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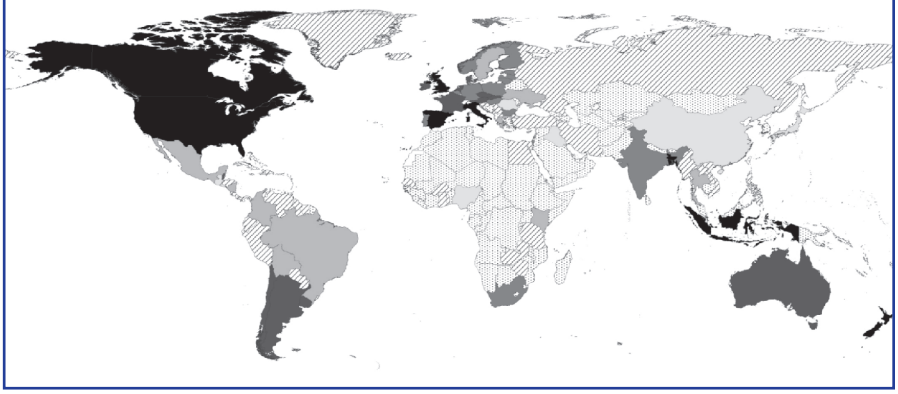
issuing **forth**

Thinking globally to act locally



ed**space**

Applying the Evidence

It is just over a week to the NDARC Annual Symposium – a major event in our calendar and a major tool in the Centre's dissemination strategy.

Some of NDARC's leading researchers including Professor Maree Teesson, Associate Professor Chris Doran, Professor Shane Darke, Dr Lucy Burns, Dr Katherine Mills and more will present on our hugely varied research portfolio. Topics include women drugs and alcohol; methamphetamine trafficking; pharmaceutical opioid diversion; co-morbid post-traumatic stress disorder; alcohol and the adolescent brain; treatment for young people; Magistrates Early Referral into Treatment (MERIT) and Rural Alcohol Diversion (RAD).

This year the symposium has a crucial difference to previous symposia. The theme is dissemination itself: how do we translate the huge volume of research we complete and publish each year into drug and alcohol policy and into clinical practice?

Our session chairs Associate Professor Alison Ritter and Professor Paul Haber will guide the speakers and the audience to consider, debate and answer that key question which challenges all of us who work in the drug and alcohol field: How do we effectively apply the evidence into policy and practice?

In 2008 Petra Bywood, Hiroe Terao and Ann Roche completed a three part series for the National Centre for Education and Training on Addiction (NCETA) which examined effectiveness, costs and theories related to dissemination and implementation of research into practice. Significantly, of 16 dissemination and implementation strategies evaluated, the four most consistently successful in their capacity to influence behaviour, achieve organisational change and improve patient outcomes were:

- educational meetings;
- educational outreach;
- prompts and reminders;
- and audit and feedback.

The NDARC Annual Symposium will be held on Tuesday August 10 at the John Niland Scientia building at the University of NSW.

For more information visit: http://ndarc.med.unsw.edu.au/NDARCWeb.nsf/page/Symposium

Marion Downey, Communications and Media Manager, NDARC

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When a metric such as mortality is used as the single estimate of health burden it is no surprise that illnesses with high mortality rates such as cancer and cardiovascular disease dominate. When you add in nonfatal health outcomes things start to get interesting, especially for fields such as drug and alcohol, writes NDARC Acting Director Professor Maree Teesson

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If the international community is to make any significant impact on public health we need to know the prevalence, incidence and distribution of disease, injury and factors affecting health across the globe. This information is surprisingly patchy

The Global Burden of Disease (GBD) study was established in 1990 to address this knowledge gap. It did not separate the information by drug types. The current GBD collects data separately for cannabis, amphetamine, cocaine and opioid dependence, write Chiara Bucello and Louisa Degenhardt

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

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Thinking globally to act locally

Maree Teesson

This month's issue of *CentreLines* focuses on the Global Burden of Disease Project.

A research team at NDARC has been working since 2007 on estimating the global burden of disease of illicit drug use in the 2005 GBD project under the leadership of Professor Louisa Degenhardt who is co-chairing the Expert Group on Mental and Illicit Drug Use Disorders for the 2005 Global Burden of Disease project (www.gbd.unsw.edu.au). It is a reflection of the outstanding reputation of Australian research in this area that we lead such work internationally. Professor Degenhardt and her team have outlined the current work on the Project in the following pages.

Before adding my own personal reflections on the GBD Project, it is with sadness that I announce that the study co-chair Professor Degenhardt is leaving NDARC to take up a new role with the Murdoch Children's Research Institute/McFarlane Burnet Institute.

Louisa is a prolific academic leader with unbounded energy and passion for the drug and alcohol field. She started at NDARC in 1998 as a Research Assistant to the then Executive Director, Professor Wayne Hall. She completed her PhD in 2001 investigating the comorbidity between drug use and mental health problems in the general population, followed by a Masters in Clinical Psychology in 2002. She became a Lecturer in NDARC's Illicit Drug Statistics position in 2001, becoming Professor of Epidemiology in 2007.

Louisa led a number of national illicit drug surveillance projects from 2001-2008. This included the Illicit Drug Reporting System (IDRS), the Ecstasy and related Drugs Reporting System (EDRS) and the National Illicit Drug Indicators Project (NIDIP). She led an investigation into the causes, course and consequences of the 2001 Australian heroin shortage. She was an investigator (2004-2008) on a large case-control study, funded by the US National Institutes of Health (NIH), examining potential gene-environment interactions between childhood trauma and the later development of heroin dependence.

She is currently involved in several international projects examining the epidemiology of drug use and dependence, and related problems, across the globe. These include involvement with the WHO's World Mental Health Survey Initiative and the Secretariat to the Reference Group advising the United Nations on Injecting Drug use and HIV, in addition to co-chairing the Mental Disorders and Illicit Drug Use Expert Group for the Global Burden of Disease project.

Louisa's body of work reflects her view that to appropriately target interventions that have an impact upon public health, we need good quality data on the prevalence, incidence and distribution of disease, injury and factors affecting health at the population level. Her work on the GBD project is a significant example of this.

Putting a number to the burden resulting from disease across the globe has been the aim of the Global Burden of Disease study since it was first reported in the early 1990s. Indeed, when the original Global Burden of Disease Study was reported there were shock waves throughout the health sector. Up until that time health burden was dominated by measures of mortality. The GBD study group developed a new system to assess fatal and non-fatal health outcomes. In other words they took into account not just whether you lived or died but the quality of your life and days of disability.

When a metric such as mortality is used as the single estimate of health burden it is no surprise that illnesses with high mortality rates such as cancer and cardiovascular disease dominate. When you add in nonfatal health outcomes things start to get interesting, especially for fields such as drug and alcohol.

The shock waves were the result of the realisation that the burden of depression, alcohol and drug dependence and other mental health issues had been seriously underestimated by the traditional approaches which took account of deaths and not disability. This was not news to the drug and alcohol sector (we were well aware of the disabling effects of drug and alcohol dependence) but it was the first time the rest of the health sector had to take notice. Those clinicians and researchers working in the mental health and drug and alcohol sector gave out a collective sigh of relief. The results were used by governments and non-governmental agencies to start to inform priorities for research, development, policies and funding across the world. We still have a long way to go.

It is imperative that such long scale work is continued. Global data helps us to understand health at a global level and to also make a difference locally and focus our efforts. The World Bank has taken the burden of disease concept even further and promoted the concept of using epidemiology to inform burden of disease and link this with cost effectiveness of health sector interventions to develop essential packages of clinical and preventative care. This includes developing a rational system of care based on who has the problems and what can be done about them. While this sounds clear we are far from achieving a rational system. Two major barriers are yet to be tackled:

- The stigma associated with alcohol and drug dependence which means individuals often hide their problems and delay seeking care.
- The Lack of Treatment Access. In the most recent Australian survey only one in five individuals with alcohol or drug dependence sought treatment. This is clearly not good enough given our research shows that effective treatments could be made available if we had a sufficiently funded drug and alcohol services.

NDARC's contribution to the GBD Project to date would not have been possible without the leadership of Professor Louisa Degenhardt. We have been fortunate indeed to count Louisa as among its leaders and wish her well in her new role in Melbourne. **cl**

issuing forth

Estimating the Global Burden of Disease attributable to illicit drug use: the 2005 GBD project

Chiara Bucello and Louisa Degenhardt

If the international community is to make any significant impact on public health in the current century, a prerequisite is to know the prevalence, incidence and distribution of disease, injury and factors affecting health across the globe.

As we enter the second decade of the 21st century this information is surprisingly patchy and as a result this limits the ability of nations and regions to prioritise health prevention and interventions to diseases and regions where they are most needed.

Burden of disease is assessed using a disability-adjusted life year (DALY). This

measure was first developed by the Word Bank and World Health Organisation in 1993 and it combines years of life lost due to premature mortality and years lost due to disability[1]. DALYs are comparable across diseases: one DALY indicates that one year of life has been lived in suboptimal health[2,3]. The DALY measurement takes into account burden of disease for conditions that are nonfatal but chronic by measuring time in suboptimal health. This would be missed if disease mortality was the only indicator of disease burden.

The Global Burden of Disease (GBD) study was established in 1990 to address this knowledge gap. It is an international project led by a consortium including Havard University, the Institute of Health Metrics and Evaluation at the University of Washington, Johns Hopkins University, the University of Queensland and the World Health Organisation.

The first GBD project in 1990 measured 107 diseases and 10 risk factors across eight regions. The second GBD project commenced in 2007 to measure diseases and risk factors for 2005 and expanded exponentially to assess 220 diseases and injuries and 43 risk factors measured across 212 regions.

The original GBD included estimates for drug dependence, but it did not separate the information by drug types. The current GBD collects data separately for cannabis, amphetamine, cocaine and opioid dependence. Also, as with other disease and injury categories, the quality and quantity of data has improved along with the methodology and statistical tools used to assess it, since the establishment of the first project. Nevertheless the global rates of drug use, dependence, incidence and mortality are largely unknown. A research team at NDARC has been working since 2007 on estimating the global burden of disease of illicit drug use in the 2005 GBD project.

GBD Projects

The first GBD project was commissioned by the World Bank and made estimates of disease burden for 1990. In this project 107 diseases and 10 risk factors were measured across 8 world regions. In 2007, the second GBD project began and it aimed to measure disease and risk factors for 2005. The 2005 GBD project has expanded to assess 220 diseases and injuries, 43 risk factors for disease and collects this data over 21 world regions. The research team at NDARC is involved with estimating the global burden of disease of illicit drug use in the 2005 GBD project. For more information on the Illicit drug use group see http://www.gbd.unsw.edu.au

Why update 1990s' estimates?

Since the original GBD project, the quality and quantity of data has improved, along with methodological and statistical tools to assess the data[3,4]. In the original GBD project, drug dependence was assessed without separating by drug types. The 2005 GBD study will update the 1990 data to directly compare them with the 2005 estimates[3]. For more concise information about burden of drug use, the current 2005 GBD study has collected data separately for cannabis, amphetamine, cocaine and opioid dependence.

What data are required?

In order to make these estimates we need to know the prevalence, incidence, remission and mortality of drug dependence, as well as the disability associated with dependence. These basic parameters need to be estimated for each world region, based upon all existing evidence. In order to locate these data we have undertaken many systematic reviews of existing data, using multiple search strategies to obtain as much information about global drug epidemiology as possible. Details are reported in full at: http://www.gbd.unsw.edu.au/ gbdweb.nsf/page/Methodology as well as: http://www.globalburden.org/GBD_Study_Operations_Manual_Jan_20_2009.pdf 5.

Early results: prevalence

Data was collected on the prevalence of illicit drug use and dependence upon amphetamines, cannabis, cocaine and opioids, the four main illicit drug types internationally. Prevalence of illicit drug use and dependence refers to the number of cases at a point in time. The 2005 GBD study collected information on drug use and dependence in the last year, last month and over a lifetime. This information is presented as a percentage of the population. The coverage of data for each drug is presented below.

We have located evidence of meth/amphetamine use or dependence in 181 countries of the 229 searched, comprising 99 per cent of the world's population aged 15-64 years but there were no prevalence estimates in 104 of these countries, most commonly in Asia, Oceania and Africa[6]. Nine countries have estimated the prevalence of dependence since 1990 (8 per cent of the world's population 15-64 years). Estimates of amphetamine use in the past-year varied extremely widely.

Evidence of cannabis use was found for 99.8 per cent of the world's population aged 15-64 years across 202 countries; in 108 countries, no prevalence estimates were available[7]. Past year estimates of cannabis use in the general population ranged from 0 per cent to 14.1 per cent (see Figure 1).

Evidence and prevalence of cocaine use and dependence were found for 182 countries, covering 98 per cent of the world population aged 15-64 years[8]. Cocaine use estimates was reported by eighty-six countries. Cocaine use estimates varied widely with the highest estimates in the Americas and Western Europe and the lowest in Asia, Africa and Eastern Europe. Evidence of heroin/opioid use or dependence was found for 192 countries[9]. For 101 countries, with 18.2 per cent of the world population aged 15-64 years, no prevalence estimates were available. For 25 countries (33.5 per cent of the world population aged 15-64 years) dependence estimates were available. Just 16 countries, constituting 5.6 per cent of the world population aged 15-64 years had a national estimate of dependence.

Mortality

Mortality can be measured in a few ways. We have examined mortality as a rate per 100 person years (Crude Mortality Rate (CMR)) and as a ratio, comparing the death rate to the death rate in general population samples (which are age and sex matched). This is known as a Standardised Mortality Ratio (SMR).

Cannabis mortality was examined with 19 articles on mortality due to all causes, suicide, motor vehicle accidents and cancer[10]. While this review was limited to too few studies on cannabis and mortality, generally, mortality due to all causes was not elevated by cannabis use[10].

The amphetamine mortality review could not spilt up mortality rate by cause of death (for the full article on amphetamine mortality see 11). Mortality due to all causes of death was found in 8 studies spanning Europe, Asia and Australasia. In these samples mortality ranged from 0 – 2.95 per 100 per years, indicating that between 0 and approximately 3 amphetamine users die per 100 people[11]. One Czech study compared mortality of amphetamine users to the general population, accounting for age and sex, and found that amphetamine users had 6.22 times higher mortality[11].

Mortality was elevated for people dependent on cocaine. Seven studies reported crude mortality rates and mortality ranged from 0.5 -6.16 per 100 people. These studies were from North America, Europe and Latin America. Three studies reported mortality of cocaine users compared to the general population and found levels of mortality that were 4.7 – 7.6 times elevated compared to the general population[12].

Fifty-eight studies have examined mortality among cohorts of regular or dependent opioid users, across several world regions; Asia, Australasia, Europe and North America[13]. Results found a 2.09 mortality rate per 100 people. Twenty-seven studies compared the mortality rate of opioid users to that of the general population; pooled analyses suggested that across all of these studies, levels of mortality among opioid dependent people were 14.6 times higher[13].

Remission

Despite many statements in the literature that "dependence is a chronic, relapsing disorder", very few studies have examined this prospectively, which is the only way to minimise biases that may occur in retrospective studies. One cohort study meeting our inclusion criteria has measured remission from psychostimulant dependence and four have measured remission from cocaine. There were ten studies of opioid dependence and three for cannabis dependence. Cannabis dependence had the highest

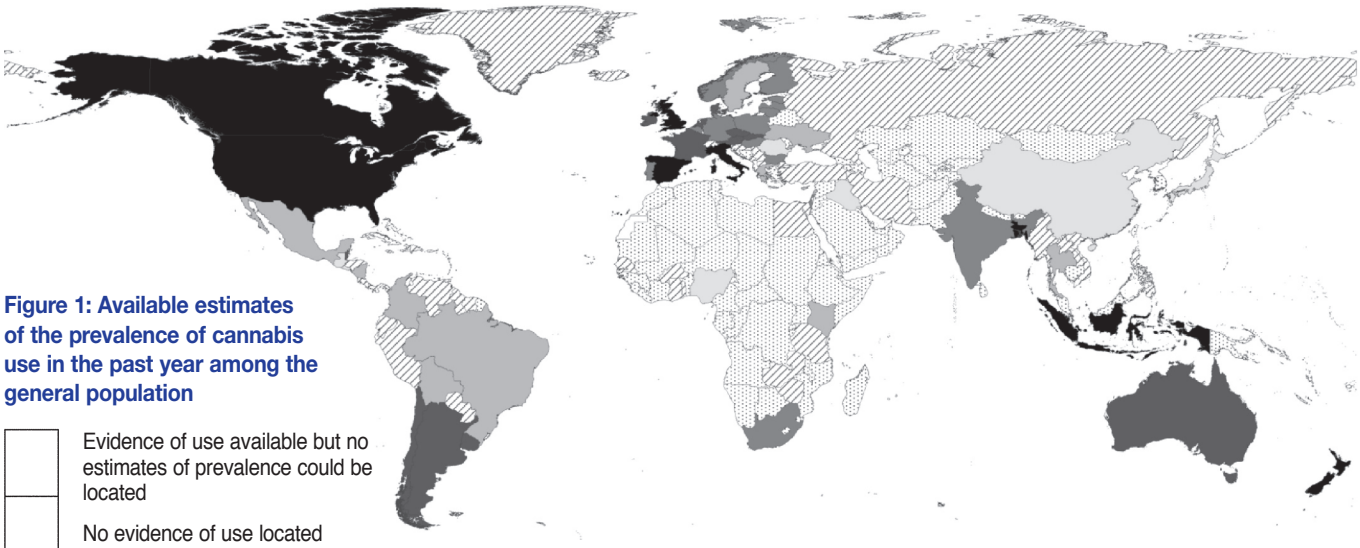

Figure 1: Available estimates of the prevalence of cannabis use in the past year among the general population

- Evidence of use available but no estimates of prevalence could be located
- No evidence of use located
- >10
- >5 – ≤10
- >2 – ≤5
- >0.5 – ≤2 0
- 0 – ≤0.5
- Estimate of use located, but the estimate referred to "lifetime prevalence" only, or could only be located from a survey of young people (typically a school survey)

remission rate (0.17) followed by amphetamine (0.16), opioid (0.09) and cocaine dependence (0.05). These results suggest that remission is varied across disorders, and may be highest among dependent cannabis users (for the full details of the remission review article see 14).

Discussion

Despite using multiple search strategies, we confirmed a lack of data on illicit drug epidemiology. For all drugs, there is limited data on illicit drug remission, mortality and dependence. When data has been found, there is often only one estimate for each country and frequently the only available data is sub-national, and therefore not representative of the nation. The gaps documented in all of the reviews were concentrated among low and middle income countries. These countries may often lack the resources and expertise to undertake population level assessments of illicit drug epidemiology. There is an imperative – endorsed by a recent meeting of the Commission on Narcotic Drugs [15] – to assist countries to collect better data on illicit drug use and dependence. Better data on the drug use situation will increase the likelihood that scarce resources for such interventions are appropriately targeted – at the right age groups, and scaled up to the levels required[6].

There is a need to look critically at estimates derived from surveys of illicit drug use relying on self-reports. These estimates will only be accurate if a representative sample is obtained, people honestly disclose their drug use, and drug users are spread evenly around the country. These conditions are often not met. Marginalised groups who have higher levels of illicit drug use, are typically excluded (e.g. those who are homeless, imprisoned or in treatment facilities). People may also feel uncomfortable disclosing illegal behaviours (which may vary across countries and cultures), particularly in societies where participants fear reprisals for admitting to illegal behaviours. This will particularly be the case when anonymity and confidentiality are not assured. It may also be affected by the type of interviewer, particularly if they are a law enforcement or government official.

Our reviews have had limitations. One was the lag between when research is conducted and published in peer-reviewed journals. We addressed this by using multiple methods of sourcing and locating "grey" literature and by surveying experts in the field about unpublished studies. The latter was a very important source for this review, with a majority of the estimates sourced from the grey literature. Grey literature reports are, however, difficult to access and many are not available in English. Concerted efforts are needed to make this source of information more available electronically. English language documents were primarily reviewed but the abstracts of many non-English language peer-reviewed articles were also reviewed when available in English; translation was undertaken where papers appeared relevant. Furthermore, estimates were also reviewed by UN staff with access to non-English language material[6].

Our current task for the illicit drug group is to use modelling approaches, programmed into a new software package DISMOD III, to estimate regional specific levels of drug dependence, remission, incidence and mortality. Dismod III models the parameters needed for the DALY calculations and to check consistency of the different epidemiology estimates. The 2005 GBD project is due to be completed in November 2010. We will be publishing the results for illicit drug dependence in detail in 2011. **cl**

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project **notes**

Issues related to substance use among university athletes

Matthew Dunn and Johanna Thomas

Alcohol and illicit substance use among university students is widespread and, among this group, university athletes are at a particularly heightened risk for engaging in substance use. Alcohol is recognized as the most widely used substance among university athletes: they consume more alcohol, engage in more frequent episodic drinking, and experience more negative alcohol-related consequences compared to those students not involved in sport (Wechsler, Davenport et al. 1997; Leichliter, Meilman et al. 1998; Nelson and Wechsler 2001; Wilson, Pritchard et al. 2004; Turrisi, Mastroleo et al. 2007). There is also evidence that student athletes use performance-enhancing drugs such as anabolic-androgenic steroids and supplements more than their non-athlete counterparts (Juhn 2003; Lombardo 2004). The extent to which athletes use recreational drugs, such as cannabis, cocaine and ecstasy, is not as transparent.

Much of the literature examining issues of substance use in student athletes are studies conducted in North American tertiary education institutes. No study, to date, has examined issues of substance use among Australian university athletes. The athletic experience may differ for those university athletes in Australia; thus, the extent to which findings from international studies may be used as a gauge of substance use among Australian student athletes may be limited. Given this gap in the research, it is imperative we gain a better understanding of the level of substance use and issues related to substances use among Australian university athletes.

The aim of this pilot study is to investigate substance use issues among a sample of university athletes, such as knowledge of illicit drugs and their effects; information seeking behaviour and the credibility to which students give to various information sources on illicit drugs; and the use of supplements/conditioning aids, alcohol and illicit drugs. Data is currently being collected from surveys with athletes participating in various sports clubs at the University of New South Wales, such as rugby union, athletics, football, basketball, baseball, tennis and rowing.

HIV incidence among IDUs in northern Shan State, Myanmar

Kate Dolan, Richard Mattick and Sarah Larney

HIV prevalence among injecting drug users (IDUs) in Lashio, in Myanmar's northern Shan State, has fluctuated wildly. In 1991, it was 40 per cent and 1996 it went up to 84 per cent. In 2007 it had dropped to 49 per cent. Lashio is one of 20 towns listed for accelerated harm reduction programs which were introduced in 2004. Coverage is very high with more than 80 per cent of IDUs in contact with outreach workers and NSPs. Local researchers want to determine if the introduction of harm reduction services has resulted in the decline of HIV recorded in 2007.

NDARC has been commissioned to build research capacity in a research centre in Lashio, Myanmar. We will assist on a study of HIV transmission among drug users and on a study of community perceptions of drug use and harm reduction. We have provided assistance to develop the study protocol, the questionnaire design, the calculation of the sample size required and the setting up of data files. In May this year we completed a field trip to the research site, some eight hours north of Yangon, where we met local NGOs and drug users. The research centre has recruited one quarter of its target sample and has started contacting participants for follow up interviews.

Another trip is planned for later in the year to assist with data analysis and write up of the results. There is an enormous amount of good work being carried out in Myanmar, both by researchers and by NGOs delivering harm reduction programs. It is hoped that HIV can be brought under control among the drug using population.

An innovative approach for preventing ecstasy use amongst adolescents

Nicola Newton, Maree Teesson and Gavin Andrews

In Australia, ecstasy use has significantly increased over time. Specifically, between 1993 and 2007 lifetime ecstasy use rose from 3.1 per cent to 8.9per cent. Of great concern is that young Australians represent the group with the greatest increases in use. Research has clearly demonstrated early initiation to drug use is associated with a range of negative consequences including substance use disorders, co-morbid mental health problems, juvenile offending, impaired educational performance and early school drop-out, resulting in negative impacts on both current functioning and future life options. As such, the need for prevention is essential.

Given the success of NDARC in developing innovative and effective drug prevention programs, the Australian Government Department of Health and Ageing has funded the development of a new program to prevent ecstasy use. This program is known as the CLIMATE* Schools: Ecstasy Module and is based on the CLIMATE Schools framework for drug prevention which has shown to been effective in reducing alcohol, cannabis and psychostimulant use in high school students. All CLIMATE Schools modules are evidence-based and designed to overcome traditional obstacles to implementation of school-based prevention programs. Specifically, they are facilitated by the internet thereby guaranteeing consistent and complete delivery and they require little teacher training. Each module uses cartoon storylines to engage students and keep their interest over time.

The CLIMATE Schools: Ecstasy module will be evidence-based and developed in collaboration with secondary school teachers, students and health professionals. In line with current evidence, the content of the program will (1) provide information regarding short and long term legal, social and health consequences of using these drugs, (2) challenge students' perceptions of inflated peer drug use and hence peer acceptability by presenting students with conservative drug use norms, (3) build resistance and harm minimisation skills and (4) teach skills for dealing with a drug related emergency.

Following development of the program, we seek to demonstrate its effectiveness by running a cluster randomized controlled trial in 20 schools in Sydney, Australia. Participating schools will be randomly allocated to receive the CLIMATE Schools: Ecstasy module in Year 10 (Intervention group), or to receive their usual school health curriculum over the year (Control group). We anticipate the program will result in increased knowledge about ecstasy, decreased positive expectancies about ecstasy, and decreased ecstasy use and related harms.

*Now renamed as Crufad Schools

The diversion and misuse of stimulant medication for Attention Deficit Hyperactivity Disorder (ADHD) among illicit psychostimulant users

Shane Darke and Sharlene Kaye

Prescriptions for medications to treat symptoms of ADHD have increased dramatically over the past decade leading to concerns about the risks of diversion and inappropriate use. Previous US and Canadian research has demonstrated diversion and/or misuse of prescribed stimulant medication among adolescents and university students, but there is little data for the general Australian population, where there are high rates of prescribed methylphenidate (Ritalin) and dexamphetamine.

Illicit use of stimulant medications has been detected among participants of the Illicit Drug Reporting System (IDRS) and the Ecstasy and Related Drug Reporting System (EDRS). However the nature and extent of diversion and misuse of these medications has not yet been investigated. A deeper understanding of the nature and extent of diversion and misuse of these medications is crucial to the minimisation of harm associated with these practices.

An NHMRC funded study commenced at NDARC in 2009 and will provide the first data on diversion and misuse practices among illicit psychostimulant users in Australia. It will also be the first study to provide information about the potential consequences and risks of such behaviour.

Our study aims to:

- examine the nature of the diversion of prescribed pharmaceutical stimulants among illicit psychostimulant users;
- investigate the misuse of prescribed and illicitly obtained pharmaceutical stimulants among illicit psychostimulant users;
- determine the correlates of the diversion and misuse of pharmaceutical stimulants.

A sample of 300 regular psychostimulant (methamphetamine and cocaine) users will be given a structured interview assessing demographics, history of ADHD diagnosis, drug use history, current adult ADHD symptomatology, prescribed and illicit use of ADHD medication, dependence and adverse physical consequences. Participants will be recruited through treatment agencies, needle and syringe programs and through advertising. We have interviewed 145 participants to date and aim to complete the remaining interviews by late 2010/early 2011.

This study offers an opportunity to examine the prevalence of diversion and misuse of ADHD medications, the extent and patterns of such use, and the source from which the medication is obtained.

The feasibility and effectiveness of a family based intervention for Indigenous Australians with high risk alcohol use

Anthony Shakeshaft, Anton Clifford, Komla Tsey, Chris Doran, Julaine Allan, Miranda Rose, Rod MacQueen and Bianca Calabria

Family relationships have always been vital to the cohesion and wellbeing of indigenous communities. What happens at the family level shapes the wellbeing of indigenous individuals and the social functioning of indigenous Australian communities. The potential strength of relationships between indigenous individuals, their families, and their communities suggests that family-based approaches are likely to be appropriate and effective for reducing alcohol related-harm among indigenous Australians who experience a disproportionately high burden of alcohol-related harm, relative to non-Indigenous Australians.

These alcohol-related harms are typically cumulative, extending beyond the individual to the family and community. The number of indigenous-specific intervention programs to address these harms appears less than optimal, and there have been few rigorous evaluations of alcohol interventions for Indigenous Australians.

Community Reinforcement and Family Training (CRAFT) is a family based treatment approach for individuals with high risk alcohol use. It is combined with training and support for their family members. CRAFT employs a number of cognitive behavioural strategies to reduce alcohol consumption among high risk drinkers and to teach family members how to help their relatives to reduce their alcohol consumption and to promote their entry and engagement in treatment.

A demonstration project, using a pre/post intervention study design, will evaluate the feasibility, acceptability and likely cost-effectiveness of CRAFT for reducing alcohol consumption and related harms among indigenous Australians with high risk alcohol use, and for improving family functioning among their family members. The CRAFT intervention will be delivered by a rural Aboriginal Community Controlled Health Service in partnership with a regional drug and alcohol clinical service.

Specifically, this study aims to:

- assess the acceptability of the CRAFT intervention among new and existing clients of an Aboriginal Community Controlled Health Service and drug and alcohol clinical service in rural NSW;
- tailor the CRAFT intervention for routine delivery by family support and drug and alcohol workers in Aboriginal primary health care;
- assess the feasibility of family support and drug and alcohol workers delivering the CRAFT intervention to indigenous clients in routine Aboriginal primary health care;
- evaluate the effectiveness of the CRAFT intervention for reducing alcohol-related harm among indigenous Australians with high risk alcohol use and for improving social and emotional wellbeing among their family members.

Can parents teach their children to drink alcohol responsibly? Or is one drop a drop too many

Richard Mattick, Jake Najman, Kyp Kypri, Tim Slade, Laura Vogl, Delyse Hutchinson, Monika Wadolowski and Delphine Bostock Matusko

Reducing the binge drinking 'epidemic' of young Australians has been identified by the Federal Government as a matter of national importance. Close to 40 per cent of young Australians binge drink, dramatically increasing the risk of not only long term alcohol-related harms, but also more acute harms including hospitalisation and even accidental death. Preventing alcohol misuse among young Australians is therefore essential.

Research suggests that parents have great influence on their children's drinking habits. The vast majority (95 per cent) of parents

believe it is their responsibility to teach their children when, where and how to drink. However, there is a critical shortage of Australian and international data on the role that parents play on the trajectory of adolescent alcohol consumption, especially the potential consequences of parental provision of alcohol (even in small amounts). Given parents' capacity and willingness for a role in the prevention of alcohol misuse, it is imperative that we understand the true impact of parental supply of alcohol.

The current study has been awarded five years funding from the Australian Research Council and will be the first study to examine the effect of parental supply of alcohol on adolescent drinking trajectories and how various contextual factors impact upon this complex relationship. Of particular significance, this research will explore both the immediate (e.g. quantity of alcohol, location of provision) and broader contextual factors (e.g. parent-child relationship, sibling and peer use, parental rule setting) that potentially influence the relationship between parents providing their children with alcohol and the consequences of this.

This study will employ a longitudinal design that will follow approximately 2000 parent-child dyads. Children in year seven will be recruited from high schools and will be retained in the study for the following four/five years when more divergent trajectories of adolescent alcohol use generally become apparent. Each parent-child dyad will be followed up at 6 month intervals and asked to complete an online questionnaire.

This research will help to provide an answer as to whether the provision of alcohol by parents can be used as a means of teaching young Australians to drink responsibly or whether by providing alcohol, parents are unwittingly causing harm. As such, this research has the potential to provide vital information on how parents can best educate their children about alcohol use and prevent the possibility of harm. **cl**

abstracts

Elite Athletes' Perceptions of the Effects of Illicit Drug Use on Athletic Performance

Clinical Journal of Sports Medicine, 20, 189-192

Johanna O. Thomas, Matthew Dunn, Wendy Swift and Lucinda Burns

Objective: To investigate the perceived risks and benefits that elite athletes associate with illicit drugs and their beliefs concerning the effects of recreational drug use on athletic performance.

Design: Self-administered survey.

Participants: Nine hundred seventy-four elite athletes (mean age, 23 years; range, 18-30 years) were recruited from 8 national sporting organizations in Australia and the Australian Institute of Sport.

Interventions: Participants completed a self-administered survey that included questions exploring participants' perceptions regarding the effects of illicit drug use on physical performance.

Setting: National sporting organization meetings or competitions.

Main Outcome Measures: The main outcome measure was risk perception on athletic performance associated with illicit drug use.

Results: The majority of athletes believed that illicit drug use would impact negatively on athletic performance. The main perceived effects of illicit drugs on athletic performance were physical and mental functioning. A minority of athletes indicated that drug use would not impact on physical performance when taken during the off season or in moderation.

Conclusions: The main risks perceived in association with illicit drug use were short-term consequences, such as physical and mental functioning, rather than long-term health consequences. The current findings may contribute to the development of harm reduction strategies that communicate drug-related consequences to elite athletes in an appropriate and effective manner.

A cost-effectiveness analysis of modafinil therapy for psychostimulant dependence

Drug and Alcohol Review, 29, 235-242

James Shearer, Marian Shanahan, Shane Darke, Craig Rodgers, Ingrid Van Beek, Rebecca McKetin and Richard Mattick

Introduction and Aims: To examine the cost-effectiveness of modafinil (200 mg daily) plus counselling compared with placebo for the treatment of psychostimulant dependence.

Design and Methods: Cost and outcome data were collected alongside two randomised controlled trials of modafinil 200 mg daily over 10 weeks for methamphetamine (n = 74) and cocaine dependence (n = 8), respectively. Incremental cost-effectiveness ratios representing the additional costs to achieve a given outcome were calculated for both the change in the number of stimulant-free days and quality-adjusted life years 12 weeks post-treatment.

Results: The incremental cost-effectiveness ratio indicated that it would cost an additional $AUD79 to achieve an extra stimulant-free day with modafinil compared with placebo. This result was not statistically significant, but appeared to be a robust estimate after sensitivity analysis. Counselling, whether received within program or from other services, improved the cost effectiveness of modafinil relative to placebo.

Discussion and Conclusions: Strategies to improve the uptake of counselling are recommended as cost-effective.

The epidemiology of cannabis use and cannabis-related harm in Australia 1993–2007

Addiction, 105, 1071-1079

Amanda Roxburgh, Wayne D. Hall, Louisa Degenhardt, Jennifer McLaren, Emma Black, Jan Copeland and Richard P. Mattick

Aims: To examine trends in patterns of cannabis use and related harm in the Australian population between 1993and 2007.

Design: Analysis of prospectively collected data from: the National Drug Strategy Household Survey (NDSHS) and Australian Secondary Student Alcohol and Drug Survey (ASSADS); the National Hospital Morbidity Database (NHMD); and the Alcohol and Other Drug Treatment Services National Minimum Dataset (AODTS-NMDS).

Participants: Australians aged 14 years and over from the general population; students aged 12–17 years; public and private hospital in-patients; public and private in-patients and out-patients attending for drug treatment.

Measurement: Prevalence of 12-month cannabis use among the general population and secondary students. Proportions in the general population by age group reporting: daily cannabis use; difficulties in controlling cannabis use; and heavy cannabis use on each

occasion. Number of hospital and treatment presentations for cannabis-related problems.

Findings: Prevalence of past-year cannabis use has declined in the Australian population since the late 1990s. Among those reporting past-year use, daily use is prevalent among 40–49-year-olds, while heavy patterns of use are prevalent among 14–19-year-olds. Hospital presentations for cannabis-related problems reflect similar trends. Past-year cannabis use has decreased among the 10–19-year age group, but those who are daily users in this age group report using large quantities of cannabis.

Conclusions: Despite declines in the prevalence of cannabis use, continued public health campaigns warning of the harms associated with cannabis use are essential, aimed particularly at users who are already experiencing problems. The increasing demand for treatment for cannabis problems in Australia suggests the need for more accessible and more effective interventions for cannabis use disorders.

HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage

The Lancet, 375, 1014-28

Bradley M. Mathers, Louisa Degenhardt, Hammad Ali, Lucas Wiessing, Matthew Hickman, Richard P. Mattick, Bronwyn Myers, Atul Ambekar and Steffanie A. Strathdee

Background: Previous reviews have examined the existence of HIV prevention, treatment, and care services for injecting drug users (IDUs) worldwide, but they did not quantify the scale of coverage. We undertook a systematic review to estimate national, regional, and global coverage of HIV services in IDUs.

Methods: We did a systematic search of peer-reviewed (Medline, BioMed Central), internet, and grey-literature databases for data published in 2004 or later. A multistage process of data requests and verification was undertaken, involving UN agencies and national experts. National data were obtained for the extent of provision of the following core interventions for IDUs: needle and syringe programmes (NSPs), opioid substitution therapy (OST) and other drug treatment, HIV testing and counselling, antiretroviral therapy (ART), and condom programmes. We calculated national, regional, and global coverage of NSPs, OST, and ART on the basis of available estimates of IDU population sizes.

Findings: By 2009, NSPs had been implemented in 82 countries and OST in 70 countries; both interventions were available in 66 countries. Regional and national coverage varied substantially. Australasia (202 needle–syringes per IDU per year) had by far the greatest rate of needle–syringe distribution; Latin America and the Caribbean(0·3 needle–syringes per IDU per year), Middle East and north Africa (0·5 needle–syringes per IDU per year), and sub-Saharan Africa (0·1 needle–syringes per IDU per year) had the lowest rates. OST coverage varied from less than or equal to one recipient per 100 IDUs in central Asia, Latin America, and sub-Saharan Africa, to very high levels in Western Europe (61 recipients per 100 IDUs). The number of IDUs receiving ART varied from less than one per 100 HIV-positive IDUs (Chile, Kenya, Pakistan, Russia, and Uzbekistan) to more than 100 per 100 HIV-positive IDUs in six European countries. Worldwide, an estimated two needle–syringes (range 1–4) were distributed per IDU per month, there were eight recipients (6–12) of OST per 100 IDUs, and four IDUs (range 2–18) received ART per 100 HIV-positive IDUs.

Interpretation: Worldwide coverage of HIV prevention, treatment, and care services in IDU populations is very low. There is an urgent need to improve coverage of these services in this at-risk population.

Evaluating the drug use "gateway" theory using cross-national data: Consistency and associations of the order of initiation of drug use among participants in the WHO World Mental Health Surveys

Drug and Alcohol Dependence, 108, 84-97

Louisa Degenhardt, Lisa Dierker, Wai Tat Chiu, Maria Elena Medina-Mora, Yehuda Neumark, Nancy Sampson and Ronald C. Kessler

Background: It is unclear whether the normative sequence of drug use initiation, beginning with tobacco and alcohol, progressing to cannabis and then other illicit drugs, is due to causal effects of specific earlier drug use promoting progression, or to influences of other variables such as drug availability and attitudes.

One way to investigate this is to see whether risk of later drug use in the sequence, conditional on use of drugs earlier in the sequence, changes according to time-space variation in use prevalence. We compared patterns and order of initiation of alcohol, tobacco, cannabis, and other illicit drug use across 17 countries with a wide range of drug use prevalence.

Method: Analyses used data from World Health Organization (WHO) World Mental Health (WMH) Surveys, a series of parallel community epidemiological surveys using the same instruments and field procedures carried out in 17 countries throughout the world.

Results: Initiation of "gateway" substances (i.e. alcohol, tobacco and cannabis) was differentially associated with subsequent onset of other illicit drug use based on background prevalence of gateway substance use. Cross-country differences in substance use prevalence also corresponded to differences in the likelihood of individuals reporting a non-normative sequence of substance initiation.

Incidence and risk for acute hepatitis C infection during imprisonment in Australia

European Journal of Epidemiology, 25, 143-148

Kate Dolan, Suzy Teutsch, Nicolas Scheuer, Michael Levy, William Rawlinson, John Kaldor, Andrew Lloyd, Paul Haber

Abstract: To determine hepatitis C incidence and the demographic and behavioural predictors in seronegative drug injecting prisoners. Prisoners in New South Wales, Australia who: were aged 18 years and over; reported IDU; had been continuously imprisoned; had a documented negative HCV antibody test result in prison in the last 12 months; and provided written informed consent. Subjects were interviewed about their demographic characteristics and detailed risk factors for transmission prior to, and since, imprisonment. A blood sample was collected to screen for HCV antibodies by ELISA and RNA by PCR. Of 253 inmates recruited, 120 were continuously imprisoned and included in this analysis. Sixteen acquired HCV infection indicating an incidence of 34.2 per 100 person years (CI: 19.6–55.6). Risk factors for transmission included prior imprisonment, methadone treatment and greater than 10 years of education. Although the frequency of injecting was reduced in prison, 33.6% continued to inject drugs, most commonly methamphetamine, and 90% of these reported sharing injecting equipment. Prison inmates were at high risk of HCV infection, despite some reduction in high-risk behaviours and access to prevention services. To prevent HCV transmission in prisons, better prevention strategies are required.

Chronic use of cannabis and poor neural efficiency in verbal memory ability

Psychopharmacology, 209, 319-330

Robert A. Battisti, Steven Roodenrys, Stuart J. Johnstone, Colleen Respondek, Daniel F. Hermens and Nadia Solowij

Introduction: The endogenous cannabinoid system is sensitive to the introduction of exogenous cannabinoids such as delta-9-tetrahydrocannabinol, which are known to impact upon memory functioning. We sought to examine the impact of chronic cannabis use upon memory-related brain function via examination of the subsequent memory effect (SME) of the event-related potential (ERP).

Methods: The SME is predictive of recall outcome and originates in structures that are dense with cannabinoid receptors (hippocampus and parahippocampus). The SME and performance on a verbal memory task were compared between 24 cannabis users (mean 17 years of near daily use) in the unintoxicated state and 24 non-using controls. The task involved the presentation of word lists, each with a short delay before recall. ERPs were recorded during encoding and later averaged by outcome (correctly recalled/not recalled).

Results: Cannabis users showed poorer recall and altered patterns of SME activation: specifically, attenuation of the negative N4 and an increase in the late positive component. Duration of cannabis use and age of initial use correlated significantly with SME amplitudes. A longer history of use also correlated with greater recall that was related to N4 expression.

Discussion: The results indicate that relative to non-using controls, chronic users of cannabis have altered memory related brain activation in the form of dysfunctional SME production and/or poorer neural efficiency, which is associated with deficits in memory recall. Greater alteration was associated with a longer history of cannabis use and an earlier onset of use. Neuroadaptation to the effects of chronic exposure may additionally play a role.

Characteristics and comorbidity of drug and alcohol-related emergency department presentations detected by nursing triage

Addiction, 105, 897- 906

Devon Indig, Jan Copeland, Katherine M. Conigrave and Anthony Arcuri

Introduction: This study used nursing triage text to detect drug- and alcohol-related emergency department (ED) presentations and describe their patient and service delivery characteristics.

Methods: Data were reviewed for all ED presentations from 2004 to 2006 (n = 263 937) from two hospitals in Sydney, Australia. Each record included two nursing triage free-text fields, which were searched for more than 100 drug-related and more than 60 alcohol-related terms. Adjusted odds ratios were used to compare the characteristics of drug and alcohol-related ED presentations with all other ED presentation types.

Results: Just over 5% of ED presentations were identified as alcohol-related and 2% as drug-related. The most prevalent drug-related ED presentations specified were related to amphetamines (18%), heroin (14%), cannabis (14%) and ecstasy (12%),while nearly half (43%)were drug unspecified. Polydrug use was mentioned in 25% of drug-related and 9% of alcohol-related ED presentations, with the highest rate of polydrug use among ecstasy-related (68%) presentations. Drug- and alcohol-related ED presentations were significantly more likely than other ED presentations to have a mental health diagnosis, with the highest rates found among cannabis-related (OR = 7.6) or amphetamine-related (OR = 7.5) presentations.

Conclusion: The ED provides an opportunity for early intervention for patients presenting with comorbid drug and alcohol and mental health problems. Further research is needed to assess the prevalence of drug and alcohol problems in ED patients with mental health problems and to develop effective interventions in that setting.

Treatment-seeking behaviours for depression in the general population: Results from the National Epidemiologic Survey on Alcohol and Related Conditions

Journal of Affective Disorders, 121, 59-67

Natacha Carragher, Gary Adamson, Brendan Bunting and Siobhan McCann

Background: In light of the public health and clinical significance of major depression, treatment utilisation is an important issue. Epidemiological data is particularly useful for yielding accurate estimates of national trends; assessing unmet need in the population; and, informing mental health policy and focused planning of public health prevention and intervention programs.

Methods: Based on data from the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), latent class analysis (LCA) was used to empirically identify and validate a typology of treatment-seeking behaviours for depression. Analyses were based on a subsample of individuals with a lifetime diagnosis of major depressive disorder (MDD).

Results: A three-class solution emerged as the best-fitting model. The classes were labelled highly active treatment-seeking, partially active treatment-seeking, and inactive treatment seeking. The classes were validated by reference to predisposing, enabling, and need factors associated with treatment utilisation.

Limitations: Since information was retrieved by retrospective self-report it was not possible to corroborate information on treatment utilisation or medical conditions with independent clinical or administrative records. Reporting bias and recall error therefore cannot be ruled out. Also, given that the NESARC utilised lay interviewer-administered structured interviews to determine mental health diagnoses, one should be mindful that diagnoses are epidemiological research diagnoses rather than clinician diagnoses.

Conclusions: This study demonstrated the utility of LCA for identifying clinically meaningful subgroups of treatment-seeking behaviour.

Does cannabis use increase the risk of death? Systematic review of epidemiological evidence on adverse effects of cannabis use

Drug and Alcohol Review, 29, 318 – 330

Bianca Calabria, Louisa Degenhardt, Wayne Hall and Michael Lynskey

Issues: To conduct a comprehensive search of the peer-reviewed literature to assess risk of cannabis-related mortality.

Approach: Systematic peer-reviewed literature searches were conducted in Medline,EMBASE and PsycINFO to identify data on mortality associated with cannabis use.Search strings for cannabis and mortality were used.Searches were limited to human subjects and the publication timeframe of January 1990 to January 2008. Reference lists of review articles and of specific studies deemed important by colleagues were searched to identify additional studies. A list of the selected articles was emailed to experts in the field asking for comment on completeness.

Key Findings: There is insufficient evidence, particularly because of the low number of

studies, to assess whether the all-cause mortality rate is elevated among cannabis users in the general population. Case–control studies suggest that some adverse health outcomes may be elevated among heavy cannabis users, namely, fatal motor vehicle accidents, and possibly respiratory and brain cancers. The evidence is as yet unclear as to whether regular cannabis use increases the risk of suicide.

Conclusions: There is a need for long-term cohort studies that follow cannabis using individuals into old age, when the likelihood of any detrimental effects of cannabis use are more likely to emerge among those who persist in using cannabis into middle age and older. Case- control studies of cannabis use and various causes of mortality are also needed.

Comparing the cost of alcohol-related traffic crashes in rural and urban environments

Accident Analysis and Prevention, 42, 1195–1198

Suzanne Czech, Anthony P. Shakeshaft, Joshua M. Byrnes and Christopher M. Doran

Context: Existing studies have identified that, although to a lesser extent than individual factors such as males and young people, rural (compared to urban) communities represent a disproportionately high risk of alcohol-related traffic crashes (ARTCs). To date, however, few studies have attempted to apply different costs to alcohol crashes of different severity, to provide more precise, and practically useful, data on which to base public health policy and intervention decisions.

Objective: The aim of this study is to quantify the per capita prevalence and differential costs of alcohol crashes of different levels of severity to determine the extent to which urban and rural geographical areas may differ in the costs attributable to ARTCs.

Design: A cross-sectional analysis of alcohol-related traffic crash and costs data from 2001 to 2007.

Setting and participants: Data from New South Wales, Australia.

Main outcome measures: Modified routinely collected traffic accident data to which costs relevant to alcohol crashes of different severity are applied.

Results: Although the rate per 10,000 population of alcohol-related crashes is 1.5 times higher in rural, relative to urban, communities, the attributable cost is four times higher, which largely reflects that rural alcohol-fatalities are seven to eight times more prevalent and costly.

Conclusions: Given that per capita alcohol-related fatal crashes in rural areas account for a disproportionately large proportion of the harms and costs associated with alcohol-related traffic crashes, the cost-effectiveness of public health interventions and public policy initiatives should consider the relative extent of ARTC-harm in rural versus urban communities.

Comparative rates of violent crime among regular methamphetamine and opioid users: offending and victimization

Addiction, 105, 916-919

Shane Darke, Michelle Torok, Sharlene Kaye, Joanne Ross, Rebecca McKetin

Aims: To determine the comparative levels of violent offending and victimization among regular methamphetamine and heroin users.

Design: Cross-sectional

Participants: A total of 400 regular methamphetamine (METH) and heroin (HER) users (118 methamphetamine users: METH; 161 regular heroin users: HER; 121 regular users of both: BOTH).

Findings: Eighty-two per cent reported a life-time history of committing violent crime, 41% in the past 12 months. There were no group differences in life-time violence, but the METH group were significantly more likely than the HER group to have committed violence in the past 12 months (odds ratio 1.94). Nearly all (95%) reported that they had been a victim of violent crime, 46% in the preceding 12 months, with no group differences. Those who had committed a violent crime in the past 12 months were 13.23 times more likely to have been a victim in that period. The majority believed it unlikely that they would be a victim of (78%), or commit (87%), a violent crime in the next 12 months.

Conclusions: Regular methamphetamine use appears to be associated with an increased risk of violent offending, but not victimization, compared with heroin use.

The relationship between risky alcohol consumption, crime and traffic accidents in Australian rural communities

Addictive Behaviours, 35, 359-362

Dennis J. Petrie,† Christopher M. Doran, Anthony P. Shakeshaft and Rob Sanson-Fisher

Aim: To estimate the alcohol-attributable crime and traffic accidents for rural communities in Australia, controlling for potential bias.

Method: For 20 rural communities in New South Wales, Australia, crime and traffic accident data was obtained from police records along with risky alcohol use estimated from a postal questionnaire. The relationship between community levels of risky drinking and crime and traffic accidents that occur in alcohol-related times is analysed controlling for the underlying level of crime by using the rate of incidents that occur in non-alcohol-related times.

Findings: For the 20 rural communities, it was estimated that risky alcohol use is likely to have attributed to between 1.4 and 7.7 common assaults per 1000 population and between 0.6 and 1.8 serious traffic injuries or fatalities per 1000 population, every year.

Conclusions: Rural communities in Australia are experiencing a sizeable amount of potentially avoidable harm due to risky alcohol use. Reducing the population levels of those drinking at risk of acute harm or improving the settings in which drinking takes place may have benefits for these communities, especially in terms of crime and traffic accidents.

Does opioid substitution treatment in prisons reduce injecting-related HIV risk behaviours? A systematic review

Addiction , 105, 216–223

Sarah Larney

Objectives: To review systematically the evidence on opioid substitution treatment (OST) in prisons in reducing injecting-related human immunodeficiency virus (HIV) risk behaviours.

Methods: Systematic review in accordance with guidelines of the Cochrane Collaboration. Electronic databases were searched to identify studies of prison-based opioid substitution treatment programmes that included assessment of effects of prison OST on injecting drug use, sharing of needles and syringes and HIV incidence. Published data were used to calculate risk ratios for outcomes of interest. Risk ratios were not pooled due to the low number of studies and differences in study designs.

Results: Five studies were included in the review. Poor follow-up rates were reported in two studies, and representativeness of the sample was uncertain in the remaining three studies. Compared to inmates in control conditions, for treated inmates the risk of injecting drug use was reduced by 55–75% and risk of needle and syringe sharing was reduced by 47–73%. No study reported a direct effect of prison OST on HIV incidence.

Conclusions: There may be a role for OST in preventing HIV transmission in prisons, but methodologically rigorous research addressing this question specifically is required. OST should be implemented in prisons as part of comprehensive HIV prevention programmes that also provide condoms and sterile injecting and tattooing equipment.

Do maternal parenting practices predict problematic patterns of adolescent alcohol consumption?

Addiction, 105, 872–880

Rosa Alati, Elizabeth Maloney, Delyse M. Hutchinson, Jake M. Najman, Richard P. Mattick, William Bor and Gail M. Williams

Objective: This study examines whether a mother's style of parenting at child age 5 years predicts problematic patterns of drinking in adolescence, after controlling for relevant individual, maternal and social risk factors.

Methods: Data were used from the Mater-University Study of Pregnancy, an Australian longitudinal study of mothers and their children from pregnancy to when the children were 14 years of age. Logistic regression analyses examined whether maternal parenting practices at child age 5 predicted problematic drinking patterns in adolescence, after controlling for a range of confounding covariates.

Results: Physical punishment at child age 5 did not predict adolescent alcohol problems at follow-up. Results indicated that low maternal control at child age 5 predicted adolescent occasional drinking patterns at age 14. More frequent maternal partner change coupled with lower levels of control was the strongest predictor of more problematic patterns of drinking by adolescents.

Conclusions: These findings highlight the importance of family structure and level of parental control in the development of problematic patterns of drinking in adolescence.

Internet-based prevention for alcohol and cannabis use: final results of the Climate Schools course

Addiction, 105, 749–759

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

Aims: To establish the long-term efficacy of a universal internet-based alcohol and cannabis prevention programme in schools.

Methods: A cluster-randomized controlled trial was conducted to assess the effectiveness of the Climate Schools: Alcohol and Cannabis Course. The evidence-based course, aimed at reducing alcohol and cannabis use, is facilitated by the internet and consists of 12 novel and curriculum consistent lessons delivered over 6 months.

Participants: A total of 764 year 8 students (13 years) from 10 Australian secondary schools were allocated randomly to the internet-based prevention programme (n = 397, five schools), or to their usual health classes (n = 367, five schools).

Measures: Participants were assessed at baseline, immediately post, and 6 and 12 months following completion of the intervention, on measures of alcohol and cannabis knowledge, attitudes, use and related harms.

Results: This paper reports the final results of the intervention trial, 12 months following the completion of the Climate Schools: Alcohol and Cannabis Course. The effectiveness of the course 6 months following the intervention has been reported previously. At the 12-month follow-up, compared to the control group, students in the intervention group showed significant improvements in alcohol and cannabis knowledge, a reduction in average weekly alcohol consumption and a reduction in frequency of drinking to excess. No differences between groups were found on alcohol expectancies, cannabis attitudes or alcohol- and cannabis-related harms. The course was found to be acceptable by teachers and students as a means of delivering drug education in schools.

Conclusions: Internet-based prevention programs for school-age children can improve student's knowledge about alcohol and cannabis, and may also reduce alcohol use twelve months after completion.

Quantifying point prevalence of major depressive episode using lifetime structured diagnostic interviews

Journal of Affective Disorders, 12, 39-44

Tim Slade and Matthew Sunderland

Background: Estimates of the prevalence of mental disorders are vital for policy and practice. The aim of the current study was to compare estimates of point (30-day) prevalence of major depressive episode (MDE) derived from a lifetime diagnostic interview with estimates derived from an interview exclusively focussing on the 30 days prior to interview.

Methods: Study design consisted of face-to-face survey interviews using two separate versions (lifetime and current) of the depression module of the World Mental Health Survey Initiative version of the Composite International Diagnostic Interview (WMH-CIDI). The setting was an outpatient tertiary referral centre for the treatment of anxiety and depressive disorders. One hundred and sixty four people were randomly allocated to receive either the lifetime or current version of the WMH-CIDI. Point prevalent cases derived from the lifetime interview were compared to point prevalent cases comprehensively assessed by the current interview.

Results: The risk of being diagnosed with current MDE having been interviewed with a lifetime interview was higher, but not significantly higher, than the risk of being diagnosed with current MDE having been interviewed with a current interview (RR=1.29, 95% CI: 0.82–2.03). Derived and comprehensive point prevalent cases were similar with regard to a range of depression related clinical characteristics.

Limitations: The size of the sample precluded the ability to determine the equivalence of prevalence estimates. The observed relationships may be different in general community samples.

Conclusions: Point prevalence of MDE derived from a lifetime diagnostic interview may be slightly higher than that derived from a comprehensive current interview. However, point prevalent cases, regardless of how they are derived, are similar with regard to depression-related clinical characteristics.

Development of a short cannabis problems questionnaire for adolescents in the community

Addictive Behaviours, 35, 734 -737

Heather Proudfoot, Laura Vogl, Wendy Swift, Greg Martin and Jan Copeland

Abstract: The widespread and harmful use of cannabis amongst young people in the community has been well established. In order to assist in identifying young people at risk of harm for their cannabis use, the present paper documents the development of a short 12-item cannabis problems measure – the Cannabis Problems Questionnaire for Adolescents, Short form (CPQ-A-S).

The CPQ-A-S was derived from the 27-item Cannabis Problems Questionnaire for Adolescents (CPQ-A) which had been shown in an earlier study to be a reliable and valid indicator of cannabis problems in adolescents. Tetrachoric correlations amongst items were examined and the more redundant items removed.

Psychometrics of the shorter scale were then evaluated through factor analysis, and logistic regression used to demonstrate scale validity. This is the first short scale of cannabis problems derived for adolescents and it should prove a useful tool in both research and community applications. **cl**

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Australian Drug Trends Series

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