG agendas. Its advice was sought in several ways:

- Agendas and options papers were sent to members two to three days before meetings
- DoHA chaired NPIERG meetings, using briefing papers as a guide
- At one day NPIERG meetings, the Drug Strategy Branch sought advice on priorities and activity proposals
- A summary of the meetings were disseminated to the Drug Strategy Branch
- DoHA occasionally sought out-of-session endorsement from NPIERG members

Informants believed that the process for formulating advice was limited and that insufficient time was allocated to the functions and processes of the group, which in turn affected their capacity to provide high quality, evidence-based advice. They also commented that second drafts of proposals were not available to members for final comments and editing. However, from the procurement agency's point of view, group members were provided with as much time as possible given the constraints and urgency to implement the initiative. Departmental officers also highlighted the importance of meeting timelines and the impact of probity rules on ensuring funding activities are undertaken in a transparent manner.

Research and evidence-informed advice

There was general consensus among the informants about a lack of research and evidence presented or used in deliberations during NPIERG meetings. In general, advice provided by NPIERG was delivered in the form of expert opinion, much of which appears to have lacked explicit supporting evidence. Members relied heavily on their background and expertise rather than presenting evidence to support their proposals. The reason for the lack of evidence, one informant suggested, was the poor quality of data – the psychostimulants issue was raised before data from early warning systems were available. According to DoHA, members of the NPI ERG were provided with an opportunity to present possible activities for funding, but were not made privy to the discussions and advice around the activities they tabled.

Agenda documents suggest that evidence was used to provide guidance in formulating advice on at least one occasion. At the February 2007 meeting, a member from ANCD was invited to present ANCD's position paper on methamphetamines. That paper contained a number of recommendations that the Australian Government was considering among its proposed activities under the NPI. A discussion took place about the paper's impact on the strategic directions of the NPI. However, the response to the presentation of the ANCD paper and any subsequent advice provided by NPIERG about its implications for the NPI is not documented

NPIERG members were given an opportunity to present possible activities for funding, but were not included in discussion and advice around possible activity they may have tabled.

Areas of NPIERG advice

A background paper was prepared for members of the NPIERG and circulated before their first meeting. It gave an overview of the range issues that had been identified from preliminary research, and the areas of advice they were asked to provide:

- Current trends in use and activities being undertaken across Australia
- Potential activities that could be undertaken under the NPI to improve current workforce capability to deal with psychostimulant issues – for example, assessing the effectiveness of training programs in addressing the needs of frontline workers such as GPs
- Available pharmacotherapies and the necessity (or otherwise) for further research and trials
- Research on (i) the characteristics and demographics of psychostimulant users; (ii) consumer perceptions about different routes of administration eg injecting, ingesting and inhaling; (iii) the effect of psychostimulants on the brain and on the behaviour of users; and (iv) new treatment options
- Options for dissemination of information to a range of current psychostimulant users (pre-contemplators and current users): (i) further activities to communicate with young Australians about the harms associated with psychostimulant use; and (ii) strategies to make better use of the internet and mobile phones as an anonymous means of communication to at-risk groups

The NPIERG's Terms of Reference similarly identified the following areas of advice in scope:

- Implementation of the 2006-2010 phase, including:
 - Current trends
 - Activities being undertaken across Australia
 - Current workforce capability, training programs and training requirements of frontline workers
 - Available pharmacotherapies and the necessity (or otherwise) for further research/trials
 - Research on the effect of psychostimulants on the brain and on the behaviour of users
 - Creative options for dissemination of information to a range of audiences eg pre-contemplators, and current users eg internet and SMS messaging

The Drug Strategy Branch also consulted the NPIERG on immediate, medium and long term priorities for the implementation plan by asking members to provide their preferences on a priority mapping tool. Revisions were undertaken at the second NPIERG meeting. In later meetings, the Drug Strategy Branch sought advice on other activities that could be undertaken under the NPI (eg research on ways to attract and retain methamphetamine users into treatment). Papers relevant to these activities were circulated before the meetings.

Advice was sought mainly through comments on option papers or draft proposals for activities, and in one instance a draft strategic plan. Informants said the purpose of the meetings and agenda items lacked clarity and specificity, partly because inadequate funds were allocated for the group to operate effectively. Typically, several approaches to carrying out a project would be presented, with pros and cons listed under each approach. At meetings, members were then asked about their preference for each approach, as well as their views on scope, method, usability and feasibility. Informants also said advice was sought on funding of the NPI Strategic Plan.

Use and usefulness of NPIERG advice

Only a small number of informants commented on the operations of the NPIERG, and most of them were not positive about its functioning. They believed dissemination and use of the advice was limited. Although the DoHA reassured the NPIERG that their comments would be taken into account for proposed activities, members could not tell whether their input was reflected in the resulting documents.

Informants questioned the usefulness and robustness of proposals made on their behalf, since no documented resolutions were circulated to members after meetings. NPIERG members did not know if their comments were accepted or rejected, as there were no public releases and no feedback circulated to members from DoHA. The operation of NPIERG relied heavily on 'in-house' DoHA contributions, and the NPIERG reported to DoHA rather than through NDS advisory and decision making structures. This was reflected in the absence of any coverage of NPI in IGCD and MCDS agendas and decisions.

Impact of NPIERG advice on the NPI

In the agenda and briefing documents for NPIERG meetings, members were assured that their advice would be taken into account during the development of tender documentation for NPI proposed activities. However, most said that they had limited capacity to judge the extent to which the advice provided by the NPIERG was useful, and the extent to which its advice was used in the development and implementation of the NPI. The group has held only a few meetings since its inception, and feedback was not provided.

While these informants indicated that they were not aware that an NPI Strategic Plan was produced in September 2007, the Drug Strategy Branch said that members of the NPI ERG were provided with a copy of the draft Strategic Plan which was the main discussion at the September 2007 meeting, that their advice was provided and included within the next iteration of the document. The Strategic Plan provides a summary of work currently under way or completed to date, agreed activities beginning 2007-08, and the general strategy of focusing activities under the priority areas (information and prevention; expanding awareness and access to treatment services; expanding treatment options; workforce development; and research to respond to emerging trends).

The NPI ERG provided advice on, and agreement to, five short term projects as outlined in the Strategic Plan arising from the September 2007 meeting. One of the five projects listed below (see Table 3) resulted from a proposal generated by the NPIERG. Other projects on the list may have been proposals that the Drug Strategy Branch presented to the NPIERG for comment during meetings. But the NPIERG members interviewed said that they were unaware of outcome incorporated in the Strategic Plan.

Table 3: NPIERG endorsement of projects as recorded in the NPI Strategic Plan

Projects	Current status
The development of targeted resources on how to manage challenging behaviours associated with psychostimulant use for various AOD treatment settings	Completed
The development of methamphetamine treatment guidelines for frontline workers in the various AOD treatment settings	Completed
Management of patients with psychostimulant use problems – Guidelines for general practitioners	Completed
Proposed Psychostimulants First Aid Training package (PSFA)	Not yet progressed
Proposed Qualitative research into the patterns of use and harms associated with specific populations of methamphetamine users	Completed

NPIERG action to promote the aims of the NPI

Facilitation of the uptake of the NPI was not part of the Terms of Reference of the NPIERG.

No informant commented on how or how far the Group has actively addressed the aims of the NPI – that is, to identify and disseminate good practice models and approaches for the treatment of psychostimulant use, provide support and training to GPs and other health workers to improve treatment outcomes for psychostimulant users, and provide information for at-risk youth and families.

NPIERG meeting records indicate that some measures have been initiated, but the NPIERG appears to have been responsive to the Drug Strategy Branch’s guidance rather than initiating these interventions. Actions taken to address each goal of the NPI are outlined below.

In addressing the first aim of the NPI (*identify and disseminate good practice models and approaches for the treatment of psychostimulant use*), the Drug Strategy Branch sought advice from the NPIERG about the feasibility of conducting research on drug user characteristics and routes of administration, the effects of psychostimulants on the brain and user behaviours and new treatment options. The NPIERG agreed that funding should be allocated to developing targeted resources on strategies to manage challenging behaviours among psychostimulant users. It also recommended a research project into the patterns of use and harms associated with specific populations of methamphetamine users. This project was close to starting at the time of the Strategic Plan.

On the second NPI aim (*Provide support and training to GPs and other health workers to improve treatment outcomes for psychostimulant users*), NPIERG advisors were asked to comments on potential activities to help the current frontline workforce to deal with psychostimulant issues. The Reference Group supported the development of resources on how to manage challenging behaviours, and methamphetamine treatment guidelines for AOD frontline workers. NPIERG also agreed to wide dissemination of a resource targeted at GPs to manage patients with psychostimulant use problems.

On the third aim (*information for at-risk youth and families*), the NPIERG made comments on options for disseminating treatment and prevention information to current users, at-risk youth and their families. At this meeting, members noted ways of better using internet and mobile phones to communicate with young people about the harms associated to psychostimulant use. However, there is no record to confirm the outcomes of these discussions. The NPIERG additionally suggested that the Psychostimulants First Aid Training Package (PSFA) be developed to support families of drug users. The first aid concept was based on the fact that family and peers are often the first to notice substance abuse. The PSFA provides community education/training on how to respond to common emergency situations, and initiate referral to appropriate health professionals. This activity is yet to be progressed.

NPIERG and barriers confronting the NPI

Since very little has been implemented so far, there is no information about the challenges associated with implementing the NPI, or the NPIERG's potential role.

Contextual factors affecting NPIERG's capacity to support the NPI

The capacity of the advisory structures and expert advisors to support the development and implementation of the NPI is largely influenced by contextual factors. At the system level, one of the issues raised by informants was funding. A majority of informants believed that the funding allocated to the NPI was insufficient to address the psychostimulant issue in Australia. The NPI had been inappropriately conceived as a 'national' initiative when they felt resources were stretched too thin for work to be done in every State and Territory. They proposed that, before the NPI was rolled out nationally, funding should be focused in the States with the largest drug markets (Brisbane, Sydney and Melbourne). This would allow the intervention to be tested first to minimise the risks of failure.

Organisationally, the design and set-up of the NPIERG processes affected the group's capacity to contribute to the development and implementation of the NPI. The design of the group processes, as reported, lacked sufficient funding and strategic directions (and this was reflected in the lack of clarity and specificity in the group's Terms of Reference). Consequently, the group did not have the capacity to produce advice that was evidence-based, or an opportunity for members to be proactive and contribute directly to the advisory structure. Members of the NPIERG were not given enough time to review proposals by the Drug Strategy Branch before commenting at the meetings.

The individual members in the Reference Group also determined its operational capacity. Informants believed that health professionals were better represented in the composition of the group than law enforcement professionals, and as a result, law enforcement issues were underrepresented.

Summary

Analysis of this case study was limited by the type of documentation available and the number and capacity of informants to comment on the workings of the group. Only meeting resolutions were available, and consultations were based on the few who felt they were knowledgeable enough to comment.

Another limiting consideration is NPIERG's brief development as a group – it has met only three times, and it is possible that the group is in its initial stages of team building and negotiating, and over time may adopt different processes as it matures. Nevertheless, some consistent issues emerged from the document review and consultations.

The starting proposition was that the advisory structures and expert advice provided by NPIERG effectively supported development and implementation of the National Psychostimulants Initiative. The intended outcomes of the advisory structures were evidence-informed advice to governments for policy investment strategies and program development, and advice on increasing engagement and buy in to the NDS and its implementation. The NPIERG's terms of reference did not include a formal role in the advisory structure's encouraging engagement and buy-in to the NPI.

There was a strong impression among informants that the NPIERG was set up as an *ad hoc*, time-limited, and function-specific advisory body. The NPIERG is chaired by and reports to the Drug Strategy Branch, and does not directly report to other bodies in the advisory structure. A meeting is held about three times per year, and out-of-session advice is sought from the experts as required. Members were provided a Background Paper on the NPI and the purpose of the NPIERG in the first meeting.

Typically, several days before a NPIERG meeting the members would be given a briefing paper describing potential activities that may be taken under the NPI. Members discuss the

proposals during the meetings, with little reference to the evidence base, and after the meetings the resolutions return to the Psychostimulants Team in the Drug Strategy Branch. There are no formal methods to structure group meetings. All NPIERG papers are displayed on screen for members to view. Agreed advice is typed into the document for all members to view and reach final agreement.

After the meetings, the members rarely receive a record or feedback about responses to their input. Members interviewed were unaware that their approval of initiatives had been listed in the NPI Strategic Plan. The Plan indicated that the group agreed to the launch of five projects.

According to the Drug Strategy Branch, all five projects agreed to by the NPIERG were generated through discussion and advice at the ERG meetings. The NPIERG can provide advice, comments and agreement on activities only, but because they are not a legal entity, they are not able to endorse projects.

Other projects were Drug Strategy Branch proposals sent to the NPIERG for comment and endorsement. The Drug Strategy Branch said that occasional updates about the NPI were given to IGCD and ANCD, but it is unclear from the minutes whether NPIERG advice was included in these updates. Further, the Drug Strategy Branch indicated that as part of the relationship between the Branch and the ANCD, it provides updates on all licit and illicit initiatives related to the health portfolio. Specific to the NPIERG, information relating to this group, and activities endorsed by the Minister for Health and Ageing are provided to the ANCD in regular meeting updates.

Critical success factors identified in this case study included:

- Direct opportunity to provide input to the NDS advisory structures, IGCD and ANCD
- Sufficient time for experts to review proposals and research evidence before giving advice
- Greater opportunity to initiate proposals or give independent advice
- Feedback cycles and transparency – for instance, agreeing on resolutions during the meeting, identifying when resolution is not possible, and disseminating resolutions and minutes to members

Observations

As a subject-specific group, this case study on the NPIERG provides guidance and lessons on establishing similar groups in the future. First, the Terms of Reference may be more specific in key deliverables expected of the group, in order to set a clearer direction – that is, whether the group is purely consultative, or to what extent the experts are involved in designing policy. Terms of Reference may also define some expectations about the ways in which advice will be used.

Second, a secretariat may be allocated to a reference group to ensure that pre-meeting documents are disseminated in advance of the meeting, and to give ample opportunities for experts to collate research evidence to support their advice. Agenda items should clearly detail the purpose and content of the meeting. The commitment to meetings and availability to give out-of-session should be clearly stated.

Component 3 case study 2: The advisory role of the National Drug Research Centres of Excellence in AOD workforce issues

Purpose of the case study

This case study explores the contribution of the National Drug Research Centres of Excellence (NDRCE) – the National Drug and Alcohol Research Centre (NDARC), the National Drug Research Institute (NDRI) and the National Centre for Education and Training on Addiction (NCETA) – in providing advice to the NDS on AOD workforce issues, as an example of how the advisory structures of the NDS operate.

The National Drug Strategy 2004-2009 specified *development of workforce, organisation and system* as one of the eight Priority Areas for action. The advisory role of the NDRCEs in these issues is therefore of particular interest. The three Research Centres are university-based, but receive their core funding from DoHA.

Method

Document analysis and informant interviews were used to collect data. Documents reviewed included contracts between each NDRCE and DoHA; annual reports of the Centres; agendas and resolutions of the IGCD, MCDS and ANCD; and the Workforce Development Strategy and associated documents. We interviewed 16 informants, including the Directors of NCETA and NDRI.¹⁶ The Director of NDARC was not available for interview during data collection.

Themes were identified, based on these research questions, and analysed qualitatively:

Research questions	
1	How were AOD workforce issues placed on the agendas of the NDS advisory bodies?
2	How was the advice of the National Research Centres sought by NDS advisory bodies?
3	How did the Research Centres formulate and contribute advice on AOD workforce development and planning?
4	What expert advice was provided?
5	To what extent did Research Centres provide expert advice to inform advisory bodies in relation to workforce development?
6	How useful was the expert advice that was provided by the Research Centres? To what extent was the expert advice incorporated into the advice provided by the advisory structures and in decision-making processes in relation to AOD workforce issues?
7	To what extent and how have the Research Centres promoted their advice through their advisory structures?
8	To what extent and how have the Research Centres been able to be proactive in addressing AOD workforce development?
9	What other factors (at system, organisation, personnel and community level) influence the capacity of the National Research Centres to support planning and development of the AOD workforce?

Findings

Workforce development and the National Drug Research Centres of Excellence have both been prominent parts of the NDS since its inception. The *National Drug Strategy Framework 2004-2009* document commits NDS policy makers and managers to prepare and implement a workforce development strategy:

¹⁶See Appendix B for the informant list

NDS Priority Area 5: Development of the workforce, organisations and systems:

It has become increasingly evident that, although education is a necessary part of a workforce development strategy, it is not sufficient to facilitate and sustain the workforce. The National Drug Strategy recognises that a multifaceted approach to develop the workforce is required, which should address the range of factors that impact on the ability of the diverse workforce to function with maximum effectiveness.

During this phase of the National Drug Strategy, action will be taken to:

- *Develop a framework for a national strategy that will prepare the workforce for future challenges, raise their professional status and improve their capacity to adopt more effective innovations*
- *Undertake analysis of effective dissemination strategies, the role of education and training, and the barriers to research uptake and ways of overcoming them*
- *Improve the capacity of community-controlled and mainstream organisations to provide quality services to Indigenous communities (p. 8).*

Although this undertaking has not yet been achieved, progress towards doing so occurred in 2008 and is likely to increase in 2009.

National workforce development under the NDS

Most informants identified NCETA as the Centre most directly involved with and responsible for aspects of workforce development, consistent with its charter. Its products are well known, widely used, and considered to be of high quality. Members of the AOD sector were familiar with its research activities and its production and dissemination of evidence-informed training and education resources (eg the particularly valuable kit, *Workforce Development TIPS: Theory into Practice Strategies*).

NDARC and NDRI also devoted some attention to workforce development (for example, by publishing resource materials on drug-related harm and interventions for workers in the field, and undertaking training and education activities). Their core focus, however, is research, not workforce development. An exception has been the major workforce development initiative in which NDRI is engaged - the large Commonwealth-funded project on capacity building for Indigenous AOD agencies across the country. Its focus is to translate mainstream evidence on clinical interventions so that they can be applied in Indigenous organisations and communities.

Substantial gaps in knowledge about the size, nature and composition of the national AOD workforce, particularly in the NGO sector, have been a long-term impediment to sound strategy development in this area. While this should not impede the production and implementation of workforce development policies and action plans, it is a constraint on progress in this area.

Currently, no national strategy for AOD workforce development exists, and there is a disjunction between national and State and Territory positions. Some of the States and Territories (either government AOD agencies or non-government AOD peaks) have created their own workforce development strategies and are implementing them through their own action plans. Some are sector-wide, and others focus on particular components of the workforce and its needs. An example is *Drug and Alcohol Issues: An Agenda for Workforce Development in NSW* (online at http://www.nada.org.au/index.php?option=com_content&task=view&id=16&Itemid=24).

Wasteful duplication of effort may also occur in the absence of a national strategy for AOD workforce development. Our informants highlighted the value of national consistency in key workforce issues across the States and Territories, as well as between the government, NGO, and private sectors. Many informants identified the need for national consistency in such

workforce issues as remuneration, minimum qualifications, education and training opportunities, and the mix of skills and professions.

Evolving concepts of workforce development

People working in the AOD sector are increasingly becoming aware of the fact that workforce development is about far more than education and training. This shift in emphasis, as NCETA calls it, has been described as follows:

Workforce development is a broad umbrella term used to encapsulate a wide range of factors pertaining to individuals, the organisations within which they operate and the systems that surround them. Workforce development represents a multi-faceted and multi-level approach to supporting and sustaining effective AOD work practice. It includes strategies at the level of the individual worker, team, organisation and broader system (ie government policy, funding, legislation and regulations)...

Workforce development involves a major paradigm shift. It refocuses our thinking away from an exclusive orientation on training to one which encapsulates factors such as organisational development, change management, evidence-based knowledge transfer and skill development.

Workforce development also involves strategies to facilitate and support evidence-based practice and focuses on removing or reducing barriers to effective practice. The ultimate goal of workforce development is to provide more effective treatment and prevention services.

Workforce development is a complex construct and operates at multiple levels across a diverse range of issues. Application of only a single workforce development strategy is likely to be of limited effectiveness.

For optimal impact, workforce development requires the simultaneous implementation of strategies across multiple levels (Skinner et al 2005, 4).

NCETA has played an important role in shifting workforce development from education and training to this more sophisticated approach that acknowledges, at both service and policy levels, the breadth and depth of workforce development. We are now at a turning point where this new understanding can be translated into action, resources and new structures for implementation.

The shift in understanding of workforce development and its relevance in the AOD field has been slow and gradual, but it is maturing, and has prompted the attention given to workforce development in the advisory structures, as well as the extent to which NCETA's advice is sought and used.

NCETA's focus has changed over the years from developing and delivering AOD training programs (it filled a problematic gap in this area in its early days) to research on workforce development issues. This research provides much of the evidence for workforce development policies and action plans. NCETA remains the chief centre of excellence for workforce development.

The NDRCEs' strategic and business plans

To help understand how the NDRCEs contribute to the work of the advisory bodies in the NDS, we reviewed their strategic and business plans to identify mentions of the advisory structures and how the NDRCEs relate to them.

NCETA's documents were the most explicit. They identified five key strategies for 2004-08, and two of them deal (or potentially deal) with the advisory structures:

2. *Keeping decision makers well informed. Specifically, NCETA will:*

- Distil the latest national and international development relevant to the AOD workforce and make them available to decision makers

3. Promoting a workforce development approach

- ... Provide advice on strategies to improve the effectiveness of the AOD workforce (eg legislation, policy, resources, supports)

The other three strategies not directly associated with the advisory structures were (1) monitoring developments in the field; (4) identifying points of leverage and intervention strategies; and (5) managing projects aimed at supporting effective AOD work practice and wellbeing of the AOD workforce.

The statement of NCETA's role included 'coordinate or contribute to a formal partnership' with organisations, committees, or individual practitioners on workforce development projects in the AOD field.

NCETA's Strategic Plan 2004-08 includes under the heading 'Building systems capacity', '*Provide advice and guidance on systemic strategies for workforce development ... Disseminate emerging information to key decision makers in relevant sectors and government*'; and under 'Increasing organisational capacity', '*Provide advice on evidence-based strategies to support workers' wellbeing and effective practice*'.

NDARC's strategic plan was less explicit on providing advice, simply mentioning 'information and training' as one of its key research areas. The strategic plan said that its development was guided among other things by '*Strategy documents generated by National Expert Advisory Committees and The Indigenous Reference Group*'. Its key results areas included:

'Disseminate research findings to policy makers...in order to increase awareness of drug related harms and effective prevention strategies:

- *Provide balanced factual information on drug-related harms and preventive strategies*
- *Increase probability of NDRI and other related research findings being applied to policy and practice development at national, state and local community level ...*
- *Provide regular briefings and submissions to government and parliamentary inquiries, policy advisors and relevant national and state committees on merging issues in the prevention of drug-related harms*

'NOTE: on average, 6 staff will be identified on the IGCD National Expert Advisory Panel each year.'

AOD workforce issues on the agendas of the NDS advisory bodies

In an earlier period, the IGCD and the MCDS paid more attention to the training and education aspects of workforce development than to infrastructure issues such as the professional mix of the workforce, its qualifications, and remuneration.

In 2002, the IGCD agreed on a definition of workforce development. At that time, some States and Territories were developing their own workforce strategies consistent with the NDS definition, which emphasised that multifaceted workforce approaches were needed to support the AOD workforce to respond effectively to drug-related problems.

In 2004, the IGCD commissioned a *National Alcohol and Other Drug Workforce Development Strategy*, produced under the auspices of the WA Drug and Alcohol Office with a working group comprised of members of NCETA and others. At its February 2005 meeting, rather than agree to implement it, the IGCD referred the report to the States and Territories to consider the implications of the report in terms of their own workforce development activities and report back to the IGCD.

One informant suggested that the 2005 Strategy was ahead of its time in that AOD policy-makers were still focusing on the education and training needs of the sector, and were not yet ready to address the deeper infrastructure issues that were the central thrust of the Strategy.

IGCD papers show DoHA was to progress discussions with NCETA about the work undertaken so far and how it could be best managed in the future, and there would be a

presentation from relevant experts at the September 2005 IGCD meeting. However, the presentation was not on the agenda and did not take place.

The February 2006 meeting of IGCD agreed that DoHA would discuss implementation of the strategy with NCETA and report back to the IGCD in September 2006. The previous report produced in 2004 contained no action plan and development of the strategy had languished. In July 2008 the IGCD received the Scoping Paper prepared by NCETA to inform development of a new national AOD workforce development strategy (Roche & Kidd 2008). It proposed a contemporary, national approach to AOD workforce development, and was discussed at the IGCD workshop in July 2008.

Observations

The usefulness of expert advice on AOD workforce provided by the National Drug Research Centres of Excellence

A central observation from this case study is that, with the exception of NCETA's preparation of the Scoping Paper, the National Drug Research Centres of Excellence have not promoted workforce development through the national advisory structures. This reflects both the relatively low status of workforce development in the priorities of the NDS (despite the priority status given to it in the NDS *Framework* document), and the lack of direct access to the advisory structures by the NDRCEs over the 2004-2009 phase of the NDS. The latter seemed largely to be because the standing expert advisory committees on which staff of the NDRCEs had been represented had been disbanded in favour of the National Expert Advisory Panel (NEAP). In addition, the Strategic Plans for NDRI and NDARC place their emphasis on drug research rather than workforce development.

The contents of the draft 2005 strategy are considered to be sound but were apparently not acceptable to the States and Territories at that time. Further, despite an IGCD resolution on the matter, the Commonwealth did not successfully pursue further development of the strategy with NCETA. The IGCD was not able to translate the document into something that the States and Territories were willing and able to implement in a nationally consistent manner. Informants now believe that attitudes have changed since 2005, and the Scoping Paper presented by NCETA has a better chance of being adopted as the framework for a national strategy.

Implications for the next phase of the NDS

A central issue is what is widely seen as a current and increasing national crisis with respect to the health and welfare workforce. Challenges in recruiting and retaining sufficient numbers of adequately qualified personnel are faced across the health and welfare sectors, not just in the AOD sector. This means that the AOD sector's workforce development strategies need to be cognisant of, and part of, wider workforce initiatives.

Given this reality, a need still exists for a national AOD workforce development strategy. This should address both the specialist AOD sector's needs and how to harness the mainstream and broader health workforce as well. While a broad focus is needed, education and training remain important. Commitments need to be obtained from the States and Territories for AOD training from the vocational level to universities, with clarity about targets for the size and composition of the workforce an essential component. A need exists for more commitment to the issue by the advisory bodies (the IGCD and MCDS), and active initiatives from the NDRCEs to develop and implement a national workforce strategy.

NDRI and NDARC, as centres of excellence in AOD research, do not have significant functions in workforce development, apart than building the evidence for policy and practice.

NCETA, as the chief centre for AOD workforce development in the NDS, should collaborate with broader national, State, and Territory activities in consistent workforce development policy and practice, both inside and outside the AOD sector. It should be supported to address

the wider aspects of workforce development beyond education and training by rapid endorsement and implementation of the strategies set out in its Scoping Paper.

Component 4 case study: The impacts of an NDS data collection: the IDRS/EDRS

Purpose of the case study

The purpose of this case study is to add to understanding about how data can be used to monitor emerging drug trends for use as an evidence base when formulating drug policies in Australia. Specifically, this case study will examine the Illicit Drug Reporting System (IDRS) and the Ecstasy and Related Drugs Report System (EDRS). (The EDRS was previously known as the Party Drug Initiative. For simplicity, the title EDRS alone will be used in this case study.)

This case study examines the contribution of these two data collections in:

- (a) monitoring emerging drug issues and trends and
- (b) informing policy activity.

The Proposition that the case study addresses is that a specific drug information system or a specific component of a broader drug information system (in this case the IDRS/EDRS) can:

- (a) provide information that is both potentially useful and is actually used to monitor emerging drug issues and trends, and
- (b) contribute positively to NDS policy activity.

Method

This is a single case study with two embedded units of analysis, namely the IDRS/EDRS as a tool for monitoring emerging drug issues and trends, and its impacts on policy activity in the NDS.

Two data collection strategies were employed: document analysis and informant interviews. The documents reviewed included the annual reports and more frequent products of the IDRS/EDRS program itself; journal articles and related scientific publications discussing IDRS/EDRS as a drug information system, its findings and its utilisation; the report of the NDS Data Analysis Project (Campbell Research & Consulting 2007) and NDS policy/strategy documents that were informed, or that could have been informed, by the products of the IDRS/EDRS. The research questions addressed in interviews for the case study are shown below.

Research Questions

- 1 How does the IDRS/EDRS monitor emerging drug issues and trends?
- 2 In what ways, and to what extent, does the EDRS/IDRS meet criteria of excellence as a tool for monitoring emerging drug issues and trends?
- 3 What methods are used by the managers of the IDRS/EDRS and others to optimise the dissemination and use of its findings?
- 4 How, and to what extent, have the implementation processes and findings of the IDRS/EDRS impacted on NDS policy activity?
- 5 How does context (including policy communities) impact upon the responses to IDRS/EDRS findings, including their use or rejection?
- 6 What can be learned from the IDRS/EDRS about the data collection/research/policy/practice nexuses within the NDS?

The data were analysed using qualitative research methods, including the identification of themes using deductive techniques based on the research questions.

How the IDRS/EDRS monitors emerging drug issues and trends

The Illicit Drug Reporting System (IDRS): Managed by NDARC, the IDRS began as a trial of the methodology in NSW in 1996 (Hando *et al* 1998). After successful piloting, it was expanded to three states (NSW, VIC and SA) in 1997, and continued in these three states in 1998.

In 1999, a truncated version consisting of two components (the survey of Key Experts and the synthesis of indicator data) was expanded to the remaining jurisdictions, while NSW, VIC and SA continued the complete method, including the injecting drug user (IDU) survey. In October 2000, the IDU survey was extended to the five jurisdictions that did not implement this component in 1999 (QLD, the ACT, the NT, TAS and WA), and the Key Experts survey and the synthesis of indicator data were also undertaken in these jurisdictions, to enable the full IDRS to be conducted for the first time in all Australian States and Territories.

The IDRS is funded by DoHA, and has in the past received funding from resources such as NDLERF and some State governments. It is intended “to serve as a strategic early warning system, identifying emerging trends of local and national concern in illicit drug markets. The IDRS is designed to be sensitive to trends, providing data in a timely manner, rather than to describe issues in detail. Therefore the IDRS can provide direction for more detailed data collection on specific issues (Black *et al* 2008a, 1)

The purposes of the IDRS, as documented in the 2007 report (Black *et al* 2008a, 2), are:

1. to document the price, purity, availability and patterns of use of the four main illicit drug classes in this country, primarily focusing on heroin, methamphetamine, cocaine and cannabis;
2. to document risks and harms associated with drug use; and
3. to detect and document emerging drug trends of national significance that require further and more detailed investigation.

It should be noted that these are not strictly statements of the *purposes* or goals of the data collection. Rather, they specify the *activities* undertaken: ‘documenting’ and ‘detecting’. As noted above, the actual purpose or goal, as set out in IDRS/EDRS documents, is to provide strategic early warning of emerging trends in illicit drug markets.

It is implemented through the triangulation of three data sources:

- a quantitative survey of regular IDUs in the State and Territory capital cities, who act as a sentinel group (usually 100 participants in each city) for the detection of emerging trends in illicit drug use
- a qualitative survey of (200-300) key experts who work in the field of illicit drugs
- a synthesis of extant indicator data sources such as police and Customs seizures, purity and arrest data and health services data.

Triangulation from these three major data sources is undertaken in the expectation that weaknesses in one area will be compensated for by strength in another.

The Ecstasy and Related Drugs Reporting System (EDRS), also funded through DoHA, uses a similar method except that interviews are conducted with what are referred to as ‘current regular ecstasy users’ (REU) rather than people who regularly inject illegal drugs, as is the case with the IDRS. For the purposes of this data collection, the term ‘ecstasy and related drugs’ covers ‘drugs that are routinely used in the context of entertainment venues and other recreational locations including nightclubs, dance parties, pubs and music festivals’ (Black *et al* 2008b, 1). The drugs are MDMA (ecstasy), methamphetamine, cocaine, LSD, MDA and GHB. National data have been available since 2003.

In 2000–2001 a trial of the Party Drug Initiative (PDI – its title was changed to the EDRS in 2006), was conducted in NSW, QLD and SA to assess the feasibility of monitoring Ecstasy and Related Drug (ERD) markets. Based on the success of this trial (Topp *et al* 2004), the EDRS was expanded in 2003 to monitor ERD markets in every State and Territory across

Australia. Data were collected from samples of ERDs of 809 in 2003, 852 in 2004, 810 in 2005, 752 in 2006 and 741 in 2007 (Black *et al* 2008b).

The stated aims of the EDRS in 2007 were:

1. to describe the characteristics of a sample of current REU interviewed in each capital city of Australia;
2. to examine the patterns of ERD use of these samples;
3. to document the current price, purity and availability of ERDs across Australia;
4. to examine participants' reports of ecstasy-related harm, including physical, psychological, occupational, social and legal harms; and
5. to identify emerging trends in the ERDs market that may require further investigation (Black *et al* 2008b).

An early warning system

A critical issue for clarification is the role of the IDRS/EDRS as an early warning system. Our informants have widely varying views on this. For example, 'It fills an early warning function, it is more timely than most data collections'; 'It is good as an annual reflection—an annual monitoring survey—but it is not an early warning system'; 'Once a year interviews - can it serve as an early warning system?'; 'I think the information is pretty much as up to date as you're going to get'. Similarly, the NDS Data Analysis Project also questioned the utility of the IDRS/EDRS as an early warning system and drew attention to other data sources that also fill this role (Black *et al* 2008b).

At issue here are the varying perceptions of different commentators about the concept of an early warning system. Significantly, the IDRS/EDRS is described as a '*strategic* early warning system'. This is to be contrasted with a '*tactical* early warning system' - a distinction highlighted by the consultant who investigated and recommended on the establishment of the IDRS (Wardlaw 2008). He pointed out that 'tactical early warning applies to situations that require immediate response'. These are normally of a highly localised nature; an example is the sudden appearance of a particularly high-purity batch of heroin in a particular locality at a particular time.

In contrast a 'strategic early warning system'

“...is any type of warning issued early enough to permit decision-makers to undertake counter-measures. This may involve policy changes designed to affect the situation unfolding in a way which is consistent with the decision-makers' goals. Ideally, strategic warning provides sufficient time to take preventive measures which either forestall or (more realistically) lessen the size of the phenomenon in question or minimise its impact” (Wardlaw 2008, 13).

Wardlaw recommended that the IDRS be established to provide strategic early warning, not tactical early warning. This recommendation has been followed in the design and implementation of the IDRS/EDRS, and must be taken into account in assessing their usefulness as an early warning system. Our informants' criticisms in this area highlight the relative absence of tactical early warning systems in most jurisdictions, a matter upon which recommendations were made in the NDS Data Analysis Project report (Black *et al* 2008a, 68-72).

EDRS/IDRS as a tool for monitoring emerging drug issues and trends

Many users of the IDRS/EDRS data treat them as outcome indicators for the NDS, as they provide a way to monitor illicit drug availability, patterns of use, and adverse consequences. To the extent this is the case, well-known criteria for assessing the quality of performance indicators can be used. A number of useful sets of criteria are available (eg HM Treasury 2001; Kusek & Rist 2004; Royal Statistical Society 2005; Williams 1997), those set out by Wardlaw will be used (1994, 2008) in recommending that the IDRS/EDRS be established.

Those criteria are:

- provision of data in a timely manner
- nationwide collection of comprehensive data
- comparability of data between different sources and locations,
- the information system is as simple as possible to operate
- it is linked to a mechanism which can quickly commission the collection of more detailed data in order to investigate further the trends identified by the IDRS
- cost-effectiveness (Wardlaw 2008, 15-18).

Timeliness

As the quotations from informants indicate, there is great diversity of opinion about the timeliness or otherwise of the IDRS/EDRS, and this diversity largely reflects different ideas as to whether the data fill the role of a *tactical* early warning system or a *strategic* early warning system. Since it has been designed and implemented as a strategic early warning system, it is inappropriate to judge it as a tactical early warning system. The full national and State and Territory reports on both data collections are generally available in April following the year of data collection, and that *Bulletins* covering specific topics are released even earlier. This is highly commendable. In our judgment and that of a number of our informants, this process certainly provides timely strategic early warning information.

Collect comprehensive data nationwide

One of the achievements of the managers of the NDS at national, State and Territory levels, and the managers of the IDRS/EDRS, has been to extend these data collections to cover at least some part of each State and Territory. We note that both the IDRS and EDRS are conducted only in the capital cities, reflecting understanding of the distribution of the people who use the drugs covered in that data collection. This means that they are not nationally representative and not as comprehensive as they could be, so do not fully meet this criterion of excellence.

We also draw attention to the fact that the IDRS has been conducted in a consistent manner over many years. While this is a strength in terms of comparability of data over time, some informants have raised the possibility that it is also a weakness. They point out that advances have been made in technologies for collecting, collating and analysing data of the types used in this survey program over the years (eg fuzzy measure theory), but that these innovations do not seem to have been adopted – or even carefully considered – by the managers of the IDRS/EDRS. Questions have also been raised about the sampling strategy used to select the people who use illegal drugs as informants, and the implications for the validity of these strategies. For example, we understand that some respondents are interviewed in successive years and that they are accessed, in part, from the same agencies each year. The implications of this warrant investigation.

Ensure that the data collected are comparable

Wardlaw (2008, 16) pointed out: “If the data are to be a basis for policy deliberation, the policy makers *must* have confidence that data collected from all sites conform to the same standards of reliability and are collected according to common definitions or criteria”. This criterion has been met well, partly because of the strong central management by NDARC staff of the complex national system of data collection, data collation, analysis and dissemination. We have heard no criticisms of the degree of comparability of data between sites.

Further, the production of State and Territory reports, as well as national reports, in a nationally consistent manner, highlights the comparability of the data in a manner that facilitates their use.

Be as simple as possible to operate

The IDRS/EDRS data collections are far from simple to operate, and thus do not fully meet this criterion of excellence.. They involve a large network of researchers interacting with key experts, the holders of administrative datasets, and people who use illegal drugs. The auspices for implementing the data collections vary among the different States and Territories. Given this complex, the managers of the overall program, based at NDARC, are to be commended for the way it is implemented. This reflects, in part, the experiences gained over the years and the fact that the program began with a small trial and has been progressively expanded to its current coverage, with data collection now occurring in each State and Territory.

Linked to a mechanism which can quickly commission the collection of more detailed data

Wardlaw had a clearly developed view of how the data and findings of the IDRS would be used by policymakers at the national level. He envisaged that, soon after the data were produced each year (if not more frequently) IGCD and/or MCDS would meet to review the implications of the findings. (He envisaged that this would be a quite different process from the annual reflection workshops that he referred to as the National Drug Trend Indicator Meetings and that are now realised in the form of NDARC's annual Drug Trends Conferences.) An outcome of those meetings would be the commissioning of specific pieces of research to investigate more fully the trends which appeared to be emerging.

This criterion of excellence has not been met. Many of our informants pointed to the fact that there is no resource or process for converting the findings of the IDRS/EDRS and other data collections into policy activity. This is not to say that information flowing from the IDRS/EDRS is not used in policy activity; rather, there is no ongoing, formal manner in which this occurs. Use of data from the IDRS/EDRS and other data collections is somewhat *ad hoc* and often reactive. In this regard, the full potential of the IDRS/EDRS has not been realised, and no pathway exists at present for it to become so.

It is worth noting, however, that the NDS national research centres and others sometimes have the capacity to follow-up particular issues that arise from the data where this falls within the scope of their research programs and available resources. An example is how NDARC used non-IDRS resources to get interviewers into the field within two weeks of first hearing about the 2000-2001 heroin shortage to assess the extent and reality of the phenomenon, and a parallel response occurred in Melbourne through Turning Point.

Cost effectiveness

Wardlaw's final criterion of excellence in the design, implementation and use of the IDRS was that it be cost-effective. Although we do not have details of the resources used in this data collection (most of which are provided by the Commonwealth Department of Health and Ageing, supplemented by the States and Territories) those of our informants who are aware of the resourcing stated that they consider it to be good value for money. We have no reason to dispute this assessment.

Over-all assessment

Our over-all assessment is that the design and implementation of the IDRS/EDRS largely, but not fully, meets the criteria of excellence set out by Wardlaw (and the set he explicated is consistent with the sets of criteria proposed by other authorities). It is not comprehensive, being capital-city oriented, and far from simple to understand and implement. Another exception is the absence of any explicit, ongoing process, on the part of senior policymakers at the level of IGCD or MCDS, for converting the strategic early warning information produced by the data collections into policy activity.

The most trenchant criticisms are that it fails to provide an effective early warning system. People who make this comment generally have in mind tactical early warning systems, rather than the strategic early warning system that the IDRS/EDRS comprises.

Methods to optimise the dissemination and use of IDRS/EDRS findings

The dissemination of the findings of the IDRS/EDRS takes place continuously throughout the year and takes a number of forms, including:

- Annual publication of a comprehensive national report (O'Brien *et al* 2007). These are available online in full text covering the years 2000 to 2007 for the IDRS and 2003 to 2007 for the EDRS.
- Annual publication of comprehensive reports covering each State and Territory. (They are referred to on the NDARC website as 'jurisdictional' reports, but in fact the only jurisdictions covered are Australia and the individual States and Territories.) The State and Territory reports cover different years depending when the particular jurisdiction entered the research program. The reports covering each of the eight States and Territories are now available in full text online.
- Quarterly brief *Bulletins* addressing specific topics. A separate bulletin series disseminates information from the IDRS and from the EDRS, and they are also available in full text online.
- Other publications, many of which are listed at the NDARC website, including peer reviewed journal articles and media releases covering the period 2001 to 2007.
- The annual Drug Trends Conferences.

The Department of Health and Ageing fully funds the IDRS/EDRS, including its data collection, analysis and the printing of reports. In earlier years, the core products of the data collection were available only as printed reports which had to be purchased from NDARC. The *Bulletins*, national reports and State and Territory reports are now available free of charge in full text online. NDARC reports that 71,341 unique visitors accessed the IDRS/EDRS web pages in 2007. The printed products are distributed free of charge to many stakeholders, including government and non-government agencies, participants, researchers and libraries. People not on the free list have the option of purchasing the printed versions of the national and State and Territory reports or downloading them for free from NDARC's web site.

Some IDRS/EDRS data are incorporated into AIHW's three yearly report *Statistics on drug use in Australia* (AIHW 2007b) and are also used in various State and Territory reports such as *The extent and nature of alcohol, tobacco and other drug use, and related harms, in the Australian Capital Territory* (McDonald 2008).

Some of the State and Territory coordinators are active in face-to-face communication with stakeholders in their jurisdictions about the findings of the IDRS/EDRS, and also provide locally-targeted briefing documents and conference presentations to such audiences. A large number of these dissemination activities take place around the nation each year. Generally speaking, and with the exception of the annual Drug Trends Conferences, this valuable activity is not funded under the IDRS/EDRS program nor is it explicitly built into its design. Importantly, specific efforts are made to feed back the IDRS/EDRS findings to the participants and services involved in the project, along with information on their implications, where relevant. This has included seminars, feedback sheets, and posters and flyers showing results.

A small number of informants referred to the annual *Drug Trends Conferences* coordinated by NDARC. The October 2007 Conference was promoted as follows (<http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/Conference>):

The National Drug Trends Conference will present recent findings in illicit drug use, markets and related harms across Australia. Convened by Australia's largest drug monitoring systems, the Illicit Drug Reporting System (IDRS) and the Ecstasy and Related Drugs Reporting System (EDRS), the one day conference will cover a range of

topics, including the first release of the 2007 findings, and discussion of emerging trends in methamphetamine and also pharmaceutical use among regular drug users.

These conferences were recommended by Wardlaw (1994, 2008) based on his experiences in running a series of drug indicator meetings in the 1980s under the auspices of the then National Campaign Against Drug Abuse. While the current Drug Trends Conferences provide a good opportunity for people involved in the IDRS/EDRS, and others, to present up-to-date findings and discuss what they see as their implications, the design of the conferences is such that there is little scope for in-depth discussion of those findings. There does not seem to be any structure, associated with the conferences, to facilitate follow-up action in either the policy or research arenas. Scope exists for adding value to the conferences through a focus on ways to use the information presented and discussed there.

Assessment

The dissemination of the findings of this program of research each year is sound, compared with a number of other large research activities. Providing all the project reports free of charge online, as well as in printed form, along with the e-mail distribution of quarterly *Bulletins* from both the EDRS and the IDRS, is commendable. Conducting the annual Drug Trends Conference, with some capacity for discussion of the findings, is also useful, as is the use of media releases and the associated mass media publicity that has long been identified as one of the strengths of NDARC. Dissemination through academic conference presentations, refereed journal articles, book chapters, etc. is also an important part of the dissemination package, although these channels probably have less impact outside of the research community.

Impact of implementation processes and findings of the IDRS/EDRS on NDS policy activity

A number of taxonomies exist to help us understand what we mean by the use or impact of research findings, in particular the ways in which research has an influence on broad understandings, on policy and on practice. Perhaps the best known is that produced by Weiss (1979, later updated). She argued that research findings can be ignored, or can be used:

- a) instrumentally, to give direction to policy and practice
- b) politically or symbolically, to justify pre-existing preferences and actions, or
- c) conceptually, to provide new generalisations, ideas, or concepts that are useful for making sense of the policy scene (Weiss 2005, 13).

Use of the IDRS/EDRS in NDS policy documents

Since the IDRS/EDRS is funded by the National Government as part of the NDS, and its purpose includes providing sound information about patterns of drug availability, use and harms, as well as filling a strategic early warning function, one might expect that NDS policy documents would refer extensively to the IDRS/EDRS and its findings. This would be an example of instrumental use, to use Weiss' taxonomy. We reviewed recent NDS policies relating to illicit drugs to ascertain the extent to which they make direct reference to the IDRS/EDRS and their findings. These data collections are rarely referenced directly:

- *The National Action Plan on Illicit Drugs 2001 to 2002-03* (MCDS 2001): one brief mention (p. 35) as a source for monitoring the price of illicit drugs.
- *The National Drug Strategy: Australia's Integrated Framework 2004 – 2009* (MCDS 2004): not mentioned at all.
- *The National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003 – 2009* (MCDS 2006): not mentioned at all.
- *National Cannabis Strategy 2006 – 2009* (MCDS 2006): not mentioned at all.

- *National Amphetamine-Type Stimulant Strategy 2008-2011*: not mentioned other than in the list of acronyms and bibliography.

The national strategies mentioned above are designed to cover the whole Australian population. Since the IDRS and EDRS are conducted only in the capital cities, their findings are not necessarily nationally representative. (In contrast, the NDS Household Survey uses a nationally representative sample.) This may be a factor in their limited use as inputs to the national policy documents.

The National Action Plan on Illicit Drugs, the NDS Integrated Framework document, the National Amphetamine-Type Stimulant Strategy and the Cannabis Strategy document all have separate background publications associated with them that provide the supporting evidence for the policies covered. Each mentions the IDRS, and two also mention the EDRS:

- *Statistics on Drug Use in Australia 2006* (AIHW 2007b) is a companion document to the *National Drug Strategy: Australia's Integrated Framework 2004 – 2009* and makes extensive use of the findings of both the IDRS and the EDRS.
- *The Background Paper to the National Action Plan on Illicit Drugs 2001 to 2002-03* contains just one brief mention of the IDRS in the context of heroin (p. 5).
- The detailed NDS monograph provides background material to the *National Cannabis Strategy* (McLaren & Mattick 2007), published well after the Strategy was endorsed by MCDS, has two very brief references to the IDRS (p. 26) but none to the EDRS.
- The NDS monograph supporting the *National Amphetamine-Type Stimulant Strategy 2008-2011* (National Drug Research Institute & Australian Institute of Criminology 2008) has extensive references to both the IDRS and EDRS data.

Other evidence of the direct use of the IDRS/EDRS in policy activity

Despite the lack of evidence of direct use of the IDRS/EDRS findings in national drug policy documents relating to illicit drugs, other evidence exists of the contribution of this research program to policy activity, as follows.

Topp & McKetin (2003) provided illustrations of the use of the IDRS data in policy activity. Examples include:

- Highlighting new forms of drug use as a priority, particularly with methamphetamine.
- Formation of policies and strategies appropriate to local conditions, e.g., the Tasmanian Alcohol and Drug Service provided regular reports on injecting drug use in the state to a Cabinet subcommittee, and the reports drew heavily on IDRS data.
- Developing governmental strategic drug control plans: IDRS data was said to have formed the basis of the NT government's three-point plan on drug use and abuse.
- Identifying needs for access to treatment: service development in the ACT was informed by IDRS data.

A recent paper (Hall & Degenhardt 2007) offers other examples of the use of IDRS data and research findings. They remind us that the IDRS was already in place before the 'heroin drought' began at the end of 2000, enabling pre-post 'drought' analyses to be undertaken. The 2001 wave of the IDRS was particularly important in demonstrating the immediate and steep reduction in heroin availability and use caused by the heroin shortage. Subsequent detailed analyses of the IDRS data demonstrated the positive changes that occurred in terms of the health status of people who used heroin, as a result of the reduced availability, including the dramatic reduction in a heroin overdoses and overdose mortality. Changes in patterns of criminal behaviour among drug users were also revealed. Furthermore, the IDRS/EDRS data made it possible to investigate the displacement of drug use from opioids to other drugs including psychostimulants.

Another example deals with evaluation of policies aiming to reduce the injection of Temazepam gel capsules (Degenhardt *et al* 2008). This formulation of Temazepam was removed from the Australian market in early 2004. The IDRS research team were able to use IDRS data to examine the impact of this intervention among people who inject illegal drugs. The study investigated, in particular, the effect of this change on the prescription of benzodiazepines in tablet form, its over-all impacts on benzodiazepine use among people who inject illegal drugs, and whether any reduction in benzodiazepine use had been offset by the use of other prescription drugs. They concluded: “Removal of an easily injectable form of benzodiazepines appeared to halt injection of benzodiazepines among disadvantaged IDU. However, IDU continue to use the drug heavily and interventions to assist IDU with reducing dependent benzodiazepine use are warranted. There is a need for continued vigilance to emergent injecting drug use risks to implement timely harm reduction strategies” (145).

The IDRS has also provided valuable information on the misuse of prescription drugs including benzodiazepines (Fry & Bruno 2002), antidepressants (Darke & Ross 2000), morphine (Degenhardt *et al* 2006), and methadone and buprenorphine (Jenkinson *et al* 2005; Nielsen *et al* 2007). IDRS data underpinned a series of reports funded by NDLERF on illicit prescription drug markets in Melbourne, Hobart and Darwin.

IDRS has also monitored the much slower uptake of cocaine that portrayed in the media (Darke *et al* 2002) and the inaccuracy of reports on a potential ‘epidemics’ of fentanyl use (Gibson *et al* 2007) and GHB use (Degenhardt & Dunn 2008).

Assessment

Mixed information is available about how, and to what extent, the IDRS/EDRS has affected NDS policy activity. Although its findings are not prominent in NDS strategy documents, nor in the supporting background documents for those policy statements, other examples exist of the data collection's contribution to policy. Some of these are direct and others indirect; some are examples of instrumental use and others examples of conceptual use. The absence of formal structures for each year analysing the data and findings of the IDRS/EDRS to identify their policy implications, discussed in a number of points in this case study, is an impediment to the more direct, instrumental use of this valuable body of data and research.

Impact of context on the responses to IDRS/EDRS findings, including their use or rejection

Contextual factors significantly affect responses to the IDRS/EDRS program and its findings, including their use or rejection. First, across the nation we have significant demand, in many different sectors, for information about illegal drugs. While some of this, as it is used in tabloid media, is somewhat voyeuristic, many others have legitimate uses for the research findings. In this respect, a variety of policy communities are involved. These include people in law enforcement, public health, medicine, academia and community-based advocacy groups.

Secondly, we have seen relatively rapidly changing patterns of drug availability, use and attendant harms in Australia in recent decades. At the same time, we have seen some changes – though not rapid changes – in responses. This means that the annual production of reliable and valid information from an illicit drugs strategic warning system is potentially very useful in shaping both understandings and responses.

Thirdly, over the last decade we have seen a significant increase in the amount of funds available for addressing substance abuse, an expanded the range of areas to which these funds can be applied, and changes in how the funds are channelled. While most of these changes are positive, they have brought with them new challenges to use the added resources in the most strategic manner. The IDRS/EDRS has potential, and indeed has been used to some extent, to inform evidence-based policy on the allocation of resources.

Fourthly, as discussed above, prominent representatives of people who use illegal drugs are not as positive about the IDRS/EDRS as are some other stakeholders. They are concerned

about the potentially adverse effects on current illicit drug users from both the misinterpretation of the findings of the data collections, and also of the use of findings by criminal justice agencies against the best interests of people who use illegal drugs.

While some stakeholders (particularly in law enforcement agencies) reject the validity of this argument, they warrant careful attention. A central issue is the extent to which law enforcement agencies might try to use IDRS/EDRS data for tactical, operational purposes compared with the broader strategic and policy purposes we highlight in this case study (Fowler *et al* 2007).

Fifthly, we do not have formal processes and structures for interrogating the findings of the IDRS/EDRS to identify the messages that can be used as strategic inputs to policy activity. This gap is problematic and results in a lack of follow-up to investigate in depth the emerging trends identified in the data collections.

Observations

The use of the data and findings of a monitoring program such as the IDRS/EDRS is sometimes direct or instrumental, and at other times indirect or conceptual. In our judgment, conceptual use (sometimes called ‘enlightenment utilisation’) of the IDRS/EDRS data and findings is most prominent. As well as providing detailed factual information that can serve as a strategic early warning system, the IDRS/EDRS personnel seek to influence, through their dissemination strategies, ‘what everybody knows’ about illicit drugs, illicit drug users and the impacts of drugs on them and the broader society.

This was illustrated by one of our informants who argued that the IDRS/EDRS data collections are particularly useful as they ‘put to bed the speculative anecdotal reports’ that we see in the media and elsewhere about illicit drugs. They reduce hysteria by filling the information vacuum, they argued, resulting in a higher quality of media comment which, in turn, results in higher quality policy activity. As discussed above, however, others hold different views, feeling that IDRS/EDRS have had few significant positive impacts.

As well as conceptual use, we have seen some instrumental use of the findings flowing from the dissemination activity, and these have been illustrated above.

A core finding is the lost opportunities that flow from the absence of well resourced, systematic processes for taking up the findings of the IDRS/EDRS each year and identifying and dealing with their policy implications. We are unsophisticated, in the NDS, in applying what is known from research about how to enhance the effectiveness of the research/policy/practice nexuses. (Nutley *et al* 2007 have recently collated and assessed the state of the art in this area.)

Responsibility for this lies both with the researchers involved in producing policy relevant information on the one hand, and with the people responsible for managing policy activity on the other. It could be mutually beneficial for some well informed, systematic dialogue to be undertaken to identify the opportunities for improving the links among research, policy and practice, with the aim of moving more effectively towards attaining the goals of evidence-based policy and practice within the National Drug Strategy.

Literature review summaries

A: Public policy practice

B: Service delivery systems

C: Resource allocation

D: Effectiveness of AOD interventions

A: Public policy practice

Introduction

This literature review on public policy practice was undertaken as part of the approved methodology for evaluation the NDS as a policy framework (Component 1). It provides an important step for assessing the appropriateness, effectiveness and efficiency of the NDS policy framework.

First, this review defines policy and describes the context of contemporary public policy making. The policy cycle proposed by Bridgman and Davis (2004) is then outlined in conjunction with relevant literature to illustrate key components of the policy process and the challenges and characteristics associated with effective policy process. Finally, this review presents a series of questions that have been constructed around each stage of the policy cycle to facilitate evaluation of the NDS policy framework through analyses of relevant documentation and stakeholder consultations.

Defining policy

While there are numerous definitions of policy to reflect the wide range of contexts in which it is used and the increasing complexity and continuing evolution of policy processes, in general, policy is construed as both actions (decisions) and inactions (indecisions) of the government (for a review of policy definitions, see Birkland 2001; Bridgman & Davis 2004; Colebatch 2002; 2006; Parsons 1995). Policies may or may not be formalised and may be partially or fully developed. The focus on solely government in policy processes, however, has diminished in more recent times as public policy move towards the processes of governance (eg Dror 1994; Parsons 2004).

Context of contemporary public policy: Governance

Rather than a top-down process, whereby policy development and decisions are government driven, contemporary policy processes involve not only multiple levels of government across multiple sectors, but also external stakeholder groups in both the private and public arenas (eg non-government organisations, interest groups). In this context, the processes of governance provide an inclusive policy making environment. However, developing policy in this governing framework is also highly complex. The meeting of aspirations and perspectives of a diverse range of groups creates tensions and challenges for reaching agreement on policy positions. Thus, managing and negotiating the relationships between the government and external stakeholder groups are a critical part of the policy process. Making policy processes effective and efficient in this contemporary public policy context is challenging and requires methods of analysis and tools to facilitate the negotiation of issues and relationships among stakeholders.

The policy cycle

The policy cycle conceptualises the policy process as a cycle of stages and provides a rational structure for thinking about the policy process in a systematic way. In general, policy cycle models include stages that progress from problem or issue identification and definition, goal-setting, generation of policy options, policy decision making, policy implementation and policy evaluation (for reviews, see Bridgman & Davis 2004; Colebatch 2002; Kay 2006; Neilson 2001; Parsons 1995). Although the policy cycle has been criticised for its failure to reflect the complexities of policy making in the real world, it provides a useful framework for analysing the policy process (eg see Bridgman & Davis 2004; Deleon 1999; Colebatch 2006; Parsons 1995; Sabatier & Jenkins-Smith 1993).

The policy cycle proposed by Bridgman and Davis (2004, see also Althaus, Bridgman & Davis, 2007) provide a foundation for identifying elements of good public policy practice and understanding and assessing the NDS as a policy framework. Bridgman and Davis specified eight stages in the policy cycle: (1) issue identification, (2) policy analysis, (3) policy instrument development, (4) consultation, (5) coordination, (6) decision, (7) implementation and (8) evaluation. While these stages are represented in a linear manner, in reality, they interact with one another in complex ways and are not mutually exclusive.

Issue identification

Issue identification involves understanding the issue or problem that requires the attention of the government and the community at large and a policy response. Issues may be identified through needs analyses or research evidence. Specific issues can also become salient as a result of lobbying by interest groups, media campaigns, opinion polls, failure of existing programs, as well as changes in government ideology, economy, population demographics and international relations (Bridgman & Davis 2004).

To facilitate the development of appropriate policy options, having a comprehensive understanding of the issue and the context in which it exists and clear goals are critical (eg Althaus *et al* 2007; Bridgman & Davis 2004; Colebatch 2002; Curtain 2000; Howlett 2007). Given that policy development and implementation require the cooperation and collaboration of multiple stakeholder groups, including the general public, it is essential that stakeholders develop a shared understanding of the issue and goals from the outset to increase likelihood of achieving desired policy outcomes.

Policy analysis

Policy analysis involves generating and assessing the impact of policy alternatives.

The use of best evidence is identified as an important part of this process. Apart from the need to incorporate scientific evidence in policy formulation and decision making, increasingly, experience based knowledge has been recognised as an important source of policy information (eg Curtain 2000; Parsons 2004). Research on evidence based policy has identified a range of barriers to the use, as well as strategies for increasing the uptake, of evidence in policy making processes (eg see Landry *et al* 2003; Lomas 2000; Nutley 2003; Sanderson 2002; Stone, Maxwell & Keating 2001). There is, however, continuing debate on the type of evidence required and the extent to which evidence is necessary in the policy process.

There is also a growing demand for the need to engage the community in the policy development process through discursive practices (eg Bell 2004; Curtain, 2004; Parsons 2002, 2004). Community participation in the policy processes helps to legitimise and achieve support for the policy process, which subsequently enhances the effectiveness and efficiency of policy implementation and achievement of outcomes (eg Bell 2004; Bridgman & Davis 2004). However, factors relating to the feasibility, perceived necessity and effectiveness of public consultation should be considered (eg Bridgman & Davis 2004; Curtain 2000, 2004; Jordan 2007).

More recently, Head (2008) argued that policy decisions are derived from politics, judgement and debate, and that policy debate and analysis are influenced by interplay among facts, norms and desired actions. Rather than a single empirical evidence base for policy, there are multiple evidence bases linked to multiple stakeholder groups. In identifying three 'lenses' or evidence bases for policy analysis – political know-how, rigorous scientific and technical analysis, and practical and professional field experience – he also highlighted the challenges of integrating multiple sources of information to inform and influence policy. The link between evidence and policy is therefore complex and a range of factors influence the nature and level of evidence used in policy decision making (for a review, see Nutley *et al* 2007).

As issues and problems affecting the general public become increasingly complex, unpredictable, ambiguous, interdependent and non-linear, there is a need to identify or develop

policy options that are creative, innovative, flexible and have a long-term focus (eg Abram & Cowell 2004; Curtain 2000; Parsons 2002, 2004; Howlett 2007). Given the inclusive nature of governance in contemporary public policy, it is critical to have policies that incorporate intersectoral and multi-level collaborations to ensure consistency and coherence in efforts to maximise the likelihood of achieving the intended policy outcomes (eg Leat, Seltzer & Stoker 1999; Colebatch 2002; Curtain 2000; Francesco 2001; Parsons 2004). In developing policy options, it is also important to learn from the experiences of other countries (ie having an outward-looking orientation, see Curtain 2000; Parsons 2002, 2004).

Policy instrument development

Policy instruments represent the tools for achieving the intended policy outcomes. They may include legislations, education resources or infrastructures.

Consultation

Consultation provides participation in the policy process and should be incorporated at each stage of the policy cycle to facilitate issue identification, the development and assessment of policy options, policy decisions, and the implementation and evaluation of policy. Consultation should involve independent sources and a variety of methods to seek input from a wider range of stakeholders, including those involved in implementing the policy, external stakeholders and end-users, and a large cross-section of ordinary citizens (eg Curtain 2000; Howlett 2007).

Coordination

Coordination refers to communication within the government (eg across departments, sectors, levels of government) and between the government and external stakeholder groups to ensure consistency in policy positions and activities. It forms a critical part of the policy analysis and implementation processes.

Decision

Policy decision involves choosing a policy option that is most likely to achieve the established policy goals based on the assessment of available policy options. A cost-benefit analysis or risk assessment of policy options and their associated instruments should be undertaken to identify the best policy option (Colebatch 2002; see also Curtain 2000; Howlett 2007).

Implementation

Policy implementation refers to processes involved in the translation of policy into practice. It involves actions of, and interactions among, internal and external organisations of the government as well as service users and the general community. The extent to which policy is implemented accurately (ie as intended) and effectively is complexly determined by a range of factors such as the level of detail provided on policy delivery mechanisms, availability of resources, establishment of linkages and communication networks between the government and relevant stakeholders, levels of program intensity and capacity of personnel to implement policy (eg Althaus *et al* 2007, Bridgman & Davis 2004; Colebatch 2002; Howlett 2007; Parsons 1995). The consistency and coherence of actions across stakeholder groups are critical for effective policy implementation and the achievement of intended policy outcomes.

Evaluation

Policy evaluation provides a means of refining and building capacity at each stage of the policy cycle – whether in identifying the issue for which a policy response is needed, developing policy options or implementing the policy (Bridgman & Davis 2004; Curtain 2000; Howlett 2007; Parsons 1995; Sanderson 2002).

Summary

In summary, public policy involves a wide range of government and non-government actors in multiple processes within the complex architecture of governments.

Policy processes are not only influenced by the values and interests of a diverse range of government and non-government stakeholders, but they are further complicated by a multitude of internal and external factors. As problems that affect the general public become increasingly complex, unpredictable and ambiguous in nature, policy processes also have to evolve to more adequately address these problems.

Although the achievement of intended policy outcomes is complexly determined, based on current literature on public policy practice, characteristics associated with good public policy practice can be identified. These characteristics include a clear understanding of the issue or problem; goals that can be evaluated; an inclusive and highly participatory consultation process; the use of best evidence; provision of sufficient detail to enable implementation; good partnerships and communication networks; policy options that are innovative, creative, flexible, coherent and forward- and outward-looking; risk assessments of policy options; and policy evaluation.

B: Service delivery systems

In formulating our findings, conclusions and recommendations about drug prevention and treatment programs, we draw on relevant principles, outcomes and success factors from the literature on drug service delivery and resource allocation. Given the balance of investment in NDS programs towards illicit drugs and law enforcement interventions, this review highlights concepts of particular interest to this evaluation, including best practice, comprehensive models of care, evidence informed services, access, equity and resource allocation and accountability. Contextual issues such as the concept of ‘drug-related harm’ are also explicated. This section reviews the following literature:

- Victoria’s AOD treatment framework for service delivery
- The UK National Treatment Agency for Substance Misuse’s models of care for developing local systems of effective drug misuse treatment
- The Australian National Council on Drugs’ research paper on Indigenous AOD projects and elements of best practice
- Recent literature on resource allocation, including extracts from an earlier review by Siggins Miller for the ANCD; and a case study on resource allocation in Australian Aboriginal health care

No literature exists to answer the question, ‘What is the optimal AOD service system?’ Issues covered in the literature contribute to thinking about AOD service systems and models of care), and draw attention to issues specific to the NDS programs and their implementation.

Victoria’s Drug and Alcohol Treatment Services: The framework for service delivery

Victoria’s Drug and Alcohol Treatment Services: The framework for service delivery describes the elements of the specialist AOD service system in Victoria and the context in which services are delivered (Victorian DHS 1996). It outlines the purpose and objectives of the service, and key specifications for each component of the service.

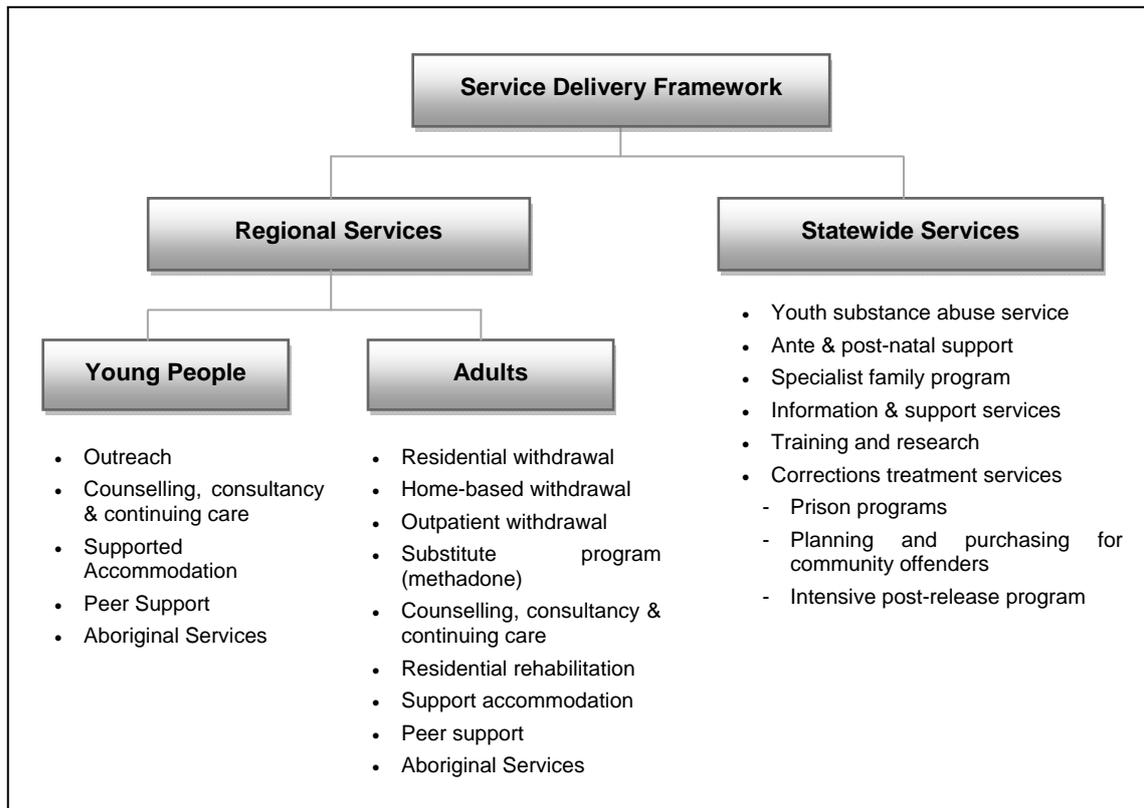
From 1996, new treatment services in Victoria included specialist services for young people, strengthening community-based treatment services, training for health professionals, and a community education and information strategy.

The aim was to ensure one coherent service system and a consistent standard of service delivery of specialist drug and alcohol services. Integration of service delivery would ensure continuity of care, with coordination at two levels: first, the service system perspective - appropriate deployment of a region’s drug and alcohol budget; second, the client perspective - the need for case management where each person could access the services they needed when they need them, one clinician accountable for ensuring (but not necessarily providing) their proper treatment and support.

The Victorian Government emphasised four principles on which health and community services were to be based: to put people rather than institutions or systems first, to ensure a fairer distribution of limited resources, to obtain value for taxpayers’ funds, and to provide a better health status and outcome for all Victorians.

These priorities underpin the framework. Services must provide adequate standards and conditions of care and treatment for persons who suffer harm from use of drugs; be comprehensive, accessible and acceptable; take into account the religious, cultural and language needs of people with alcohol and drug abuse problems; reduce the incidence of drug-related harm in the community; and support the client in the community and coordinate with other community services.

Figure 1: Victoria's Framework for Service Delivery



Service elements for the general population who have problems with alcohol and other drug use should be available or accessible from each region. There are ten elements: residential withdrawal; rural withdrawal support; home-based withdrawal; outpatient withdrawal; substitute pharmacotherapy: specialist methadone services; counselling, consultancy and continuing care; residential rehabilitation; supported accommodation; peer support; and Aboriginal services.

All types of service should meet the following general requirements: services must be targeted primarily to people with serious problems resulting from their use of alcohol or other drugs; the principle of harm minimisation is fundamental to the approach of funded drug treatment services; services must ensure continuity of care for clients through an appropriate case-management process; where services are offered to young people, agencies should ensure that programs are tailored to their needs, are accessible, have flexible hours, work closely with the young person's family group and build strong links with other relevant agencies; services will provide education and information on alcohol and drug issues that will enhance prevention and harm minimisation; they will facilitate arrangements for the care of client's children while their parents are in the program; and they will operate under age, gender and culturally sensitive protocols in relation to client care.

Workforce and resource allocation

The framework also specifies the need for the workforce to have a mix of skills and health professionals with appropriate training. In allocating public resources for drug treatment services the framework suggests: priority be given to services addressing issues identified as part of the *Turning the Tide* policy response to recommendations of the Premier's Drug Advisory Council; resources be directed with the goal of dedicating a minimum of 15% to young people's services and about 5% to Koori services, and a maximum of 35% will be devoted to residential rehabilitation services; resources will be reallocated to promote more equitable access to services across different geographic regions and needs groups; allocations will be targeted to

meet community needs; and efficiency will be encouraged so that the available drug treatment service funding will provide the maximum quantity of high quality services.

System capacity building

Finally, the report recommends three strategies: community education and information, a needle and syringe exchange program, and continuing research. Future initiatives will develop service standards for each service type; case management (a treatment service approach to coordinated care); key performance indicators (refined output and outcome-based performance measures, with emphasis on client satisfaction and quality of care); continuity of care to improve treatment across service systems for clients with dual disability or multiple problems; improved access (innovative solutions to facilitate access to services by people with language and cultural difficulties, and by women); and better purchasing (refining unit costs through work on episodes of care, rationalising fee policies for non residential services, and financial incentives such as quality bonuses).

American Society of Addiction Medicine's Patient Placement Criteria

The American Society of Addiction Medicine's well known 'levels of care' are at the core of its patient placement criteria (American Society of Addiction Medicine 2007):

- Level 0.5: early intervention
- Level 1: outpatient treatment
- Level 2: intensive outpatient/partial hospitalisation
- Level 3: residential/inpatient treatment
- Level 4: medically-managed intensive hospital treatment

This taxonomy is useful but not comprehensive with respect to treatment as it omits services such as therapeutic communities and half-way houses.

UK National Treatment Agency's Models of Care

In contrast, the National Treatment Agency for Substance Misuse *Models of Care for treatment of adult drug misusers: Framework for developing local systems of effective drug misuse treatment in England* comprises a four-tiered structure addressing the continuum of treatment services, integrated care pathways, care planning and co-ordination and monitoring, which are designed to ensure equity, parity and consistency in the commissioning and provision of substance misuse treatment and care (National Treatment Agency for Substance Misuse 2002). While the model of care has been developed in relation to treatment for users of illicit drugs, it uses a systems approach that links and co-ordinates drug and alcohol treatment services to other generic health, social care and criminal justice services. The UK model of care is a framework based on current evidence, guidance, quality standards and good practice in drug treatment.

As illustrated in Figure 2, the UK model of care groups treatment services into four tiers. Importantly, there is a need to ensure that service users have access to the full range of Tiers 1 to 4 services and to the various types of generic and drug treatment modalities. Furthermore, local drug treatment services and their delivery mechanisms should be tailored to fit the needs of the local population to enable equitable access to drug treatment services nationally.

The concept behind the UK model of care is that local Commissioners should seek to develop an integrated systems approach to meeting the multiple needs of drug users in their area - not just a series of separate services - and have explicit links to other health, social care and criminal justice services. Drug users in all local areas should have access to the full range of services in four tiers: (1) non-substance misuse specific services requiring interface with AOD treatment (2) open access AOD treatment services (3) structured community-based drug treatment services (4) residential services for AOD treatment.

In addition to a full range of tiers 1 to 4 services, users should also have access to a full range of evidence-based treatment modalities within these tiers which include open access services, advice and information services, needle exchange facilities, care planned counselling, structured day programs, community prescribing, inpatient drug use treatment, and residential rehabilitation.

A continuum of services can also be conceived of in terms of those with a focus on abstinence from all or certain drug use through to those that seek to minimise the harm that use causes to the user, their families and communities. An example of the former is the traditional, long-term 12 step residential treatment programs such as Mancare, and of the latter Needle and Syringe Programs (NSP) and out-patient counselling.

Figure 2. The four tiers in the UK Models of Care framework

Tier no	Tier title	Service modality	Commissioning level
1	Non-substance misuse (SM) specific services	For example: Personal/general medical services (primary care) Non-DM specific social services including children and family services; non-DM specific assessment and care management Housing specific probation services Vaccination/communicable diseases Sexual health/health promotion Accident and emergency services General psychiatric services Vocational services	Local DAT/PCT/PCG
2	Open access drug misuse services	Drug-related advice and information Open access or drop-in services Motivational interviewing/brief interventions Needle exchange (pharmacy/service/outreach) Outreach services (detached/domiciliary/peripatetic) Low-threshold prescribing Liaison with drug misuse services for acute medical and psychiatric sector DM specific assessment and care management	Local DAT/PCT/PCG
3	Structured community-based specialist drug misuse (DM) services	Drug specialist care planning and co-ordination Structure care planned counselling and therapy options Structured day programmes (urban and semi-urban) Community-based detoxification services Community-based prescribing stabilisation and maintenance prescribing Community-based drug treatment for offenders on DTTOs Other structured community-based drug treatment services targeting specific groups Structured aftercare programmes Liaison with drug treatment services	Local DAT/multi-DAT
4a	Residential substance misuse specific services	Inpatient drug detoxification and stabilisation services Drug and alcohol residential rehabilitation services Residential drug and alcohol crisis centres Residential co-morbidity services Specialist drug and alcohol residential units targeting specific groups, eg mother and child units services	Multi-DAT/regional/national
4b	Highly specialist non-substance misuse specific services	For example: Young people's hospital and residential services providing drug and alcohol treatment services (16 to 21 years) Specialist liver disease units Forensic services Specialist psychiatric units including: personality disorder units; eating disorders units Terminal care services HIV specialist units	Regional/national

While it sets out a national framework for the commissioning of adult treatment for drug misuse in England, the UK models of care can also be effectively applied as a guide for the development of comprehensive drug and alcohol treatment services in the Australian context. In particular, the four-tiered structure of treatment services provides a useful framework for mapping the capacity of existing AOD treatment services and identifying service needs, gaps and priorities in the AOD service system at regional, state and territory, and national levels.

Integrated care pathways

In the UK models of care, the main modalities of treatment that should be provided for people with AOD problems include advice and information, care planned counselling, structured day programs, community prescribing, inpatient drug treatment, residential rehabilitation services.

An integrated care pathway (ICP) describes the nature and anticipated course of treatment for a particular client and a predetermined plan of treatment. ICPs are known by various names, including 'critical care pathways', 'treatment protocols', 'anticipated recovery pathways' and 'treatment algorithms'. They should be developed for people with AOD problems for the following reasons:

- People with AOD problems often have multiple problems which require effective co-ordination of treatment
- Several specialist and generic service providers may be involved in the care of a person with AOD problems simultaneously or consecutively
- A person with AOD problems may have continuing and evolving care needs requiring referral to different tiers of service over time
- ICPs ensure consistency and parity of approach nationally (ie a person accessing a particular treatment modality should receive the same response wherever they access care)
- ICPs ensure that access to care is not based on individual clinical decisions or historical arrangements

In order to provide clarity as to the type of client the AOD treatment modality caters for, what the client can expect the agency to provide, and the roles and responsibilities of the modality/program within the integrated care system and towards the individual client, it is recommended that ICPs have the following elements:

- A definition of the treatment modality provided
- Aims and objectives of the treatment modality
- Definition of the client group served
- Eligibility criteria (including priority groups)
- Exclusions criteria or contraindications
- Referral pathway
- Screening and assessment processes
- Development of agreed treatment goals
- Description of the treatment process or phases
- Care coordination
- Departure planning, aftercare and support
- Onward referral pathways
- Services with which the modality interfaces

Care coordination and monitoring

The UK model of care argues that all service users should have access to appropriate and effective assessment, care planning and care coordination. The aims of care planning and care coordination are to:

- Develop, manage and review documented care plans
- Ensure that people with AOD problems have access to a comprehensive range of services across the four tiers of local AOD treatment systems
- Ensure the coordination of care across all agencies involved with the service user
- Ensure continuity of care and that clients are followed throughout their contact with the treatment system
- Maximise the retention of clients within the treatment system and minimise the risk of clients losing contact with the treatment and care services
- Re-engage clients who have dropped out of the treatment system
- Avoid duplication of assessment and interventions
- Prevent clients falling between services

The level and intensity of care coordination will depend on the complexity of individual need. This requires two levels of care coordination: standard care coordination and enhanced care coordination. Standard care coordination includes the following elements:

- Systematic and ongoing assessment of the health and social care needs of those presenting to AOD services
- Care planning which identifies health and social care needs and responds to these
- Identification of a named care coordinator to organise care across health and social agencies and maintain contact with the person with AOD problems
- Regular reviews of the plan of care (care plan)

Enhanced care coordination applies to those clients with severe mental health problems and mental health comorbidity. In most cases, the client will be under the care of a community mental health team, which will often be caring jointly with a drug and alcohol misuse service. Commissioners should also ensure local protocols are in place to ensure adequate transfer of care coordination where appropriate.

The UK model of care describes the increasing imperative to monitor the activity, cost and outcomes of AOD treatment services. This reflects a desire to gauge the return on local and national investment and to ensure that resources are directed to treatment that is effective.

C: Resource allocation

Knowledge of the aetiology of drug-related harm and the social determinants of problematic drug use help inform decisions about the allocation of resources to programs. Evidence-informed resource allocation (evidence about problems and the most effective ways to deal with them and understanding reasons for the possible success or failure of strategies) implies knowledge of links between outcomes, research, priority setting and resource allocation to reduce risk and increase resilience by addressing the social, economic and physical factors that lead to drug use.

In an attempt to provide services to meet the needs of communities, policy makers and researchers have sometimes employed measures of service use (eg number of occupied bed days) and previous spending as direct indicators of the level of need. However, the validity of these measures as indicators of need has been questioned.

Service usage is not necessarily an indicator of underlying need. For example, people needing a service may not be in a position to gain access to that service, as it may not be available in their local region. On the other hand, people with relatively low levels of need may be able to access a service easily when there is an over-supply in the local area. A range of factors may impact on the relationship between need for services and use of services, including:

- Relative supply of services in the local region (Carr-Hill *et al* 1994)
- Lines and means of transport (Sherman *et al* 1996)
- Barriers to seeking treatment such as interpretations of own need for care and pressure exerted by services operating in free-market systems to increase demand so as to increase profit (Regier *et al* 1984). There are also barriers specific to subgroups discussed difficulties experienced by subgroups such as migrants and unemployed youth in accessing a range of interventions available to control the use of tobacco (Richmond 1993)
- Higher levels of health literacy in more advantaged members of the community – in particular, it is argued that the effects of poverty on service usage tends to be underestimated as middle classes have greater understanding of and are more skilled in accessing health services (Sheldon 1997)
- Local policies involving more or less aggressive approaches to identifying specific health conditions (eg notifications of communicable diseases).

These issues may be particularly problematic for programs where there is significant unmet need and inappropriate distribution of services. The use of services in one program may be influenced by relative access to services in another program. For example, relative availability of ambulatory or primary care services has been shown to influence the use of hospitals. Judge and Mays (1994) argue that one problem with using measures such as past use of hospital beds is the availability of other services within the region. As an example, they refer to the widely varying availability of family health services at a local level in the UK, and argue the demand for hospital services will vary inversely according to the numbers of general practitioners per 10,000 patients in each region.

Nevertheless, there is a degree of relationship between need and service use as Kessler *et al* (1999) demonstrate. Data from the National Comorbidity Survey showed that, for clients already in treatment, those with more serious and complex problems were more likely to use services and receive specialty treatment. Furthermore, in many situations, only the use of services can be observed empirically, whereas ‘need’ can be inferred only indirectly.

Any formula for determining the allocation of resources needs take into account the size of the population, the relative level of need across different regions, and the relative cost of providing services to different regions. As Hindle (2002) has argued, while the allocation of funds to regions should be based on relative need, the allocation of funds within regions should be output-based – that is, providers within the region are funded on the basis of what they achieve or are expected to achieve (for example, a specific number of consumers treated within a given year). A general shift has occurred in Australia away from specifying in

contracts the outcomes that funded services should deliver, towards specifying the activities that agencies are funded to undertake. This is problematic when there is no sound evidence base for the activities. There are many examples of agencies using low cost-effectiveness interventions (eg long term residential, 12 step programs) and evidence-free interventions where it is difficult to demonstrate the causal links between the activities and the outcomes. Significant accountability issues are found here.

In line with current literature on resource allocation, there is also a need to identify which services are optimally physically located in metropolitan hub and/or regional population centres, to which residents of smaller centres could reasonably be expected to travel. Actions such as establishing explicit links to other health social care and criminal justice services, shared care and in-reach to primary care services in areas that lack AOD-specific services, and strategic interstate alliances around the National Drug Research Centres of Excellence and other leading research institutions acknowledges that we cannot expect to have such resources located in every jurisdiction.

Indigenous drug and alcohol projects: elements of best practice

Indigenous drug and alcohol projects: elements of best practice is number 8 in a series of research papers published by the ANCD (Strepel *et al* 2003). It builds on a mapping of the location of projects directly targeting the AOD use among Indigenous Australians.

Of the 277 intervention projects identified, the majority (177) were conducted by Indigenous community controlled organisations. The paper gives five case studies of projects exemplifying best practice in Indigenous substance misuse interventions, as potential models for developing similar projects by other Aboriginal and Torres Strait Islander communities. The report identifies factors contributing to the effectiveness of these projects and describes the specific combinations of factors that led to the formation and sustainability of each service, and the issues involved in delivering services in the context of resource and staffing limitations. However, because the local cultures, histories and present circumstances of Indigenous communities are extremely diverse, projects that are effective in one community may not be effective in another.

Based on the literature and the experience of the researchers, the following general criteria for best practice were established:

- Indigenous community control
- Clearly defined management structures and procedures
- Trained staff and effective staff programs
- Multi-strategy and collaborative approaches and
- Adequate funding
- Clearly defined realistic objectives aimed at the provision of appropriate services that address community needs.

The paper adds to the growing body of case studies and evaluations of Aboriginal and Torres Strait Islander health services that describe factors contributing to success. A number of key success factors are highlighted through these case studies:

- Unique histories and contribution of individual service
- Leadership by individuals
- Appropriate staff conditions, training and development
- Cross-sectoral collaboration, particularly at the local level
- Social accountability to the broader Aboriginal and Torres Strait Islander community
- Multi-service operation
- Sustainability of services and programs
- Allowing Aboriginal and Torres Strait Islander perspectives to direct services

Resource allocation in Aboriginal health care

Staking a claim for claims: A case study of resource allocation in Australian Aboriginal health care addresses the issue of equity in Aboriginal health services and discusses ways in which these standards can be applied to allocating resources in Aboriginal health (Mooney *et al* 2002).

The authors make suggestions about procedural versus distributive justice, horizontal versus vertical equity, and equal access for equal need. They note that when dealing with different cultures in which the constructs of health and health gain differ, distributive justice may not be feasible, as it requires that outputs be fairly distributed. In procedural justice however, the driving force is to get the procedures or processes fair and it allows for the promotion of autonomy and self-determination in decision-making (these 'instrumental' goals cannot be underestimated).

Mooney *et al* (2002) also pointed out that the notion of horizontal equity ('the equal treatment of equals') has limited application in the context of the very substantial differences in health status between Indigenous and non-Indigenous Australians. They argue that vertical equity ('the unequal but fair treatment of unequals') can better address the relative needs of Aboriginal and Torres Strait Islander persons versus non-Aboriginal and Torres Strait Islander persons (eg by establishing a positive resource weighting for Aboriginality in resource allocation formulae). In addition, community involvement in the decision-making process (in promoting access and meeting needs) is important for a balanced approach that recognises preferences may be greatly influenced by local norms and expectations.

D: Key findings of research into the effectiveness and cost-effectiveness of alcohol, tobacco and other drug interventions

The following is an overview of the various drug policy interventions for which there is reasonably sound evidence for efficacy, effectiveness and cost-effectiveness. Often, the absence of evidence in these domains reflects an absence of sound research evidence rather than the fact that particular interventions are not efficacious, effective or cost-effective. This is particularly the case with regard to law enforcement interventions, preventive interventions and some harm reduction interventions.

One of the achievements of the NDS has been the facilitation of research into 'what works' in drug policy interventions. Australian scholars, operating within the framework of the NDS, have produced valuable summaries which form the basis of some of the following listings.

Taxonomies of drug interventions

Many taxonomies of drug interventions exist. McDonald (2004) has documented 21 of them and Ritter & McDonald (2005) have selected ten that are particularly useful owing to their comprehensive and overarching approach. The most useful taxonomies for our purposes are:

- The four pillars approach: law enforcement, prevention, treatment and harm reduction.
- The IOM spectrum for mental health disorders: universal prevention, selective prevention, indicated prevention, case identification, standard treatment for defined disorders, compliance with long-term treatment and after care.
- The Australian NDS approach: demand reduction, supply reduction and harm reduction.
- The allocating government responsibilities approach: the education sector, the health and welfare sector and the criminal justice/law enforcement sector.
- The public health approach: primary prevention, secondary prevention and tertiary prevention.

Here, we adopt the four pillars approach of law enforcement, prevention, treatment and harm reduction, as it aligns most readily with the scientific literature concerning good practice and cost-effectiveness. It is also the taxonomy used, with respect to illicit drugs, in the Drug Policy Modelling Program (DPMP). We acknowledge, however, that the approach is not considered useful by those who argue that aspects of law enforcement, treatment and harm reduction can be considered 'prevention.' Ritter & McDonald (2005, 10) have characterised these issues as '...particular quirks of the Australian policy environment where labelling [diverse] interventions as prevention has become very popular'.

Drug law enforcement

Drug law enforcement interventions have recently been reviewed by DPMP researchers (Mazerolle *et al* 2007). Their emphasis was on drug law enforcement concerning illicit drugs. The researchers undertook a systematic review of drug law enforcement evaluations and presented their results in five main categories:

- international/national interventions (eg interdiction and drug seizure)
- reactive/directed interventions (eg crackdowns, raids, buy-busts, saturation patrol)
- proactive/partnership interventions (eg third-party policing, problem-oriented policing, community policing, drug nuisance abatement,
- individualised interventions (eg arrest referral and diversion)
- interventions that used a combination of reactive/directed and proactive/partnership strategies.

They concluded that (paraphrased from pp. 136-8):

- Evaluations of interventions that aim to reduce supply at a national or international level reveal little empirical evidence on which to base an overall assessment. Moreover, the evidence that does exist fails to support interdiction or crop eradication strategies.
- Law enforcement interventions that target drug-involved individuals offer some promise: arrest referrals and other diversionary tactics may aid in reducing drug use.
- Over all, interventions shown to be effective included problem-oriented policing (proactive), drug nuisance abatement, third-party policing, civil remedies, some tactics of community policing, crime prevention through environmental design (CPTED), combining CPTED and drug nuisance abatement strategies, search and seizure (of clandestine labs), arrest referral, diversion, and some combinations of reactive/directed and proactive/partnership strategies.
- Interventions with mixed findings of effectiveness include crackdowns (effectiveness appears to be contingent on a number of factors), raids (immediate but short-term impact only), and multi-jurisdictional taskforces (MJTFs) (outputs and communication improved but little evidence of effect on outcomes).
- Interventions that do not seem to be effective include drug seizures, crop eradication, undercover operations (when used in isolation of other tactics), intensive policing (when undirected and used in isolation of other tactics), and drug-free zones (DFZs) (very limited literature).

Prevention

Prevention continues to be an area of drug policy with a patchy evidence base. One challenge is the lack of agreement on the definition and scope of 'prevention'. The Commonwealth Government's National Preventative Health Task Force, for example, takes a broad approach that encompass within prevention interventions that others would characterise as treatment.

The first point to make is that prevention works. The evidence for this has been summarised by the National Preventative Health Task Force who wrote:

Prevention – a great investment

A study commissioned by the Department of Health and Ageing in 2003 showed quite spectacular long-term returns on investment and cost savings through the preventative action of tobacco control programs, road safety programs and programs preventing cardiovascular diseases, measles and HIV/AIDS...

For example this report estimated that the 30% decline of smoking between 1975 and 1995 had prevented over 400,000 premature deaths...and saved costs of over \$8.4b, more than 50 times greater than the amount spent on anti-smoking campaigns over that period.

The recent US study Prevention for a Healthier America shows that for every US\$1 invested in proven community-based disease prevention programs (increasing physical activity, improving nutrition and reducing smoking levels), the return on investment over and above the cost of the program would be US\$5.60 within five years... (National Preventative Health Taskforce 2008, p. xi).

Particular preventive interventions, especially those reasonably proximate to the loci of harm, have been thoroughly researched as to efficacy, effectiveness and cost-effectiveness, as have some up-stream interventions that address the deeper social determinants of health and well-being (Marmot & Wilkinson 2006; Spooner & Hetherington 2005; WHO Commission 2008). The evidence base is strong enough to support action on a number of fields.

Alcohol

Probably the most authoritative international review is that of the Alcohol & Public Policy Group, published in 2003. It concluded:

The following...policy options stand out as 'best practices': minimum legal purchase age, government monopoly of retail sales, restrictions on hours or days of sale, outlet density restrictions, alcohol taxes, sobriety check-points,¹⁷ lowered BAC limits, administrative licence suspension, [and] graduated licensing for novice drivers... (Alcohol & Public Policy Group 2003, 1349).

The National Preventative Health Task Force has also reviewed the evidence about alcohol, and presented the following recommendations for action, based on evidence as to what works:

The Taskforce believes that, in order to reduce the prevalence of harmful drinking for all Australians by 30%, the major actions are:

Reshape consumer demand towards safer drinking through:

- Managing both physical availability (access) and economic availability (price). The high accessibility of alcohol – in terms of outlet opening hours, density of alcohol outlets and discounting of alcohol products – is an issue in many Australian communities. If managed well, this leads to reduction in alcohol-related violence, injury, hospitalisation and death.
- Addressing the cultural place of alcohol. Social marketing and public education are required, and will be more effective if the marketing of alcoholic beverages is restricted, including curbing advertising and sponsorship of cultural and sporting events.

Reshape supply towards lower-risk products through:

- Changes to the current taxation regime that stimulate the production and consumption of low-alcohol products.
- Improved enforcement of current legislative and regulatory measures (such as Responsible Serving of Alcohol or bans on serving intoxicated persons and minors, or continuing to lower blood alcohol content in drink-driving laws).
- Removal of tax deductibility for advertising and development of staged approach to restrict alcohol advertising.

Strengthen, skill and support primary health care to help people make healthy choices:

- Support brief interventions as part of routine practice by health professionals and other health workers in primary health care settings to assist changes in drinking behaviour and attitudes to alcohol consumption (National Preventative Health Taskforce 2008, xiii).

Limiting the availability of alcohol as a preventive intervention

National Drug Research Institute researchers have prepared an authoritative overview of evidence concerning restrictions on the sale and supply of alcohol (NDRI 2007). They classified the interventions as (1) having strong evidence for positive outcomes including substantial and/or compelling concurring evidence of effectiveness in an Australian context; (2) having evidence for positive outcomes, may need ongoing substantial functional support; (3) current evidence unclear or insufficient to conclude causality, requires and warrants further investigation and (4) evidence repeatedly indicates absence of reliable positive effect of restriction on alcohol consumption and/or alcohol-related harms; in some instances, there

¹⁷ 'Sobriety check-points' are places where police stop motor vehicles and breath test drivers whom they believe are intoxicated. This approach is to be contrast to with what Australians incorrectly refer to as 'random breath testing', whereby the driver of every vehicle that is stopped by police is breath tested. In fact, the evidence is that the RBT approach is more effective as a general deterrent because it significantly increases the perception of and reality of likelihood of detection, compared with the use of sobriety check-points.

may be evidence of counter-productive outcomes. Using this scale, three interventions were classified as having strong evidence for positive outcomes:

- Restrictions on the economic availability of alcohol: taxation and pricing.
- Restrictions on hours and days of sale for licensed premises.
- Restrictions on legal drinking age for purchase or consumption of alcohol.

Seven interventions were classified as having evidence for positive outcomes but may need ongoing substantial functional support:

- Restrictions on access to high risk alcoholic beverages.
- Restrictions on the outlet density of licensed premises.
- Restrictions on ownership of private liquor licenses: direct government control of liquor outlets.
- Restricting service to intoxicated patrons in licensed premises: responsible beverage service practices with enforcement.
- Restrictions implemented via liquor accords and community based programs with enforcement.
- Mandatory packages of restrictions for remote and regional communities.
- Dry community declarations.

One intervention, restrictions on entry and re-entry for nightclub patrons ('lockout' provisions) was classified as having current evidence that is unclear or insufficient to conclude causality.

Three interventions were classified as having evidence that repeatedly indicates absence of reliable positive effect of restriction on alcohol consumption and/or alcohol-related harms and, in some instances, evidence of counter-productive outcomes:

- Restricting service to intoxicated patrons in licensed premises: responsible beverage service practices without enforcement.
- Restrictions implemented via liquor accords and community based programs without enforcement.
- Local 'dry area' alcohol bans.

The cost-effectiveness of interventions to reduce the burden of harm associated with an alcohol

The cost-effectiveness of interventions to reduce the burden of harm associated with an alcohol in Australia has been assessed. Some of its findings challenge contemporary policy thinking relating to alcohol:

Two interventions stand out as being most effective and cost-effective: changes to the way taxes are imposed and advertising bans...Increasing the minimum legal drinking age to 21 years is also dominant, although the potential health gains are small given the target range is persons aged 18 – 20 years. All other interventions [assessed] have a high or very high probability of being under the \$50,000 per DALY cost-effectiveness threshold. The exception is residential treatment for alcohol dependence (with or without naltrexone) which is not cost-effective...

In terms of the most cost-effective package of interventions, the expansion path includes (in order of incremental cost-effectiveness): volumetric taxation, advertising bans, increase in minimum legal drinking age to 21 years, brief intervention, licensing controls, drink driving mass media campaign, random breath testing and then residential treatment + naltrexone...

The key findings from [the study] suggest that all the prevention interventions modelled are more cost-effective in reducing alcohol-related harm than those that treat alcohol dependence. When taken as a package of interventions, all interventions modelled with the exception of residential treatment would result in a cost-effective investment

portfolio... Changes to volumetric taxation and banning of alcohol advertising should be a high priority for investment due to the high probability of cost-savings. Increasing the minimum legal drinking age to 21 years, brief interventions in general practice, increased licensing controls, drink driving [mass media] campaigns and random breath testing are also likely to be cost-effective...Only residential treatment for alcohol dependence (with or without naltrexone) is not cost-effective by this standard...

The results suggest that although random breath testing is cost-effective and is already being implemented in Australia, the same amount of \$71 million that is currently spent on random breath testing would, if invested in more cost-effective interventions, achieve over ten times the amount of health gain (Doran *et al* 2008, 4-6).

Tobacco

The National Preventative Health Task Force has also reviewed the evidence relating to tobacco and has presented the following recommendations for action, based on the evidence as to what works:

The Taskforce believes that in order to reduce the prevalence of daily smoking to 9% or less, Australia needs to:

- Ensure that cigarettes become significantly more expensive, and that efforts to achieve this through increases in excise and customs duty are not undermined by the increasing availability of products on which these duties have been evaded.
- Further regulate the tobacco industry with measures such as ending all forms of promotion including point-of-sale displays and mandating plain packaging of tobacco products.
- Increase the frequency, reach and intensity of education campaigns that personalise the health risks of tobacco and increase a sense of urgency about quitting among people in all social groups.
- Ensure that all smokers in contact with any single part of the Australian health care system are identified and given the strongest and most effective encouragement and support to quit.
- Ensure access to information, treatment and services for people in highly disadvantaged groups who suffer a disproportionate level of tobacco-related harm.
- Increase understanding about how being a non-smoker and smoking cessation can become more 'contagious' – so that these processes can be accelerated among less well-educated groups and among disadvantaged communities (National Preventative Health Taskforce 2008, xiii).

Mass-media tobacco campaigns

The effectiveness and cost-effectiveness of the first phase of the Australian National Tobacco Campaign (NTC), which ran from June to November 1997, have been assessed. It was found to have cost around \$9 million and to have reduced smoking prevalence by 1.4%. The campaign avoided over 32,000 cases of chronic obstructive pulmonary disease, 11,000 cases of acute myocardial infarction, 10,000 cases of lung cancer, and 2,500 cases of stroke. Furthermore, some 55,000 deaths, gains of 323,000 life-years and 407,000 quality-adjusted life years, and health care cost savings of \$741 million were saved. The NTC was therefore both cost saving and effective. 'As well as reducing smoking prevalence, the NTC was unequivocally cost-effective' (Hurley & Matthews 2008).

Illicit drugs

School-based drug use prevention

DPMP researchers have recently conducted a quantitative and narrative meta-evaluation of school-based programs aimed at preventing illicit drug use. They have concluded as follows:

Consistent with prior research regarding the impact of SBDP [school-based drug prevention] programs on licit substance use, our review found that interactive programs adopting either social influence or competency enhancement components appear to be the most effective approach to school-based drug prevention. Further, more intensive programs appear to increase program effectiveness, and universal programs may be slightly more effective. However, this research does little to resolve the debate regarding the most appropriate program provider.

...our study suggests that policy makers should focus their school-based drug prevention initiatives around interactive programs that are delivered during the middle school years. Our review also highlights the importance of policymakers developing programs that specifically target illicit drug use (as opposed to those programs that together focus on licit and illicit drug use). This may be especially important given the small, yet significant growth in young people experimenting with illicit substances. Our study also suggests that there is probably no additional benefit in funding multifaceted programs or booster sessions. These two strategies may be more effective for preventing licit drug use, but may be of limited benefit in preventing illicit drug use. Finally, in terms of what not to recommend: our findings suggest that SBDP programs that lack interactivity and are aimed at children outside of the middle school years are unlikely to yield many benefits. Policy makers should take general note of the ongoing importance of funding scientifically rigorous evaluations of drug prevention programs (Soole *et al* 2008, 280).

Harm reduction

DPMP researchers have reviewed the efficacy and effectiveness of harm reduction strategies for alcohol, tobacco and illicit drugs, concluding:

For alcohol, current harm reduction efforts of known efficacy and effectiveness are those that reduce drink driving (RBT and interventions for drink drive offenders). The evidence in relation to interventions that reduce injury and violence is growing but not yet strong.

For tobacco, new products that reduce the emission of toxicants and low combustion cigarette-like products are being developed and tested. However, there is scepticism and reluctance among the tobacco control community to embrace such harm reduction strategies.

Injecting drug use has seen the strongest growth of harm reduction interventions complemented by strong evidence to support efficacy and effectiveness and cost-savings for NSP and outreach. There are equivocal findings for brief interventions, education and HIV testing. NIROA [non-injecting routes of administration], naloxone distribution and SIF [supervised injecting facilities] are interventions for which there is emerging positive evidence (Ritter & Cameron 2006, 619).

The NDS prevention monograph reviewed *alcohol harm reduction* interventions (Loxley *et al* 2004). Those classified as having evidence for implementation, evidence for outcome effectiveness or evidence for effective dissemination are as follows:

- lower blood alcohol concentration limits for young drivers
- random breath testing
- ignition interlocks
- designated driver schemes
- thiamine supplementation
- licensing codes of conduct
- staggered closing times
- plastic (or tempered) glasses
- food service
- harm reduction educational approaches.

Of these, only one (random breath testing) has evidence for effective dissemination and only two have evidence for outcome effectiveness (ignition interlocks and thiamine supplementation).

Economic evaluations have been undertaken of Australia's national HIV/AIDS (Applied Economics 2003), hepatitis C (Applied Economics 2005) and needle/syringe exchange programs (Health Outcomes International 2002). All have been found to be effective and highly cost-effective.

Treatment

Over all, treatment of substance abuse problems is effective, certainly as effective as treatments provided for other chronic health conditions.

Alcohol

The National Drug Strategy has published a review of the treatment of alcohol problems (Shand *et al* 2003). Among its core findings are the following:

- Treatment has a role in reducing social and economic harm. It offers scope to reduce the burden of harm and subsequent health care costs of inappropriate alcohol use. In terms of treatment options: day hospital or outpatient management services are cost-effective alternatives to inpatient management for many alcohol dependent clients; brief motivational counselling may be as effective and is less costly than some other psychological interventions; the use of pharmacotherapies in conjunction with psychological interventions is a cost-effective treatment option.
- Instruments for the screening and detection of risky drinkers are readily available and effective; these include AUDIT, MAST and the SDS. A variety of screening instruments are also available for assessing mental health disorders among people with alcohol problems.
- Little progress has been made in matching patients to different types of treatment according to individual patient characteristics. Furthermore, little evidence exists indicating that individual patient characteristics influence treatment outcomes.
- Alcohol withdrawal can be managed in a variety of clinical and community settings, depending on the individual's needs, circumstances, health risks and the severity of their alcohol withdrawal syndrome. The settings include home-based, outpatient and in-patient withdrawal management settings. Home-based and outpatient withdrawal management are appropriate for many patients provided a range of supports is available. Inpatient withdrawal management (medicated or non-medicated) is necessary for people who have a history of severe alcohol withdrawal complications, a known coexisting medical, psychiatric or social and environmental problems. People at risk of suffering alcohol withdrawal complications need a supervised medicated withdrawal management setting.
- With regard to post-withdrawal treatment settings, treatment variables such as client motivation, treatment modality, amount and duration of treatment, and therapist variables appear to have more impact on treatment outcomes than treatment setting. Residential treatment may be the best option for some patients, such as more severe or dual-diagnosis patients, chronic relapsers or those with limited social supports.
- Brief interventions—both opportunistic brief interventions and brief treatments—offer an important addition to more intensive treatment strategies. The effectiveness of brief treatments in treatment seeking populations appears to be comparable to that of other active treatments.
- Psychosocial interventions, including motivational interviewing and cognitive behavioural interventions, are effective in treating alcohol problems.
- Psychosocial relapse prevention interventions appear to be effective relative to no treatment control groups and equally effective when compared to other active treatments. They can be used successfully with a variety of clients in very different contexts, including residential and outpatient settings.

- A number of effective pharmacotherapies exist for relapse prevention; they are probably most effective used in conjunction with psychosocial therapies.
- Long-term recovery depends on treatment retention, social support networks and assertive after-care and follow-up. Given the chronic nature of alcohol dependence, the drinkers should return for follow-up appointments whatever their drinking status.
- While voluntary participation in Alcoholics Anonymous (AA) meetings may assist clients to maintain abstinence or reduce alcohol intake, conventional AA meetings alone should not be viewed as treatment for alcohol dependence. Coerced attendance at AA meetings is counter-productive and not recommended.

Opioid dependence

With the support of the NDS, a major Australian investigation of treatment for opioid dependence – NEPOD: the National Evaluation of Pharmacotherapies for Opioid Dependence – was undertaken, with its findings being published in 2004 (Mattick *et al* 2004). The treatment categories investigated were methadone maintenance, buprenorphine maintenance, LAAM maintenance, naltrexone treatment, rapid opioid detoxification with anaesthesia or sedation, outpatient detoxification using buprenorphine, conventional inpatient detoxification and conventional outpatient detoxification. The key findings were as follows:

- Methadone maintenance, buprenorphine maintenance, LAAM maintenance and naltrexone treatment all produced substantial reductions in heroin use and criminal activity *while patients remained in treatment*.
- A key challenge is to improve patient retention in all pharmacotherapies, because a substantial proportion of patients dropped-out of treatment.
- The agonist maintenance treatments of LAAM, methadone and buprenorphine retained significantly more Heroin Users than naltrexone treatment.
- Rapid opioid detoxification under anaesthesia or sedation was a significantly more effective method for achieving short-term abstinence compared to conventional detoxification and detoxification using buprenorphine. Rapid detoxification under anaesthesia had no advantage over rapid detoxification with sedation. Both procedures were significantly more effective than conventional detoxification.
- The trials of methadone, buprenorphine and LAAM maintenance...produced similar results for patients remaining in treatment, although LAAM was superior to methadone and buprenorphine in achieving additional heroin-free days and abstinence at six months when a conservative approach to data analysis was taken.
- Naltrexone treatment after conventional inpatient detoxification (using clonidine and symptomatic medications) for heroin users had poor results.
- Heroin users' average monthly expenditure on heroin decreased from \$2,611 at baseline to \$572 at three-month follow-up, consistent with the decreases in heroin use.
- Methadone maintenance is the most cost-effective treatment currently available in Australia for the management of opioid dependence. Methadone maintenance also achieved one of the highest rates of retention among the four pharmacotherapies examined.
- Naltrexone treatment appears to be the least cost-effective pharmacotherapy compared with methadone, LAAM and buprenorphine.
- Across treatment modalities, treatment in the GP setting appears to be more cost-effective than the clinic setting at both three and six months.

Other illicit drugs

The evidence supporting treatment interventions for illicit drug use generally was summarised in an ANCD monograph (Gowing *et al* 2001). With regard to the treatment of opioid dependence, its findings are consistent with those documented above from the NEPOD trial. Additional insights include the following:

- Detoxification from dependence on psychostimulants is generally not problematic owing to the low intensity of withdrawal symptoms. As a result, medication is generally considered to be of secondary importance compared with supportive care. The same applies to detoxification from cannabis dependence.
- Little evidence exists supporting the use of pharmacological interventions for managing the symptoms of psychostimulant dependence. For some individual patients, however, this may be a viable option.
- Prescription of oral amphetamines as a form of substitution treatment is of potential value for dependent, injecting amphetamine users.
- No effective pharmacological treatments are available for cannabis dependence.
- Psychosocial therapies add to the effectiveness of methadone maintenance treatment for people dependent on opioids.
- Psychosocial therapies, including cognitive behavioural therapy, are effective among some people dependent upon psychostimulants including amphetamines and cocaine.
- Psychosocial therapies can be effective in the treatment of cannabis dependence and in relapse prevention.
- Residential rehabilitation and therapeutic communities are an important component of the treatment mix. Rates of dropout from therapeutic communities are very high in the early stages of treatment but rates of attrition and then decline. At least three months treatment is required to achieve change. Treatment progress, not just time in treatment, is predictive of good outcomes.
- Twelve-step (self-help) approaches such as Narcotics Anonymous may be effective in preventing relapse. Participation in self-help group meetings (not just attendance) is important in determining outcomes. Evidence suggests that attendance at such meetings should not be mandatory.

Tobacco

In support of a USA National Institutes of Health State of the Science Conference on Tobacco Use: Prevention, Cessation, and Control, the USA Agency for Healthcare Research and Quality reviewed the global scientific evidence in this area (Ranney *et al* 2006, 54-68). With regard to the effectiveness of treatment for tobacco—nicotine—dependence, it found strong evidence supporting therapeutic interventions for nicotine dependence.

- Self-help is of marginal efficacy. Little evidence supports the view that providing multiple types of self-help, when offered without any person-to-person intervention, significantly enhances treatment outcomes
- Individual counselling for smoking cessation is more effective than no treatment at all. No evidence exists that group therapy is more effective than a similar intensity of individual counselling.
- Brief interventions can increase abstinence rates.
- Only limited evidence exists suggesting that adding group therapy to other forms of treatment such as advice from a health professional or nicotine replacement produces extra benefits.
- Pharmacotherapies such as bupropion sustained release or nicotine replacement therapies (e.g., nicotine gum, nicotine inhaler, nicotine patch, nicotine nasal spray) consistently increase abstinence rates.

Cost-effectiveness has also been assessed, with researchers concluding that:

From the population perspective, telephone counselling appeared to be the most cost-effective intervention. Adding proactive forms of telephone counselling increased the effectiveness of pharmacotherapies at a low incremental cost and, therefore, this could be a highly cost-effective strategy. Bupropion appeared to be more cost effective than nicotine replacement therapy (NRT). Combined bupropion and NRT did not appear to be cost effective (Shearer & Shanahan 2006, 428).

Illicit drug treatment in prisons

Australian researchers have reviewed evidence for four interventions for drug-dependent prisoners: detoxification, drug-free units, therapeutic communities, and opioid substitution treatment (Larney *et al* 2007). They found that:

None of these treatment options have been thoroughly studied in the prison context, although the evidence base is increasing in the cases of therapeutic communities and opioid substitution treatment. On current evidence, methadone maintenance treatment is the most effective treatment for reducing drug use and criminal recidivism. It may also assist in reducing HIV and other blood borne virus transmission. However, this treatment is suitable only for opioid-dependent populations; users of psychostimulants and other non-opioid drugs remain poorly served by current treatment approaches, both in the community and in prison (25).

Comparing the cost-effectiveness of prison, pharmacotherapy maintenance or residential rehabilitation for dependent heroin users

A study assessing the relative cost-effectiveness of interventions for heroin dependent people has been undertaken under the DPMP. The scenario was characterised thus: ‘A dependent heroin user has come to the attention of authorities in a form that allows a one-year prison term, a course of pharmacotherapy maintenance or a stay in a residential rehabilitation to be pursued (eg the individual has been arrested). How would each perform in terms of both program cost and reduction in drug use? The analysis used Australian data, and found that pharmacotherapy maintenance was by far the most cost-effective, with residential rehabilitation costing twice as much to achieve the same outcome and prison costing seven times as much:

The post-program effects are the abstinence rates at the end of one year (64% for residential rehabilitation; 57% for pharmacotherapy maintenance; 44.9% for prison) less those achieved by a no-treatment control group (25%). The cost-effectiveness given these post-program effects if we assume the effects last two years are: \$7,700 for pharmacotherapy maintenance, \$14,000 for residential rehabilitation and \$57,000 for prison. There is insufficient information to know with any certainty how long post-program effects would last for (Moore *et al* 2005, 1).

Headline indicators for the NDS

Headline indicators

The evaluation team, the Project Working Group, and the Drug Strategy Branch of the Department of Health and Ageing agreed on eleven headline indicators that are useful for monitoring the NDS.

This section explains why these headline indicators are important and useful, how they map to the NDS Framework's priority areas for action and its objectives, and meet criteria of excellence as performance indicators. The contents, sources, and data availability for each indicator are discussed. The 2004 baseline values of the indicators are listed, together with the most recent data updated to October 2008.

The eleven headline indicators, classified by NDS priority area for action, are these:

Table 1: The 11 headline indicators

NDS Priority Area	Headline indicator	
Prevention	1	Average age of uptake of drugs
	2	Illicit drugs seized
Reduction of supply	3	The availability of illegal drugs, as perceived by people who use illegal drugs
	4	The purity of illegal drugs
Reduction of drug use and related harms	5	Recent use of any drug: people living in households
	6	Arrestees' illicit drug use in the month before committing an offence for which charged
	7	Victims of drug-related incidents
	8	HCV and HIV/AIDS incidence
	9	Drug-related burden of disease, including mortality
Improved access to quality treatment	10	Drug treatment episodes
	11	Opioid pharmacotherapy clients

Headline indicator 1

Table 2: Average age of uptake of drugs, by drug type

Source	National Drug Strategy Household Survey (NDSHS)
Organisation	AIHW
Content	<ul style="list-style-type: none"> • ‘About what age were you when you <i>first</i> used [drug type]?’ • Can be cross-referenced to various user characteristics for deeper analysis.
Rationale	<ul style="list-style-type: none"> • Average age at first use, by drug type, is an indicator addressing the NDS Priority Area ‘Prevention’ and the NDS objective ‘Prevent the uptake of harmful drug use’. (This objective should also cover <i>delaying</i> the uptake of drug use.) • Early initiation is closely correlated with more risky patterns of use and an elevated risk of becoming dependent on the drug. This makes the indicator policy- and program-relevant. • It is well-defined and easy to understand and use. • It is reasonably timely, as one would not expect to see much real movement in this indicator in periods less than three years. • It is a reliable indicator, not readily liable to be changed in future NDSHS waves. • It is comparable with earlier waves of the NDSHS and with other data collections. • It is readily verifiable, being a NDSHS data item.
Issues	<p>Caveats need to be placed on attribution to NDS activities, as other factors (such as trends in socio-economic disparities) may impact on the indicator.</p> <p>Self-report recall bias occurs, particularly among older age groups.</p>
Availability	Approximately every three years, most recently 2007 data published April 2008, next probably 2010 data to be published in 2011.

Baseline: NDS Household Survey 2004

In 2004, current and ex-users of drugs were asked their age when they had their first cigarette, full glass of alcohol or ‘hit’ or other use of a particular drug.

For 12–15-year-olds the lowest age of initiation was 11.4 years, for pain-killers/analgesics.

Generally high ages of initiation were seen across all age groups for tranquillisers/sleeping pills and methadone.

For 12–15-year-olds, steroids had a relatively young age of initiation, in contrast to other age groups.¹⁸

¹⁸ Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*, AIHW cat. no. PHE 66, Drug Statistics Series, no. 16. Canberra: AIHW, p. 107.

Table 3: Average age of initiation for tobacco, alcohol and illicit drug, persons aged 12 years and older, by age, Australia, 2004

Drug	Age Group (years)					All 12+
	12-15	16-17	18-19	20+	21-24	
Tobacco	12.6	13.9	14.7	13.9	16.0	15.9
Alcohol	12.7	14.2	15.0	14.1	17.5	17.2
Illicit drugs						
Marijuana/cannabis	13.3	14.7	15.5	14.9	19.1	18.7
Pain-killers/analgesics ^(a)	11.4	13.5	15.4	13.4	24.4	23.2
Steroids ^(a)	12.0	14.5	17.6	16.4	25.8	25.1
Barbiturates ^(a)	13.6	15.1	14.9	14.7	19.9	19.6
Inhalants	12.2	13.7	14.7	13.4	19.2	18.5
Heroin	12.7	14.9	14.6	14.0	21.6	21.1
Methadone ^(b)	13.2	15.7	15.9	15.1	25.7	24.8
Meth/amphetamine (speed) ^(a)	13.7	15.4	16.8	16.2	21.2	20.8
Cocaine	12.9	14.8	17.0	15.8	23.8	23.5
Hallucinogens	13.6	15.8	16.2	15.7	19.7	19.5
Ecstasy	13.9	15.5	17.2	16.5	23.4	22.8
Ketamine ^(c)	14.0	16.0	16.0	15.9	24.4	23.7
GHB ^(c)	13.6	15.9	16.8	16.2	24.7	23.7
Injected drugs ^(c)	13.8	14.8	15.8	15.2	22.1	21.7

(a) For non-medical purposes

(b) Non-maintenance

(c) Not asked for 12-13-year-olds

Notes: 1. Base is those who had ever used, 2. Age of initiation was not asked for 'other opiates'¹⁹ (AIHW 2005a)

Latest data: NDS Household Survey 2007

AIHW reports that, the average ages of initiation of tobacco and alcohol use remained relatively stable between 2004 and 2007 at around 16 years of age for tobacco and 17 years of age for alcohol.

The mean age of initiation of use of all illicit substances surveyed either remained stable or changed slightly between 2004 and 2007 (AIHW 2008b, 2008c)²⁰:

- Stable: cannabis, tranquillisers, barbiturates, heroin, meth-amphetamine, cocaine, hallucinogens, ecstasy, ketamine, GHP, injected drugs and any illicit drug
- Fell slightly: painkillers, steroids, methadone or buprenorphine
- Increased slightly: inhalants.^{21,22}

Comments

Average age of uptake of drug use is a powerful and policy- and program-relevant indicator as early initiation of drug use is closely correlated with more risky patterns of use and an

¹⁹ Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*, AIHW cat. no. PHE 66, Drug Statistics Series, no. 16. Canberra: AIHW, p108.

²⁰ Note that the AIHW did not undertake significance testing on these trend data so these conclusions are subject to confirmation when the *Detailed Findings* report on the Survey is released.

²¹ Australian Institute of Health and Welfare (2008b). *2007 National Drug Strategy Household Survey: first results*, AIHW cat. no. PHE 98, Drug Statistics Series, no. 20. Canberra: AIHW, p. 7.

²² Note that the AIHW did not undertake significance testing on these trend data so these conclusions are subject to confirmation when the *Detailed Findings* report on the Survey is released.

elevated risk of becoming dependent on the drug. It is an indicator of the achievement of the prevention goals of the NDS, which include preventing or delaying the uptake of drug use.

The mean age of initiation of use of tobacco has remained virtually unchanged over the last decade or more: since 1995 it has been in the range 15.5 to 15.9 years. This finding draws attention to the need to strengthen tobacco control initiatives that are directed at preventing or delaying the uptake of tobacco – the most harmful drug in Australia in terms of its social and financial costs. Prohibiting point-of-sale promotion of cigarette products and raising their price through taxation are two important prevention initiatives for which a sound evidence base on their effectiveness exists. Furthermore, requiring tobacco products to be sold in plain packaging should also be pursued to reduce the attractiveness of the products to young people.²³

Likewise, the age of initiation of alcohol use has remained stable over the past decade: within the range 17.0 to 17.3 years. This reflects the entrenched position of alcohol in Australian society, one which is not likely to change in the short term. Nonetheless, research evidence indicates that young people have a relatively high degree of price elasticity relating to alcoholic beverages; hence using the taxation policy instrument for prevention can be effective with young people's use of alcohol.

There has also been little change in the age of uptake of illicit drugs over the past decade. This is particularly the case with regard to the illicit drug most frequently used by young people – cannabis. The mean age of initiation was 19.1 years in 1995 and 18.8 years in 2007. The age of initiation of steroids and inhalants has risen marginally, but the prevalence of use of these drugs is relatively low. Although there is considerable community concern about the use of psychostimulants in Australia – particularly methamphetamines – the age of initiation of use of these drugs has been stable at around 20 years over the last decade, suggesting that new preventive interventions are required to prevent or delay the uptake.

²³ National Preventative Health Taskforce, Tobacco Working Group 2008, *Tobacco control in Australia: making smoking history*, Technical Report No 2. Canberra: Department of Health and Ageing.

Headline indicator 2

Table 4: Seizures of illicit drugs by Customs, the AFP and the State/Territory Police Services

Source	Australian Customs Service(ACS) Annual Reports and the Australian Crime Commission's (ACC) Illicit Drug Data Reports
Organisation	ACS and ACC
Content	Illicit drugs detected by the ACS in air passengers and crew, cargo and postal services and shipping and aircraft, by drug type including precursors. Seizures of drugs by the AFP and State/Territory Police Services
Rationale	<ul style="list-style-type: none"> • This is a direct indicator of ACS activity and outputs, and is considered by many to be a proxy indicator for the amount of illegal drugs entering the nation. • It addressed the Priority Area of 'Reduction of Supply' and the Objective of 'Reduce the supply and use of illicit drugs in the community'. • It is directly attributable in that it measures an important output (detections). • It is well-defined and objective. • Being published annually, usually within four months of the year covered, the indicator is timelier than many. • It is reliable, being collected the same way each year. • It is readily compared with earlier years and with corresponding detections data from other sources. • Although not publicly verifiable, an authorised audit of ACS data is feasible leading to the conclusion that the indicator is verifiable. • Since most of the cannabis consumed in Australia is locally grown, and a significant proportion of the ATs consumed in Australia are manufactured here, reference is also made to date on domestic seizures.
Issues	<ul style="list-style-type: none"> • Caution needs to be used in attributing amounts and types of drugs seized to ACS activities, as other factors, for example, the amount of drugs being imported and the skills of the traffickers, also impinge on them. • Caution needs to be used in treating this indicator as a proxy for the amount of drugs entering the country, owing to the very small proportion believed to be detected (see Hall <i>et al</i> 2000). • The ACC presents a strong caveat on the validity and reliability of the seizures data that it publishes: the data provided in the Illicit Drug Data Report include '... only those seizures for which a drug weight was recorded. There is at present no way to adjust for double counting of some seizures resulting from joint operations between the AFP and state and territory police services.'
Availability	Annually in the ACS' Annual Report, generally published in October, and annually in the ACC's Illicit Drugs Data Report.

Baseline: Drug detections by Australian Customs Service 2003-04²⁴

Table 5: Drug detections

	Detections	Weight (kg) ^(a)
	2003-04	2003-04
Cannabis	658	709.41
Cocaine	652	131.10
Heroin	64	61.85
MDMA (Ecstasy)	294	872.96
ATS ^(b)	140	5.92
Precursors ^(c)	780	-
PIEDs ^(d)	1 200	-
Other**	2 898	-

(a) Weight shown may be the confirmed weight (if available) or the gross, net or estimated weight. Where weight of detections of amphetamine-type stimulants (ATS) and MDMA (ecstasy) was not available, an estimate of 0.29 g per tablet was used. Estimated weight values for precursors, performance and image enhancing drugs and 'Other' drugs are not shown as there is no consistent unit of measure available. Items in these categories can be measured in grams, volume, dose unit or capsules.

(b) Amphetamine-type stimulants include methyl amphetamine and amphetamine, but excludes MDMA (ecstasy).

(c) Precursor figures refer to detections of chemical substances that are prohibited imports/exports which may be used in the manufacture of illicit drugs. Many precursors detected were likely not intended for the manufacture of illicit drugs, but were active ingredients in health supplements, cold and flu preparations, herbal medicines and weight-loss products purchased on the Internet.

(d) PIEDs refer to performance and image enhancing drugs. They include steroids, DHEA (dehydroepiandrosterone/prasterone) and hormones.

Baseline: Drug seizures by the AFP and State and Territory Police Services 2003-04

Table 6: Drug seizures by the AFP and State and Territory Police Services 2003-04²⁵

	No. of seizures	Weight (kg)
Amphetamine-type stimulants	8,027	1,372
Heroin	1,677	101
Other opioids	92	9
Cocaine	839	120
Cannabis	40,122	9,397
Steroids	49	6
Hallucinogens	58	7
Other & unknown drugs	1,367	185

The ACC (2005) cautions as follows:

'The seizure data presented...include only those seizures for which a drug weight was recorded. Consequently, it undercounts both the number of seizures and the amount of drug seized for all drug types. Amphetamine and cannabis data are most likely to be affected by the variety of measurement methods and these figures should be treated with caution when making comparisons between jurisdictions or over time.

This table includes seizures by the AFP and state police services.²⁶ It is possible that it includes double-counting by the AFP and State/Territory police services.

²⁴ Australian Customs Service (2004). *Annual Report 2003-04*. Canberra: ACS, p. 45. ACS uses the term 'drug detections' while AFP refers to 'drug seizures'. For practical purposes these mean the same thing. The differences reflect the somewhat different roles, in drug law enforcement, of the two agencies.

²⁵ Data presented are based on ACC's (2005) *Illicit drug data report 2003-2004* and authors' calculations

Latest data

Australian Customs Service data: the amount of drugs detected by weight is a more useful indicator than the number of detections, insofar as people are concerned about the amount stopped from entering the country. Given the large year-to-year variations in the number of detections and weight for most drug types, it is difficult to draw conclusions based on these data.

Table 7: Drug detections^(a) by drug type, 2003-04 to 2007-08²⁷

	Detections					Weight (kg) ^(a)				
	2003-04	2004-05	2005-06	2006-07	2007-08	2003-04	2004-05	2005-06	2006-07	2007-08
Cannabis	658	476	504	627	651	709	5	47	46	53
Cocaine	652	443	376	366	629	131	197	78	610	649
Heroin	64	192	299	389	283	62	173	49	75	99
MDMA (Ecstasy)	294	171	135	114	116	873	2378	435	5234	213
ATS	140	206	423	743	568	6	157	91	27	263
Precursors	780	294	578	735	551	-	-	-	295	1170
PIEDs	1 200	1054	1090	1612	1820	-	-	-	-	-
Other ^(b)	2 898	1556	2000	3478	2116	-	-	-	-	-

See footnotes to Table 5.

- (a) Drug detections subject to ongoing investigation (including controlled deliveries) might not appear in this table.
- (b) 'Other' drug detections refer to stimulants other than cocaine or amphetamine-type stimulants, narcotics/analgesics other than heroin, psychotropics/hallucinogens other than MDMA (ecstasy) or cannabis products, and all depressants and sedatives. They exclude precursors.

²⁶ Australian Crime Commission (2005). *Illicit drug data report 2003-2004*. Canberra: ACC

²⁷ Australian Customs Service *Annual Reports 2006-07 and 2007-08*. Canberra: ACS

Table 8: Drug seizures by the AFP and State and Territory Police Services²⁸

	2004-05		2006-07	
	No. of seizures	Weight (kg)	No. of seizures	Weight (kg)
Amphetamine-type stimulants	8,600	2,276	12,484	993
Heroin	1,554	194	1,471	86
Other opioids	92	17	140	6
Cocaine	676	192	1,170	634
Cannabis	41,086	6,922	43,811	4,782
Steroids	50	4	89	10
Hallucinogens	52	13	104	3
Other & unknown drugs	1,701	4,045	2,376	826

The ACC (2007) cautions as follows:

*The data provided in the Illicit Drug Data Report include ‘... only those seizures for which a drug weight was recorded. There is at present no way to adjust for double counting of some seizures resulting from joint operations between the AFP and state and territory police services’.*²⁹

In interpreting changes in the number and mass of seizures made by police using the baseline and latest data, it is important to note that significant fluctuations occur on a year-to-year basis. Given this caveat and the ACC’s caveat about missing data and double-counting, the figures suggest the following changes from 2004 to 2007:

- ATS: an increase in seizures and a reduction in the weight seized
- Heroin: the number of seizures is similar but the weight seized is lower
- Other opioids: an increase in the number of seizures and a large fall in the weight seized
- Cocaine: a large increase in both the number of seizures and the weight seized
- Steroids: a large increase in both the number of seizures and the weight seized
- Hallucinogens: an increase in the number of seizures and a fall in the weight seized
- Other and unknown drugs: an increase in the number seized and a large fall in the weight seized

Comments

It is always challenging to identify the policy implications of data on illicit drug seizures. This is because the number of detections, the types of drugs seized and the amount of drugs seized are normally a function of both the extent and patterns of trafficking, and the extent and patterns of drug law enforcement. It is usually impossible to separate the two factors, as evidenced by the academic and public discussions of the role of some large drug seizures in the aetiology of the ‘heroin drought’.

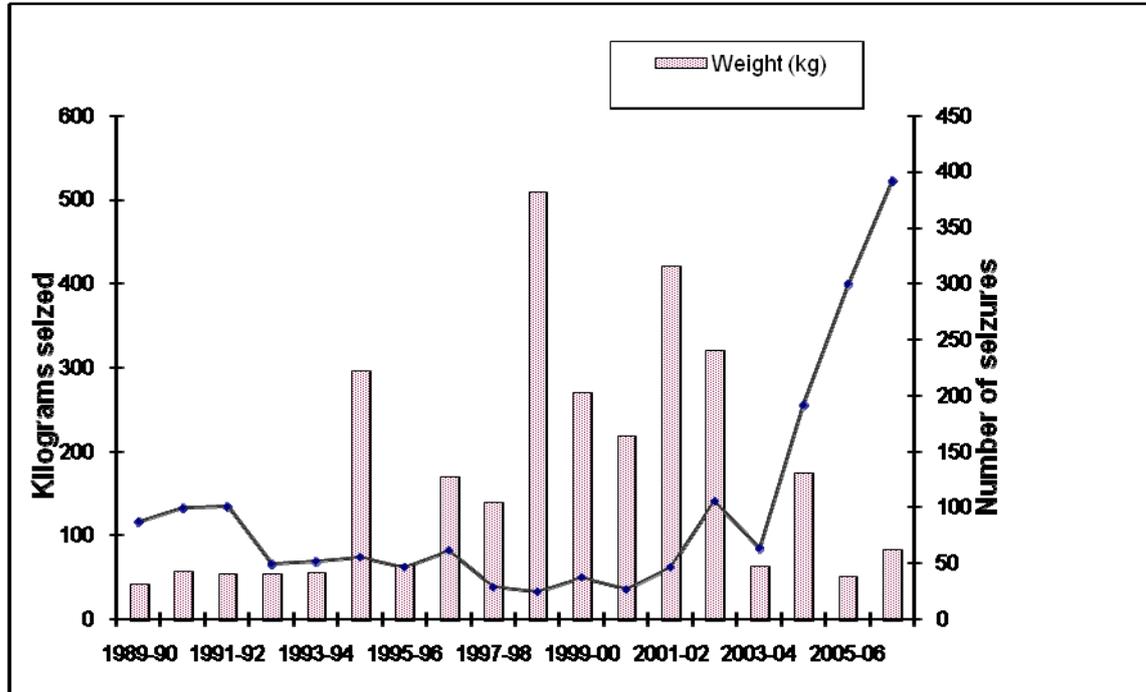
In recent years, the ACS and the AFP have made some remarkably large seizures of illicit drugs. These successes have been attributed to more effective, intelligence-based patterns of drug law enforcement, including the large international network through which information is shared between drug law enforcement agencies from different nations. Separate data on the relative ready availability of illicit drugs domestically and the little impact that even large seizures have on street-level availability provide a reminder that only a small proportion of the drugs being trafficked into Australia are actually seized.

²⁸ Data presented are based on ACC’s (2006, 2008) *Illicit drug data report 2004-2005* and *Illicit drug data report 2006-07* and authors’ calculations

²⁹ Australian Crime Commission (2007). *Illicit drug data report 2005-2006*. Canberra: ACC

The number of seizures and the amount of illicit drugs seized vary markedly from year to year, which makes it difficult to draw conclusions about the effects of drug law enforcement on the availability of drugs in Australia. As illustrated by the following graph of heroin seizures (see Figure 2), the pattern of seizures has changed in recent years from a small number of large seizures to a large number of small seizures.

Figure 2: Seizures of heroin by Australian Customs³⁰



³⁰ Based on ACS Annual Reports 1989-90 to 2006-07

Headline Indicator 3

Table 9: The availability of illegal drugs, as perceived by people who use illegal drugs

Source	Illicit Drug Reporting System (IDRS)
Organisation	NDARC
Content	Drug users' perceptions of the current availability of drugs, by drug type
Rationale	<ul style="list-style-type: none"> Information on the availability of illegal drugs is of high salience to many audiences. Whereas criminal intelligence agencies have information on this from controlled buys, etc., this information is not available to the public. A good measure of availability is the reports by the people who use illegal drugs interviewed in the IDRS. This Headline Indicator addresses the Priority Area of 'Reduction of Supply' and the Objective of 'Reduce the supply and use of illicit drugs in the community', on the basis that 'supply' and 'availability' capture the same phenomenon. The indicator is well-defined, unambiguous once one accepts the inevitable divergence between individuals in their subjective assessments of 'very easy', 'easy', 'difficult' and 'very difficult' to obtain. It is timely, being produced annually. Furthermore, NDARC releases a Drug Trends Bulletin with overview findings well in advance of the full annual IDRC Monograph. It is reliable, being asked in the same way each year. It is comparable with previous years, but only marginally comparable with other sources of information on availability as it reflects the perceptions of a particular group of people who use illicit drugs. It is verifiable, in that NDARC holds the source interview data.
Issues	<ul style="list-style-type: none"> The sample is 100 drug users in each capital city. Users in the regional and rural areas are not covered. Some commentators are sceptical about drug users' self-report data, but the evidence demonstrating the validity and reliability of this information source is reasonably strong. NDS Household Survey data are used to supplement the IDRS data.
Availability	<ul style="list-style-type: none"> Annually, first as a Drug Trends Bulletin released around October of the year in question, followed around April/May the following year by the full Monograph.

Baseline: IDRS 2004³¹

- Heroin: 'In 2004 the availability of heroin was reported to be stable in those jurisdictions where heroin has traditionally predominated, although the prevalence and frequency of use has not returned to the levels seen in 2000.'
- Methamphetamine: 'All forms of methamphetamine were reported to be 'easy' or 'very easy' to obtain and availability was stable. Substantial proportions of IDU continue to use all forms of methamphetamine. In 2004, the proportion of IDU that reported recent use of powder and crystal methamphetamine remained stable and varied for base use
- Cocaine: 'The proportions of IDU reporting recent cocaine use decreased in all jurisdictions except in WA and the NT. The frequency of cocaine use remained stable in all jurisdictions except in the NT where it increased.'
- Cannabis: 'Cannabis remained easy to obtain in all jurisdictions. Hydroponically grown cannabis continued to dominate the market and was considered 'easy' or 'very easy' to obtain in all jurisdictions. The use of outdoor cultivated cannabis (bush), hash and hash oil was noted in all jurisdictions.'

³¹ Stafford J, Degenhardt L, Black E, Bruno R, Buckingham K, Fetherston J, Jenkinson R, Kinner S, Moon C, Weekley J (2005). *Australian drug trends 2004: findings of the Illicit Drug Reporting System (IDRS)*, NDARC monograph no. 55, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Latest data

The most recent data are for the 2007 IDRS wave:³²

- Heroin: in NSW, Vic and the ACT ‘availability appeared to have increased somewhat compared to 2006 (cf the NT and TAS where few people were able to comment; indicative of low availability and use)’
- Methamphetamine: ‘Overall, the three main forms of methamphetamine (speed powder, base and ice/crystal) were generally considered “easy” or “very easy” to obtain.’
- Cocaine: ‘Easy’ or ‘very easy’ in Sydney, the only significant market
- Cannabis: ‘... remained readily available in all jurisdictions’.

Comments

Informants who are current users of illicit drugs are ideally positioned to provide accurate information on drug availability. Being frequent users, they can be expected to have more ready access to illicit drugs than people who use them episodically rather than frequently or continually. This is an intentional characteristic of the sampling strategy that needs to be borne in mind in interpreting IDRS/EDRS data. The information that frequent users provide on trends in availability is particularly useful. The users interviewed in the IDRS monitoring program report continuing high availability of most illicit drugs, with the heroin shortage that began in the early 2000s being the most significant exception.

The information users provide is usefully supplemented by the NDS Household Survey data. Owing to the different population groups targeted by the IDRS and the Household Survey, the information on illicit drug availability from the two sources is inconsistent. This reflects the fact that most respondents to the Household Survey do not use these drugs so are able to comment accurately about availability. In the Household Survey, people were asked whether they had been offered or had the opportunity to use drugs in the preceding 12 months. AIHW’s report on the 2007 survey provides 2004-2007 trend data on perceived availability of illicit drugs in the general community (note that AIHW has published these data without an assessment of the statistical significance of the reported differences in prevalence between the two surveys).

Between 2004 and 2007, the availability of most illegal drugs fell: analgesics used for non-medical purposes (-63%), ketamine (-38%), GHB (-33%), methamphetamine (-28%), LSD/synthetic hallucinogens (-23%), cannabis (-17%), naturally-occurring hallucinogens (-14%), tranquillisers/sleeping pills used for non-medical purposes (-12%) and kava (-10%).

Over the same period, the reported availability of steroids used for non-medical purposes rose by 62%, barbiturates for non-medical purposes by 38%, cocaine by 26%, inhalants by 7% and ecstasy by 4%. The availability of heroin was the same in 2004 and 2007.

Reduced availability was therefore reported in the Household Survey with respect to two of the drugs of most concern (ie cannabis and methamphetamine) owing to their harm potential at the individual and population levels, with increases reported in two other particularly important drugs (ie cocaine and ecstasy).

From both sources, it appears that the seizures of illicit drugs, some of them entailing huge quantities, as well as other forms of drug law enforcement, have had little impact on street-level drug availability in Australia.

³² Black E, Stafford J, Degenhardt L (2007). *An overview of the 2007 IDRS: the Injecting Drug User survey findings*, Drug Trends Bulletin, National Drug and Alcohol Research Centre, Sydney. Additional details are in Black E, Roxburgh A, Degenhardt L, Bruno R, Campbell G, de Graaff B, Fetherston J, Kinner S, Moon C, Quinn B, Richardson M, Sindicich N, White N (2008). *Australian drug trends 2007: findings of the Illicit Drug Reporting System (IDRS)*, Australian Drug Trends Series no. 1, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Headline Indicator 4

Table 10: The purity of illegal drugs

Source	Illicit Drug Reporting System (IDRS)
Organisation	NDARC
Content	Drug users' perceptions of the current purity of drugs, by drug type
Rationale	<ul style="list-style-type: none"> Information on the purity of illegal drugs is considered, on the basis of research evidence, to be a reasonably sound proxy for availability. Some consider it to be a reasonably sound proxy for the effectiveness of drug law enforcement. Whereas criminal intelligence agencies have information on purity from some detections and controlled buys, and some of the data are published in IDDR, the jurisdictional inconsistencies in that data source make comparisons and aggregations problematic. A good measure of the purity of illicit drugs at the street level is the reports by the people who use illegal drugs interviewed in the IDRS. This Headline Indicator addresses the Priority Area of 'Reduction of Supply' and the Objective of 'Reduce the supply and use of illicit drugs in the community' on the basis that 'supply' and 'availability' capture the same phenomenon. The indicator is well-defined, unambiguous once one accepts the inevitable divergence between individuals in their subjective assessments of purity/potency: 'high', 'medium', 'low' and 'fluctuates'. It is timely, being produced annually. Furthermore, NDARC releases a Drug Trends Bulletin with overview findings well in advance of the full annual IDRC Monograph. It is reliable, being asked in the same way each year. It is comparable with previous years, but only marginally (if at all) comparable with other sources of information on purity as it reflects the perceptions of a particular group of people who use illicit drugs. It is verifiable, in that NDARC holds the source interview data.
Issues	<ul style="list-style-type: none"> The sample is 100 drug users in each capital city. Users in the regional and rural areas are not covered. Some commentators are sceptical about drug users' self-report data, but the evidence demonstrating the validity and reliability of this information source is reasonably strong. The IDRS data are usefully supplemented by data from police sources published by the Australian Crime Commission.
Availability	<ul style="list-style-type: none"> Annually, first as a Drug Trends Bulletin released around October of the year in question, followed around April/May the following year by the full Monograph.

Baseline: IDRS 2004³³

- Heroin: 'IDU reported heroin purity as low to medium. Purity analyses of State Police seizures from 2003/04 remained relatively stable, with a decrease in purity from 1999.'
- Methamphetamine: 'There is no clear trend in purity of methamphetamine, with variation in purity across jurisdictions, although median purity of State Police seizures remains below 32%. Larger proportions of IDU reported the purity of speed, base and ice as medium to high.'
- Cocaine: 'Of those able to comment, nearly a third (27%) reported the purity as low and 30% as medium.'

³³ Stafford J, Degenhardt L, Black E, Bruno R, Buckingham K, Fetherston J, Jenkinson R, Kinner S, Moon C, Weekley J (2005). *Australian drug trends 2004: findings of the Illicit Drug Reporting System (IDRS)*, NDARC monograph no. 55, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

- Cannabis: ‘As in previous years, the IDU in all jurisdictions perceived potency of hydroponic cannabis as ‘high’ and ‘medium’ for bush cannabis. The potency was considered stable for both forms.’

Latest data

The most recent data for the 2007 IDRS wave:³⁴

- Heroin: ‘While subjective, reports suggested that purity may have increased slightly compared to 2006, with a decrease in those reporting it to be of ‘low’ purity and a corresponding increase in those reporting it to be of ‘medium’ purity in 2007. However, the majority continued to rate it as ‘low’, suggesting that even if purity has indeed risen, it is still not of high quality.’
- Methamphetamine: Of the three forms, ice/crystal was the most often reported to be of ‘high’ purity, base was ‘medium’ or ‘high’ and speed powder was commonly reported to be ‘low’ or ‘medium’.
- Cocaine: Purity was ‘low’ in Sydney, the only significant market.
- Cannabis: ‘The potency of hydroponic cannabis continued to be rated as “high” and bush cannabis as “medium”’.

Additional data from laboratory assays of some seized drugs are provided by the ACC in its annual *Illicit Drug Data Report*. It points out that not all drugs seized are subjected to forensic analysis and that significant procedural differences exist on a state-by-state basis. Consequently, these data have to be used with caution. The latest report, which covers the 2006-07 year, provides the following information:

- Amphetamines: ‘The purity levels of amphetamine... and methylamphetamine... have fluctuated significantly across the jurisdictions since 2001. The spike in amphetamine purity in Western Australia during quarter 3 of 2005 is the result of analysis of one sample only and may not be indicative of general purity in the state during that quarter.’
- ‘Ecstasy’ and related drugs (phenethylamines): ‘Some tablets sold under the guise of ‘ecstasy’ may actually contain various additives including methylamphetamine, ketamine, MDA, PMA, MDEA, paracetamol or caffeine, with some tablets containing no MDMA at all. Consequently, the purity of phenethylamines can vary markedly. Within Australia, the median purity of phenethylamines varies within and between jurisdictions, generally between 20 and 40%...’
- Cannabis: The ACC report does not discuss the purity of cannabis nor are purity data covering this drug provided in the report’s statistical appendix.
- Heroin: ‘an overall decrease in heroin purity levels have been observed since 1999, with medium levels generally not reaching the levels reported prior to this time. The exception is Queensland, with purity levels noticeably fluctuating during the second quarters of 2005 and 2006.’
- Cocaine: ‘the report illustrates ‘... the diverse fluctuations in cocaine purity analysed in Australia since 2001’ and points out that seizures are infrequent in most jurisdictions apart from NSW, Victoria, Queensland and WA

³⁴ Black E, Stafford J, Degenhardt, L (2007). *An overview of the 2007 IDRS: the Injecting Drug User survey findings*, Drug Trends Bulletin, Sydney: National Drug and Alcohol Research Centre, UNSW. Additional details are in Black E, Roxburgh A, Degenhardt L, Bruno R, Campbell G, de Graaff B, Fetherston J, Kinner S, Moon C, Quinn B, Richardson M, Sindicich N, White N (2008). *Australian drug trends 2007: findings of the Illicit Drug Reporting System (IDRS)*, Australian Drug Trends Series no. 1, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Comments

The purity of illicit drugs is a core indicator of illicit drug availability (Moore *et al* 2005).³⁵ In periods of short supply, the purity typically falls. The purity of heroin, for example, fell markedly in Australia in the year 2000 (the ‘heroin drought’) and both users and police sources indicate that heroin purity remains low compared with 1999. No clear trend in the purity of methamphetamine is observable. Cocaine purity has been low in its limited market for many years and the purity of cannabis remains stable, with hydroponic cannabis being of high purity and bush cannabis medium purity. These observations from both users and police suggest that Australian illicit drug markets have remained fairly stable throughout the current phase of the NDS and, indeed, for the previous three or four years. Other information sources show a shift in preference from low potency powder methamphetamine to high potency crystalline forms, but the purity indicator does not track this phenomenon.

³⁵ Moore TJ, Caulkins JP, Ritter A, Dietze P, Monagle S, Pruden J (2005). *Heroin markets in Australia: current understandings and future possibilities*, Drug Policy Modelling Project Monograph Series no. 09. Fitzroy: Turning Point Alcohol and Drug Centre

Headline Indicator 5

Table 11: Recent use of any drug, people living in households

Source	National Drug Strategy Household Survey (NDSHS)
Organisation	AIHW
Content	<ul style="list-style-type: none"> • 'Have you used [drug type] for non-medical purposes in the last 12 months?' for illegal drugs, and daily, weekly and less-than-weekly use of tobacco and alcohol. • It covers all drug classes, and differentiates between the main forms of amphetamine/methamphetamine, i.e. powder, crystal, base/paste/pure, tablet and liquid. • Can be cross-referenced to various user characteristics, such as teenagers and all ages, for deeper analysis.
Rationale	<ul style="list-style-type: none"> • This is a period prevalence indicator of recent drug use and is one of the most powerful of the Headline Indicators. • It helps to explicate the prevalence of drug use at the time of the survey, enabling changes to be assessed over time. This makes the indicator particularly policy- and program-relevant. • It addresses the NDS Priority Area 'Reduction of drug use and related harms' and the NDS Objective 'Reduce the supply and use of illicit drugs in the community'. • It is well-defined and easy to understand and use. • It is reliable, not changing in successive Survey waves. • It is readily verifiable, being a NDSHS data item.
Issues	<ul style="list-style-type: none"> • The sample is Australians 12 years and older, with the 2007 Survey, the ninth in the series, having some 23,000 respondents. It used both the drop-and-collect data collection method and computer-assisted telephone interviews. Not all questions were asked of all respondents. • It is not particularly timely owing to the three year plus gap between surveys, and the lag between data collection and data availability. • Caveats need to be placed on attribution to NDS activities, as other factors (such as changing patterns of policing) may impact on the prevalence of recent drug use.
Availability	<ul style="list-style-type: none"> • Approximately every three years, most recently 2007 data published in April 2008.

Baseline: NDS Household Survey 2004³⁶

Tobacco

- Of the 3.4 million people who were classified as smoking daily, weekly or less than weekly, 84% smoked daily, averaging 14 cigarettes (or equivalent tobacco) per day
- Of females aged 14–19 years, one in nine (11.9%) smoked daily; while one in ten (9.5%) males aged 14–19 years smoked daily

Alcohol

- One in eleven (8.9%) Australians drank daily, a further 41.2% drank weekly and 16.4% had never consumed a full serve of alcohol or has consumed alcohol but not in the 12 months prior to the survey.

Illicit drugs

- One in seven (15.3%) Australians aged 14 years and older had used an illicit drug in the last 12 months.
- Almost one in nine (11.3%) Australians had used marijuana/cannabis in the last 12 month. Of recent users (i.e. used in the 12 months prior to the survey) one in six (16.4%) used cannabis every day

³⁶ Adapted from Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*, AIHW cat. no. PHE 66, Drug Statistics Series, no. 16. Canberra: AIHW, pp. ix-x.

- Of Australians aged 14 years and older, 0.6 million (3.8%) had used pharmaceuticals for non-medical purposes. The pharmaceutical products covered were pain-killers, tranquillisers, barbiturates and steroids. (The prevalences of these four drug types shown in Table 12, when summed, are higher than 3.8%, as some users would have reported using more than one of the drugs listed.)
- Three in a thousand (0.3%) Australians used heroin, methadone (for non-maintenance) and/or other opioids in the last 12 months. Of those users, almost one in two (45.0%) used these drugs daily or weekly
- Ecstasy was used in the last 12 months by three in a hundred (3.4%) Australians. Of these users, three in five (63.3%) had, most commonly, used it at raves/dance parties
- Three in a hundred (3.2%) had used meth/amphetamines in the last 12 months. Of those users, 10.8% used these drugs at least weekly and an additional 16.1% had used them about once a month. The most common frequency of use was once or twice a year (43.9% of those who had used in the previous 12 months).

Table 12: Summary of recent^(a) drug use: proportion of the population aged 14 years and over, Australia, 1993 to 2007³⁷

Drug/behaviour	1993	1995	1998	2001	2004	2007
Tobacco	29.1	27.2	24.9	23.2	20.7 [#]	19.4 ^{##}
Alcohol	73.0	78.3	80.7	82.4	83.6 [#]	82.9
Illicit drugs						
Marijuana/cannabis	12.7	13.1	17.9	12.9	11.3 [#]	9.1 ^{##}
Pain-killers/analgesics ^(b)	1.7	3.5	5.2	3.1	3.1	2.5 ^{##}
Tranquillisers/sleeping pills ^(b)	0.9	0.6	3.0	1.1	1.0	1.4 ^{##}
Steroids ^(b)	0.3	0.2	0.2	0.2	- [#]	-
Barbiturates ^(b)	0.4	0.2	0.3	0.2	0.2	0.1
Inhalants	0.6	0.6	0.9	0.4	0.4	0.4
Heroin	0.2	0.4	0.8	0.2	0.2	0.2
Methadone ^(c)	N/A	N/A	0.2	0.1	0.1	0.1
Other opiates/opioids ^(c)	N/A	N/A	N/A	0.3	0.2	0.2
Methamphetamine (speed) ^(a)	2.0	2.1	3.7	3.4	3.2	2.3 ^{##}
Cocaine	0.5	1.0	1.4	1.3	1.0 [#]	1.6 ^{##}
Hallucinogens	1.3	1.8	3.0	1.1	0.7 [#]	0.6
Ecstasy ^(d)	1.2	0.9	2.4	2.9	3.4 [#]	3.5
Ketamine	N/A	N/A	N/A	N/A	0.3	0.2
GHB	N/A	N/A	N/A	N/A	0.1	0.1
Injected drugs	0.5	0.6	0.8	0.6	0.4	0.5
Any illicit	14.0	17.0	22.0	16.9	15.3 [#]	13.4 ^{##}
None of the above	21.0	17.8	14.2	14.7	13.7 [#]	14.1

(a) Used in the last 12 months. For tobacco and alcohol, 'recent use' means daily, weekly and less-than-weekly smokers and drinkers respectively.

(b) For non-medical purposes.

(c) Non-maintenance.

(d) This category included substances known as 'Designer drugs' prior to 2004.

2004 result significantly different from 2001 result (2-tailed $\alpha = 0.05$).

2007 results significantly different from 2004 result (2-tailed $\alpha = 0.05$).

³⁷ Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*, AIHW cat. no. PHE 66, Drug Statistics Series, no. 16, Canberra: AIHW, p108; and Australian Institute of Health and Welfare (2008). *2007 National Drug Strategy Household Survey: first results*, AIHW cat. no. PHE 98, Drug Statistics Series, no. 20, Canberra: AIHW, p. 4.

Notes: 1. Base is those who had ever used. 2. Age of initiation was not asked for 'other opiates'

Latest data

The latest data come from the 2007 National Drug Strategy Household Survey (see Table 12). In 2007, the prevalence of recent use of tobacco was 19% and of alcohol 83%. Of people aged 14 years and over, 13% reported recent use of any illicit drug, with cannabis continuing to be the most prominent with 9% reporting recent use. The other illicit drugs all show a prevalence of 2.5% or less.

Although the overall prevalence of daily tobacco smoking among males was 18.0% and females 15.2%, among respondents aged 14-19 years 8.7% of females reported daily smoking, compared with 6.0% of males.

Overall, recent alcohol use among males (86.0%) was more frequently reported than among females (79.9%). Alcohol use prevalence increased with age, with the highest prevalence of daily drinking (15.6%) observed among people 60 years and above.

Overall, 13% reported using an illicit drug in the last 12 months, including 15.8% of males and 11.0% of females. 23.4% of the 18-19 years age group reported last 12 months use of an illicit drug. With respect to cannabis, the most frequently used illicit drug, prevalence was also highest in this age group: 19.0%.

Comment

AIHW (in its *First Results* report on the 2007 Household Survey, p.5) has provided the following comment on trends in the recent use of the most commonly used drugs, tobacco, alcohol and cannabis:

- Between 1993 (29.1%) and 2007 (19.4%) there was a steady decline in the proportion of persons who had recently smoked tobacco
- The proportion of the population recently using alcohol increased over the 11 years from 1993 to 2004, from 77.9% to 83.6% but declined slightly in 2007 to 82.9%
- Recent use of marijuana/cannabis has declined since 1998, with the proportion of recent users in 2007 (9.1%) dropping to the lowest proportion seen since 1993

With respect to the 2004 to 2007 period, statistically significant reductions in prevalence of recent use were reported for tobacco, cannabis, painkillers, amphetamines, and 'any illicit' drug.

Tranquillisers and cocaine were the only drugs demonstrating a statistically significant increase in prevalence of use between those two waves of the survey.

These findings suggest that, overall, Australia is currently in a period of reduced prevalence of the use of drugs, both licit and illicit. Scholars are speculating on the possible impacts on drug use of any prolonged economic downturn in this nation and globally.

Headline Indicator 6

Table 12 Arrestees' illicit drug use in the month before committing an offence for which charged

Source	Drug Use Monitoring Australia (DUMA)
Organisation	AIC
Content	<ul style="list-style-type: none"> This indicator supplements the general population indicator of drug use derived from the NDSHS (Headline Indicator 5) in that it tracks recent drug use among arrestees, a population with high drug use prevalence and one that provides an early warning of changes in drug use. It lends itself to cross-tabulation with other variables.
Rationale	<ul style="list-style-type: none"> This is a sound indicator of recent drug use, being derived from both self-report data and confirmatory urinalysis, and is one of the most powerful of the Headline Indicators. It helps to explicate the prevalence of drug use on a quarterly basis (though published annually) in a high-risk population, enabling changes to be assessed over time. This makes the indicator particularly policy- and program-relevant. It addresses the NDS Priority Area 'Reduction of drug use and related harms' and the NDS Objective 'Reduce the supply and use of illicit drugs in the community'. It is well-defined and easy to understand and use. It is comparable with DUMA data collected since 1999, though the number of sites has increased since then. It is readily verifiable, being a DUMA data item, with the confirmation of self-reports by urinalysis being an important feature.
Issues	<ul style="list-style-type: none"> It fails to differentiate between the various types of amphetamines/methamphetamines. Although the published data are not in a form usable as the Headline Indicator, the AIC is providing the data for the purposes of monitoring and evaluating the NDS. Caveats need to be placed on attribution to NDS activities, as other factors (such as trends in socio-economic disparities) may impact on the prevalence of recent drug use.
Availability	<ul style="list-style-type: none"> Data collected quarterly and provided to individual police sources, and made available to the NDS Monitoring & Evaluation Project, quarterly. The AIC web site hosts an interactive tool for presenting DUMA data. It permits users to undertake basic manipulation of some core DUMA variables. Charts and tables can be produced by means of the interactive tool. Data and analyses published annually online and in a printed report.

Baseline: DUMA 2004

Although the AIC collects these data and refers to them in various places in the annual reports, it does not provide (in the published reports) the actual figures covering previous month's drug use for either the individual sites or drug types. This is surprising owing to the significance of the variable and that the AIC itself has recommended the use of this variable as one of the most powerful for measuring the performance of drug law enforcement (Homel & Willis 2007).³⁸ The AIC may decide that, owing to the significance of this indicator, it will in future publish the data (previous month prevalence by drug type by site and all sites combined) in its annual reports.

The AIC has provided the data to the Monitoring and Evaluation Team covering the baseline year 2004, and subsequently.

In 2004, data were collected at seven sites: Adelaide, Bankstown, Brisbane, East Perth, Elizabeth, Parramatta and Southport, with the following results.

³⁸ Homel PJ & Willis K (2007). *A framework for measuring the performance of drug law enforcement*, Trends & Issues in Crime and Criminal Justice, no. 332. Canberra: Australian Institute of Criminology, p. 5.

Table 13: Reported use of illegal drugs in the past 30 days for adult police detainees, by sex, averaged across all DUMA sites, 2004 (per cent)³⁹

Drug	Males	Females	Persons
Benzodiazepines	8.1	11.6	8.6
Cannabis	60.8	53.3	59.6
Cocaine	3.9	2.9	3.8
'Ecstasy'	9.6	6.9	9.1
Heroin	13.0	18.6	13.9
Inhalants	1.2	2.8	1.4
LSD	1.1	0.7	1.0
Amphetamine/methamphetamine	35.5	44.0	36.9
Morphine	6.5	7.7	6.7
Street methadone	2.5	3.1	2.6
Total (N)	3 129	582	3 711

The most serious charge facing these 2004 arrestees were for property offences 31%, violence 25%, breaches of orders 15%, traffic 9%, drugs 6%, disorder 6%, drink driving 5% and other 4%.

Latest data

The latest published DUMA data are for calendar year 2007 (Adams *et al* 2008).⁴⁰ As noted above, it has proven necessary to obtain from the AIC the unpublished data on this Headline Indicator and this has been provided for the most recent reporting period, the third quarter of 2008. We acknowledge with thanks the ready co-operation of the Director and staff of the AIC in this regard.

In the third quarter of 2008, data were collected at seven sites: Adelaide, Bankstown, Brisbane, East Perth, Parramatta, Southport, Darwin and Footscray, with the following national results.

Table 14: Reported use of illegal drugs in the past 30 days for adult police detainees, by sex, averaged across all DUMA sites, Quarter 3, 2008 (per cent)⁵

Drug	Males	Females	Persons
Benzodiazepines	7.2	7.6	7.2
Cannabis	48.5	44.8	47.9
Cocaine	3.6	4.1	3.7
'Ecstasy'	10.7	5.6	9.9
Heroin	12.9	16.6	13.5
Inhalants	1.2	2.8	1.4
LSD	1.8	0.0	1.5
Amphetamine/methamphetamine	24.7	24.1	24.6
Morphine	4.6	4.2	4.5
Street methadone	1.7	0.7	1.5
Total (N)	783	145	928

To facilitate comparisons between the baseline year, 2004, and the latest data, the following table presents the latest full-year data. It covers the period October 2007 (quarter 4, 2007) to September 2008 (quarter 3, 2008).

³⁹ Data presented are based on AIC's DUMA collection quarter 3, 2008 (Computer File)

⁴⁰ Adams K, Sandy L, Smith L, Triglone B (2008). *Drug Use Monitoring in Australia: 2007 annual report on drug use among police detainees*, Research and Public Policy Series, no. 93. Canberra: AIC

Table 15: Reported use of illegal drugs in the past 30 days for adult police detainees, by sex, averaged across all DUMA sites, Quarter 4 2007 to Quarter 3, 2008 (per cent)⁴¹

Drug	Males	Females	Persons
Benzodiazepines	6.1	8.4	6.4
Cannabis	46.0	40.2	45.1
Cocaine	3.9	2.8	3.7
'Ecstasy'	10.0	5.9	9.4
Heroin	10.3	14.9	11.0
Inhalants	1.2	1.4	1.2
LSD	1.8	0.6	1.6
Amphetamine/methamphetamine	22.9	26.4	23.4
Morphine	5.3	5.8	5.3
Street methadone	1.9	1.7	1.8
Total (N)	3,467	643	4,110

Comments

Cannabis is the illegal drug most frequently used by arrestees, as is the case in the general population. The current self reported previous 30 days prevalence of use of this drug among arrestees (48%), is considerably higher than the prevalence in the general population where just 9% of persons aged 14 years and above reported use in the previous 12 months.

Amphetamine/methamphetamine use is also highly prevalent among arrestees (25%) compared with a 12 months prevalence of 2.3% in the general population. Heroin use in the previous month was reported by 14% of arrestees compared with a 12 month prevalence of 0.2 in the general population. These patterns of relative prevalences are also observed for all the other drug groups.

Similar proportions of female and male arrestees report the recent use of cannabis and amphetamines – the two drugs most frequently reported. Female arrestees' reported use of heroin and inhalants exceeds that of male arrestees, but is lower than males with respect to 'ecstasy', LSD and street methadone.

When data covering the most recent year (quarter 4 of 2007 to quarter 3 of 2008) is compared with the 2004 baseline year, trends in self-reported illicit drug use among the arrestee population largely parallels those in the general community. Last 30 days use of cannabis has fallen from 60% to 45%, amphetamine/methamphetamine from 37% to 23% and heroin from 14% to 11%. 'Ecstasy' use has remained stable at 9%. While tranquilliser/sleeping pill use rose in the general population over this period, it has fallen among arrestees, from 9% to 6%.

Overall, recent illicit drug use in the arrestee population seems to have reduced in prevalence in recent years.

⁴¹ Data presented are based on AIC's DUMA collection quarter 4, 2007 to quarter 3, 2008 (Computer File)

Headline Indicator 7

Table 16: Victims of drug-related incidents

Source	National Drug Strategy Household Survey (NDSHS)
Organisation	AIHW
Content	<ul style="list-style-type: none"> • 'In the last 12 months, did any person affected by alcohol/illicit drugs verbally abuse you, physically abuse you, put you in fear?' • Can be cross-tabulated with other NDSHS variables including the characteristics of the person who victimised the respondents.
Rationale	<ul style="list-style-type: none"> • This is an indicator of public amenity, specifically the reduction in amenity caused by other people's drug use. • It addresses the NDS Priority Area 'Reduction of drug use and related harms', and the NDS Objectives 'Reduce the risks to the community of criminal drug offences and other drug-related crime, violence and antisocial behaviour' and 'Reduce the personal and social disruption, loss of life and poor quality of life, loss of productivity and other economic costs associated with harmful drug use'. • It is well-defined and easy to understand and use. • It is a reliable indicator, not changing in successive waves of the NDSHS. • It is comparable with previous waves of the NDSHS and, to a limited extent, with the crime and safety surveys. • It is readily verifiable, being a NDSHS data item.
Issues	<ul style="list-style-type: none"> • The sample is Australians 12 years and older, with the 2007 Survey, the ninth in the series, having some 23,000 respondents. It used both the drop-and-collect data collection method and computer-assisted telephone interviews. Not all questions were asked of all respondents. • It is not particularly timely owing to the three year plus gap between surveys, and the lag between data collection and data availability. • Caveats need to be placed on attribution to NDS activities, as other factors (such as changing patterns of community policing) may impact on the prevalence and types of victimisation.
Availability	<ul style="list-style-type: none"> • Approximately every three years, most recently 2007 data published in April 2008.

Baseline: National Drug Strategy Household Survey 2004⁴²

Respondents were asked if they had been verbally or physically abused or put in fear in the past 12 months by persons affected by either alcohol or illicit drugs.

Australians aged 14 years and older were more likely to have been abused or put in fear by someone affected by alcohol (two in seven, 28.8%) than by someone affected by illicit drugs (one in eight, 12.9%). The likelihood of each separate type of alcohol-related abuse (verbal, physical and being put in fear) was greater than that for the illicit drug-related equivalent. This was the case for every age group and for males and females.

For both alcohol- and illicit drug-related incidents, 'verbal abuse' was more likely than 'put in fear', which was in turn more likely than 'physical abuse', for every age group and for males and females.

Although males were more likely than females to have been verbally or physically abused in the past 12 months, females were more likely than males to have been put in fear, for both alcohol- and illicit drug-related incidents.

Australians aged 20–29 years were most likely to have experienced each sort of incident, both alcohol- and illicit drug-related.

⁴² Australian Institute of Health and Welfare (2008a). *2007 National Drug Strategy Household Survey: detailed findings*, AIHW cat. no. PHE 66, Drug Statistics Series, no. 16, Canberra: AIHW, p. 45.

Table 17: Victims of drug-related incidents in the past 12 months, persons aged 14 years and older, by age and sex, Australia, 2004⁴³

Influence & incident	Age Group (%)				Sex (%)		Persons
	14-19	20-29	30-39	40+	Males	Females	
Alcohol							
Verbal abuse	28.9	40.5	28.7	18.0	27.5	22.5	24.9
Physical abuse	9.1	9.1	4.5	1.9	5.4	3.5	4.4
Put in fear	18.5	20.6	14.9	8.9	10.6	15.3	13.0
Any incident	35.6	45.2	32.7	21.0	30.3	27.4	28.8
Illicit drugs							
Verbal abuse	11.4	14.8	10.8	7.5	10.8	8.8	9.8
Physical abuse	2.4	2.8	1.9	1.0	1.8	1.4	1.6
Put in fear	8.5	11.0	7.6	5.7	6.0	8.5	7.3
Any incident	15.4	19.0	14.1	10.0	13.3	12.5	12.9

Latest data

The latest data come from the 2007 NDS Household Survey:

Table 18: Victims of drug-related incidents in the past 12 months, persons aged 14 years and older, by age and sex, Australia, 2007⁴⁴

Influence & incident	Males	Females	Persons
Alcohol			
Verbal abuse	29.3	21.5	25.4
Physical abuse	5.9	3.1	4.5
Put in fear	12.0	14.1	13.1
Illicit drugs			
Verbal abuse	13.0	9.1	11.0
Physical abuse	2.6	1.4	2.0
Put in fear	7.9	9.0	8.4

Note: AIHW has presented the 2007 data somewhat differently from the previous survey.

Comment

Respondents to the 2007 household survey were more than twice as likely to be victims of alcohol-related incidents as victims of incidents related to other drugs. Verbal abuse is far more common than being 'put in fear', and only small proportions of the population report being victims of drug-related physical abuse.

Comparing the 2004 and 2007 findings reveals that the prevalence of victimisation from alcohol-related incidents increased among males but decreased among females. With respect to other drugs, the proportion rose among males but was relatively stable among females.

Overall, a quarter of the Australian population aged 14 years and above experience verbal abuse linked to alcohol in a year, and 11% linked to other drugs. Substantial proportions of the population also report being 'put in fear' owing to others' use of drugs.

⁴³ Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*, AIHW cat. No. PHE66, Drug Statistics Series, no. 16, Canberra: AIHW, p. 84

⁴⁴ Australian Institute of Health and Welfare (2008b). *2007 National Drug Strategy Household Survey: first results*, AIHW cat. no. PHE 98, Drug Statistics Series, no. 20, Canberra: AIHW, p. 45.

There appears to be a longer-term downwards trend in the reported prevalence of people being the victims of alcohol-related verbal abuse, with the 1993, 1995, 1998, 2001, 2004 and 2007 Household Surveys showing the following prevalences: 38%, 33%, 29%, 26%, 25%, 25%. Reported alcohol-related physical abuse prevalence also fell: for the same years 13%, 8.8%, 6.2%, 4.9%, 4.2% and 4.5%. In contrast, being verbally abused by someone believed to be under the influence of other drugs has fluctuated within a narrow band: 10.2% in 1998 (the first time that this was covered in the Survey), 11.3% in 2001, 9.8% in 2004 and 11.0% in 2007.

Headline Indicator 8

Table 19: HCV and HIV/AIDS incidence

Source	HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report
Organisation	National Centre in HIV Epidemiology and Clinical Research (NCHECR), University of NSW, and AIHW
Content	Incident hepatitis C and HIV/AIDS notifications
Rationale	<ul style="list-style-type: none"> • Some 65-75% of incident (new) hepatitis C notifications occur among people with a history of injecting drug use, and the infection has serious impacts on health and well-being, as well as economic costs to the community. • A dramatic fall in notifications has occurred since 2001, attributable (it is thought) to the reduction in heroin availability that commenced around Christmas 2000. • Since exposure history of incident cases is available from only a few jurisdictions, and those do not include NSW and Victoria, the States with the highest number of notifications, it is appropriate to monitor the total number of incident cases as a good proxy for those for which injecting drug use is the exposure category. • The indicator addresses the NDS Priority Area of 'Reduction of drug use and related harms' and the NDS Objectives of 'Reduce risk behaviours associated with drug use' and 'Reduce the personal and social disruption, loss of life and poor quality of life, loss of productivity and other economic costs associated with harmful drug use'. • This indicator is well-defined, covering only confirmed cases; a strict and consistent definition of a 'confirmed case' applies. The measure 'incident case' is clear and unambiguous. • The data are published annually. • They are highly reliable, with data sources, counting rules, etc. stable year-by-year. • The data are comparable with other information sources such as reports from the National Centre in HIV Epidemiology and Clinical Research. • They are verifiable, in that the reports are products of a data base maintained centrally and populated by data from the State and Territory health departments.
Issues	<ul style="list-style-type: none"> • Epidemiologists are confident that the number of incident cases notified substantially under-estimates the true incidence of hepatitis C. Nonetheless, it is reasonable to assume that the level of under-reporting changes little year-by-year, making this indicator reasonably valid. • Although the data are published annually, a lag of approximately 15 months exists between the end of the period covered and the date of publication.
Availability	<ul style="list-style-type: none"> • Annual reports published by NCHECR.

Baseline: National Notifiable Diseases Surveillance System 2004⁴⁵

The NCHECR at the University of NSW, in conjunction with AIHW, publishes an annual surveillance report *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance*.

With respect to *hepatitis C and hepatitis B* in the baseline year 2004, it reported:

- The per capita rate of new diagnoses of hepatitis C infection has declined from 107.2 (20,188 cases) in 2000 to 66.0 per 100,000 population (13,028 cases) in 2004. The reported number of diagnoses of newly acquired hepatitis C infection fell from 538 cases in 2000 to 361 cases in 2004

⁴⁵ Adapted from National Centre in HIV Epidemiology and Clinical Research (2005). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2005*, Sydney: National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Canberra: AIHW

- Hepatitis C transmission continued to occur in Australia predominantly among people with a recent history of injecting drug use. More than 73% of people with newly acquired hepatitis C infection reported a history of injecting drug use
- Hepatitis C prevalence was 25% among people seen at needle and syringe programs in 2004 who reported having injected drugs for three years or less. In 2004, hepatitis C prevalence was 28% among people aged less than 20 years and was 43% among those aged 20 – 24 years
- An estimated 194,260 people were living with hepatitis C infection in Australia in 2004, including 153,300 with chronic hepatitis C infection and stage 0/1 liver disease, 32,800 with stage 2/3 liver disease and 8,160 living with hepatitis C related cirrhosis. A further 65,300 had hepatitis C antibodies without chronic infection
- The population rate of diagnosis of newly acquired hepatitis B infection declined from 2.2 (414 cases) in 2000 to 1.4 per 100,000 (275 cases) in 2004. Among cases of newly acquired hepatitis B infection diagnosed in 2002 – 2004, exposure was attributed to injecting drug use, sexual contact, or another or undetermined exposure in 47.4%, 25.8% and 26.7% of cases, respectively

With regard to HIV/AIDS, it reported, again for the baseline year 2004:

- By 31 December 2004, 9,618 AIDS cases and 6,590 deaths following AIDS, adjusted for reporting delay, had been notified in Australia. A total of 21,400 cases of HIV infection, adjusted for multiple reporting, had been diagnosed in Australia by the end of 2004. An estimated 14,840 people were living with HIV/AIDS in Australia in 2004, including around 1,100 adult/adolescent women
- The annual number of AIDS diagnoses in Australia dropped from 817 cases in 1995 to 208 cases in 2001 and has remained relatively stable in 2002 – 2004 at around 240 cases per year
- The annual number of new HIV diagnoses declined from around 890 in 1995 to 660 in 2000 and then increased to around 820 in 2004. Reported diagnoses of newly acquired HIV infection increased from 151 cases in 1998 to 281 cases in 2003 and then declined to 253 cases in 2004. The proportion of women among new HIV diagnoses and diagnoses of newly acquired HIV infection increased from 10.7% and 5.2% respectively in 2000–2003 to 13.5% and 5.8% respectively in 2004. Diagnoses of newly acquired HIV infection indicate the lower bound for the number of new HIV infections that have actually occurred in Australia over this time
- HIV continued to be transmitted in Australia primarily through sexual contact between men, which was reported in more than 86% of cases of newly acquired HIV infection diagnosed in 2000 – 2004. HIV prevalence remained below 1% among people attending needle and syringe programs, prison entrants, and among men and women seen at sexual health clinics reporting a history of heterosexual contact and women with a history of sex work
- The rates of HIV and AIDS diagnosis *per capita* in the Indigenous and non-Indigenous populations differed little, and declined in both populations in 1995 – 1999. In 2000 – 2004, the rate of HIV diagnosis increased in both populations, to 4.7 per 100,000 in the non-Indigenous population and to 5.2 per 100,000 in the Indigenous population.
- AIDS incidence and estimated HIV prevalence in Australia at the end of 2004 were 1.2 and 74 per 100,000 population, respectively

Latest data

The latest data are for the 2006 calendar year (NCHECR 2007).⁴⁶ With respect to *viral hepatitis*, NCHECR report that:

- At the end of 2006, an estimated 202,400 people were living in Australia with chronic hepatitis C infection, including 45,400 with moderate to severe liver disease
- Based on reported cases, hepatitis C transmission continued to occur in Australia predominantly among people with a recent history of injecting drug use. [73% of newly acquired cases in 2006 had injecting drug use as their exposure category: 295 cases out of a total of 404 for which the exposure category was known.]
- Similarly, reported cases of hepatitis B transmission were also attributed predominantly to injecting drug use. [70% of newly acquired cases in 2006 had injecting drug use as their exposure category: 68 cases out of a total of 97 for which the exposure category was known.]
- In 2006, chronic hepatitis C infection and chronic hepatitis B infection were the underlying causes of liver disease in 23.8% and 2.3% of liver transplants, respectively
- An estimated 2,847 people with chronic hepatitis C infection were prescribed ribavirin and pegylated interferon combination treatment or pegylated interferon only in 2006

With respect to *HIV/AIDS* in 2006, NCHECR report that:

- By 31 December 2006, 26,267 diagnoses of HIV infection, 10,125 diagnoses of AIDS and 6,723 deaths following AIDS had occurred in Australia
- HIV continued to be transmitted primarily through sexual contact between men. [4.1% of newly acquired infections in 2006 had the sole exposure category injecting drug use, and an additional 4.4% had both male homosexual/bisexual contact and injecting drug use.]
- There was a similar rate of HIV diagnosis per capita in the Aboriginal and Torres Strait Islander and non-Indigenous populations. Higher proportions of cases were attributed to heterosexual contact and injecting drug use in the Aboriginal and Torres Strait Islander population

Comments

The research undertaken by NCHECR, in collaboration with epidemiologists and laboratories around the country, provides a valuable information source that facilitates both monitoring trends in viral hepatitis and HIV/AIDS and modelling the course of these health conditions in society.

After adjusting for changes in the size of the Australian population, the rate of diagnosis of hepatitis C infection has declined by 25% over the past five years, suggesting that we are past the peak of the epidemic. The 2001 'heroin drought' is considered to have been a key driver of this reduction (Day *et al* 2005).⁴⁷ The reported number of diagnoses of newly acquired hepatitis C infection (in contrast to those acquired some time in the past but only recently diagnosed) has been fairly stable over the last four years. Nonetheless, a large number of Australians – over 200,000 – are currently living with chronic hepatitis C infection, which includes 45,400 with moderate to severe liver disease.

Recent injecting drug use continues to be the major risk factor for hepatitis C and B.

The prevalence of chronic hepatitis C and B infection, often acquired from injecting drugs many years in the past, will produce an increasing incidence of liver disease in the future, with an accompanying increase in demand for liver transplants and other forms of expensive treatment.

⁴⁶ National Centre in HIV Epidemiology and Clinical Research (2007). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2007*, Sydney: NCHECR, University of New South Wales; Canberra: AIHW, p. 7.

⁴⁷ Day C, Degenhardt L, Gilmour S, Hall W (2005), 'The impact of changes to heroin supply on blood-borne virus notifications and injecting related harms in New South Wales, Australia'. *BMC Public Health*, 5, 84

The position with HIV/AIDS contrasts strongly with Australia's epidemic of viral hepatitis infections among people who inject, or have injected, illicit drugs. Although the HIV/AIDS epidemic has tragic implications for the individuals affected by these conditions, at the population level, the incidence and prevalence of cases has been kept low compared with many other nations. This achievement has been acclaimed as one of Australia's public health successes.

In terms of trends, the number of new HIV diagnoses in Australia has increased by 31% between 2000 and 2006. Sexual contact between men, rather than injecting drug use, continues to be the main exposure category.

Headline Indicator 9

Table 19: Drug-related burden of disease, including mortality

Source	The Australian Burden of Disease Study
Organisation	Australian Institute of Health and Welfare and School of Population Health, University of Queensland
Content	Burden of disease, injury and mortality attributed to drugs, by drug type and year
Rationale	<ul style="list-style-type: none"> For many users, burden of disease, especially its mortality component, is the most powerful Headline Indicator of all, encapsulating the worst consequence of drug use. Mortality affects people who use drugs, their families and friends, and the community at large, including (with respect to the community) because of the economic costs entailed. It addressed the NDS Priority Area 'Reduction of drug use and related harms' and the NDS Objective 'Reduce the personal and social disruption, loss of life and poor quality of life, loss of productivity and other economic costs associated with harmful drug use'. The indicator is potentially timely as it can be developed from causes of death data published annually by ABS, although a significant lag exists between the points at which deaths occur and ABS' publication of causes of death data and their analysis by researchers. It is reliable, provided that researchers agree on their definitions in terms of the ICD coding system, and the values of the attributable fractions applied. It is comparable with other data sources (e.g. other nations'), provided that researchers agree on their definitions in terms of the ICD coding system, and the values of the attributable fractions applied. The indicator is verifiable, being based on ABS data, provided the researchers involved are explicit about their definitions in terms of the ICD coding system, and the values of the attributable fractions applied.
Issues	<ul style="list-style-type: none"> The indicator is superficially well-defined, but significant ambiguities exist in the underlying causes of death data and the techniques used to classify drug-related mortality. Reliability is an issue with the move from ICD 9 to ICD 10 coding, but algorithms have been developed for mapping the two sets of codes one-to-the-other. Attribution is problematic owing to the many influences on the incidence and patterns of drug-related mortality.
Availability	<ul style="list-style-type: none"> No frequent and regular publication of all-causes drug-related burden of disease (including mortality) data exists. The most recent data are for 2003, published in May 2007: Begg, S, Vos, T, Barker, B, Stevenson, C, Stanley, L & Lopez, AD 2007, <i>The burden of disease and injury in Australia 2003</i>, AIHW cat. no. PHE 82, Australian Institute of Health and Welfare, Canberra. This updates the 1996 data, published in 1999. Since we understand that updates will be published more frequently in future, it is appropriate to use this indicator for monitoring the NDS pending the development of more timely outputs.

Baseline: The burden of disease and injury in Australia 2003⁴⁸

This study identifies the top 14 risk factors in 2003 in terms of their per cent contribution to the total individual and joint burden of disease, expressed in disability-adjusted life years (DALYs). Tobacco, alcohol and illegal drugs composed 12.1% of the total burden:

⁴⁸ Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez, A (2007). *The burden of disease and injury in Australia 2003*. AIHW cat. no. PHE 82. Canberra: AIHW

- Tobacco use tops the list, being the cause of 7.8% of the total burden of disease & injury
- Alcohol is also in the top 14, accounting for 2.3% in net terms, after taking into account alcohol's protective effects
- Illicit drugs are also in the top 14, causing 2.0% of the total burden of disease & injury
- Looking at the three drug classes only, tobacco accounted for 65% of the drug-related burden, alcohol 19% and illicit drugs 16%

The mortality component of the DALYs can be extracted from the published data. Tobacco accounted for 85% of all drug-attributable deaths in 2003, illicit drugs 9% and alcohol (net effect) 6%. Excluding deaths prevented by alcohol, the drug-attributable deaths that year were tobacco 75%, alcohol 17% and illicit drugs 8%.

Table 20: Deaths attributable to drugs, by specific cause, Australia 2003 (Begg *et al* 2007)

Specific cause	Number	% deaths from all causes
Tobacco		
Lung cancer	6 309	4.8
COPD	4 175	3.2
Ischaemic heart disease	1 962	1.5
Stroke	577	0.4
Oesophagus cancer	572	0.4
Other	1 916	1.4
<i>Total tobacco</i>	<i>15 511</i>	<i>11.7</i>
Alcohol: harm		
Alcohol abuse	918	0.7
Suicides & self-inflicted injury	553	0.4
Road traffic crashes	396	0.3
Oesophagus cancer	368	0.3
Breast cancer	184	0.1
Other	1 012	0.8
<i>Total attributable harm</i>	<i>3 430</i>	<i>2.6</i>
Alcohol: benefit		
Ischaemic heart disease	-1 950	-1.5
Stroke	-380	-0.3
Other	-16	0.0
<i>Total attributable benefit</i>	<i>-2 346</i>	<i>-1.8</i>
<i>Total alcohol attributable</i>	<i>1 084</i>	<i>0.8</i>
Illicit drugs		
Heroin & polydrug abuse	263	0.2
Hepatitis C	759	0.6
Cannabis abuse	0	0.0
Suicide & self-inflicted injuries	204	0.2
Hepatitis B	329	0.2
Benzodiazepine abuse	1	0.0
Other	149	0.1
<i>Total illicit drugs</i>	<i>1 705</i>	<i>1.3</i>
Total tobacco, alcohol & illicit drugs	18 300	13.8

Latest data

The 2003 baseline data are the latest available. Other sources of information related to deaths from specific drug classes are also available:

Opioids, cocaine and amphetamines (annual):

Degenhardt L, Roxburgh A, Black E, Dunn M. (2006). Accidental drug-induced deaths due opioids in Australia, 2004. Sydney: NDARC

Degenhardt L, Roxburgh A, Black E, Dunn M (2006). 2004 Cocaine and amphetamine related drug-induced deaths in Australia. Sydney: NDARC

Alcohol:

Chikritzhs T, Catalano P, Stockwell T, Donath S, Ngo H, Young D, Matthews S (2003). Australian alcohol indicators, 1990-2001: patterns of alcohol use and related harms for Australian states and territories, Perth: NDRI, Curtin University of Technology

Comment

We do not have a consistent, long-term time series covering the drug-related burden of disease, nor of its mortality component. Comprehensive drug-related mortality estimates have been published in the past but each has used different aetiological fractions and data sources.⁴⁹ The same is the case with the Australian Burden of Disease studies.

The most recent Australian Burden of Disease study (Begg et al. 2007) compares the leading causes of burden, in DALYs, for 1993 and 2003. 'Alcohol dependence and harmful use' is identified separately from other health conditions, accounting for 2.0% of the total burden of disease in both of those years among males. Lung cancer, a source of morbidity and mortality for which tobacco is a key risk factor, fell from 4.4% of the total burden to 4.0% over the same period.

As noted, tobacco accounted for 85% of all drug-attributable deaths in 2003, illicit drugs and alcohol (net effect) accounting for 9% and 6%, respectively. The predominance of tobacco in this indicator, combined with clear evidence available from cost-effectiveness studies on what works in reducing the uptake and precipitating the cessation of tobacco use, have profound policy implications (National Preventative Health Taskforce, Tobacco Working Group 2008).⁵⁰

The mortality component of this headline indicator is particularly important for monitoring drug-related harms in Australia. However, the availability of drug-related mortality data is poor with a reliance on intermittent, one-off studies conducted by researchers. No single agency has responsibility for calculating and disseminating information about all-causes drug-related mortality each year when ABS releases its causes of death data. For this reason, elsewhere in this report we provide recommendations on remedying this situation.

⁴⁹ English D & Holman DA (1995). *The quantification of drug caused morbidity and mortality in Australia*, Canberra: AGPS

Holman DA & Armstrong BK (1990). *The quantification of drug caused morbidity and mortality in Australia 1988*. Canberra: AGPS

Ridolfo B & Stevenson C (2001). *The quantification of drug-caused mortality and morbidity in Australia, 1998*, Canberra: AIHW

⁵⁰ National Preventative Health Taskforce, Tobacco Working Group (2008). *Tobacco control in Australia: making smoking history*. Technical Report No 2. Canberra: DoHA

Headline Indicator 10

Table 21: Drug treatment episodes

Source	Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS)
Organisation	AIHW
Content	All closed (i.e. completed) treatment episodes from publicly funded government and non-government specialist drug treatment agencies.
Rationale	<ul style="list-style-type: none"> • The research evidence as to treatment effectiveness is compelling, hence the amount of treatment delivered in a year is associated with benefits accruing to individual drug users, their families and friends, and the broader community. • Much public interest exists in the amount of treatment services delivered, owing to the public's apparent confidence in treatment effectiveness. • This indicator addressed the NDS Priority Areas 'Reduction of drug use and related harms' and 'Improved access to quality treatment', and the NDS Objectives 'Reduce the personal and social disruption, loss of life and poor quality of life, loss of productivity and other economic costs associated with harmful drug use' and 'Increase access to a greater range of high-quality prevention and treatment services'. • The variable 'closed treatment episodes' is clearly defined, understandable and stable in the AODTS-NMDS. • The data are relatively timely, being published annually, usually within 12 months of the end of the year being reported upon. • The indicator is reliable owing to the extensive coverage of treatment agencies covered by the data collection, and the work of the State and Territory government departments responsible for quality control and data collection. • It is comparable on a year-by-year basis, but not readily compared with data from other sources. • It is verifiable in that the raw data are held by AIHW and made available in data cubes as well as published reports.
Issues	The indicator covers treatment episodes rather than people treated which would be more useful. Developing the NMDS to capture these data is currently under consideration.
Availability	Annually, approximately 12 months from the end of the year reported upon.

Baseline: Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS) 2003-04⁵¹

- The 2003–04 AODTS-NMDS included data from 622 government-funded alcohol and other drug treatment agencies from across Australia. Over half (52%) of all treatment agencies were identified as non-government. Most agencies were located in major cities (57%) and inner regional areas (26%).
- There were 136,869 closed treatment episodes.
- Two-fifths (40%) involved clients who were self-referred, followed by referrals from alcohol and other drug treatment services (11%).
- Counselling was the most common treatment type provided (38%), followed by withdrawal management (detoxification) (18%) and assessment only (15%).
- Over two-thirds (68%) of treatment episodes occurred at a non-residential treatment facility, 20% in a residential treatment facility and 7% in an outreach setting such as a mobile van service.

⁵¹ Australian Institute of Health and Welfare (2005b). *Alcohol and other drug treatment services in Australia 2003-04: report on the national minimum data set*, Drug Treatment Series no. 4, AIHW cat. no. HSE 100, Canberra: AIHW

- Treatment was more likely to cease because it was completed where the main treatment type was assessment only (64% of episodes with this treatment type) and less likely where the main treatment type was information or education only (36%).
- Alcohol (38%) was the most common principal drug of concern, followed by cannabis (22%), heroin (18%) and amphetamines (11%).

Latest data

The latest data cover the 2006-07 financial year, and were released in October 2008.⁵²

- In 2006–07, 633 government-funded alcohol and other drug treatment agencies from across Australia reported data to the AODTS-NMDS collection
- The 633 agencies delivered 147,325 closed treatment episodes. This represents a reduction in the total number of agencies (31) and episodes (4,037) when compared with 2005–06. A number of systems issues occurred in NSW which contributed to this decline

Of the 147,325 closed treatment episodes reported in 2006–07:

- 95% (140,475 episodes) involved clients seeking treatment for their own alcohol or other drug use, with the remaining 5% involving people seeking support or assistance in relation to someone else’s alcohol or other drug use
- Most treatment episodes were provided to male clients (66%)
- For episodes where clients sought treatment for their own drug use, overall alcohol was the most common principal drug of concern reported (42%), up from 39% in 2005–06
- Alcohol was again followed by cannabis (23%) and opioids (14%, with heroin accounting for 11%)
- For episodes where clients aged 10–19 years sought treatment for their own drug use, cannabis was the most common principal drug of concern nominated (47% of episodes), followed by alcohol at 29%. Alcohol was the focus of more treatment episodes for older age groups—42% for those aged 30–39 years; increasing to 84% of treatment episodes for people aged 60 years and over
- Across Australia, counselling was the most common form of main treatment provided (38% of treatment episodes), followed by withdrawal management (17%) and assessment only (15%)

⁵² Australian Institute of Health and Welfare (2008a). *Alcohol and other drug treatment services in Australia 2006-07: report on the National Minimum Data Set, Drug Treatment Series, no. 8, cat. no. HSE 59, Canberra: AIHW, pp. ix & 19.*

Table 22: Closed treatment episodes by principal drug of concern, Australia, 2006-07^(a)

Principal drug	Australia (per cent)	Total (number)
Alcohol	42.3	59,480
Amphetamines	12.3	17,292
Benzodiazepines	1.6	2,298
Cannabis	22.8	31,980
Cocaine	0.3	448
Ecstasy	0.7	1,010
Nicotine	1.7	2,450
Opioids		
Heroin	10.6	14,870
Methadone	1.6	2,268
Morphine	0.9	1,299
<i>Total opioids^(e)</i>	<i>14.4</i>	<i>20,196</i>
All other drugs	3.8	5,321
Total^{(b)(c) (d) (f)}	100.0	140,475

- (a) Excludes treatment episodes for clients seeking treatment in relation to the drug use of others.
- (b) The total number of closed treatment episodes for Queensland may be under-counted due to the exclusion of a number of non-government agencies.
- (c) The total number of closed treatment episodes for Tasmania may be under-counted because two agencies only supplied drug diversion data.
- (d) The total number of closed treatment episodes may be under-counted in the Northern Territory due to technical difficulties which prevented data being collected from one in-scope agency, and under-counted data from government agencies in two quarters.
- (e) 'Total opioids' includes the balance of opioid drugs coded according to ASCDC.
- (f) Includes balance of principal drugs of concern coded according to ASCDC.

Comment

The number of government funded agencies contributing to the National Minimum Data Set in the most recent (2006-07) year is 633, which is only marginally greater than the number in the 2003-04 baseline year of 622. Nonetheless, the number of closed treatment episodes provided has increased by 8% between those two reporting periods, indicating a higher level of throughput per agency in more recent times.⁵³

As has been the case for a number of years, approximately 95% of clients are seeking treatment for their own alcohol or other drug use rather than seeking support in relation to somebody else's drug use. Males continue to compose approximately two-thirds of the clients.

Alcohol continues to be the most frequent principal drug of concern for which clients seek treatment, increasing from 38% of the episodes in the baseline year to 42% in the most recent year. The proportion seeking treatment for cannabis related problems has remained steady (22% in the baseline year and 23% in the most recent year) as has the proportion seeking treatment for amphetamine related problems (11% in 2003-04 and 12% in 2006-07). On the other hand, the number of treatment episodes for heroin fell from 18% to 11%.

⁵³ AIHW cautions that care needs to be taken when comparing NMDS data across collection years, so we emphasise that these figures cover the number of agencies contributing each year and the number of closed treatment episodes reported. Over the years, implementation of the data collection has occurred differently in different States and Territories, and methodological changes may have occurred such as moving data collection from the central administration level in a multi-service organisation to the individual service level, or vice versa. For this reason we have not presented AODTS-NMDS covering the full period of the data collection as to do so may be misleading.

Treatment for tobacco smoking – nicotine dependence – accounted for only 1.7% of episodes (1.5% in 2003-04), a disturbingly low figure considering the role of tobacco smoking in poly-drug use and the well-known adverse effects of tobacco use.

Counselling (38% in 2003-04 and the most recent year) continues to be the most common form of main treatment provided. The proportions for withdrawal management have remained steady (17% and 18% in the two periods) as have those for assessment only (15% in both periods).

Over all, on key variables, there has been little change between the baseline and the most recent years.

Headline Indicator 11

Table 23: Opioid pharmacotherapy clients

Source	National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD)
Organisation	AIHW
Content	People receiving opioid pharmacotherapy in public, private and correctional services programs, on a snapshot day of 30 June each year. Almost all the dispensing is from pharmacies, public clinics, private clinics or correctional facilities.
Rationale	<ul style="list-style-type: none"> • The research evidence on the efficacy and effectiveness of opioid pharmacotherapy is compelling, hence the amount of treatment delivered in a period is associated with benefits accruing to individual opioid-dependent people, their families and friends, and the broader community. • Much public interest exists in this form of therapy, in part owing to the unfounded opposition to it on the part of some prominent lobby groups. • This indicator addressed the NDS Priority Areas 'Reduction of drug use and related harms' and 'Improved access to quality treatment', and the NDS Objectives 'Reduce the personal and social disruption, loss of life and poor quality of life, loss of productivity and other economic costs associated with harmful drug use' and 'Increase access to a greater range of high-quality prevention and treatment services'. • The variable 'receiving opioid pharmacotherapy' is clearly defined, understandable and reasonably stable. It refers to service users receiving regular prescribed doses of methadone, buprenorphine or buprenorphine/naloxone in combination for maintenance or withdrawal purposes. • The data are relatively timely, being published annually, usually within 12 months of the snapshot day. • The indicator is fairly reliable owing to the extensive experience of the staff involved in managing the services, and the State/Territory health department staff responsible for quality control, who collate and forward the data to AIHW for analysis and publishing. • It is comparable on a year-by-year basis, and comparable with data from other sources covering Schedule 8 drug prescribing. • It is verifiable in that the raw data are held by the State and Territory health departments, and the summary data are held by AIHW.
Issues	<ul style="list-style-type: none"> • AIHW's 2006 report explains that there are data quality issues that need to be taken into account: 'The type of data collected has varied in terms of detail [over the years], and there is still inconsistency in the way data items are defined and collected across jurisdictions, which impacts on the reliability and interpretability of national pharmacotherapy data' (p 42).. Nonetheless, data from the 2004 baseline year on are of high enough quality to serve well as a Headline Indicator. • The buprenorphine/naloxone combination ('Suboxone') has been available since 2006.
Availability	Annually, approximately 12 months from the 30 June snapshot day reported on.

Baseline: National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) collection⁵⁴

These data are for 30 June 2004. Nationally, 38,741 clients were receiving pharmacotherapy treatment at 30 June 2004. Of these, the majority of clients received treatment in New South Wales (41%), followed by Victoria (26%), Queensland and Western Australia (12% each), and South Australia (7%). The Australian Capital Territory and Tasmania accounted for 2% each, and the Northern Territory accounted for less than 1% of all the clients receiving pharmacotherapy treatment.

Of the total 38,741 clients receiving pharmacotherapy treatment, 69% received the treatment from a private prescriber, 24% from a public prescriber and 6% from a correctional facility.

⁵⁴ Australian Institute of Health and Welfare (2005b). *Alcohol and other drug treatment services in Australia 2003-04: report on the national minimum data set*, Drug Treatment Series no. 4, AIHW cat. no. HSE 100, Canberra: AIHW, 68

Table 24: Proportion of pharmacotherapy clients by dosing site, Australia 2004 ^{(a) 55}

Dosing site	No.	Per cent
Pharmacies	26,746	68.6%
Public clinics	4,757	12.2%
Private clinics	3,080	7.9%
Correctional facilities	2,378	6.1%
Public/private prescriber ^(b)	429	1.1%
Other	1,599	4.1%
Totals	38,989	100.0%

(a) Number of clients on the program at 30 June 2004, except for Western Australia, where the number of clients treated through the year is report

(b) 'Public/private prescriber' refers to prescribers in dual clinics in NSW, which are private clinics receiving some public funding, where clients cannot be segregated into public or private.

Latest data

The latest data are for 30 June 2007, released by AIHW in July 2008 in a new publication series *National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) Collection*.⁵⁶

Nationally, an estimated 38,568 clients were receiving pharmacotherapy treatment on the 'snapshot/specified' day in June 2007. The distribution of clients by pharmacotherapy drug type was:

- 72% (or 27,669) of clients were receiving methadone
- 18% (or 6,925) of clients were receiving buprenorphine
- 10% (or 3,974) of clients were receiving buprenorphine/naloxone

It is important to note that the number of clients receiving buprenorphine/naloxone is an underestimate owing to the fact that New South Wales and Queensland were not able to separately identify the number of clients receiving buprenorphine/naloxone. In New South Wales and Queensland, clients receiving buprenorphine/naloxone are reported under the category 'buprenorphine'.

New South Wales accounted for the greatest proportion of clients receiving pharmacotherapy treatment on the specified/snapshot day in 2006 (42%), followed by Victoria (28%), Queensland (12%), Western Australia (8%) and South Australia (8%). The Australian Capital Territory and Tasmania accounted for 2% of all clients each, while the Northern Territory accounted for less than 1% of all clients receiving pharmacotherapy treatment.

The proportion of clients prescribed methadone, buprenorphine or buprenorphine/naloxone varied across jurisdictions, although over 60% of clients in all jurisdictions, except for the Northern Territory, were prescribed methadone.

Of clients authorised to receive pharmacotherapy treatment on the 'snapshot/specified' day in June 2007:

- 64% (or 25,018) received the treatment from a private prescriber
- 28% (or 10,794) received the treatment from a public prescriber
- 7% (or 2,680) received the treatment from a practitioner in a correctional facility
- 1% (or 453) received the treatment from a public/private prescriber

⁵⁵ Australian Institute of Health and Welfare (2005b). *Alcohol and other drug treatment services in Australia 2003-04: report on the national minimum data set*, Drug Treatment Series no. 4, AIHW cat. no. HSE 100, Canberra: AIHW, p70

⁵⁶ Australian Institute of Health and Welfare (2008d), *National Opioid Pharmacotherapy Statistics Annual Data collection: 2007 report*, AIHW cat. no. AUS 104. Canberra: AIHW

Comment

The number of people receiving opioid pharmacotherapy treatment in the most recent (2007) year is almost the same as in the baseline (2004) year, and little variation has occurred in the intervening years.

One significant change that has occurred since 2004 has been the increased use of the combination buprenorphine/naloxone medication 'Suboxone', the usage of which commenced in Australia in 2006. Between the baseline year and 2007, little change has occurred in the dosing points, with over two-thirds still receiving medication through pharmacies. The proportion being dosed in correctional settings has risen from 6.1% in 2004 to 8.9% in 2007.

With the launch of NCADA in 1985, the Special Premiers' Conference on Drugs endorsed the treatment of opioid dependency by means of methadone. Subsequently, the number of people receiving this form of treatment increased every year until 2005, after which the numbers appears to have fallen slightly.

Changes have occurred in the proportions of clients receiving medication at the different dosing points. NOPSAD data covering the period since 2001 show a steady decrease in the proportion receiving medication in public clinics (from 17% in 2001 to 11% in 2007) and small increases in the proportion being dosed at pharmacies (64% increasing to 69% in the same period) and in correctional settings (6.4% increasing to 8.9%). The proportion dosed at private clinics has fluctuated within a fairly narrow band.

Other key performance indicators

This section has documented eleven powerful and useful Headline Indicators that are tied to the NDS Priority Areas for action and Objectives for monitoring the NDS. In combination, they provide information on progress towards achieving the NDS overarching objective (or Mission): 'To improve health, social and economic outcomes by preventing the uptake of harmful drug use and reducing the harmful effects of licit and illicit drugs in Australian society through implementing supply reduction, demand reduction and harm reduction strategies'.

Many other performance indicators are available and value lies in tracking some of them to supplement the Headline Indicators. They are indicators that are useful but not as 'key' as the Headline Indicators. They can be used for ongoing monitoring, and for assessing progress against the 2004 baseline situation.

Bibliography

Bibliography for Volumes 1 & 2

- Abram S, Cowell R (2004). Learning policy – Contextual curtain and conceptual barriers. *European Planning Studies* 12 (2), 209-228
- Adams K, Sandy L, Smith L, Triglone B (2008). *Drug Use Monitoring in Australia: 2007 annual report on drug use among police detainees*, Australian Institute of Criminology Research and Public Policy Series no. 93. Canberra: AIC
- Alcohol & Public Policy Group (2003). Alcohol: No Ordinary Commodity: A summary of the book. *Addiction* 98, 1343-50
- Althaus C, Bridgman P, Davis G (2007). *The Australian policy handbook* (4th Ed.). Crows Nest: Allen & Unwin
- American Society of Addiction Medicine (2007). *Patient Placement Criteria* (2nd revised edition). Washington DC: ASAM.
- Applied Economics (2003). *Returns on investment in public health: an epidemiological and economic analysis prepared for the Department of Health and Ageing*. Canberra: DoHA
- Applied Economics (2005). *Economic evaluation of hepatitis C in Australia*. Sydney: Applied Economics Pty Ltd
- Australian Bureau of Criminal Intelligence (2002). *Australian Illicit Drug Report 2000-01*. Canberra: ABCI
- Australian Bureau of Statistics (2006). *Measures of Australia's progress (reissue)*. Catalogue no. 1370.0. Canberra: ABS
- Australasian Centre for Policing Research (2003). *Enhancing the links between drug misuse prevention programs and crime prevention programs*. Adelaide: ACPR
- Australian Crime Commission (2005). *Illicit drug data report 2003-2004*. Canberra: ACC
- Australian Crime Commission (2007). *Illicit Drug Data Report 2005-06*. Canberra: ACC
- Australian Crime Commission (2008). *Illicit Drug Data Report 2006-07*. Canberra: ACC
- Australian Customs Service (2004). *Annual Report 2003-04*. Canberra: ACS
- Australian Customs Service (2007). *Annual Report 2006-07*. Canberra: ACS
- Australian Department of Health (1985). *National Campaign Against Drug Abuse; campaign document issued following the Special Premiers' Conference, Canberra, 2 April 1985*. Canberra: Australian Government Publishing Service
- Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: detailed findings*. AIHW cat. no. PHE 66, Drug Statistics Series, no. 16. Canberra: AIHW
- Australian Institute of Health and Welfare (2005b). *Alcohol and other drug treatment services in Australia 2003-04: report on the national minimum data set*. Drug Treatment Series no. 4, AIHW cat. no. HSE 100. Canberra: AIHW
- Australian Institute of Health and Welfare (2006). *Drug use among Aboriginal and Torres Strait Islander peoples: an assessment of data sources*. Drug Statistics Series no. 17, AIHW cat. no. PHE 76. Canberra: AIHW
- Australian Institute of Health and Welfare (2007a). *Alcohol and other drug treatment services in Australia 2005-06: report on the national minimum data set*. Drug Treatment Series no. 5, AIHW cat. no. HSE 53. Canberra: AIHW
- Australian Institute of Health and Welfare (2007b). *Statistics on drug use in Australia 2006*. Drug Statistics Series no. 18, AIHW cat. no. PHE 80. Canberra: AIHW
- Australian Institute of Health and Welfare (2008a). *Alcohol and other drug treatment services in Australia 2006-07: report on the National Minimum Data Set*. Drug Treatment Series, no. 8, cat. no. HSE 59. Canberra: AIHW
- Australian Institute of Health and Welfare (2008b). *2007 National Drug Strategy Household Survey: first results*. AIHW cat. no. PHE 98, Drug Statistics Series, no. 20. Canberra: AIHW
- Australian Institute of Health and Welfare (2008c). *2007 National Drug Strategy Household Survey: detailed findings*. AIHW cat. no. PHE 66, Drug Statistics Series, no. 16. Canberra: AIHW

- Australian Institute of Health and Welfare (2008d). *National Opioid Pharmacotherapy Statistics Annual Data collection: 2007 report*. AIHW cat. no. AUS 104. Canberra: AIHW
- Australian Institute of Health and Welfare (2008e). *Indicators for chronic diseases and their determinants*. AIHW cat. no. PHE 75. Canberra: AIHW
- Australian National Council on Drugs (2005). *Mapping national drug treatment capacity*. ANCD research paper no. 10. Canberra: ANCD.
- Australian National Council on Drugs (2007). *Methamphetamines: Position paper*. Canberra: ANCD
- Australian Securities Exchange Corporate Governance Council (2003). *Principles of good governance and Best Practice Recommendations*. Sydney: ASX
- Ballard R, Gillespie A, Irwin R (1994). *Principles for Drug Education in Schools: An Initiative of the School Development in Health Education Project*. Canberra: University of Canberra
- Bammer G, Hall W, Hamilton M, Ali R (2002). Harm minimisation in a prohibition context – Australia. *Annals of the American Academy of Political and Social Science* (582), 80-93
- Bardach E (2005). *A practical guide for policy analysis: the eightfold path to more effective problem solving* (2nd edn). Washington DC: CQ Press
- Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez, A (2007). *The burden of disease and injury in Australia 2003*. AIHW cat. no. PHE 82. Canberra: AIHW
- Bell S (2004). ‘Appropriate’ policy knowledge, and institutional and governance implications. *Australian Journal of Public Administration* 63 (1), 22-28
- Birkland TA (2001). *An Introduction to the Policy Process*. New York: ME Sharpe
- Black E, Roxburgh A, Degenhardt L, Bruno R, Campbell G, de Graaff B, Fetherston J, Kinner S, Moon C, Quinn N, Richardson M, Sindicich N, White N (2008a). *Australian drug trends 2007: findings of the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series no. 1. Sydney: NDARC, University of NSW
- Black E, Dunn M, Degenhardt L, Campbell G, George J, Kinner S, Matthews A, Quinn,B, Roxburgh A, Urbancic-Kenny A, White N (2008b). *Australian trends in ecstasy and related drug markets 2007: findings from the Ecstasy and Related drugs reporting System (EDRS)*. Australian Drug Trends Series no. 10. Sydney: NDARC, University of NSW
- Black E, Stafford J, Degenhardt L (2007). *An overview of the 2007 IDRS: the Injecting Drug User survey findings*. Australian Drug Trends Bulletin. Sydney: NDARC, University of NSW
- Blewett N (1987). *National Campaign against Drug Abuse: Assumptions, arguments and aspirations*. The 19th Leonard Ball Oration. Canberra: AGPS
- Bolleter A, Loxley W (2002). *Final Report on the Evaluation of the Community Partnerships Initiative*. Perth: NDRI, Curtin University of Technology
- Brady M (2008). *First taste: how indigenous Australians learned about grog*. Deakin, ACT: Alcohol Education and Rehabilitation Foundation
- Bridgman P, Davis G (2004). *The Australian policy handbook*. Crows Nest: Allen & Unwin
- Brown V, Manderson D, O’Callaghan M, Thompson R (1986). *Our daily fix: drugs in Australia*. Rushcutters Bay: Australian National University Press
- Buerger ME, Mazerolle L (1998). Third party policing: a theoretical analysis of an emerging trend. *Justice quarterly* 15(2), 301-328
- Bull M (2005). A comparative review of best practice guidelines for the diversion of drug related offenders. *International Journal of Drug Policy* 16 (4), 223-34
- Caetano R (2001). Non-response in alcohol and drug surveys: a research topic in need of further attention. *Addiction* 96(11), 1541-5.
- Campbell Research & Consulting (2007). *National Drug Strategy Data Analysis Project: final report*. Prepared for the Drug Strategy Branch, Australian Government Department of Health and Ageing. Melbourne: Campbell Research & Consulting
- Carr-Hill RA, Sheldon TA, Smith P, Martin S, Peacock S, Hardman G (1994). Allocating resources to health authorities: development of method for small area analysis for use in inpatient services. *British Medical Journal* 22, 309 (6961), 1046-1049

- Caulkins J, Liccardo R, Paddock S, Chiesa, J (2004). What can we—and can't—expect from school-based drug prevention? *Drug and Alcohol Review* 23, 79-87
- Chapman S (2007). *Public health advocacy and tobacco control: making smoking history*. Oxford: Blackwell
- Chapman S, Freeman B (2008). Markers of the denormalisation of smoking and the tobacco industry. *Tobacco Control* 17 (1), 25-31
- Chikritzhs T, Catalano P, Stockwell T, Donath S, Ngo H, Young D, Matthews S (2003). *Australian alcohol indicators, 1990-2001: patterns of alcohol use and related harms for Australian states and territories*. Perth: NDRI, Curtin University of Technology
- Colebatch HK (2002). *Policy*. Buckingham: Open University Press
- Colebatch HK (2006). Accounting for policy in Australia. *Public Policy* 1 (1), 37-51
- Collins D, Lapsley H (2008). *The avoidable costs of alcohol abuse in Australia and the potential benefits of effective policies to reduce the social costs of alcohol*. Monograph Series no. 70. Canberra: Department of Health and Ageing
- Collins, D, Lapsley H (2008). *The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004/05*. Monograph Series no. 64. Canberra: Department of Health and Ageing
- Curtain R (2000). Good public policy making: How Australia fares. *Agenda: A Journal of Policy Analysis and Reform* 8(1), 33-46
- Curtain R (2003). What role for citizens in developing and implementing public policy? Parts 1 & 2. *Canberra Bulletin of Public Administration*, issues 108 & 109
- Curtain R (2004). *Overcoming the democratic deficit: Engaging citizens in the making of public policy in Australia*. Presentation to the Eureka 150th Anniversary Conference on Democracy, 25-27 November 2004. Ballarat: University of Ballarat
- Darke S, Kaye S, Topp L (2002). Cocaine use in New South Wales, Australia, 1996-2000: 5 year monitoring of trends in price, purity, availability and use from the Illicit Drug Reporting System (IDRS). *Drug and Alcohol Dependence* 67 (1), 73-79
- Darke S, Ross J (2000). The use of antidepressants among injecting drug users in Sydney, Australia. *Addiction* 95 (3), 407-417
- Degenhardt L, Roxburgh A, Black E, Dunn M. (2006a). *Accidental drug-induced deaths due opioids in Australia, 2004*. Sydney: NDARC
- Degenhardt L, Roxburgh A, Black E, Dunn M (2006b). *2004 Cocaine and amphetamine related drug-induced deaths in Australia*. Sydney: NDARC.
- Degenhardt L, Black E, Breen C, Bruno R, Kinner S, Roxburgh A, Fry C, Jenkinson R, Ward J, Fetherston, J, Weekley J, Fisher J (2006). Trends in morphine prescriptions, illicit morphine use and associated harms among regular injecting users in Australia. *Drug and Alcohol Review* 25, 403-412
- Degenhardt L, Dunn M (2008). 'The epidemiology of GHB and ketamine use in an Australian household survey. *International Journal of Drug Policy* 19 (4), 311-316
- Degenhardt L, Roxburgh A, van Beek I, Hall WD, Robinson MK, Ross J, Mant A (2008). The effects of the market withdrawal of temazepam gel capsules on benzodiazepine injecting in Sydney, Australia. *Drug and Alcohol Review* 27 (2), 145-151
- Deleon P (1999). *The states approach to the policy process: What has it done? Where is it going?* in PA Sabatier (ed), *Theories of the policy process*. Boulder: Westview Press 19-32
- Department of Health and Family Services (c. 1995). *National Drug Strategy Household Survey: Urban Aboriginal and Torres Strait Islander Peoples Supplement 199.4*. Canberra: DHFS
- Department of Health and Ageing (n.d.) Community Partnerships Initiative Fifth Funding Round. <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/phd-illicit-cpulist5>
- Di Francesco M (2001). Process, not outcomes in new public management? 'Policy coherence' in Australian Government. *The drawing Board: An Australian review of public affairs* 1 (3), 103-116
- Doessel D, Williams R (2008). The simple analytics of illicit drug policy. *The Australian Economic Review* 41 (3), 239-49

- Doran C, Vos T, Cobiac L, Hall W, Asamoah I, Wallace A, Naidoo S, Byrnes J, Fowler G, Arnett K (2008). *Identifying cost-effective interventions to reduce the burden of harm associated with alcohol misuse in Australia*. Canberra: Alcohol Education Rehabilitation Foundation
- Dror Y (1994). *The capacity to govern*. London: Frank Cass
- Evans-Whipp T, Beyers J, Lloyd S, Lafazia A, Toumbourou J, Arthur M, Catalano R (2004). A review of school drug policies and their impact on youth substance use. *Health Promotion International*, 19, 227-234
- Fitzgerald JL, Swards T (2002). *Drug policy: the Australian approach*. ANCD Research Paper no. 5. Canberra: ANCD
- Fowler G, Kinner S, Krenske L (2007). *Containing ecstasy: analytical tools for profiling an illegal drug market; summary report*, NDLERF Monograph Series no. 27. Hobart: National Drug Law Enforcement Research Fund
- Fox R, Mathews I (1992). *Drug policy: fact, fiction and the future*. Sydney: Federation Press
- Fry C, Bruno R (2001). Trends in benzodiazepine use among injecting drug users in Victoria and Tasmania: Findings from the Illicit Drug Reporting System. *Drug Trends Bulletin* (June 2001). Sydney: National Drug and Alcohol Research Centre, University of New South Wales
- Funnell SC (2000). Developing and using a program theory matrix for program evaluation and performance monitoring. In Rogers PJ, Hacs TA, Petrosino A, Huebner T (eds.), *Program theory in evaluation: Challenges and opportunities*. *New Directions for Evaluation*. San Francisco: Jossey-Bass 87, 91-101
- Gibson A, Larance B, Roxburgh A, Degenhardt L, Black E (2007). *The extent of diversion of fentanyl for non-medical purposes in Australia: What do we know?* NDARC Technical Report 265. Sydney: National Drug and Alcohol Research Centre, University of New South Wales
- Gowing L, Proudfoot H, Henry-Edwards S, Teesson M (2001). *Evidence supporting treatment: the effectiveness of interventions for illicit drug use*. ANCD Research Paper no. 3. Canberra: Australian National Council on Drugs
- Gracey M (1998). Substance misuse in Aboriginal Australians. *Addiction Biology* 3 (1), 26-46
- Hall W (2007). What's in a name? *Addiction* 102(5), 684-690
- Hall W, Degenhardt L (2007). Regulating opioid prescribing to provide access to effective treatment while minimizing diversion: an overdue topic for research. *Addiction* 102 (11), 1685-1688
- Hall W, Ross J, Lynskey M, Law M, Degenhardt L (2000). *How many dependent opioid users are there in Australia?* NDARC Monograph no. 44. Sydney: National Drug and Alcohol Research Centre, University of NSW
- Hall W, Swift W (2000). The THC content of cannabis in Australia: evidence and implications. *Australian and New Zealand Journal of Public Health* 24(5), 503-8
- Hando J, Darke S, O'Brien S, Maher L, Hall WD (1998). The development of an early warning system to detect trends in illicit drug use in Australia: the Illicit Drug Reporting System. *Addiction Research & Theory* 6(2), 97-113
- Hando J, O'Brien S, Darke S, Maher L, Hall WD (1997). *The Illicit Drug Reporting System (IDRS) trial: final report*, NDARC monograph no. 31. Sydney: National Drug and Alcohol Research Centre, University of NSW
- Head B (2008). Three lenses of evidence-based policy. *Australian Journal of Public Administration*. 67(1), 1-11
- Health Outcomes International (2002). *Return on investment in needle and syringe programs in Australia: Report*. Canberra: Department of Health and Ageing
- Health Outcomes International (2004). *Evaluation of the National School Drug Education Strategy (NSDES) and COAG Tough on Drugs in Schools Initiative: Final Report*. Canberra: Department of Education, Science and Training
- Hindle D (2002). Health care funding in New South Wales: from health care needs to hospital outputs. *Australian Health Review* 25 (1), 40-71.
- HM Treasury, Cabinet Office, National Audit Office, Audit Commission & Office for National Statistics (2001). *Choosing the right FABRIC: a framework for performance information*. London: UK Office for National Statistics

- Homel PJ, Willis K (2007). *A framework for measuring the performance of drug law enforcement*, Trends & Issues in Crime and Criminal Justice, no. 332. Canberra: Australian Institute of Criminology
- Homel R, Freiberg K, Lamb C, Leech M, Hampshire A, Hay I, Elias G, Carr A, Manning M, Teague R, Batchelor S (2006). *The Pathways to Prevention Project: The First Five Years, 1999-2004*. Sydney: Griffith University and Mission Australia
- Howlett M (2007). *Policy analytical capacity as a source of policy failure*, Paper presented at the Workshop on Policy Failure, Annual meeting of the Canadian Political Science Association, University of Saskatchewan, June 1 2007
- Hughes R (1987). *The fatal shore: a history of the transportation of convicts to Australia, 1787-1868*. London: Collins Harvill
- Hurley S, Matthews J (2008). Cost-effectiveness of the Australian National Tobacco Campaign. *Tobacco Control*, published online 21 August 2008, doi:10.1136/tc.2008.025213.
- Institute of Public Administration Australia (2002). *Working together: integrated governance*. Canberra: Institute of Public Administration
- Intergovernmental Committee of Drugs (IGCD) (2007). *Annual Report July 2005 to June 2006 to the Ministerial Council on Drug Strategy*. Canberra: CoA
- Jenkin B (1997). Policy analysis: Models and approaches, in M. Hill (ed.), *The policy process: A reader* London: Prentice Hall, 30-38
- Jenkinson R, Clark N, Fry C, Dobbin M (2005). Buprenorphine diversion and injection in Melbourne, Australia: an emerging issue? *Addiction* 100 (2), 197-205
- Jordan G (2007). Policy without learning: Double dissolution and abuse of the deliberative idea. *Public Policy and Administration* 22 (1), 48-73
- Judge K, Mays N (1994). Equity in the NHS: allocating resources for health and social care in England. *British Medical Journal* 308 (6955), 1363-1366
- Kay A (2006). *The dynamics of public policy: Theory and evidence*. Cheltenham: Edward Elgar Publishing
- Kessler R, Zhao S, Katz SJ, Kouzis AC, Frank RG, Edlund M, Leaf P (1999). Past year use of outpatient services for psychiatric problems in the National Comorbidity Survey. *American Journal of Psychiatry* 156 (1), 115-123
- Kusek JZ, Rist R (2004). *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. Washington, DC: World Bank
- LaFond A. & Brown L. (2003). *A guide to monitoring and evaluation of capacity-building interventions in the health sector in developing countries*. MEASURE Evaluation Manual Series, No. 7. Chapel Hill: University of North Carolina
- Landry R, Lamari M, Amara N (2003). The extent and determinants of utilization of university research in government agencies. *Public Administration Review* 63, 192-205
- Larney S, Mathers B, Dolan K (2007). *Illicit drug treatment in prison: detoxification, drug-free units, therapeutic communities and opioid substitution treatment*. NDARC Technical Report no. 266, Sydney: NDARC, University of NSW
- Latz P (1995). *Bushfires & bushtucker: Aboriginal plant use in Central Australia*. Alice Springs: IAD Press
- Lin V, Gibson B (2003). *Evidence-based health policy*. Melbourne: Oxford University Press
- Lomas J (2000). Connecting research and policy. *Canadian Journal of Policy Research* 1, 140-144
- Loxley W, Toumbourou J, Stockwell T, Haines B, Scott K, Godfrey C, Waters E, Patton G, Fordham R, Gray D, Marshall J, Ryder D, Sagggers S, Sanci L, Williams J (2004). *The prevention of substance use, risk and harm in Australia: a review of the evidence*. Perth: NDRI, Curtin University of Technology, and Melbourne: Centre for Adolescent Health, Royal Children's Hospital
- MacCoun RJ, Reuter P (2001). *Drug war heresies: learning from other vices, times, and places*. Rand Studies in Policy Analysis. Cambridge: Cambridge University Press
- Manderson D (1993). *From Mr Sin to Mr Big: a history of Australian drug laws*. Melbourne: Oxford University Press

- Marmot MG, Wilkinson RG (eds) (2006). *Social determinants of health*, 2nd edn. Oxford: Oxford University Press
- Mattick RP, Digiusto E, Doran C, O'Brien S, Shanahan M, Kimber J, Henderson N, Breen C, Shearer J, Gates J, Shakeshaft A [NEPOD Trial Investigators] (2004). *National Evaluation of Pharmacotherapies for Opioid Dependence: report of results and recommendations*. National Drug Strategy Monograph Series no. 52. Canberra: Department of Health and Ageing
- Mayne J (2001). Addressing attribution through contribution analysis: using performance measures sensibly. *Canadian Journal of Program Evaluation* 16 (1), 9
- Mazerolle L, Soole D, Rombouts S (2007). Drug law enforcement: a review of the evaluation literature. *Police Quarterly* 10 (2), 115-53
- McBride N (2003). A systematic review of school drug education. *Health Education Research: Theory and Practice* 18, 729-742
- McBride N, Farringdon F, Midford R, Meuleners L, Phillips N (2004). Harm minimization in school drug education; final results of the School Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction* 99 (3), 278-291
- McLaren J, Swift W, Dillon P, Allsop S (2008). Cannabis potency and contamination: a review of the literature. *Addiction* 103(7), 1100-9
- McCoy AW (1980). *Drug Traffic: Narcotics and organized crime in Australia. Issues in Australian Society*. Sydney: Harper & Row
- McDonald D (2004). *Taxonomies of illicit drug interventions: a description and analysis of taxonomies of interventions concerned with illicit drugs, illicit drug use, people who use illicit drugs and societal responses to these*. Canberra: National Centre for Epidemiology and Population Health, Australian National University
- McDonald, D (2008). *The extent and nature of alcohol, tobacco and other drug use, and related harms, in the Australian Capital Territory*. Canberra: Social Research & Evaluation Pty Ltd
- McDonald D, Bammer G, Breen G (2005). *Australian illicit drugs policy: mapping structures and processes*. Drug Policy Modelling Program Monograph No 4. Sydney: NDARC, University of NSW
- McDonald D, Brown H, Hamilton M, Miller M, Stephenson E (1988). Australian drug policies 1988 and beyond - a drugs campaign evaluation. *Australian Drug and Alcohol Review* 7 (4), 499-505
- McKetin R, McLaren J. (2004). *The methamphetamine situation in Australia: a review of routine data sources*. NDARC Technical Report No. 172. Sydney: National Drug and Alcohol Research Centre
- McKetin R., McLaren J., Kelly E., Hall WD, Hickman M (2005). *Estimating the number of regular dependent methamphetamine users in Australia*. NDARC Technical Report No. 230. Sydney: National Drug and Alcohol Research Centre
- McLaren J, Mattick RP (2007). *Cannabis in Australia: use, supply, harms, and responses*, National Drug Strategy Monograph Series no. 57. Canberra: Australian Government Department of Health and Ageing
- Meyer L, Cahill H (2004). *Principles for school drug education*. Department of Education Science and Training, Canberra
- Midford R (2007). Is Australia 'fair dinkum' about drug education in schools? *Drug and Alcohol Review*, 26, 421-427
- Ministerial Council on Drug Strategy (1993). *National Drug Strategic Plan 1993-97*. Canberra: AGPS
- Ministerial Council on Drug Strategy (1998). *National Drug Strategic Framework 1998-99 to 2002-03: building partnerships: a strategy to reduce the harm caused by drugs in our community*. Canberra: Ausinfo
- Ministerial Council on Drug Strategy (2001). *National Action Plan on Illicit Drugs 2001 to 2002-03*, Canberra: Department of Health and Aged Care
- Ministerial Council on Drug Strategy (2004). *The National Drug Strategy; Australia's integrated framework 2004-2009*. Canberra: Department of Health and Ageing
- Ministerial Committee on Drug Strategy (2006). *National Alcohol Strategy: 2006-2009*. Canberra: Commonwealth of Australia

- Ministerial Council on Drug Strategy (2006). *National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003 – 2009* (2nd Ed). Canberra: Department of Health and Ageing
- Ministerial Council on Drug Strategy 2006, *National Cannabis Strategy 2006-2009*. Canberra: Australian Government Department of Health and Ageing
- Mooney G, Jan S, Wiseman V (2002). Staking a claim for claim: a case study of resource allocation in Australian Aboriginal health care. *Social Science and Medicine* 54, 1657-1667
- Moore TJ (2005). *What is Australia's 'drug budget'? The policy mix of illicit drug-related government spending in Australia*. Drug Policy Modelling Project Monograph Series no. 01. Fitzroy: Turning Point Alcohol and Drug Centre
- Moore TJ, Ritter A, Caulkins JP (2005). *Economic modelling: cost-effectiveness of three policy options*. *Bulletin no. 12*. Fitzroy: Turning Point Alcohol and Drug Centre
- Mouzos J, Hind N, Smith L, Adams K (2007). *Drug Use Monitoring in Australia: 2006 annual report on drug use among police detainees*, Research and Public Policy Series, no. 75. Canberra: Australian Institute of Criminology
- Mouzos J, Smith L, Hind N (2006). *Drug use monitoring in Australia. 2005 annual report on drug use among police detainees*. Research and Public Policy Series, No. 70. Canberra: Australian Institute of Criminology
- National Centre for Education and Training on Addiction (NCETA) (2005). *Annual Report 2004-05*. Bedford Park: Flinders University
- National Centre for Education and Training on Addiction (NCETA) (2006). *Annual Report 2005-06*. Bedford Park: Flinders University
- National Centre in HIV Epidemiology and Clinical Research (2005). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2005*. Sydney: National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales
- National Centre in HIV Epidemiology and Clinical Research (2007). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2007*. Sydney: University of New South Wales
- National Drug and Alcohol Research Centre (NDARC) (2005). *Annual Report 2005*. Sydney: University of NSW
- National Drug and Alcohol Research Centre (NDARC) (2006). *Annual Report 2006*. Sydney: University of NSW
- National Drug Research Institute (NDRI) (2007). *Restrictions on the sale and supply of alcohol: evidence and outcomes*. Perth: Curtin University of Technology
- National Health and Hospitals Reform Commission (2008). *Joint Media Release from Prime Minister and Minister for Health and Ageing on the establishment of the Commission, 25 February 2008*. <http://www.nhhrc.org.au/>
- National Health and Medical Research Council (Australia) (2001). *Australian alcohol guidelines: health risks and benefits*. Canberra: National Health and Medical Research Council
- National Preventative Health Taskforce (2008). *Australia: the healthiest country by 2020. A discussion paper prepared by the National Preventative Health Taskforce*. Canberra: CoA
- National Preventative Health Taskforce, Alcohol Working Group (2008). *Preventing alcohol-related harm in Australia: a window of opportunity*. Technical Report No 3. Canberra: CoA
- National Preventative Health Taskforce Tobacco Working Group (2008). *Tobacco Control in Australia: Making Smoking History*. Technical Paper no. 2. Canberra: CoA
- National Treatment Agency for Substance Misuse (2002). *Models of Care for Treatment of Adult Drug Misusers: Framework for developing local systems of effective drug misuse treatment in England*. London: National Health Service (NHS).
- NCADA Second Task Force on Evaluation (1992). *No quick fix: an evaluation of the National Campaign Against Drug Abuse*. Canberra: Ministerial Council on Drug Strategy

- Neilson M (2001). *IDRC-supported research and its influence on public policy. Knowledge utilization and public policy processes: A literature review*. Evaluation unit, International Development Research Centre.
- Nielsen S, Dietze P, Lee N, Dunlop A, Taylor D (2007). Concurrent buprenorphine and benzodiazepines use and self-reported opioid toxicity in opioid substitution treatment. *Addiction* 102 (4), 616-622
- Nutley S (2003). *Bridging the policy/research divide Reflections and Lessons from the UK*, Paper presented at the Facing the Future: Engaging stakeholders and citizens in developing public policy, Canberra
- Nutley SM, Walter I, Davies HTO (2007). *Using evidence: how research can inform public services*, Bristol: Policy Press
- O'Brien S, Black E, Degenhardt L, Roxburgh A, Campbell G, de Graaf B, *et al* (2007). *Australian Drug Trends 2006: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre
- O'Shaughnessy T (2001). 'Developing organisational indicators: choices and issues', *Evaluation Journal of Australasia*, vol. 1 (new series). no. 1, pp. 43-52
- Owen JM (2006). *Program evaluation: forms and approaches*, 3rd edn, Allen & Unwin, Crows Nest, NSW
- Owen R, Roche PW, Hope K, Yohannes K, Roberts A, Liu C, Stirzaker S, Kong F, Bartlett M, Donovan B, East I, Fitzsimmons G, McDonald A, McIntyre PB, Menzies RI (2007). 'Australia's notifiable diseases status, 2005: annual report of the National Notifiable Diseases Surveillance System', *Communicable Diseases Intelligence*, vol. 31, no. 1
- Parliament of the Commonwealth of Australia, House of Representatives Standing Committee on Family and Human Services (2007). *The winnable war on drugs: the impact of illicit drug use on families*. Canberra: AGPS
- Parliament of the Commonwealth of Australia, Senate Standing Committee on Social Welfare (1977). *Drug problems in Australia - an intoxicated society? Report*. Canberra: AGPS
- Parsons W (1995). *Public policy: An introduction to the theory and practice of policy analysis*, Edward Elgar, Aldershot
- Parsons W (2001). *Modernising policy making for the 21st century: The professional model*, Public Policy and Administration, 16 (3). 93-110
- Parsons W (2002). *From muddling through to muddling up – evidence based policy making and the modernisation of British Government*, Public Policy and Administration, 17 (3). 43-60
- Parsons W (2004). *Not just steering but weaving: Relevant knowledge and the craft of building policy capacity and coherence*, Australian Journal of Public Administration, 63 (1). 43-57
- Payne J, Kwiatkowski M, Wundersitz J (2008). *Police drug diversion: a study of criminal offending outcomes*. Canberra: Australian Institute of Criminology
- Perrin B (1998). Effective use and misuse of performance measurement. *American Journal of Evaluation*, 19 (3), 367-79
- Perrin B, Leat D, Seltzer K, Stoker G (1999). *Governing in the round: Strategies for holistic government*, London: Demos
- Powell KC (1988). *Drinking and alcohol in Colonial Australia 1788-1901 for the Eastern Colonies*. NCADA Monograph Series no. 3. Canberra: Australian Government Publishing Service
- Ranney L, Melvin C, Lux L, McClain E, Morgan L, Lohr KN (2006). Tobacco use: prevention, cessation, and control. *Evid Rep Technol Assess (Full Rep)* no. 140, 1-120
- Regier DA, Shapiro S, Kessler LG, Taube CA (1984). Epidemiology and health service resource allocation policy for alcohol, drug abuse, and mental disorders. *Public Health Reports* 99 (5), 483-492.
- Richmond R (1993). Increasing resource allocation and research into tobacco control activities: a comprehensive approach including primary prevention, treatment and brief intervention. *Drug and Alcohol Review* 12, 205-215
- Ritter A, Cameron J (2006). A review of the efficacy and effectiveness of harm reduction strategies for alcohol, tobacco and illicit drugs. *Drug Alcohol Rev*, 25 (6), 611-24

- Ritter AJ, McDonald D (2005). *Drug policy interventions: a comprehensive list and a review of classification schemes*. Drug Policy Modelling Project Monograph Series no. 2. Fitzroy: Turning Point Alcohol and Drug Centre
- Ritter AJ, Wodak AD, Crofts JN (2004). Reducing drug-related harm: Australia leads the way. *Med Journal of Australia* 181, 242-243
- Roche AM, Pidd K (2008). *National AOD Workforce Development Strategy: Scoping Paper*. Prepared for the IGCD. Bedford Park: NCETA
- Rogers PJ (2004). Program logic, in S Mathison (ed), *Encyclopedia of Evaluation*. Newbury Park, CA: Sage Publications
- Room R (2007). *Evidence and action, globally and locally*. Paper presented at the Working Out What Works Symposium, Fremantle, 18-19 September, 2007. AER Centre for Alcohol Policy Research, Turning Point Alcohol & Drug Centre, School of Population Health, University of Melbourne
- Royal Australasian College of Physicians, Royal Australian and New Zealand College of Psychiatrists & GROW Self Help/Mutual Support Group (2004). *Illicit drug policy: using evidence to get better outcomes*. Sydney: RACP
- Royal Commission of Inquiry into Drugs 1980, *Report*. Australian Govt. Pub. Service, Canberra (Williams Royal Commission)
- Royal Statistical Society (2005). Performance indicators: good, bad, and ugly. *Journal of the Royal Statistical Society, Series A* 168(1), 1-27
- Sabatier P, Jenkins-Smith H (1993). *Policy change and learning: An advocacy coalition approach*, Boulder: Westview Press.
- Sanderson I (2002). Evaluation, policy learning and evidence-based policy making. *Public Administration* 80 (1), 1-22
- Schaap MM, Kunst AE, Leinsalu M, Regidor E, Ekholm O, Dzurova D, Helmert U, Klumbiene J, Santana P, Mackenbach JP (2008). Effect of nationwide tobacco control policies on smoking cessation in high and low educated groups in 18 European countries. *Tobacco Control* 17 (4), 248-55
- Scollo M, Lal A, Hyland A, Glantz S (2003). Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. *Tobacco Control* 12, 13-20
- Scott J, Marshall G (2005). 'Index', in *A dictionary of sociology*. OUP: Oxford Reference Online.
- Shand F, Gates J, Fawcett J, Mattick R (2003). *The treatment of alcohol problems: a review of the evidence*. Canberra: Dept. of Health and Ageing,
- Shearer J, Shanahan M (2006). Cost effectiveness analysis of smoking cessation interventions. *Aust & NZ J of Public Health* 30 (5), 428-34
- Sheldon TA (1997). Formula fever: allocating resources in the NHS. *British Medical Journal* 315 (7114), 964
- Sherman RE, Gillespie S, Diaz JA (1996). Use of social indicators in assessment of local community alcohol and other drug dependence treatment needs within Chicago. *Substance Use and Misuse* 31 (6), 691-728
- Single E, Rohl T (1997). *The National Drug Strategy: mapping the future; a report commissioned by the Ministerial Council on Drug Strategy*. Canberra: Dept of Health and Family Services
- Skinner N, Roche AM, O'Connor J, Pollard Y, Todd C (2005). *Workforce development 'TIPS': theory into practice strategies; a resource kit for the alcohol and other drugs field*. Adelaide: NCETA. Available at: <http://www.nceta.flinders.edu.au/wdt>
- Soole DW, Mazerolle L, Rombouts S (2008). School-based drug prevention programs: a review of what works. *Australian and New Zealand Journal of Criminology* 41 (2), 259-86
- Special Premiers' Conference on Drugs ['Drug Summit'] (1985). Communiqué 2 April 1985. Canberra: Prime Minister's Office
- Spooner C, Hall W, Lynskey M (2001). *The structural determinants of youth drug use* (ANCD Research Paper No 2). Canberra: Australian National Council on Drugs
- Spooner C, McPherson M, Hall W (2004). *The role of police in preventing and minimising illicit drug use and its harms*. NDLERF Monograph Series No. 2. Canberra: Australian Government Department of Health and Ageing

- Spooner C, Hetherington K (2005). *Social determinants of drug use*. Technical Report no. 228. Sydney: National Drug and Alcohol Research Centre
- Stafford J, Degenhardt L, Black E, Bruno R, Buckingham K, Fetherston J, Jenkinson R, Kinner S, Moon C, Weekley J(2005). *Australian drug trends 2004: findings of the Illicit Drug Reporting System (IDRS)*. NDARC monograph no. 55, Sydney: National Drug and Alcohol Research Centre, University of New South Wales
- Steering Committee for the Review of Government Service Provision (2007). *Overcoming Indigenous disadvantage: key indicators 2007*. Canberra: Productivity Commission,
- Stephenson E, Brown H, Hamilton M, McDonald D, Miller M (1988). *The National Campaign Against Drug Abuse 1985-1988: report of the Task Force on Evaluation*. 2 vols. Ministerial Council on Drug Strategy, Canberra
- Stevens A, Trace M, Bewley-Taylor D (2005). *Reducing drug related crime: an overview of the global evidence*, The Beckley Foundation Drug Policy Programme, report no. 5. Oxford: The Beckley Foundation
- Stone D, Maxwell S, Keating M (2001). *Bridging research and policy*, Paper presented at an international workshop funded by the UK Department for International Development, Warwick University, 16-17 July 2001
- Strempel P, Saggars S, Gray D, Stearne A (2003). *Indigenous drug and alcohol projects: elements of best practice*. ANCD Research Paper 8. Canberra: ANCD
- Stufflebeam DL (2001). Evaluation models, in Henry GT (Ed.). *Evaluation models*. San Francisco: Jossey-Bass
- Success Works Pty Ltd (2003). *Evaluation of the National Drug Strategic Framework 1998-99 – 2003-04*. Canberra: DoHA
- Therapeutic Goods Administration (2006). Pseudoephedrine rescheduling – information for sponsors. Canberra: DoHA. <http://www.tga.gov.au/npmeds/pseudoephedrine.htm>
- Tobler N, Stratton H (1997). Effectiveness of school based drug prevention programmes: a meta-analysis of the research. *Journal of Primary Prevention* (18), 71-128
- Tobler NS, Roona MR, Ochshorn P, Marshall D G, Streke AV, Stackpole KM (2000). School-based adolescent drug prevention programs: 1998 meta-analysis. *Journal of Primary Prevention* (20), 275-336
- Topp L, Breen C, Kaye S, Darke S (2004). Adapting the Illicit Drug Reporting System (IDRS) methodology to examine the feasibility of monitoring trends in party drug markets. *Drug and Alcohol Dependence* 73(2), 189-197
- Topp L, McKetin R (2003). 'Supporting evidence-based policy-making: a case study of the Illicit Drug Reporting System in Australia. *Bulletin on Narcotics* 55(1 & 2), 23-30
- UK Cabinet Office (1999). *Professional Policy Making for the Twenty First Century*. London: Cabinet Office
- UK Department of Health, Home Office, Department for Education and Skills and Department for Culture, Media and Sport (2007). *Safe. Sensible. Social. The next steps in the National Alcohol Strategy*. London: Home Office
- United Nations Office on Drugs and Crime (2008). *World Drug Report 2008*. Vienna: UNODC
- United States Public Health Service, Office of the Surgeon General (2006). *The health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General*. Rockville, MD: United States Department of Health and Human Services, Public Health Service.
- Urbis Keys Young (2004). *The relationship between drugs and crime: prepared for National Law Enforcement Policy Branch by Urbis Keys Young*. Canberra: Australian Government Attorney-General's Department
- Victorian Government (2006). *Improving Health, Reducing Harm: Victorian Drug Strategy 2006-09*. Melbourne: Department of Human Services
- Vilnius D, Dandoy S (1990). A priority rating system for public health programs. *Public Health Reports* 105(5), 463-70

- Vos T, Barker B, Stanley L, Lopez A (2007). *The burden of disease and injury in Aboriginal and Torres Strait Islander peoples 2003*. Brisbane: School of Population Health, University of Queensland
- Wakefield M, Gemain D, Henricksen L (2007). The effect of retail cigarette pack displays on impulse purchase. *Addiction* 103 (2), 310-19
- Wardlaw G (1994, reprinted 2008). *Final Report: Illicit Drug Reporting System. Consultant's report to the Commonwealth Department of Health and Community Services*. NDARC Technical Report no. 292. Sydney: National Drug and Alcohol Research Centre
- Watson P (1983). *This precious foliage: a study of the Aboriginal psycho-active drug pituri*. Oceania Monographs no. 26. Sydney: University of Sydney
- Weatherburn D (2000). *Performance indicators for drug law enforcement*. Crime and Justice Bulletin no. 48. Sydney: Bureau of Crime Statistics and Research
- Weatherburn D (2004). *Law and Order in Australia: Rhetoric and reality*. Annandale: Federation Press
- Weiss CH (1979). The many meanings of research utilization. *Public Administration Review* 39 (5), 426-431
- Weiss CH, Murphy-Graham E, Birkeland S (2005). An alternate route to policy influence: how evaluations affect D.A.R.E. *American Journal of Evaluation* 26 (1), 12-30
- White D, Pitts M (1998). Educating young people about drugs: a systematic review. *Addiction* 93, 1475-1487
- White HR, Gorman DM (2000). Dynamics of the drug-crime relationship, in G LaFree (ed.). *Criminal justice 2000* Vol. 1: *The nature of crime: continuity and change*. Washington DC: National Institute of Justice, 151-218
- White VM, Hayman J, Hill DJ (2008). Can population-based tobacco-control policies change smoking behaviors of adolescents from all socio-economic groups? Findings from Australia: 1987-2005. *Cancer Causes Control* 19 (6), 631-40
- Williams P (1997). *Progress of the National Drug Strategy, key national indicators, evaluation of the National Drug Strategy 1993-1997*, Canberra: Commonwealth Department of Health and Family Services
- Willis K, Homel PJ, Gray K (2005). *Developing and implementing a performance measurement framework for drug law enforcement in Australia*. Adelaide: National Drug Law Enforcement Research Fund
- World Health Organization (2003). *WHO framework convention on tobacco control*. Geneva: WHO
- World Health Organization Commission on the Social Determinants of Health (2008). *Closing the gap in a generation: health equity through action on the social determinants of health*. Geneva: CSDH
- Yin RK (2003). *Case study research: design and methods* (3rd edn). Applied Social Research Methods Series, vol. 5. Thousand Oaks: Sage Publications
- Yohannes K, Roche PW, Roberts A, Liu C, Firestone S, Bartlett M, East I, Hull BP, Kirk MD, Lawrence GL, McDonald A, McIntyre PB, Menzies RI, Quinn HE, Vadjic C (2006). Australia's notifiable diseases status, 2004: annual report of the National Notifiable Diseases Surveillance System' *Communicable Diseases Intelligence* 30 (1), 24-5

