

# centre lines

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## issuing **forth**

Alcohol use disorders:  
Who should be treated and how?

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## contents

### edspace ..... 1

Paul Dillon introduces *CentreLines*

### headspace ..... 2

Jan Copeland and Richard Mattick  
give us an update on NDARC's  
Strategic Planning process

### issuing **forth** ..... 2

In this month's *Issuing Forth*,  
Maree Teesson and colleagues  
provide a review discussing which  
Australians have problems with  
alcohol and what help is available

### project notes ..... 4

Structural determinants of youth  
drug abuse  
Hepatitis C Understanding Project

### abstracts ..... 5

Summaries of recently published  
articles

### recent **publications** ..... 7

### staff **list** ..... 8

## edspace

Over the past few years NDARC has conducted a number of important research projects examining party drugs. In 1997 we conducted the first national study examining ecstasy use, and since then we have examined the patterns of use and harms associated with the newer drugs such as ketamine, GHB and crystal meth (methamphetamine).

In November the preliminary results of the first Party Drugs Initiative (PDI) were presented at the National Drugs Trends Conference. The PDI is a national study funded by the National Drug Law Enforcement Research Fund (NDLERF) and coordinated by NDARC to monitor party drug markets in Australia. The study covered a range of drugs including ecstasy, methamphetamine, cocaine, GHB and ketamine. The Party Drugs Initiative uses a similar methodology to the Illicit Drug Reporting System (IDRS). Regular ecstasy users are interviewed as they were identified as a group of party drug users that are able to provide the required information on patterns of party drug use, the current availability, price and purity of party drugs and perceived drug-related health issues associated with party drug use. A semi-structured survey of experts in the field of party drugs (e.g. party promoters, treatment providers, law enforcement personnel) is also conducted and indicator data (e.g. purity of drug seizures and overdose rates) is analysed. These data sources are examined together to identify convergent trends in party drug use and markets.

In April of next year NDARC and the Liverpool John Moores University from the UK are proud to co-host Club Health 2004, the Third International Conference on Nightlife, Substance Use and Related Health Issues, which will be held in Melbourne at the Exhibition and Convention Centre. Previous Club Health Conferences have been held in the Netherlands and Italy and have provided a forum for the promotion of good practice and exchange of information on nightlife issues at an international level. Club Health will be followed directly by the 15th International Conference on the Reduction of Drug Related Harm.

The nightlife health area is one that is beginning to attract greater attention and improved funding. Club Health 2004 offers a unique opportunity for individuals from around the world with an interest in nightlife health to discuss and develop strategies, interventions and research relating to health in the night time environment. This conference is not only for researchers in the alcohol and other drug field. In the past it has attracted delegates from a wide range of areas including sexual health, public health, legislation and policing, transport and environmental health. In addition to this we are seeking involvement from nightclub owners and event promoters and of course people that are involved in the nightlife scene.

If you want further information on the conference please go to the website [www.clubhealth.org.uk](http://www.clubhealth.org.uk). We look forward to seeing you there.

**Paul Dillon**  
Editor

*CentreLines is a joint publication from the National Drug and Alcohol Research Centre, Sydney and the National Drug Research Institute, Perth. It is published bi-monthly and produced alternately by each Centre.*

## NDARC Strategic Planning

**Jan Copeland and  
Richard Mattick**

Our Centre is currently engaged in an important aspect of our organisational life – strategic planning. When conducted well, strategic planning is flexible and oriented towards the “big picture”. It should also align the organisation with its environment, establish a context for accomplishing goals, and provide a framework and direction to achieve the organisation's desired future. To date, our strategic plan has performed well and following the recent review of the Centre for the Australian Government Department of Health and Ageing, we were very pleased to see that our performance is generally well regarded. This indicates that a major shift in direction is not desirable, however, the importance of strategic planning was emphasised in the review findings.

As our current Strategic Plan reaches the end of its life and the next *National Drug Strategic Framework* is under development it is an appropriate time to reflect on our past and plan strategically for our future. One of the many advantages of being placed at the University of New South Wales (UNSW) is access to the expertise of the Staff Development Unit. Following discussions with that Unit we are able to participate in a wider UNSW process of developing a training program for strategic and operational planning for research centres at the University. In this program, NDARC will be utilised as a template for strategic planning for a large research centre. This training will be conducted by Mr Peter Kaye from Larkin & Kaye Consulting Services who we have engaged as our strategic planning facilitator. Peter is an economist and an expert on planning and corporate governance who has worked with government, private and not-for-profit organisations in many countries.

We are currently about half way through our strategic planning process. The first stage was to form a Strategic Planning Committee, chaired by Jan Copeland who proposed the model for our strategic planning activities with Peter Kaye. The Chair of our Board of Management, (Hon) Kevin Rozzoli also sits on this committee. In the past we have developed our strategic plan from a one-day internal workshop with a UNSW staff member as facilitator. Those plans focussed more on the business planning of indicative projects related to our goals than to revisiting our mission and goals per se or to thinking strategically about overarching concepts such as values. This time we are re-examining our mission statements, the arising goals and introducing the concept of values with

definitions and performance indicators. Following this process our business or work plan for 2004-5 will be developed including the indicative projects that best serve the strategic plan. While this is a new process the core features of our emergent model of strategic planning will remain.

Following the formation of the planning committee the next stage of the process was to survey the staff for their views. This survey asked the questions: Is there a policy or operating practice that you would like to see changed or introduced that would further enhance your ability to make a contribution to the centre's strategic goals? What should we do more of? Less of? Start doing? Stop doing? and is there a change in research direction/area that would further strengthen the centre's ability to respond to the needs of the community with regard to substance use related problems? This survey yielded some interesting results that were incorporated into an issues paper that was the platform for the next stage of the process.

Given the size of our staffing we believed it would be best if we have a full day internal workshop with all academic and general staff and this was held at the Police and Justice Museum at Circular Quay in November. The venue was a great success, not only because of the location and catering but also because they are currently holding an exhibition on the *Social History of Drugs* that Paul Dillon helped curate. This meant that the staff were able to tour the exhibition in the lunch break and to see our work in a wider historical context. The conclusions of this day formed the basis of a draft values document, with definitions and indicators, that related to corporate governance issues and were further refined on the further planning day on December 2nd.

This second day was attended by members of our Board of Management, our funding body represented by Assistant Secretary Jennifer

Hefford, who provided us with an overview of the next National Drug Strategic Framework, conjoint appointees, honorary fellows and the NDARC research committee. This day was also held at the Police and Justice Museum and was a great success. Peter guided us in further developing our mission, goals and values and everyone had an opportunity to identify indicative projects that will inform the next NDARC workplan. The organisational values we have identified at this stage of the process are collaboration, sharing, innovation, integrity, ongoing learning and fiscal responsibility.

In addition to these consultative and collaborative processes to date Kevin Rozzoli has also written to advise our key stakeholders in the community of our strategic planning processes and that Peter Kaye will be contacting them for their input. Our website will also announce the stages of our planning and invite community comment. We anticipate that the draft plan will be available in early February and will be posted on the ADCA bulletin board *Update* and a link established on our website to invite further comment. Following this final round of consultation the NDARC Strategic Plan will be finalised in April 2004. Should you wish to make a contribution at this stage please email Jan on J.Copeland@unsw.edu.au. We would like to thank everyone involved in our planning to this point and look forward to working with you in the future. As noted earlier, we do not anticipate any marked change to our strategic directions as these have served us well to date. We may see a slight broadening of our agenda, as reflected in our review, undertaken by the Australian Government Department of Health and Ageing. This broadening will include a larger range of interventions and some small investment in the area of prevention. We also look forward to working together with our collaborating Centres and the other National Centres in this process. **cl**

## issuing forth

### Alcohol use disorders: Who should be treated and how?

**Maree Teesson, Anthony  
Shakeshaft and Richard Mattick**

#### The challenge

Problems associated with alcohol use are among the more prevalent problems identified in community health surveys, yet only a small proportion of persons with alcohol use disorders seek or receive treatment. Although it is

tempting to assume that these problems are under-treated, treatment may not always be appropriate since approximately half of the disorders detected in population surveys will remit without formal treatment. If not everyone with an alcohol use disorder needs treatment, how should we deploy limited treatment resources to produce the greatest reduction in alcohol-related harm?

- **Public education** about the risks of alcohol use may prevent and ameliorate the significant public health consequences of the prevalent, milder problems with alcohol.

- **Prevention initiatives and education** about self-help strategies for quitting or cutting down may obviate the need for professional assistance.

- Those whose problems resist self-help need more effective forms of **treatment**, more efficiently delivered than is often the case at present. Treatment services appear to routinely provide the most expensive, intensive and least effective forms of intervention to persons who present with alcohol use disorders. Better triage would ensure a more rational use of scarce treatment resources.

- Given the high rates of **comorbidity** between alcohol use, anxiety and affective disorders the treatment of persons with comorbid mental and alcohol use disorders needs to be improved.

In this *Headspace* we provide a review on which Australians have problems with alcohol and what help is available.

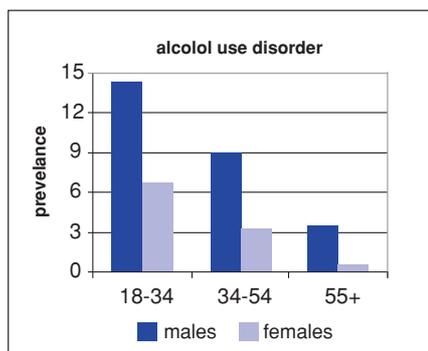
### Who has problems with alcohol in Australia?

Managing scarce treatment resources for problems associated with alcohol use requires a balance between the provision of expensive clinical interventions for alcohol dependent persons who seek treatment on the one hand, and expenditure on public health strategies that aim to reduce alcohol consumption, alcohol-related problems, and the risks of developing other physical and mental disorders on the other. The management of alcohol use disorders should be informed by an understanding of the epidemiology of alcohol use and its associated disorders in the population.

Recent Australian research using standardised interviews to estimate the proportion of persons with alcohol use disorders in a random sample of the community has challenged the optimistic assumption that alcohol use disorders are rare, and the pessimistic assumption that their outcome is always poor<sup>1</sup>.

The majority of Australian adults (83% of males and 63% of females) reported that they had consumed at least 12 drinks of alcohol in the preceding year. One in fifteen (6.5%) had an alcohol use disorder in the past 12 months. Three percent met criteria for harmful use (4.3% of males and 1.8% of females) and 3.5% met criteria for alcohol dependence (5.2% of males and 1.8% of females). More males than females had an alcohol use disorder within the past 12 months (9.4% versus 3.7% respectively). The prevalence of alcohol use disorders decreases steadily with increasing age: it was highest among 18-34 year olds (10.6%) and lowest among those over 55 years (4.4%). The linear decrease was similar for both harmful use and dependence in both males and females. Indeed, the prevalence of dependence was highest among 18-24 year old males at 14% and declined linearly to 1.3% among males over 65 years<sup>2</sup>.

**Figure 2.1: Prevalence (%) of alcohol use disorders by age and gender in Australia**



The low rates of treatment among persons with alcohol use disorders in population studies seem to suggest that we should be more active in finding and treating persons with such disorders in the community. This may not, necessarily be so. Since a substantial proportion of these disorders are likely to remit in the absence of professional help, it would be inefficient to use scarce clinical resources to deal with time-limited and minimally disabling disorders. The attempt to identify and treat all alcohol use disorders in the community may also medicalise behaviour that is better modified in other ways.

### Public education about alcohol

A major development in the conceptualisation of alcohol use disorders and alcohol related health problems has been the development of a public health perspective on alcohol use. The public health approach emphasises the characteristics of the physical and social environment which encourage hazardous drinking, such as the advertising and promotion of alcohol, and the ready availability of alcohol at low prices<sup>3,4</sup>.

An important policy consequence of the public health perspective is that the prevalence of alcohol-related problems in the community can be reduced by reducing the alcohol consumption of the population<sup>5</sup>. Among the measures proposed for decreasing alcohol consumption are: laws and regulations which aim to reduce the availability of alcohol; measures which increase the price of alcohol to reduce consumption; and regulations to control the promotion of alcohol<sup>3,4</sup>.

The lack of popular and political support for policies that increase the price of alcohol or reduce its availability<sup>6</sup> has encouraged a search for other approaches to reduce the public health impact of alcohol use. Foremost among these has been the public education of drinkers about the risks of alcohol use. In Australia, guidelines about the maximum number of standard drinks that can be legally consumed before driving, in combination with random breath testing, has reduced overall road fatalities and the proportion of fatalities in which the driver had a blood alcohol level above the prescribed level (0.05%)<sup>7</sup>. These campaigns enjoy widespread public support and have probably also reduced alcohol consumption by providing a reason for drinkers to moderate their consumption<sup>7</sup>.

More attention needs to be paid to explaining the risks of drinking, developing alcohol dependence from heavy drinking, binge drinking, and drinking to relieve withdrawal symptoms and hangovers.

### Screening and brief intervention for hazardous drinkers

Persons who present for medical treatment can be screened for hazardous alcohol use and alcohol-related problems. Those identified as drinking at hazardous levels can be advised to reduce or stop consumption, and given simple ways to achieve these goals<sup>8</sup>. Research has shown that screening and brief advice for excessive alcohol consumption in general practice and hospital settings reduces consumption and the problems caused by alcohol<sup>9</sup>. Given the economic costs of conventional alcohol treatment, there is a good economic argument for brief intervention. Brief methods of intervention can also reach a far greater number of persons whose drinking is hazardous or harmful, than specialist alcohol treatment services could ever do.

### The role of specialist addiction treatment

Since self-help and brief interventions will not always suffice there will always be a role for specialist treatment for alcohol use disorders. But evidence from controlled evaluations suggests that the form of treatment offered should differ from what has been routinely provided until recently, namely, inpatient or residential treatment<sup>9,9</sup>. The evidence from reviews of the research literature indicates that there is, at most, a small difference in outcome between inpatient treatment and simple assessment and advice to stop drinking. This indicates that residential or inpatient treatment is not routinely required for all persons with moderate to severe alcohol use disorders. Interventions, including the newer pharmacotherapies warrant greater attention<sup>2,9</sup>.

### Dealing with comorbid mental disorders

Alcohol use disorders complicated by other comorbid mental disorders have been recognised as having a poorer prognosis and being more difficult to treat<sup>10,11</sup> than those without comorbid disorders. We accordingly need to improve our treatment of comorbid mental and substance use disorders. Specialist mental health services need to better recognise and treat comorbid substance use disorders among their clients. This is especially the case with anxiety and affective disorders, since substantial minorities of persons with these disorders who seek treatment in mental health services will have alcohol and other drug use disorders<sup>12</sup>. Specialist drug and alcohol services also need to better recognise the disorders that are most amenable to treatment, namely, the anxiety and affective disorders. Brief, valid and reliable screening tests exist which can detect anxiety and depressive disorders among alcohol and drug dependent persons, yet they are rarely used<sup>13</sup>.

**Conclusion**

1. Problems associated with alcohol are among the most prevalent health problems diagnosed in community surveys but very few persons with alcohol use disorders seek or receive treatment.
2. Public education about the risks of alcohol use may be the best way of preventing and ameliorating the public health impact of the prevalent, milder forms of alcohol disorders.
3. Good advice on self-help strategies for quitting or cutting down may obviate the need for professional assistance.
4. For those persons whose problems resist self-help, existing treatment systems need to provide more effective forms of treatment, more efficiently. Better triage would ensure a more rational use of scarce treatment resources. **cl**

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**project notes**

**Structural determinants of youth drug abuse**

**Catherine Spooner and Michael Gascoigne**

This project aims to describe current research on social factors that contribute to youth drug abuse, and to identify ways that societal institutions (in particular, national, state and local government) can contribute to the prevention of youth drug abuse.

When the National Campaign Against Drug Abuse first commenced in 1985 in Australia, drug prevention was characterised by programs that addressed drug use as an isolated behaviour, focused on risk factors at the individual level (attitudes, knowledge, skills), and targeted adolescents, particularly in schools. Drug prevention was not limited to this characterisation, as demonstrated by programs such as random breath testing. However, it is fair to say that drug prevention efforts have been somewhat limited. This project incorporates a broad view of drug prevention, as summarised below.

**The focus on single risk factors:** Programs had tended to be simplistic, assuming that if a single risk factor can be addressed, then drug use and abuse can be prevented. In particular, programs have tried to increase knowledge about the dangers of drug use or increase skills to resist drug use. However, drug use behaviours are complexly determined by multiple risk and protective factors over time.

**The focus on risk factors:** It has been increasingly recognised that some individuals do not develop drug use patterns in spite of exposure to multiple risk factors. There is now interest in promoting those factors that protect

individuals from negative outcomes as well as reducing risk factors.

**The focus on correlation:** In the past, simplistic research equated correlation with causation. For example, the association between family structure and drug abuse has been documented in multiple studies. However, when other factors such as socio-economic status and family functioning were included in the analyses, family structure was non-significant. While family breakdown can contribute to exposure to disadvantages that can contribute to drug abuse, sole-parent families are not inherently harmful. There is now a greater appreciation of the complexity of the development of drug use behaviours.

**The focus on the individual:** While it is easier to focus upon individuals, to measure individual risk factors and individual behaviour change, it has become increasingly apparent that we need to focus on the environment that shapes individual behaviour, including the family, local community, and macro-environment. Individual behaviour is influenced by these environmental factors as well as (if not more than) any rational decision or individual skill to not misuse drugs.

**The focus on the school setting:** Expectations of school-based drug education (SBDE) have been unrealistically high. While SBDE can be effective, schools cannot undo years of negative family and other environmental influences on children. They can only be one part of a more comprehensive approach to drug prevention.

**The focus on adolescence:** It has become increasingly recognised that the early years of development are critically important for healthy development of children and that environmental influences on children in their early years as well as interactions between an individual's

temperament and their environment shape behaviours such as drug use. While interventions for adolescents are important, there is evidence that efforts need to also be directed towards the earlier years of life.

**The focus on drugs:** Drug abuse behaviours share common antecedents with other problem behaviours such as criminal behaviour, truancy, school drop out, and suicidal behaviour. Research disciplines (e.g. psychology, criminology, public health, social work) and programs (e.g. crime prevention, mental health promotion and child welfare) have worked in isolation, reinventing wheels, duplicating effort, and scattering limited resources across multiple small programs with minimal impact. Research needs to be multidisciplinary and programs need to be intersectoral so that knowledge and resources can be pooled and used to greater effect. This does not negate the need for research into specific drug abuse behaviours and interventions to address specific drug problems. However, where commonalities exist, it is efficient to work collaboratively.

**The focus on problems:** Some argue that, rather than focus on reducing specific problems, we should focus on building resilience to problems. The problems that arise over a young person's life will change. In fact, risk-taking is part of the learning process for adolescents. It has been argued that it is better to focus on 'core dynamics', to enhance positive youth development, to build resilience.

In recognition of the limited impact of previous approaches, the Australian National Council on Drugs (ANCD) commissioned a report on the structural determinants of youth drug use, to identify what structural changes can be made to support individual behaviour change programs.

This call for a broader approach was timely, given that Western societies are undergoing major technological, economic and social changes that place new demands on societal systems. These changes include increasing numbers of one-parent families, increased mothers and sole parents in the workforce and longer hours for full-time workers, and increased socio-economic gaps. There is evidence that these societal changes are having detrimental impacts on child and youth outcomes, and concern that societal institutions need to change to cope with these societal changes. This project aims to provide information to government to inform decisions about how policies, structures and programs can be improved to reduce harms relating to youth drug use and other problem behaviours.

## Hepatitis C Understanding Project

**Emma Black, Carolyn Day, Clare Thetford, Kate Dolan, Erica Southgate and Susan McGuckin**

Hepatitis C is the most prevalent blood-borne viral infection (BBVI) among injecting drug users (IDU), with prevalence among needle and syringe program attendees estimated at between 63% and 50% from 1995 to 1997. Rates are also high among prisoners, with prevalence rates of 64% in female and 40% in male inmates in 2001.

Recent qualitative research into the risks of injecting revealed IDUs had a poor understanding of what it means to have hepatitis C infection. IDUs were unsure of what it meant to have 'antibodies', with many participants believing this meant they had cleared the virus and were no longer infectious. There was also noted confusion around the symptoms related to hepatitis C and confusion with other blood-borne viruses such as hepatitis B and hepatitis A. For example, a number of IDUs believed that if they do not suffer jaundice they have not been infected with hepatitis C.

Southgate et al (2003) found many IDUs demonstrated a good technical knowledge of the transmission of hepatitis C, such as being aware of the risk of sharing needles and syringes, and in some cases other injecting paraphernalia. Indeed this is supported by an overall reduction in the prevalence of needle sharing in Australia. Nevertheless, many IDU appeared to be confused by health promotion messages: hepatitis C could be contracted from unhygienic practices such as using toilet water to inject or wash with or that it could be contracted from 'dirt'.

Additionally, hepatitis C infection is associated with reduced quality of life (QoL) compared to population norms. A recent pilot of an IDU specific QoL measure revealed significantly lower QoL scores among hepatitis C positive IDU compared to their hepatitis C negative counterparts. However, the study was limited by a small sample size and collected limited demographic and behavioural information.

The aims of the present study are to measure IDU knowledge of hepatitis C, in particular their knowledge and understanding of issues such as

- virus transmission
- symptoms and clinical markers, e.g. what it means to have "antibodies" to hepatitis C and confusion with other forms of hepatitis and other blood-borne viruses
- hygiene issues and blood awareness messages, including the conflation of the various health promotion messages

This cross-sectional study will interview 120 injecting drug users across three sites: inner-city, suburban and regional. Groups will draw on those at risk including a sub group of recently released prisoners.

A questionnaire will be purposefully designed to examine IDUs knowledge of hepatitis C and their understanding of having the virus including that of clinical terms and symptoms. The questionnaire will also examine IDUs knowledge of hygiene practices.

In depth qualitative interviews will also be conducted with 30 IDUs to gain a greater insight into their understanding of hepatitis C.

This project will provide a better understanding of IDUs knowledge and understanding of hepatitis C. This information can be used to simplify and standardize health messages delivered to injecting drug users about hepatitis with the aim of reducing transmission. **cl**

## abstracts

### The Sydney Medically Supervised Injecting Centre: Client characteristics and predictors of frequent attendance during the first 12 months of operation

*Journal of Drug Issues (Summer) 22-04 639-648*

**Jo Kimber, Margaret MacDonald, Ingrid van Beek, John Kaldor, Don Weatherburn, Helen Lapsley, and Richard Mattick**

This paper describes characteristics of clients registered in the first 12 months of the Sydney Medically Supervised Injecting Centre's (MSIC) operation, as well as predictors of frequent attendance. The study is based on information collected from clients at their initial registration and subsequent service utilization. Most of the 2,719 were male (71%), almost half had previously experienced at least one non-fatal heroin overdose, and one quarter had accessed formal drug treatment in the previous 12 months. Characteristics associated with frequent attendance at the MSIC were reporting previous attendance at the local primary health service for injecting drug users (IDU), injecting drugs other than amphetamine, reporting sex work, injecting at least daily, and injecting in a public place in the month before registration.

### Modelling hepatitis C virus incidence, prevalence and long-term sequelae in Australia, 2001

*International Journal of Epidemiology 32, 717-724*

**Matthew Law, Gregory Dore, Nicky Bath, Sandra Thompson,**

**Nick Crofts, Kate Dolan, Wendy Giles, Paul Gow, John Kaldor, Stuart Loveday, Elizabeth Powell, Jenean Spencer, and Alex Wodak**

**Background:** To plan an appropriate public health response to the hepatitis C virus (HCV) epidemic requires that estimates of HCV incidence and prevalence, and projections of the long-term sequelae of infection, are as accurate as possible. In this paper, mathematical models are used to synthesize data on the epidemiology and natural history of HCV in Australia to estimate HCV incidence and prevalence in Australia to end 2001, and project future trends in the long-term sequelae of HCV infection.

**Methods:** Mathematical models of the HCV epidemic in Australia were developed based on estimates of the pattern of injecting drug use. Estimates of HCV infections due to injecting drug use were then adjusted to allow for HCV infections resulting from other transmission routes. Projections of the long-term sequelae of HCV infection were obtained by combining modelled HCV incidence with estimates of the progression rates to these outcomes.

**Results:** It was estimated that there were 210 000 (lower and upper limits of 157 000 and 252 000) people in Australia living with HCV antibodies at the end of 2001, with HCV incidence in 2001 estimated to be 16 000 (11 000-19 000). It was estimated that 6500 (5000-8000) people were living with HCV-related cirrhosis in 2001, that 175 (130-210) people developed HCV-associated liver failure, and that there were 50 (40-60) incident cases of HCV-related hepatocellular carcinoma (HCC). It was estimated that in 2001 22 500 quality adjusted life years were lost to chronic HCV infection, the majority (77%) in people with early (stage 0/1) liver disease.

**Discussion:** Model-based estimates were broadly consistent with other sources of information on the HCV epidemic in Australia. These models suggested that the prevalence of HCV-related cirrhosis and the incidence of HCV-related liver failure and HCC will more than triple in Australia by 2020.

## Exploring the association between cannabis use and depression

*Addiction 98, 1493-1504.*

**Louisa Degenhardt, Wayne Hall and Michael Lynskey**

**Aim:** To examine the evidence on the association between cannabis and depression and evaluate competing explanations of the association.

**Method:** A search of Medline, Psycinfo and EMBASE databases was conducted. All references in which the terms 'cannabis', 'marijuana' or 'cannabinoid', and in which the words 'depression/depressive disorder /depressed', 'mood', 'mood disorder' or 'dysthymia' were collected. Only research studies were reviewed. Case reports are not discussed.

**Results:** There was a modest association between heavy or problematic cannabis use and depression in cohort studies and well-designed cross-sectional studies in the general population. Little evidence was found for an association between depression and infrequent cannabis use. A number of studies found a modest association between early-onset, regular cannabis use and later depression, which persisted after controlling for potential confounding variables. There was little evidence of an increased risk of later cannabis use among people with depression and hence little support for the self-medication hypothesis. There have been a limited number of studies that have controlled for potential depression. These have found that the risk much reduced by statistical control but a modest relationship remains.

**Conclusions:** Heavy cannabis use and depression are associated and evidence from longitudinal studies suggests that heavy cannabis use may increase depressive symptoms among some users. It is still too early, however, to rule out the hypothesis that the association is due to common social, family and contextual factors that increase risks of both heavy cannabis use and depression. Longitudinal studies and studies of twins discordant for heavy cannabis use and depression are needed to rule out common causes. If the relationship is causal, then on current patterns of cannabis use in the most developed societies cannabis use makes, at most, a modest contribution to the population prevalence of depression.

## Medical marijuana initiatives. Are they justified? How successful are they likely to be?

*CNS Drugs 17, 689-697.*

**Wayne Hall and Louisa Degenhardt**

The principal constituent of cannabis, tetrahydrocannabinol (THC), is moderately effective in treating nausea and vomiting, appetite loss, and acute and chronic pain. Oral THC (dronabinol) and the synthetic cannabinoid, nabilone, have been registered for medical use in the US and UK, but they have not been widely used because patients find it difficult to titrate doses of these drugs. Advocates for the medical use of cannabis argue that patients should be allowed to smoke cannabis to relieve these above-mentioned symptoms.

Some US state governments have legislated to allow the medical prescription of cannabis, but the US federal government has tried to prevent patients from obtaining cannabis and threatened physicians who prescribe it with criminal prosecution or loss of their license to practice. In the UK and Australia, committees of inquiry have recommended medical prescription (UK) and exemption from criminal prosecution (New South Wales, Australia), but governments have not accepted these recommendations. The Canadian government allows an exemption from criminal prosecution to patients with specified medical conditions. It has recently legislated to provide cannabis on medical prescription to registered patients, but this scheme so far has not been implemented.

Some advocates argue that legalizing cannabis is the only way to ensure that patients can use it for medical purposes. However, this would be contrary to international drug control treaties and is electorally unpopular. The best prospects for the medical use of cannabinoids lie in finding ways to deliver THC that do not involve smoking and in developing synthetic cannabinoids that produce therapeutic effects with a minimum of psychoactive effects. While awaiting these developments, patients with specified medical conditions could be given exemptions from criminal prosecution to grow cannabis for their own use, at their own risk

## Buprenorphine versus methadone maintenance: a cost effectiveness analysis

*Drug and Alcohol Dependence 71, 295-302.*

**Chris Doran, Marian Shanahan, Richard Mattick, Robert Ali, Jason White and James Bell**

This article presents the cost-effectiveness results of a randomised controlled trial conducted in two Australian cities. The trial was

designed to assess the safety, efficacy and cost-effectiveness of buprenorphine versus methadone in the management of opioid dependence. The trial utilised a flexible dosing regime that was tailored to the clinical needs of the patients, with high maximum doses, using the marketed formulation, under double-blind conditions. A total of 405 subjects were randomised to a treatment at one of three specialist outpatient drug treatment centres in Adelaide and Sydney, Australia. The perspective of the cost-effectiveness analysis was that of the service provider and included costs relevant to the provision of treatment. The primary outcome measure used in the economic analysis was change in heroin-free days from baseline to the sixth month of treatment. Treatment with methadone was found to be both less expensive and more effective than treatment with buprenorphine, which suggests methadone dominates buprenorphine. However, statistical testing found that the observed difference between the cost-effectiveness of methadone and buprenorphine treatments was not statistically significant. The results of this study provide useful policy information on the costs and outcomes associated with the use of methadone and buprenorphine and indicate that buprenorphine provides a viable alternative to methadone in the treatment of opioid dependence.

## A randomized controlled trial of methadone maintenance treatment versus wait list control in an Australian prison system

*Drug and Alcohol Dependence 72, 59-65.*

**Kate Dolan, James Shearer, Margaret MacDonald, Richard Mattick, Wayne Hall and Alex Wodak**

**Objectives:** The aim was to determine whether methadone maintenance treatment reduced heroin use, syringe sharing and HIV or hepatitis C incidence among prisoners.

**Methods:** All eligible prisoners seeking drug treatment/s were randomized to methadone or a waitlist control group from 1997-1998 and followed up after 4 months. Heroin use was measured by hair analysis and self report; drugs used and injected and syringe sharing were measured by self report. Hepatitis C and HIV incidence was measured by serology.

**Results:** Of 593 eligible prisoners, 382 (64%) were randomized to MMT (n=191) or control (n=191). 129 treated and 124 control subjects were followed up at 5 months. Heroin use was significantly lower among treated than control subjects at follow up. There was no difference in HIV or hepatitis C incidence.

**Conclusion:** Consideration should be given to the introduction of prison methadone programs particular where community based programs exist. **cl**

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For more information on or copies of these publications, please contact the relevant researcher

## Technical Reports and Monographs

**Barker, B. & Degenhardt, L.** (2003). *Accidental drug-induced deaths in Australia 1997-2001*. Technical Report No 163. Sydney: National Drug and Alcohol Research Centre.

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# staff list

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Susannah O'Brien	Senior Research Officer
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Wayne Hall	Visiting Professor
James Bell	Associate Professor
Andrea Mant	Associate Professor
Mark Montebello	Conjoint Lecturer
Alex Wodak	Senior Lecturer

### Visiting Fellows

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Nadia Solowij	Visiting Fellow
Ingrid Van Beek	Visiting Fellow

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