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issuing **forth**

Lessons from the Alcohol Action in Rural Communities (AARC) project

The prevalence of alcohol related traffic crashes is 1.5 times greater in rural areas compared with urban areas and the costs are four times greater. The prevalence and costs of fatal ARTCs is seven times higher.

ed**space**

Welcome to the first issue of *CentreLines* published by the National Drug and Alcohol Research Centre this year. NDARC has been without a permanent communications role since Paul Dillon moved to the National Cannabis Prevention Information Centre (NCPIC) as its National Communications Manager, after a long and successful reign of nearly 15 years as the Information Officer for NDARC.

During his time as Information Officer Paul was instrumental in developing a media strategy which not only significantly raised the profile of drug and alcohol issues in Australia but importantly ensured that reporting on these issues was underpinned by evidence and research – as much as is possible in the headline-driven 24 hour news cycle within which we live.

I experienced the success of this strategy first-hand, as the health reporter for the *Sydney Morning Herald* reporting, more than 10 years ago now, on the ACT heroin trial and Michael Wooldridge's aborted attempt to introduce a national trial. More recently as head of communications for one of NSW's largest area health services, handling issues-based communications at the "pointy end" of service delivery, I frequently referred to the evidence provided by NDARC research. More than once we referred to this evidence in our support of crucial, but easily misrepresented services, such as the needle syringe program provided by the Van at Redfern – all too often an easy target for many of our venerable news institutions.

CentreLines is a crucial component of NDARC's dissemination strategy. And, as you will see from this bumper issue, while this particular publication may have been off the radar for the past year, there has been no let up in NDARC's core business of research and publishing the results of this research in peer reviewed journals, books and technical monographs.

Equally important to the NDARC dissemination strategy, has been the NDARC Annual Symposium. On this front, September and October were extremely busy months for NDARC and its affiliated programs and centres, NCPIC and the Drug Policy Modelling Program (DPMP), when we hosted not one but four research symposia, including the Annual Drug Trends Conference.

Finally, it is with great pleasure that we are able to announce, as this issue goes to press, that NDARC received fantastic news about its grant and award applications in the latest round of competitive funding from the NHMRC and the Australian Research Council. A full list of our successful grants and awards is in our media release: http://ndarc.med.unsw.edu.au.

Marion Downey, Communications and Media Manager, NDARC

contents

CentreLines is a joint publication from the National Drug and Alcohol Research Centre, Sydney and the National Drug Research Institute, Perth.

headspace

Australia at the forefront of drug research internationally

Alison Ritter

In late September I attended a meeting in Brussels on research gaps in illicit drug research for the European Union. A report commissioned by the European Commission ("Comparative Analysis of Research into Illicit Drugs in the European Union") provided a platform for discussion about three key elements of drug research: the funding systems (how illicit drug research is funded); the structural arrangements (what structures support illicit drug research); and the breadth and depth of research topics (areas of research). Australia was chosen as one country (along with Canada and the USA) to be used for comparative purposes. We stood up exceptionally well – indeed, it appeared that Australia may have the strongest arrangements to support research.

In an analysis of Australian research structures, funding and areas of activity for the period 2000 to 2007 we examined the nature of research topics across Australia, and endeavoured to estimate the total research funding dedicated to illicit drug research. The full report provides details of the Australian arrangements relative to the EU.

In terms of research topic areas, Australia is strongly weighted towards applied interventions research compared to the EU. For example coding research project titles (2000 to 2007) revealed that 40% of Australian drug research is concerned with interventions (demand reduction and prevention); 28% with epidemiology; 5% with law enforcement and 5% in the area of policy and law. Only 7% were identified as concerned with basic research on drug mechanisms. In contrast, epidemiology predominated EU drug research (50% of all projects), followed by demand reduction research (30%). Basic research represented 13% of all EU research activity (with policy research at 2%) in contrast to the Australian results.

It is very difficult to obtain estimates of the amount of research funds dedicated to drug research in Australia. We were not alone in finding this exercise fraught as the EU also could not systematically or confidently assess the investment made in drug research. Funding sources for Australian illicit drug research include government (commissioned) research, generic competitive research funding bodies such as the National Health and Medical Research Council, and philanthropy. Our (minimum) estimate for the year 2006 was AUS $16.8 million dollars. This represents per capita spending of $0.81 cents per annum per Australian. Relative to overall Australian investment in health research it is a very small amount. The NHMRC annual fund is $539m, of which $9.9m is invested in illicit drugs research, representing 1.8% of the total competitive health research investment.

In terms of structures to support drug research, the establishment of the two national research centres in Australia (NDARC and NDRI) arising out of the National Campaign Against Drug Abuse (NCADA) in 1985 and the later establishment of NCETA was regarded as a vital component of Australia's research success in this area. There are other research centres in Australia concerned with illicit drug research including the National Centre for HIV Epidemiology and Clinical Research (NCHECR) and the National Centre in HIV Social Research (NCHSR); Turning Point Alcohol and Drug Centre; the Burnet Institute; the Queensland Alcohol and Drug Research Education Centre (QADREC) and the Australian Institute of Criminology.

What struck delegates in Brussels was the significant infrastructure investment that research centres provided to Australia's efforts: through enabling core groups of researchers to work together, provide coordination and value-added collaborations, and ensuring the future of drug research through opportunities for PhD students and post-doctoral candidates to study within dedicated research centres.

The strong commitment to research by Australian governments was also noteworthy. Throughout the history of the *National Drug Strategy*, research and evaluation have been identified as key priority areas.

In combination all of the above points to the strength of Australian drug research. We sought some evidence to support this assertion, and used one metric: the number of peer reviewed journal articles from Australia relative to other countries. We chose the two top ranking journals: "Addiction" (UK based) and "Drug and Alcohol Dependence" (USA based) and examined the relative proportion of authors from Australia compared to other countries. In "Drug and Alcohol Dependence", 66% of the author affiliations are from USA, but Australia ranks second with 9%, followed by the UK with 4%. We are the second most published nation in that journal. Likewise, for the journal "Addiction", the USA is the largest author affiliation at 41%, then the UK with 17% and Australia is placed third at 12%.

Given our population (22m people) and our illicit drug research spending (approx $16.8m p.a. in 2006) it seems that we are indeed "punching above our weight". But while we have much to be proud of in our contribution to illicit drug research, there are still significant gaps in our knowledge which require ongoing and securely funded programs of research.

While we take for granted the central importance of research evidence in improving alcohol and drug treatment, our understanding of how we translate that research into evidence-based policy and practice is less certain. What is certain is that the strong commitment around the globe to evidence-informed drug policy and treatment services can only be realised if the evidence exists. **cl**

Drug markets – a growing area of research interest

The feature article in this issue of *CentreLines* is about a significant program of research from NDARC on alcohol. Alcohol has been high on the policy agenda and represents an issue of concern for Australians. However, illicit drugs should not be forgotten. There is growing interest in studying illicit drug markets, and the relationship between drug markets and law enforcement interventions. The release of a new report earlier this year "A report on global illicit drug markets 1998-2007", prepared to contribute towards the annual international drug policy meeting (Commission on Narcotic Drugs) critically examines the extent to which drug supply at a global level has changed over the last 10 years. The simple conclusion is that drug supply has not changed, despite some redistribution of production and consumption between countries and world regions. However the report identifies significant gaps in knowledge in relation to drug markets and supply reduction. Examples of some specific research questions include: to what extent is heroin production in one region (for example the golden triangle) influenced by and altered by production in another region (for example the golden crescent); what is the relationship between supply of drugs and demand for drugs; to what extent are criminal networks vertically integrated through the supply chain or is the more common market structure one of loose networks of cooperation between independent criminal groups; how do criminal networks or individual sellers determine the prices they charge; how responsive are drug consumers to price changes; how effective are law enforcement interventions at the 'top' of the supply chain (for example at point of production) relative to law enforcement interventions targeted at local dealers; can the unintended consequences of supply reduction efforts be systematically measured and then assessed within a policy decision-making framework?

NDARC, along with other research groups in Australia and overseas, is contributing to this research agenda on supply reduction. Work underway at the Centre includes study of the ways in which drug markets operate, including the structures to markets and the flow of money through market levels (mark-ups, prices). Other NDARC work examines the cost-effectiveness of law enforcement interventions at reducing drug supply. A particular challenge with supply reduction research is studying an illegal behaviour: access to information from criminal networks, global drug syndicates and high level dealers is not readily available and is ethically fraught. Like much drug policy research, markets researchers must also deal with substantial data gaps and uncertainties – which call for more advanced methods. Drug supply research also requires multi-disciplinary teams of researchers, each bringing their specific skills set to the problem. Economists, criminologists, forensic psychologists and statisticians working together on a project can provide more considered results. Although working at a multidisciplinary level can be challenging at times, I have no doubt that the contribution to knowledge will be worth the effort involved. **cl**

Community-based approaches to reducing alcohol harm: lessons from the Alcohol Action in Rural Communities (AARC) project

Anthony Shakeshaft

About the turn of the 16th century, an exasperated Galileo reminded his colleagues that the bedrock of science is measuring what can be measured and making what cannot be measured measurable. Recent examples suggest Galileo may be equally exasperated today.

The first year review of the Indigenous intervention in the Northern Territory was effectively stymied by an inability to measure its effect, poignantly summarised by the *Sydney Morning Herald*: "Without proper benchmarking, Labor's Indigenous Affairs Minister, Jenny Macklin, is finding it hard to know what has worked and what has failed." (News Review, June 21-22, 2008).

Similarly problematic has been the inability to clearly articulate whether the Commonwealth Government's increase in the alcopops tax actually reduced alcohol harms among young people[1]. No adequately reliable and valid data specific to the effect of the increase in alcopops excise on youth binge drinking (either its frequency or severity per occasion) and its associated harms were presented, despite recognition for at least 20 years that as much as two-thirds of alcohol-related harm in Australia is attributable to accidents, injuries and abuse of alcohol associated with drinking to intoxication[2,3].

A five year $2.1 million community-based project aimed at reducing drug and alcohol harm, the Alcohol Action in Rural Communities (AARC) project – funded by the Alcohol Education and Rehabilitation Foundation (AERF) – provided an ideal opportunity to improve knowledge on the most reliable and valid measures of alcohol-related harm. We applied those measures to describe alcohol harms and how they vary between communities and to devise, implement and evaluate interventions aimed at reducing the harms identified.

As we approach the end of this project there are some key lessons.

First, of the range of possible measures of alcohol-related harm, the least developed are those that utilise routinely collected data[4]. This spurred us to use those data to develop proxy measures of alcohol-related traffic accidents, hospital accident and emergency presentations, crime and hospital inpatient admissions. Recognising that these data sources represent the hard end of alcohol-related crime, we also implemented a community-based survey to more completely describe and measure the impact of alcohol across all levels in communities. We have adapted proxy measures of alcohol-related harm from routinely collected data to individual communities and used novel methods to assess their reliability. We have formulated ratio methods of data analyses in order to account for a range of underlying factors that would likely influence rates of alcohol-related harm in different communities and would otherwise confound the evaluation beyond acceptable levels.

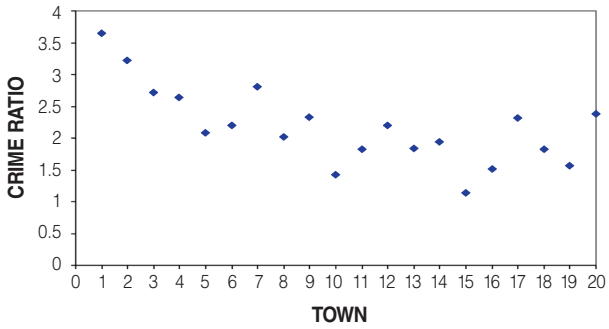
Related to improved measures is the need to improving costing methodologies. Despite excellent Australian estimates for aggregated alcohol costs, derived by applying an estimate of the proportion of crime that is related to alcohol to the total costs of committing crime, police, court and prison expenditures[5], there has been little effort on establishing per incident costs. These are calculated by apportioning costs to specific crimes committed, taking into account the likelihood of future costs arising from the crime.

There are a number of advantages of a per incident cost estimate relative to aggregate cost estimates: policy makers can establish the dollar value saved from a specific intervention that reduces the number of crimes committed; it facilitates tailoring of interventions to crimes that are most severe (and therefore most costly), rather than those that are simply more prevalent; it provides a greater understanding of the cost related to an act of crime which may assist in evaluating appropriate sentences. Despite these advantages, current per incident cost estimates in Australia only include costs involved in the act of committing the crime, such as injury and property damage, excluding subsequent costs, such as police, court and incarceration expenditure[6]. Work on AARC to date has improved these estimates, finding, for example, that the per incident cost of an assault (both those reported and unreported) is approximately $4,000.

Second, we have applied these measures and analyses techniques to each community to describe how rates of alcohol-related harm vary between them. Recent analyses, for example, show alcohol-related traffic accidents vary substantially from one community to the next, ranging from 103 alcohol-related traffic accidents to 22, for every 100 non-alcohol-related accidents. We have also applied per incident cost data to alcohol-related traffic crashes (ARTCs). This analysis is unique precisely because it accounts for the relative prevalence and costs associated with alcohol crashes of different severity. It confirms previous findings that the burden of harm imposed by ARTCs is greater in rural, compared to urban, communities: the prevalence of ARTCs is approximately 1.5 times greater while the costs are approximately four times greater[7]. In addition, however, it shows that the greater marginal difference between rural and urban communities for costs, compared to prevalence, reflects the much greater burden of harm imposed by fatal ARTCs in rural communities: both the prevalence and costs of fatal ARTCs are seven to eight times higher in rural communities[8].

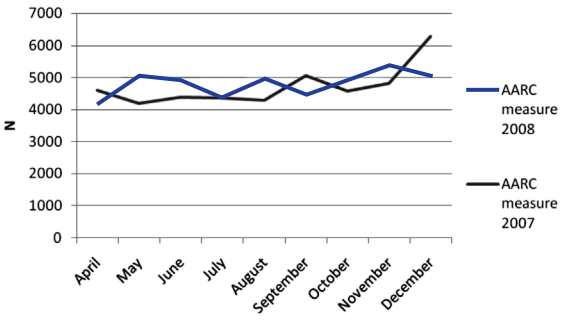
Crime ratios are similarly disparate across communities, ranging from 368 alcohol related crimes to 115 for every 100 non-alcohol related crimes (see Figure 1).

Figure 1: Ratios of alcohol-related crime across 20 rural communities in NSW



Such analyses can also be used to evaluate public policy. Applying surrogate measures modified and psychometrically tested in the AARC trial, Figure Two shows alcohol-related crime rates among young people (aged 25 years) in NSW post-introduction of the alcopops tax (April to December 2008), compared to the same period in 2007[1]. Although requiring careful statistical analysis and interpretation, this measure provides a more rigorous method for assessing the impact of public policy and community-level interventions on alcohol-related crime. With greater investment in measures research, similar indicators could be developed for a range of outcomes, including alcohol-related injuries and traffic accidents.

Figure 2: Alcohol-related crime in NSW, persons aged ≤ 25 years: pre (2007) and post (2008) the alcopops tax[1]



Third, these types of descriptive data provide clear indications for how interventions may be most effectively tailored to each community. Predictors of higher rates of alcohol-related crime are socio-economic advantage and higher per capita rates of pubs and clubs (higher numbers of GPs were also associated with higher crime rates. The reasons for this are unclear, although there is a link between high socio-economic status of a community and its ability to attract GPs to work there). The only community predictor of traffic accident was the proportion of young men (aged less than 25 years). Consequently, interventions seem most likely to optimally reduce alcohol-related crime if they comprise Commonwealth Government legislation on the price of alcohol and local government restrictions on the per capita number of pubs and clubs in a community.

Fourth, there are lessons regarding interventions. Research projects being what they are – time limited and outcome focused – required simultaneous implementation of measures and interventions. Given the practicalities of working in communities, one method of selecting interventions would be to rank strategies according to their level of evidence, from systematic reviews of randomised trials (Level I) to those supported only by expert opinion (Level V)[9]. There are three inter-related problems with this approach. First, there have been very few controlled studies evaluating the impact of community-level interventions, including the whole-of-community approach[4]. Second, it is not clear how effective interventions actually are at the community-level. For example, despite community popularity for RBT (80.7% support) and its high visibility (exposure to 89.3% of respondents in a 12 month period), alcohol-related traffic fatalities are seven times more frequent in rural NSW than in metropolitan areas[8]. In addition, even the intervention with the strongest evidence for its cost-effectiveness, GP screening and brief intervention[10-13], relates to its average impact on individual patients, rather than its impact across a community. Third, it is possible that potentially effective strategies will be resisted by communities, since acceptability ratings and current evidence do not align: compared to whole-of-community approaches, interventions with at least some evidence for their effectiveness are rated as less popular (RBT[14]), more popular (police enforcement of alcohol laws[15]) and comparable (local media[16]).

On the upside, a lack of existing evidence left us largely free to explore our own intervention options with communities. We have implemented a number of strategies to date. Twenty rural towns in NSW, with populations between approximately 8,000 and 25,000, were selected for the study. Of these, ten were selected for active interventions. They were matched with their controls on proportion of indigenous people and proportion of young people.

The active interventions have included: GP training; school based programs; targeting high risk weekends; specific interventions in emergency departments; workplace interventions and interventions in licensed premises.

Some of the interventions have been introduced at the behest of the communities and some driven by the researchers – and the outcomes are eagerly awaited.

There is much left to do in ensuring the sustainability of the process and any effective interventions, once the project ceases. We will be working hard on those aspects in the coming months. In the meantime, AARC represents a model (which in and of itself is worthy of empirical testing) for combining the skills of researchers (measures development, evaluation designs, evidence reviews), with the data from state governments (crime, traffic accidents health and others we have not explored, such as ambulance and court reports) and local expertise (implementing interventions, tailoring to their community). Clarity and honesty about which groups can do what, is essential to avoid under-selling, or over-promising what each of these groups can reasonably bring to the process.

Reviewing the project in hindsight is a dangerous occupation. Questions inevitably arise: Has the additional time invested in getting the measures right meant we have allowed insufficient time for the interventions to gain traction and achieve measurable reductions in alcohol harm? Are the interventions the best possible ones and have they been implemented in the best possible way?

Certainly with access to the data analyses we have now, the interventions would most likely be implemented in different combinations. Until we examine the outcome data in 2010 we will have to live with this uncertainty about the overall intervention effect. What is far more certain, however, is that measures based on routinely collected data and that are rigorous enough to be scientifically defensible, can be developed and utilised to examine intervention effects in real-world community settings. I can only hope the great Galileo would approve.

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Associate Professor Anthony Shakeshaft took up the position as Director Research Sax Institute in October 2009 but continues his research program at NDARC (one day a week). cl

project **notes**

Attitudes toward, knowledge of, and prevalence of illicit drug use among elite Australian athletes

Matthew Dunn, Johanna Thomas, Lucy Burns, Wendy Swift and Richard Mattick

Intense media coverage of major sporting events, and widespread reporting of athletes testing positive to banned substances, gives rise to discussions surrounding the prevalence of drug use among high-level athletes. In actuality, few athletes are detected using banned substances. Anecdotal evidence suggests that there is a high prevalence of illicit drug use among athletes; to date, no study has explored this issue. When formulating educational and policy decisions aimed towards this group, anecdotal evidence alone is insufficient.

The Federal Government, as part of their 'Illicit Drugs in Sport – National Education and Action Plan', funded NDARC to investigate a range of illicit drug related issues among elite athletes. With a specific focus upon the drugs ecstasy, methamphetamine, cocaine, cannabis, GHB and ketamine, the aims of the project were to investigate:

- Knowledge of these drugs and their effects;
- Attitudes toward drug testing in sport;
- Knowledge of support services and resources; and
- Perceptions of, and self-reported, drug use.

A convenience sample of elite athletes was invited to participate in the study. An athlete was considered 'elite' if they were eligible for state or national selection in their particular sport. Nine hundred and seventy-four athletes from Rugby League, Rugby Union, Athletics, Diving, Hockey, Netball, Softball, Triathlon and the Australian Institute of Sport participated. Three-quarters of the sample were male with an average age of 23 years; three-quarters of the sample were aged 20-29 years.

Notable key findings from the study include:

- Only 68 athletes (7% of the sample) reported the use of one of the six illicit drugs under investigation in the past year;
- One third of the sample reported having been offered or had the opportunity to use illicit drugs in the past year;
- A large proportion of the sample indicated that they were confident in their own knowledge about the effects of drugs such as cannabis, methamphetamine, ecstasy and cocaine; only one-quarter indicated that they were confident in their knowledge of drugs such as GHB and ketamine;
- Three-quarters of the sample believed that drug testing in sport is an effective way of deterring people from using drugs;
- Three-fifths of the sample believed that the punishment for being caught using a banned substance in sport was appropriately severe; and
- Three-fifths of the sample believed that there should be separate punishments for being caught using a performance-enhancing drug and for being caught using an illicit 'party' drug.

This study will continue to survey athletes from a range of sports, including Basketball, Rowing, Cycling, Surf Life Saving, Weightlifting, Sailing, Canoeing and Kayaking and Tennis, making it one of the most comprehensive studies in the world investigating illicit drug use among high-level athletes.

Child protection and mothers in substance abuse treatment study

Stephanie Taplin and Richard Mattick

Parental substance misuse has become an issue of concern to child protection agencies: when and how to intervene when children are in the care of parents who are misusing substances. Although not all substance-using parents need child protection involvement, substance use is common amongst those parents who have contact with the child protection system. Furthermore, a significant proportion of the drug treatment population are parents, and drug treatment agencies are increasingly being asked to take a more active role in assessing and intervening with families where substance misuse is a child protection concern. This study aims to increase our knowledge and understanding of these often multi-problem families and of the complex relationships between child protection and drug treatment agencies.

The study involves the recruitment of 200 women who are in opioid pharmacological treatment in NSW who have a child under the age of 16 years. Women are asked to complete a one-off face-to-face interview about their own histories, and their involvement with both drug treatment and child protection services. Information is primarily collected via interview, but their consent is also sought to access their drug treatment and child protection records (where relevant). Key informant interviews are being conducted with service providers to obtain background information about the way agencies are working in this area.

Research participants are being recruited from ten opioid treatment clinics in the greater Sydney area. Women have responded favourably to the study with more than half the interviews completed already. Data collection is expected to be completed by early 2010.

This is a three year study funded by NSW Department of Community Services and University of NSW (concluding March 2011).

The integration of screening and brief intervention for alcohol into Aboriginal Community Controlled Health Services in NSW

Anton Clifford, Anthony Shakeshaft and Catherine Deans

Alcohol misuse has a disproportionately high negative impact on Indigenous Australians. There is strong evidence from the non-Indigenous population that alcohol screening and brief intervention (SBI) is an effective treatment for alcohol misuse. The effectiveness of alcohol SBI for Indigenous Australian communities should therefore be determined. However, difficulties associated with the implementation of alcohol SBI into Indigenous-specific healthcare services will first need to be overcome.

The aim of this project is to implement evidence-based alcohol SBI in four rural and one regional Aboriginal Community Controlled Health Service (ACCHS) in NSW, demonstrating the level of tailoring to individual services required to optimise the likelihood of successful integration. The project comprises three key stages.

Stage one examined healthcare providers' current practices in and perceptions of alcohol SBI delivery. A preliminary audit of clinical records in ACCHSs with a clinical team (n=4) indicated that rates of recorded alcohol screening ranged from 2% to 13% in electronic records and from <1% to 13% in paper-based records. Recorded intervention rates ranged from <1% to 5% in electronic records and from <1% to 7% in paper-based records. Rates of Aboriginal and Torres Strait Islander Adult Health Check delivery, of which alcohol screening is mandatory, ranged from 3% to 22% across ACCHSs. Group interviews with healthcare providers across all ACCHSs (n=5) identified four prominent factors influencing alcohol SBI delivery. Two factors, low outcome expectancy and role congruence, were consistent with factors identified in mainstream healthcare settings. Conversely, two other factors, availability of referral pathways and the utilisation of clinical systems and processes, were less prominent in mainstream healthcare settings.

Stage two developed and implemented a multi-component intervention to improve the uptake of evidence-based alcohol SBI in each ACCHSs. Intervention components included training and resource provision to healthcare providers, outreach support to integrate evidence-based alcohol SBI into clinical systems and processes, audit and feedback, and social networking to strengthen local referral pathways. The process of intervention implementation involved working with clinical team leaders to tailor intervention components for implementation in their specific clinical setting.

Stage three will evaluate the effect of the multi-component intervention on rates of alcohol SBI delivery in each ACCHS.

Review of Australian illicit drug policy coordination against established principles of good governance

Caitlin Hughes and Michael Lodge

Since the adoption of the National Campaign Against Drug Abuse in 1985, coordination has been one of the key mechanisms for delivering effective drug policies in Australia. Responding to drug use and its attendant harms requires complex, inter-governmental, inter-departmental and inter-sectoral responses. It requires solutions that involve multiple stakeholders: Federal, state, territory and local governments; diverse sectors, particularly health, law enforcement and education; government and non-government service providers and the involvement of business, industry, the media, research institutions, local communities and individuals.

This study provides a new approach to looking at coordination, through the lens of "good governance". Such an approach was adopted both due to the absence of any specific theories or frameworks on coordination, and because of the strong links between coordination and governance.

The most common are the set of eight principles that have been put forward by United Nations organisations, which assert that good governance should be participatory, consensus-oriented, accountable, transparent, responsive, equitable and inclusive, effective and efficient and follow the rule of law (United Nations Development Programme (UNDP), 1997; United Nations Economic and Social Commission for Asia and the Pacific, 2007).

The Good Governance principles have been adopted in various guises by Australian public service agencies and corporations, we have argued that Australian illicit drug policy (and Australian illicit drug policy coordination in particular) should also seek to follow good governance principles. This means that processes and structures of Australian illicit drug policy coordination should seek to be consistent with and assessed against their ability to attain the set of eight good governance principles as noted above.

This study sought to:

1. Identify the importance of the principles of good governance for the coordination of Australian illicit drug policy
2. Examine the extent to which current structures/processes of coordination are consistent with good governance principles
3. Document changes in the coordination of Australian illicit drug policy since the adoption of the National Campaign Against Drug Abuse in terms of compliance with the good governance principles.

This project reviewed Australian illicit drug policy coordination against established principles of good governance. This was undertaken using two methods. First, we devised a survey to quantify the perceived importance and perceived application of the principles to Australian illicit drug policy coordination. The survey utilised 3–6 criteria that related to each principle. Second, we analysed the national drug strategy evaluations and reviews produced between 1985 and 2009 in terms of the relationship between the perceived strengths, weaknesses and changes in illicit drug policy coordination and their fit with the good governance principles.

The survey was sent to a total of 106 stakeholders involved in the National Drug Strategy (NDS). We received 36 completed surveys. Across the set of good governance principles every respondent asserted that the good governance principles were important for National Drug Strategy coordination. Moreover, 85% stakeholders reported that the good governance principles were either very or extremely important for Australian illicit drug policy coordination. On average, stakeholders viewed accountability and participation as the most important principles for NDS coordination.

Documentary analysis of the identified strengths, weaknesses and shifts in national illicit drug policy coordination suggested that compliance with good governance principles increased between 1985 and 2009. **cl**

abstracts

Mortality among clients of a state-wide opioid pharmacotherapy program over 20 years: Risk factors and lives saved

Drug and Alcohol Dependence, 105, 9-15

Louisa Degenhardt, Deborah Randall, Wayne Hall, Matthew Law, Tony Butler and Lucy Burns

Background: The small size of previous studies of mortality in opioid dependent people has prevented an assessment of the extent to which elevated mortality risks are consistent across time, clinical and/or patient groups. The current study examines reductions in mortality related to treatment in an entire population.

Methods: Data from the New South Wales (NSW) Pharmaceutical Drugs of Addiction System, recording every "authority to dispense" methadone or buprenorphine as opioid replacement therapy, 1985–2006, was linked with data from the National Deaths Index, a record of all deaths in Australia. Crude mortality rates and standardised mortality ratios were calculated according to age, sex, calendar year, period in- or out-of-treatment, medication type, previous treatment exposure and cause of death.

Results: Mortality among 42,676 people entering opioid pharmacotherapy was elevated compared to age and sex peers. Drug overdose and trauma were the major contributors. Mortality was higher out of treatment, particularly during the first weeks, and it was elevated during induction onto methadone but not buprenorphine. Mortality during these risky periods changed across time and treatment episodes. Overall, mortality was similarly reduced (compared to out-of-treatment) whether patients were receiving methadone or buprenorphine. It was estimated that the program produced a 29% reduction in mortality across the entire cohort.

Conclusions: Mortality among treatment-seeking opioid-dependent persons is dynamic across time, patient and treatment variables. The comparative reduction in mortality during buprenorphine induction may be offset by the increased risk of longer out-of-treatment time periods. Despite periods of elevated risk, this large-scale provision of pharmacotherapy is estimated to have resulted in significant reductions in mortality.

Methylenedioxy methamphetamine (MDMA)-related fatalities in Australia: Demographics, circumstances, toxicology and major organ pathology

Drug and Alcohol Dependence, 104, 254-261

Sharlene Kaye, Shane Darke and Johan Duflou

Aim: To examine the demographic characteristics, circumstances, toxicology and major organ pathology of MDMA-related deaths in Australia.

Methods: Retrospective review of cases in which MDMA was a cause of death, as identified from the National Coronial Information System.

Results: 82 cases over a 5-year period were identified. The majority of decedents were male (83%), with a median age of 26 years. Deaths were predominantly due to drug toxicity (82%), with MDMA the sole drug causing death in 23% of cases, and combined drug toxicity in 59% of cases. The remaining deaths (18%) were primarily due to pathological events/disease or injury, with MDMA a significant contributing condition. Cardiovascular pathology, typically atherosclerosis, was detected in 58% of decedents, with moderate-severe atherosclerosis in 23% of cases. The prevalence of such pathology is higher than that expected among similarly aged members of the general population. Cerebrovascular pathology, primarily cerebral haemorrhage and hypoxic damage, was present in 12% of cases.

Conclusions: MDMA has contributed to a clinically significant number of deaths in Australia. The prevalence of cardiovascular pathology was similar to that among methamphetamine and cocaine fatalities. Whilst cardiovascular pathology may reflect the use of other stimulants, the cardiotoxic properties of MDMA have been well-documented. Future studies examining MDMA-related morbidity and mortality in the context of other risk factors are recommended. Overall, the current study highlights the need to educate users about the potential harms of MDMA use, particularly that in conjunction with other stimulants, opioids and alcohol, which are known to increase overall toxicity.

Cannabis use disorder: Epidemiology and management

International Review of Psychiatry, 21 (2), 96-103

Jan Copeland and Wendy Swift

This paper provides an overview of the epidemiology of cannabis use, cannabis use disorders and its treatment. Cannabis is the most commonly used illicit drug internationally. While use is decreasing in the developed world, it appears to be stable or increasing in developing countries and some indigenous communities. Early initiation and regular adolescent use have been identified as particular risk factors for later problematic cannabis (and other drug) use, impaired mental health, delinquency, lower educational achievement, risky sexual behaviour and criminal offending in a range of studies. It is estimated that approximately one in ten people who had ever used cannabis will become dependent with risk increasing markedly with frequency of use. There has been an increase in the proportion of treatment provided for cannabis use. There are as yet no evidence-based pharmacotherapies available for the management of cannabis withdrawal and craving. Relatively brief cognitive behavioural therapy and contingency management have the strongest evidence of success, and structured, family-based interventions, provide potent treatment options for adolescents. With criminally involved young people and those with severe, persistent mental illness, longer and more intensive therapies provided by interdisciplinary teams may be required.

A double-blind, placebo-controlled trial of modafinil (200 mg/day) for methamphetamine dependence

Addiction, 104, 224-233

James Shearer, Shane Darke, Craig Rodgers, Tim Slade, Ingrid van Beek, John Lewis, Donna Brady, Rebecca McKetin, Richard P. Mattick and Alex Wodak

Aim: To examine the safety and efficacy of modafinil (200 mg/day) compared to placebo in the treatment of methamphetamine dependence and to examine predictors of post-treatment outcome.

Participants and Design: Eighty methamphetamine-dependent subjects in Sydney, Australia were allocated randomly to modafinil (200 mg/day) (n = 38) or placebo (n = 42) under double-blind conditions for 10 weeks with a further 12 weeks post- treatment follow-up.

Measures: Comprehensive drug use data (urine specimens and self-report) and other health and psychosocial data were collected weekly during treatment and research interviews at baseline, week 10 and week 22.

Results: Treatment retention and medication adherence were equivalent between groups. There were no differences in methamphetamine abstinence, craving or severity of dependence. Medication-compliant subjects tended to provide more methamphetamine-negative urine samples over the 10-week treatment period (P = 0.07). Outcomes were better for methamphetamine-dependent subjects with no other substance dependence and those who accessed counselling. There were statistically significant reductions in systolic blood pressure (P = 0.03) and weight gain (P = 0.05) in modafinil-compliant subjects compared to placebo. There were no medication-related serious adverse events. Adverse events were generally mild and consistent with known pharmacological effects.

Conclusions: Modafinil demonstrated promise in reducing methamphetamine use in selected methamphetamine-dependent patients. The study findings support definitive trials of modafinil in larger multi-site trials.

A Literature Review of International Implementation of Opioid Substitution Treatment in Prisons: Equivalence of Care?

Eur Addict Res,15, 107-112

Sarah Larney and Kate Dolan

Background/Aims: Opioid substitution treatment (OST) is an effective treatment for heroin dependence. The World Health Organisation has recommended that OST be implemented in prisons because of its role in reducing drug injection and associated problems such as HIV transmission. The aim of this paper was to examine the extent to which OST has been implemented in prisons internationally.

Methods: Literature review.

Results: As of January 2008, OST had been implemented in prisons in at least 29 countries or territories. For 20 of those countries, the proportion of all prisoners in OST could be calculated, with results ranging from less than 1% to over 14%. At least 37 countries offer OST in community settings, but not prisons.

Conclusion: This study has identified an increase in the international implementation of OST in prisons. However, there remain large numbers of prisoners who are unable to access OST, even in countries that provide such programs. This raises issues of equivalence of care for prisoners and HIV prevention in prisons.

The ageing heroin user: Career length, clinical profile and outcomes across 36 months

Drug and Alcohol Review, 28, 243-249

Shane Darke, Katherine Mills, Joanne Ross, Anna Williamson, Alys Havard and Maree Teesson

Introduction and Aims: The study examined the relationships between length of career (LOC), clinical presentation and outcomes across 36 months among a cohort of 615 heroin users.

Design and Methods: Longitudinal cohort study.

Results: At baseline, each additional year of heroin use was associated with increased likelihood of: being male, exposure to treatment, having been imprisoned, daily injecting, lifetime and recent polydrug use, having overdosed, poorer physical health and reduced likelihood of heroin smoking. In contrast, LOC was not related to frequency of heroin use, current polydrug use, recent heroin overdose, recent imprisonment, recent criminality or psychopathology. There were also no associations between LOC and outcomes across 36 months in terms of treatment, drug use, crime, severe psychiatric disability or major depression. Longer LOC was associated across 36 months, however, with daily injecting, poorer physical health, severe physical disability and poorer mental health.

Discussion and Conclusions: The data point to the maintenance of heroin-related harms well into the third decade of use

Child maltreatment as a risk factor for opioid dependence: Comparison of family characteristics and type and severity of child maltreatment with a matched control group

Child Abuse & Neglect, 33, 343-352

Elizabeth Conroy, Louisa Degenhardt, Richard P. Mattick and Elliot C. Nelson

Objective: To examine the prevalence, characteristics and risk factors for child maltreatment among opioid-dependent persons compared to a community sample of similar social disadvantage.

Method: The study employed a case-control design. Cases had a history of opioid pharmacotherapy. Controls were frequency matched to cases with regard to age, sex and unemployment and were restricted to those with a lifetime opioid use of less than five times. The interview covered child maltreatment, family environment, drug use and psychiatrichistory.

Results: This study found a high prevalence of child maltreatment among both cases and controls. Despite the elevated prevalence among controls, opioid-dependent males had a higher prevalence of physical and emotional abuse; female cases had a higher prevalence and greater severity of sexual abuse. The prevalence of neglect was similar for both groups. Early parental separation was more prevalent among female cases compared to female controls; otherwise the prevalence of the risk factors was comparable for both groups. The risk factors significantly associated with child maltreatment were also similar for both cases and controls.

Conclusions: Given the documented association between child maltreatment and adult mental disorder, child maltreatment may be an important antecedent of current psychological distress in persons presenting to treatment for opioid dependence. Apart from a possible association between early parental separation and sexual abuse among female cases, the increased prevalence of child maltreatment associated with opioid dependence did not appear to be related to differences in early childhood risk factors considered in this paper. Other risk factors may be more pertinent for those with opioid dependence.

Practice implications: The high prevalence of child maltreatment among the opioid dependent sample has implications for the assessment and treatment of clients presenting with opioid dependence. Assessment of child maltreatment history could help inform the development of individual treatment plans to better address those factors contributing to the development and maintenance of opioid dependence. Specifically, management of comorbid mental disorder associated with child maltreatment could be the focus of relapse prevention programmes and also have a positive influence on treatment retention.

A systematic review of work-place interventions for alcohol-related problems

Addiction, 104, 365-377

Gloria Webb, Anthony Shakeshaft, Rob Sanson-Fisher and Alys Havard

Aims: The aims of this study were to (1) gauge any improvement in methodological quality of work-place interventions addressing alcohol problems; and (2) to determine which interventions most effectively reduce work-place-related alcohol problems.

Methods: A literature search was undertaken of the data bases, Ovid Medline,PsychINFO, Web of Science, Scopus, HSELINE, OSHLINE and NIOSHTIC-2 for papers published between January 1995 and September 2007 (inclusive). Search terms varied, depending on the database. Papers were included for analysis if they reported on interventions conducted at work-places with the aim of reducing alcohol problems. Methodological adequacy of the studies was assessed using a method derived from the Cochrane Collaboration guidelines.

Results: Ten papers reporting on work-place alcohol interventions were located. Only four studies employed randomised controlled trials (RCT), but all these had methodological problems. Weaknesses in all studies related to representativeness of samples, consent and participation rates, blinding, post-test time-frames, contamination and reliability, and validity of measures used. All except one study reported statistically significant differences in measures such as reduced alcohol consumption, binge drinking and alcohol problems.

Conclusions: The literature review revealed few methodologically adequate studies of work-place alcohol interventions. Study designs, types of interventions, measures employed and types of work-places varied considerably, making comparison of results difficult. However, it appears from the evidence that brief interventions, interventions contained within health and life-style checks, psychosocial skills training and peer referral have potential to produce beneficial results.

Adverse health effects of non-medical cannabis use

The Lancet, 374, 1383-1391

Wayne Hall and Louisa Degenhardt

Review: For over two decades, cannabis, commonly known as marijuana, has been the most widely used illicit drug by young people in high-income countries, and has recently become popular on a global scale. Epidemiological research during the past 10 years suggests that regular use of cannabis during adolescence and into adulthood can have adverse effects. Epidemiological, clinical, and laboratory studies have established an association between cannabis use and adverse outcomes. We focus on adverse health effects of greatest potential public health interest – that is, those that are most likely to occur and to affect a large number of cannabis users. The most probable adverse effects include a dependence syndrome, increased risk of motor vehicle crashes, impaired respiratory function, cardiovascular disease, and adverse effects of regular use on adolescent psychosocial development and mental health.

Comorbidity in Australia: findings of the 2007 National Survey of Mental Health and Wellbeing

Australian and New Zealand Journal of Psychiatry, 43, 606-614

Maree Teesson, Tim Slade and Katherine Mills

Objective: The aim of the present study was to report the prevalence and patterns of 12 month comorbidity in the 2007 National Survey of Mental Health and Wellbeing (2007 NSMHWB). In this paper the comorbidity between common mental disorders (affective, substance use and anxiety) and between physical and mental disorders is examined.

Method: The 2007 NSMHWB was a nationally representative household survey of 8841 Australian adults (16–85 years) that assessed participants for symptoms of the most prevalent ICD-10 mental disorders.

Results: The common mental disorder classes (affective, anxiety and substance use disorders) often occur together and 25.4% of persons with an anxiety, affective or substance use disorder had at least one other class of mental disorder. A small proportion (3.5%, 95% confidence interval (CI)_2.3_4.7%) had all three classes of disorder.

Mental disorder and physical disorder comorbidity was also common, with 28% (95%CI_25.1_30.9%) of those with a chronic physical disorder also having a mental disorder. Comorbidity was associated with greater severity and greater health service use.

Conclusions: Comorbidity is widespread and remains a significant challenge for the delivery of effective health-care services and treatment.

How do drug policy makers access research evidence?

International Journal of Drug Policy, 20, 70-75

Alison Ritter

Background: Policy decisions are informed by a number of factors: politics, ideology and values, perceived public opinion, and pragmatic constraints such as funding. Research evidence is also used to inform decision-making but must compete with these other inputs. Understanding how policy makers access research evidence may assist in encouraging greater use of this evidence. This study examined the sources of research evidence that Australian government drug policy makers accessed when faced with their most recent decision-making opportunity.

Method: Drug policy makers across health and police government portfolios were interviewed (n = 31) and asked to report on the sources of research evidence used in their most recent decision-making.

Results: Nine sources were reported, the most frequent of which were seeking advice from an expert and consulting technical reports.

Accessing the internet, using statistical data and consulting policy makers in other jurisdictions were used in about half the cases. The least frequently used sources were academic literature, relying on internal expertise, policy documents and employing a consultant.

Conclusion: There is a tension between the type of information source most suited to policy makers – simple, single-message, summative and accessible – and the types of information produced and valued by researchers – largely academic publications that are nuanced and complex. Researchers need to consider the sources that policy makers use if they wish their research to be utilised as one part of policy making.

GHB in Sydney Australia, 2000–2006: A Case study of the EDRS as a strategic early warning system

International Journal of Drug Policy, 413-417

Matthew Dunn, Libby Topp and Louisa Degenhardt

Background: This paper documents the operation of Australia's Ecstasy and Related Drugs Reporting System (EDRS), using multiple data sources to document trends in gamma-hydroxybutyrate (GHB) use in Sydney, Australia between the years 2000-2006.

Method: The EDRS monitors trends in ecstasy and related drug markets by means of a triangulation of data from interviews with regular ecstasy users (REU), surveys with key experts (KE), and analysis of secondary indicator data sources.

Results: The proportion of REU reporting lifetime GHB use increased from 5% in 2000 to 40% in 2006 and the proportion reporting recent use increased from 1% in 2000 to 21% in 2006. KE reports suggest GHB use may be a concern amongst specific drug user subcultures. REU and KE data suggest a change in the locations in which GHB is used, with a shift from dance venues and events to private homes and parties. There is a lack of indicator data from both health and law enforcement data collection systems concerning GHB.

Conclusions: The EDRS has effectively monitored the increase in GHB amongst REU over the past seven years in Sydney, Australia. This increase is unlikely to have been as readily identified by other surveillance systems.

CLIMATE Schools: alcohol module: cross validation of a school-based prevention programme for alcohol misuse

Australian and New Zealand Journal of Psychiatry, 43, 201-207

Nicola C. Newton, Laura E. Vogl, Maree Teesson and Gavin Andrews

Objective: The aim of the present study was to conduct a cross-validation trial of the efficacy of a computerised school-based intervention for alcohol misuse in adolescents.

Method: A cluster randomised control trial was carried out. Intervention and control groups were assessed at baseline, immediately after and 6 months after the intervention. A total of 764 Year 8 students from 10 independent secondary schools in Sydney, Australia participated in the study. Half of the schools were randomly allocated to the computerised prevention programme (n_397), and half to their usual classes (n_367). The six-lesson computerised intervention was evidence and curriculum based while having a focus on harm-minimisation. Knowledge, expectancies, alcohol consumption (frequency, quantity and binging), patterns of use, and harms associated with one's own use of alcohol were assessed.

Results: There were significant improvements in knowledge regarding alcohol use at immediate and 6 month follow up. Average weekly alcohol consumption was reduced immediately after the intervention. No differences between groups were found on alcohol expectancies, frequency of drinking to excess and harms related to alcohol use over time.

Conclusions: The present results support the Clinical Management and Treatment Education (CLIMATE) Schools: alcohol module as an effective intervention in increasing alcohol knowledge and reducing alcohol use in the short term.

Drugs and violent death: comparative toxicology of homicide and non-substance toxicity suicide victims

Addiction, 104, 1000-1005

Shane Darke, Johan Duflou and Michelle Torok

Aims: To determine the comparative toxicology of death by homicide and suicide by means other than substance toxicity.

Design: Cross-sectional (autopsy reports).

Setting: Sydney, Australia.

Cases: A total of 1723 cases of violent death were identified, comprising 478 homicide (HOM) cases and 1245 non-substance toxicity suicide (SUI) cases.

Findings: Substances were detected in 65.5% of cases, and multiple substances in 25.8%, with no group differences. Illicit drugs were detected in 23.9% of cases, and multiple illicit in 5.3%. HOM cases were significantly more likely to have an illicit drug [odds ratio (OR) 2.09] and multiple illicits (OR 2.94), detected, HOM cases being more likely to have cannabis (OR 2.39), opioids (OR 1.53) and psychostimulants (OR 1.59) present. HOM cases were, however, significantly less likely to have benzodiazepines (OR 0.53), antidepressants (OR 0.22) and antipsychotics (OR 0.23) present. Alcohol was present in 39.6% of cases (median blood alcohol concentration =0.12), with no group difference in prevalence.

Conclusions: The role drugs play in premature death extends far beyond overdose and disease, with illicit drugs associated strongly with homicide. **cl**

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For more information or for copies of the report please go the NDARC website.

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staff list

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Louisa Degenhardt – Assistant Director, Professor
Chris Doran (from 2nd Nov) – Assistant Director, Associate Professor
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Katherine Conigrave – Associate Professor
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Johan Duflou – Associate Professor
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Visiting Appointments

Robert Ali – Associate Professor

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