

Alcohol amphetamines cannabis  
protection cocaine comorbidity  
protective services crime Decriminalisation  
diversion program drug testing ecstasy  
EDRS emerging psychoactive substances  
gay & lesbian community GHB harm  
reduction heroin hospital separation  
EDRS Justice Health law enforcement  
media mental health Methadone



# Annual Report 2011

## National Drug and Alcohol Research Centre

Medicine

National Drug and Alcohol Research Centre



Drugs (PIEDs) policy prison psychosis  
PTS schools sex workers Symposium teenagers  
tobacco treatment





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# ABOUT THE CENTRE

**The National Drug and Alcohol Research Centre (NDARC) is a premier research institution in Australia and is recognised internationally as a research centre of excellence. NDARC was established at the University of New South Wales (UNSW) in May 1986 and officially opened in November 1987. It is funded by the Australian Government as part of its National Drug Strategy. NDARC is situated on the University of New South Wales Randwick campus in the eastern suburbs of Sydney.**

The Centre is multidisciplinary and collaborates with medicine, psychology, social science and other schools at UNSW, as well as with a range of other institutions and individuals in Australia and overseas. NDARC engages in collaborative projects with other researchers throughout Australia to provide a national focus for research in the alcohol and other drugs field, and has links with researchers overseas. Facilities at the Centre include a computer network, a Document Archive with an extensive bibliographic database, as well as seminar and conference facilities.

In addition to the research conducted at NDARC, other activities include an Annual Symposium and a range of special conferences and educational workshops. NDARC researchers have a strong record of contributions to scientific journals and other publications, and NDARC also produces its own Australian Drug Trend Series, Technical Report Series, and occasional Research Monographs. In conjunction with the National Drug Research Institute in Perth (NDRI), NDARC also produces a free bimonthly newsletter, CentreLines, to increase communication between the national research centres, other researchers, and workers in the alcohol and other drugs field within Australia.

## Executive Committee

The Executive Committee is the major decision-making body in NDARC and is responsible for the overall direction and management of the Centre. The Centre Director chairs the meetings which are held fortnightly.

### In 2011 the Executive Committee Members were:

#### Acting Director

(from September 2010 to 14 March 2011),  
Associate Professor Alison Ritter

#### Director

(from 14 March 2011)  
Professor Michael Farrell

#### Assistant Directors

Professor Maree Teesson

Professor Jan Copeland

Associate Professor Alison Ritter

Associate Professor Anthony Shakeshaft

#### NDARC Executive Officer

Dr Shale Preston

## NDARC Advisory Board

The NDARC Advisory Board meetings are scheduled quarterly. The Hon. Kevin Rozzoli AM, resigned after 23 years as Chair of the NDARC Advisory Board, effective 30th June 2011. Kevin was replaced by Mr Bob Mansfield AO, Director at Manritch.

Professor Michael Farrell arrived on 14 March 2011 to assume his role as Director of NDARC and accordingly became a member of the Advisory Board.

### In 2011 the Members of the NDARC Advisory Board were:

The Honourable Kevin Rozzoli AM, Dip Law  
Chair until 30 June 2011

Mr Bob Mansfield AO, FCPA,  
Chair from 1 July 2011

Professor Denis Wakefield, MBBS, MD, DSc,  
FRACP, FRCPA Associate Dean (Research),  
Faculty of Medicine, University of  
New South Wales

Professor Les Field BSc, PhD, DSc, CChem,  
FRACI, FAA Deputy Vice Chancellor  
(Research) & Professor of Chemistry,  
University of New South Wales

Mr Simon Cotterell, Assistant Secretary,  
Drug Strategy Branch, Population Health  
Division, Australian Department of Health  
and Ageing until October 2011

Mr Chris Milton, Drug Strategy Branch,  
Population Health Division, Australian  
Department of Health and Ageing from  
October 2011

Dr Don Weatherburn BA (Hons), PhD, PSM,  
FASSA Director, NSW Bureau of Crime  
Statistics and Research

Mr David McGrath, rejoined the Advisory  
Board on 19 August 2011

The Hon. Pru Goward, until 28 April 2011

# FOREWORD



**The misuse of alcohol, illicit drugs and tobacco is still a major problem in Australia, leading to significant preventable ill health, premature death and sizeable social and economic costs.**

Around one in five Australians still drink at levels risky to their long-term health. The economic story is also extremely compelling and alarming. A conservative estimate of the cost of the use of illicit drugs, alcohol and tobacco in Australia is around \$56 billion - with tobacco accounting for more than half of that.

Not surprisingly, given the above, when I was offered the chance to become Chairman of the National Drug and Alcohol Research Centre earlier this year I jumped at it, even in the knowledge that I had to fill the very big shoes of Kevin Rozzoli, who chaired NDARC's Advisory Board for 23 years.

## 25 years of research

Next year NDARC celebrates its 25th birthday, and in its 25 years it has made a major contribution to documenting the size of the drug and alcohol problem, providing an evidence base for Government to develop policy, and in developing and evaluating treatments.

But despite significant gains, particularly around reducing the harms associated with heroin use, there is still much work to be done as new problems emerge - abuse of prescription drugs, new and emerging chemical drugs available over the internet, binge drinking among young people and hard-to-reach smokers who are bucking the trend of declining smoking rates in developed countries. Happily, the internet and new communications technologies also bring great opportunities for prevention and treatment.

## Building for the future

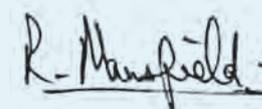
As the pages of this report show, the research team at NDARC and their many national and international collaborators are conducting numerous studies involving a wide range of substance types and areas - treatment, prevention, epidemiology, policy - all designed to strengthen the evidence base for policy development, treatment provision and prevention.

The challenge for us now is to help build for the future. With myself as new Chair and Professor Michael Farrell as Director, I look forward to helping shape the Centre to jump a new set of ambitious hurdles and ensuring this important area of research gets the support required and continues to make a real difference to individuals, families, communities and to the whole country. NDARC has a fantastic international reputation and high status as a premier research centre, and it's important that we build on that too.

During my short period of involvement with NDARC I have been extremely impressed with the scope and quality of its activities. The knowledge and energy of the people I have met are exciting and impressive. This report, which covers NDARC'S activities in 2011, illustrates the excellent work being achieved.

Under Professor Michael Farrell's energetic leadership I know that will continue to be the case as together we tackle the new challenges ahead.

I recommend this report. It provides an excellent summary of the work of the Centre.



**Mr Bob Mansfield**  
Chairman, NDARC Board of Management



**DESPITE SIGNIFICANT GAINS, PARTICULARLY AROUND REDUCING THE HARMS ASSOCIATED WITH HEROIN USE, THERE IS STILL MUCH WORK TO BE DONE AS NEW PROBLEMS EMERGE**



# DIRECTOR'S REPORT



Professor Michael Farrell

**The past year has been a strong and productive one for NDARC. It was my first year as Director and I have had the pleasure of working with a talented, ambitious and driven team of researchers.**

A key part of research is having the time to carefully plan good studies and to have the patience to stick at it until they are funded. NDARC's track record at this is excellent. Our success in obtaining grant funding reflects the high quality of the work undertaken and the very high quality of our publications in major international journals. This type of output puts NDARC into the top league of alcohol and drug research centres around the world.

### Ambitious targets

Next year is the 25th year since the official opening of NDARC and much has been achieved in that time. We are in the process of planning for the future and looking at how we can build on our achievements and set ambitious targets for the coming five years.

You will notice this report includes a very wide range of projects funded by a variety of sources. While we value the diversity of projects, we are also keen to focus on certain key areas of importance to the future management of alcohol and drug problems.

### Nature/nurture interaction

NDARC has played a key part in the National Drug and Mental Health Surveys over the past decade and plans to continue to work in this area; however, we have also managed to get several key cohort studies underway. This type of longitudinal work is necessary to begin to tease out more complex interactions in both prevention and treatment. We need to better understand the complex nature/nurture interactions in the evolution of drug and alcohol problems.

The revolution in molecular genetics and neuroimaging needs to be harnessed in order to better understand how these different dimensions impact on drug and alcohol problems. We are keen to engage in collaborative research to ensure that the highest quality and highest impact is derived from these large child, teenage and adult cohort studies.

The partnership with the Drug Policy Modelling Program has strengthened our approach to the research-policy-practice interface. The National Cannabis Information and Prevention Centre continues to be supported by the Department of Health and Ageing and provides a unique focus around cannabis issues.

Our Chairman since inception, Mr Kevin Rozzoli, has stepped down after invaluable service to the Centre and the broader community over the past 25 years. In recognition of his profound contribution we have established the annual Kevin Rozzoli Community Impact Award.

Our new Chairman, Mr Bob Mansfield, is already working hard with the Centre and the rest of the advisory board to set a fresh and bold new strategy to guide us through the next five to 10 years. Our approach of delivering very high quality research that translates into key approaches for new policies and practices ensures we can steer this fast and sleek ship over the coming decade.

**Professor Michael Farrell**



**WE NEED TO BETTER UNDERSTAND THE COMPLEX NATURE/NURTURE INTERACTIONS IN THE EVOLUTION OF DRUG AND ALCOHOL PROBLEMS**



# FROM THE EXECUTIVE



Prof. Jan Copeland



ONE OF THE NEWEST PROJECTS PRESENTED ON OUR WEBSITE IS THE **MAKINGtheLINK PARENT WORKSHOP: TALKING TO TEENS ABOUT SEEKING HELP**



**The NCPIC consortium continued to deliver high quality, evidence-based information through a range of communications activities in 2011.** Our website - [www.ncpic.org.au](http://www.ncpic.org.au) - receives around 150,000 hits annually and grows at more than 20% per quarter. Among the most popular pages are those that display our resources for ordering; more than 170,000 NCPIC resources were distributed in 2011. All of the NCPIC resources were updated in 2011 and new factsheets produced, including on topics such as synthetic cannabinoids and cannabis withdrawal.

One of the newest projects presented on our website is the **MAKINGtheLINK Parent Workshop: Talking to Teens about Seeking Help**, developed by our new partner, Turning Point Alcohol and Drug Centre (Victoria). This is a companion project to the student package developed by ORYGEN Youth Health - **MAKINGtheLINK: Promoting Help Seeking for Cannabis Use and Mental Health**.

This year the Centre received the final report from Carroll Communications on the evaluation of NCPIC's communication strategy initiatives. The evaluation focused on *Clear Your Vision*, a clinical intervention for marginalised young cannabis users; *It's Not Our Culture*, a community development program for Aboriginal and Torres Strait Islander peoples;

and *Is Cannabis the Missing Piece?* - a GP education package. While each resource was well regarded and positively evaluated, the report included recommendations such as the formation of specialist reference groups for Aboriginal and Torres Strait Islander community members and school-based prevention.

The clinical training program delivered high quality presentations across urban, regional and rural locations over this year. This team delivers more than 120 clinical workshops and around 20 conference presentations annually. The clinical training program received an award at the 2011 conference of the Australian College of Mental Health Nurses.

The clinical services and evaluation team have been extremely productive in 2011. The NHMRC-funded double blind placebo randomised controlled trial of *Sativex* in the management of cannabis withdrawal commenced and the first participants were enrolled. An NHMRC project grant led by A/Prof. Alan Clough (School of Public Health and Tropical Medicine, James Cook University) will enable us to build on our work with Aboriginal and Torres Strait Islander communities by investigating cannabis withdrawal symptoms among new Indigenous male prisoners.

Congratulations to our consortium partners and staff on an excellent year's work.



A/Prof. Alison Ritter



WE WERE HIGHLY SUCCESSFUL IN OBTAINING COMPETITIVE RESEARCH FUNDS, WITH NEW INCOME THIS YEAR AMOUNTING TO \$980,000



**The Drug Policy Modelling Program (DPMP) was established in 2004 to build applied drug policy research capacity in Australia; it continued its success in 2011.**

Led by myself since its inception, it is funded by a core grant from the Colonial Foundation Trust and receives research funds from other sources including the NHMRC, ARC, ANCD, and multiple government departments. The DPMP Investigators (see our website [www.dpmp.unsw.edu.au](http://www.dpmp.unsw.edu.au)) collaborate with a range of organisations and scholars nationally and internationally. Important features of DPMP include its multi-disciplinary approach (including the disciplines of economics, criminology, political science, psychology, health economics, law and public policy), and its focus across the spectrum of drug policy (law enforcement, treatment, harm reduction, prevention, and laws and regulations).

In 2011, we continued our work across the three streams:

1. Generating new evidence of relevance to drug policy;
  2. Translating research evidence;
  - and 3. Studying policy processes.
- We completed several projects and had 30 ongoing projects during 2011. Highlights for 2011 included the completion of a project assessing Australian drug policy (1985 to 2010); work on sentencing threshold limits for drug offenders; a cost-effectiveness analysis of drug law enforcement directed

towards methamphetamine; a study of criminal networks; a cost-benefit analysis of cannabis legalisation options, and work on trends in public opinion and its relationship to media and policy.

DPMP continued to produce high-quality academic publications, including 20 journal articles, six book chapters and more than 70 conference presentations, seminars and workshops. We were also highly successful in obtaining competitive research funds, with new income this year amounting to \$980,000.

Even more important than the above, however, has been our ongoing policy influence. In 2011 DPMP researchers engaged in major policy work at the political level. One example of this is work we completed for the Victorian Government in relation to their Opioid Substitution Treatment Program, which led to additional resources for treatment service enhancements. We continued to produce policy-relevant resources such as the Australian drug policy timeline, a resource for all stakeholders in AOD policy that is updated six-monthly. DPMP was active in preparing submissions to public consultations and government inquiries, and in 2011 had members on multiple advisory committees. In these various ways, DPMP continues to produce timely research evidence and actively engages with policy processes to achieve our overall aim of facilitating evidence-informed Australian drug policy.



A/Prof. Anthony Shakeshaft



**A LANDMARK OPIOID PRESCRIBING PROJECT IN COLLABORATION WITH THE TASMANIAN GOVERNMENT WILL GENERATE A BLUEPRINT FOR FUTURE GOVERNMENT AND RESEARCH INTERACTION**



**Some notable milestones were achieved by Directorate staff in 2011, in terms of personal achievements, the progression of existing projects and the awarding of significant new grants.**

Four staff members - Fiona Shand, Courtney Breen, Alys Havard and Hector Navarro - were awarded PhDs. Other staff - Ed Silins and Josh Byrnes - completed Doctoral dissertations and submitted them for examination. Ed Silins and Emma Black both received Dean's Awards for their contributions to research and to UNSW.

Several large-scale landmark projects made substantial progress in 2011. These and other Directorate projects are detailed elsewhere in this annual report, but in summary they are:

- Alcohol Action in Rural Communities - a large and innovative randomised controlled trial of interventions designed to reduce alcohol-related harms in rural NSW
- Quantifying the cost-effectiveness of a family-based intervention for reducing alcohol-related harms among Indigenous Australians with high-risk alcohol use
- An examination of whether parents can teach their children to drink alcohol responsibly, or whether one drop is a drop too many

- Ongoing surveillance of the diversion and injection of the medications used in opioid substitution treatment
- Examining the impact of parental alcohol, tobacco and other substance use on infant development and family functioning
- The ongoing work of the Cannabis Cohort Research Consortium
- A landmark opioid prescribing project in collaboration with the Tasmanian government that will generate a blueprint for future government and research interaction
- An assessment of the relative economic efficiency of Indigenous alcohol policies in Australia.

Directorate staff members were awarded six new grants to commence in 2012, ranging in value from \$40,000 to \$1.9 million. The largest grant will fund research (led by Professor Richard Mattick) into a new approach to smoking intervention among lower socio-economic groups, who have a higher failure rate for quitting smoking than other groups in the community.

As of December 2011, the Directorate was awaiting the outcome of another six grant applications for projects planned to commence in 2012.



Prof. Maree Teesson



**THE INTERNET PREVENTION AND TREATMENT PROGRAM CONTINUED TO INVESTIGATE THE POTENTIAL OF THE WEB FOR TREATMENT AND INTERVENTION**



**Our group comprises five programs of research: the Psychiatric Epidemiology Research Program; the Internet Prevention and Treatment Program; the Treatment Research Program; the Program of International Research Training, and Mortality, Morbidity and Illicit Drug Use.**

Highlights in 2011 included the award of two new NHMRC grants, one to conduct the 11-year follow up of the Australian Treatment Outcome Study and the other to undertake the first combined universal and targeted prevention program for alcohol and drug harms. Another highlight was the award of the prestigious UNSW Peter Baume Public Health Impact Award to Professor Kate Dolan.

We collaborate with more than 30 research teams across Australia and internationally, and this resulted in some outstanding achievements in 2011. Our work with Dr Susan Rees and Professor Derrick Silove at the UNSW School of Psychiatry on gender-based violence resulted in a paper in the prestigious *Journal of the American Medical Association*, subsequently reported in media worldwide. Drs Chapman, Mills and Slade led a collaborative study with UNSW, the University of Adelaide and the University of Melbourne on remission from post-traumatic stress disorder, published in *Psychological Medicine*.

Professor Shane Darke completed projects on predictors of retention and success in therapeutic communities and

cognitive impairment among heroin users. Dr Sharlene Kaye, in collaboration with colleagues from the National Drug Research Institute, conducted the Australian arm of an international study of the prevalence of attention deficit hyperactivity disorder among people with substance use disorders.

Dr Wendy Swift completed the final papers describing an analysis of the relationship between cannabis use, mental health and licit and illicit drug use in young adulthood in collaboration with the Centre for Adolescent Health in Melbourne.

Dr Katherine Mills and colleagues commenced a new trial of a brief intervention for traumatised clients of AOD treatment services, and Dr Joanne Ross and colleagues commenced a study into the effectiveness of group schema therapy in treating chronically depressed opioid dependent AOD clients.

The internet prevention and treatment program continued to investigate the potential of the web for treatment and intervention. Dr Nicola Newton and I ran a feasibility study of the universal internet-based CLIMATE Schools prevention program in the UK and Dr Kay-Lambkin and Mark Deady commenced a trial for young adults using the SHADE program which has already been successful in adults.

Finally, the wide dissemination of our research was exemplified in our series of co-morbidity information booklets with a distribution of over 100,000.

# THE YEAR IN REVIEW

The past year has been one of great change and great achievement for NDARC.

In March Professor Michael Farrell joined NDARC as the new Director, taking over the reins from Alison Ritter and Maree Teesson who had both acted in the role of Director since Richard Mattick stepped down in July 2009.

Michael Farrell moved to Sydney from London, where he was Professor of Addiction Psychiatry at the Institute of Psychiatry at Kings College London; he was already well known to many of his new colleagues through his extensive research interests, including treatment evaluation and drug dependence in prisons and within the wider criminal justice system. He has been a member of the World Health Organisation Expert Committee on Drug and Alcohol Dependence since 1995 and has chaired the Scientific Advisory Committee of the European Monitoring Centre on Drugs and Drug Abuse (EMCDDA) since 2007.

In July NDARC said goodbye to Kevin Rozzoli, who had been Chair of the Advisory Board (formerly the Board of Management) for an extraordinary 23 years, steering the Centre as it grew from only a dozen staff to 140 or so today. No less than three directors and staff and board members past and present gathered in the NDARC boardroom to say their goodbyes to Kevin - but not for long, as he returned to the Centre in November to address the final staff seminar for the year.

Our new Chairman is respected Australian businessman Bob Mansfield, whose many senior corporate roles include CEO of Optus, McDonalds and Fairfax Media and Chair of Telstra. Bob and Michael reflect on the past year and describe their visions for what lies ahead elsewhere in this report.

2011 was also an exceptional year for our postgraduate program, with a record five PhDs being awarded and a further three submitted and expected to be conferred early in 2012. At the other end of the academic spectrum, Kate Dolan was promoted to Professor as of January and Alison Ritter received notice that she had been promoted to Professor (effective January 2012), bringing the number of full professors at the Centre to seven.

Major grant success included a \$1.9 million NHMRC grant to Professor Richard Mattick and colleagues for a study of smoking cessation

among "hard to reach" lower socio-economic groups; a \$1 million grant led by Professor Louisa Degenhardt to commence a longitudinal study of chronic pain patients prescribed opioid analgesics; and \$362,450 for an 11-year follow-up of more than 600 heroin users first recruited for NDARC's landmark Australian Treatment Outcomes Study (ATOS).

Below we present some highlights for the year organised by research area. More detail on each of the projects is given in the Current and Completed Projects section of this report.

## Treatment and intervention

### Co-morbidity: prevalence, intervention and treatment

An estimated 35% of Australians with alcohol and other drug (AOD) use problems have a co-occurring mental illness, and in some treatment populations the rate reaches 85%. NDARC has an active program of research in this area, led by Professor Maree Teesson and colleagues, and individual research projects in other NDARC centres such as the National Cannabis Prevention and Information Centre (NCPIC). 2011 was an extremely productive year for this area of research:

- Dr Katherine Mills continued her groundbreaking work on co-morbid post-traumatic stress disorder (PTSD) with a pilot uncontrolled trial, testing the feasibility of a brief intervention for traumatised clients of AOD treatment services in 2011. External collaborators included Professor Amanda Baker from the University of Newcastle, Dr Frances Kay-Lambkin from NDARC and the University of Newcastle, and NDARC colleagues Dr Claudia Sannibale and Philippa Ewer. The preliminary results of this study were presented at the Australian Professional Society on Alcohol and Other Drugs (APSAD) conference, the European Association for Behavioural and Cognitive Therapies (EABCT) conference and as an invited

keynote at the Network of Alcohol and other Drug Agencies (NADA) trauma forum.

- Dr Mills and Dr Christina Marel developed five information booklets for consumers on co-occurring substance use and mental health disorders on behalf of the Australian Government Department of Health and Ageing (DoHA). Approximately 100,000 copies of the booklets have been provided to over 2,000 drug and alcohol and mental health services across Australia. The resources are one of the most downloaded items on the NDARC website.
- Dr Mills completed her randomised controlled trial of the efficacy of an intervention for PTSD among illicit drug users - Concurrent Treatment Prolonged Exposure (COPE). The results were presented at APSAD, the EABCT conference and the Drug and Alcohol Nurses of Australasia (DANA) conference (a full list of collaborators and final results can be found in the completed projects section of this report).
- Dr Mills and colleagues have also been investigating the incidence of secondary post-traumatic stress among AOD workers treating clients with co-morbid PTSD. Preliminary results of this study were presented at the DANA conference and at the NDARC Annual Symposium.
- Dr Frances Kay-Lambkin continued her groundbreaking work on the internet-delivered "SHADE" treatment program, commencing a trial to test its use among patients with co-morbid depression and AOD use disorders. The internet offers exciting possibilities for clients presenting with co-morbidity, where the lack of accessibility to treatment for most patients is well documented. A pilot trial of the site commenced in September 2011. Dr Kay-Lambkin has also received funding to trial the SHADE program within a Salvation Army residential treatment program.



Dr David Allsop



Dr Courtney Breen



Dr David Bright



Dr Lucy Burns



Dr Natacha Carragher



Dr Jenny Chalmers



Dr Catherine Chapman



Dr Elizabeth Conroy

- Dr Catherine Chapman and colleagues completed a project examining the factors associated with remission from PTSD in the Australian population, which was published in the international journal *Psychological Medicine*. This project was conducted in collaboration with leading Australian trauma and PTSD researchers from UNSW's School of Psychology and Department of Psychiatry, the University of Adelaide and the University of Melbourne.
- Dr Sally Rooke of NCPIC completed her trial of a web-based cognitive behavioural therapy (CBT) intervention for treating cannabis use and related problems. Final analyses showed that participants in the intervention group reduced their cannabis use, abuse and dependence more than participants in the control group. Grant applications and journal articles relating to the study are in preparation, as is a version of the web intervention that will be accessible from the NCPIC website.
- Dr Joanne Ross is leading a collaborative project, funded by NSW Health Drug and Alcohol Research Grants Program, to pilot test an eight-session group schema therapy program for treating co-morbid depression and opioid dependence. The treatment will be pilot tested with hospital opioid treatment clients and recruitment of participants is due to commence in early 2012. Co-investigators include Dr Glenys Dore from the Northern Sydney Drug and Alcohol Service, Dr Susan Simpson from the University of Adelaide, and NDARC colleagues.
- The co-morbidity of Attention Deficit Hyperactivity Disorder (ADHD) and Substance Use Disorder (SUD) has been relatively under-researched compared with other co-morbidities. Dr Sharlene Kaye, in collaboration with NDARC's sister centre the National Drug Research Institute (NDRI), is leading the Australian arm of an international project that aims to assess current ADHD symptoms among adults entering AOD treatment, the relationship between ADHD symptoms and the onset and course of SUD, and the nature and level of risk-taking behaviour associated with ADHD symptoms.

Joanne Cassar is the research assistant on the project. Nearly 500 interviews were conducted in Sydney and Perth in 2011 and data analysis is currently underway.

- In 2011, Professor Shane Darke's work on comparative levels of psychopathology of methamphetamine and opioid users was published in *Addiction Research and Theory*. Co-morbidity and childhood trauma was also a major theme of Professor Darke's book *The life of the heroin user: Typical beginnings, trajectories and outcomes* (Cambridge University Press).

### Cannabis

Cannabis research is conducted at NCPIC and through other NDARC research programs. Highlights of 2011 include:

- NCPIC's Dr David Allsop led a trial to develop a clinical scale for quantifying cannabis withdrawal using formal psychometric analysis. The resulting Cannabis Withdrawal Scale was published in *Drug and Alcohol Dependence* in late 2011 and is available via the NCPIC website ([www.ncpic.org.au](http://www.ncpic.org.au))



### IN A WORLD FIRST, PROFESSOR COPELAND AND DR ALLSOP ARE COLLABORATING ON A TRIAL OF SATIVEX® FOR THE MANAGEMENT OF CANNABIS WITHDRAWAL



- In a world first, NCPIC's Professor Copeland and Dr Allsop are collaborating on a double-blind, randomised, placebo controlled trial of SATIVEX® for the management of cannabis withdrawal. The first patients entered hospital in December 2011 and recruitment is expected to be completed in mid 2012.
- The National Clinical Services and Evaluation team at NCPIC, led by Dr Melissa Norberg, tested alternative methods for delivering brief treatment for cannabis use disorder. Dr Sally Rooke spearheaded a randomised controlled trial that examined the effectiveness of a six-session internet program group.

Peter Gates completed a randomised controlled trial to test the efficacy of a four-session telephone program.

- Drs Norberg and Rooke, along with Professor Jan Copeland, developed a protocol for a screening resource that provides feedback concerning patterns of use as well as motives for using cannabis. In 2012, this protocol will be adapted into an online resource and a randomised controlled trial will compare cannabis use and help-seeking among individuals who receive comprehensive feedback and individuals who receive brief feedback.
- Dr Norberg, Dr Rooke, and Lucy Albertella are in the process of developing a smartphone application (app) to help cannabis users reduce or quit their use. The content of the app will be based on feedback from potential app users obtained through a social marketing survey.
- In an exciting new project Dr Janette Smith, recipient of the UNSW Vice-Chancellor's Postdoctoral Scholarship, is examining the extent of cognitive deficits associated with alcohol and/or cannabis use in young adult university students. The study

combines measures of behavioural performance and brain function, as measures of brain electrical activity may be more sensitive to deficits than behaviour alone.

- Dr Delyse Hutchinson and Professor Richard Mattick are coordinating investigators of the Cannabis Cohort Research Consortium (CCRC). In 2011 the consortium was awarded NHMRC funding to undertake work integrating data from four large and long-running Australasian cohort studies to better understand the link between cannabis use and later outcomes. NDARC Senior Lecturer Dr Wendy Swift and PhD student Edmund Silins are also working on the consortium.



- Dr Swift completed her secondary analysis of the relationships between cannabis use, cannabis dependence, mental health and associated outcomes in the Victorian Adolescent Cohort study. A paper on the study was published in the *Journal of Epidemiology and Community Health* and presented at the 41st EABCT Conference in Reykjavik in September.
- Dr Swift is nearing completion of her NCPIC funded project *The characteristics of cannabis in Australia*. Preliminary potency analyses reveal a trend toward high THC levels and low cannabidiol levels in street-level cannabis in NSW, which has important implications for the mental health impacts of cannabis use.

### Interventions in Aboriginal communities

- Aboriginal Australians experience a disproportionately high burden of alcohol-related harm relative to non-Aboriginal Australians, which extend beyond the individual to families and communities. NDARC has a program of research specifically focused on evaluating evidence-based approaches for reducing alcohol-related harms in Aboriginal communities, led by Dr Anton Clifford.
- These projects include the assessment of a family-focused intervention (CRAFT) in collaboration with the Lyndon Community, the Yoorana Gunya Family Violence Healing Centre Aboriginal Corporation and the Condoobolin Aboriginal Health Service; implementation of screening and brief intervention in Aboriginal Health Services and a collaborative project led by Associate Professor Anthony Shakeshaft assessing the economic efficiency of Indigenous alcohol policy in Australia (*Dr Clifford moved to the University of Queensland in July 2011*).

### Treatment outcomes

- Professor Maree Teesson and colleagues commenced their NHMRC-funded project following up the original 2001 cohort of the Australian Treatment Outcomes

## A STUDY OF 190 NEW ENTRANTS TO THE WE HELP OURSELVES THERAPEUTIC COMMUNITIES PROVIDED IMPORTANT NEW INFORMATION ABOUT RISK FACTORS FOR SUICIDE AND SELF-HARM AND PREDICTORS OF RETENTION IN TREATMENT

Study, Australia's first large-scale longitudinal treatment outcome study of persons with heroin dependence.

- Professor Shane Darke and Gabrielle Campbell led a study of 190 new entrants to the We Help Ourselves (WHOs) Therapeutic Communities, which provided important new information about risk factors for suicide and self-harm and predictors of retention in treatment and early drop-out from treatment. Darke and Campbell also worked with WHOs on an analysis of admissions to WHOs over the period 2003 to 2008 to assess the impact of a change in drug markets. Results have been published in peer-reviewed journals.
- Professor Shane Darke and Dr Joanne Ross developed a Suicide Assessment Kit (SAK), to assist AOD workers in residential rehabilitation services in the assessment and management of suicide risk. The kit is the central component of a three-part project aimed at addressing the high rates of suicide and attempted suicide among people who misuse drugs and alcohol. The SAK was developed in partnership with NADA and contains a suicide risk screener, a suicide risk formulation template, and a policies and procedures proforma. Funding for Stage 3 of the study, the evaluation and dissemination of the SAK in residential rehabilitation services across Australia, is currently being sought from DoHA.

### Marginalised and vulnerable groups

NDARC runs several projects related to treatment and intervention for marginalised groups of substance users:

- The three-year *Child protection and mothers in substance abuse treatment study*, funded by NSW Community Services and UNSW, was completed in 2011 by Dr Stephanie

Taplin and Professor Richard Mattick.

It is the first study to interview a large sample of mothers in opioid pharmacological treatment in NSW about their children, parenting and child protection involvement, and greatly increases our knowledge in this area. A follow-up study funded by NSW Health is underway and is due for completion in 2012.

- During 2011 Dr Lucy Burns continued her program of work focusing on the relationship between substance use and homelessness. This research involves the evaluation of two projects funded under the NSW Implementation Plan of the National Partnership Agreement on Homelessness: the Inner City Assertive Outreach Service (or 'Way2Home') and the Inner City Youth at Risk Project, both of which are based on integrated service models.
- Professor Shane Darke completed a program of work in 2011 investigating brain injury and cognitive impairment, in collaboration with Professor Skye McDonald, UNSW. Several papers are currently under review.
- Alcohol abuse/dependence and traumatic brain injury are highly prevalent among persons with a history of homelessness. Both conditions are associated with cognitive deficits that can affect the extent to which an individual is able to function independently in the community. Dr Burns and Dr Elizabeth Conroy have developed a model of care for older homeless people in inner Sydney who also have a history of problematic alcohol use. A report has been prepared from this work for the funding body, the Foundation for Alcohol Research and Education (FARE).
- The evaluation of the Michael Project, a collaborative venture between Mission Australia, Professor Paul Flatau of Murdoch University



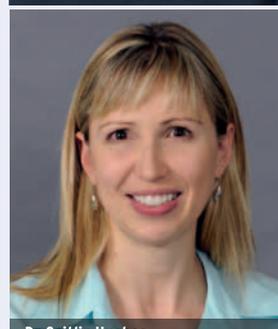
Prof. Shane Darke



Prof. Kate Dolan



Dr John Howard



Dr Caitlin Hughes



Dr Delyse Hutchinson



Dr Sharlene Kaye



Dr Frances Kay-Lambkin



Dr Christina Marel

and NDARC's Dr Lucy Burns, was completed in 2011. The Michael Project worked with homeless men in greater metropolitan Sydney to deliver more flexible and responsive care in the areas of outreach and comprehensive case management, specialist support and therapeutic programs, crisis and transitional accommodation, brokerage, education and vocational programs, and health care. A follow-up project, the MISHA Project, is currently underway; it is aimed at helping homeless men achieve stable housing, improved wellbeing and increased social inclusion.

## Patterns of alcohol and drug use and related harms

### Drug Trends

- NDARC's Australian Government funding under the National Drug Strategy includes a brief for monitoring national drug trends among illicit drug users through two major projects: the Illicit Drugs Reporting System (IDRS) and the Ecstasy and Related Drugs Reporting System (EDRS). This year, results showed the emergence of new psychoactive substances (EPS) as well as the re-emergence of crystal methamphetamine. The research team continued important work on the analysis of indicator data, documenting epidemiological trends in use of prescription opioids and drug-related mortality. Interim results were presented at the National Drugs Trends Conference. Findings presented at the conference generated significant media interest resulting in many radio, print and television interviews.
- The Drug Trends team also includes the National Drug Indicators Project, managed by Amanda Roxburgh. In 2011 Ms Roxburgh and Associate Professor Alison Ritter produced a report collating drug trends across Australia from 2001 to 2011. Ms Roxburgh published her study of trends in oxycodone and morphine prescribing, hospital admissions and deaths over the five years from 2002/03 in the *Medical Journal of*

*Australia* and presented the work at the NDARC Annual Symposium.

- The work of NDARC's Drug Trends Team continues to be recognised internationally, with invited presentations delivered at the European Monitoring Centre for Drug and Drug Addiction (Portugal) and to the National Institute on Drug Abuse Community Epidemiology Work Group (US).

### Opioid prescribing

Opioid prescribing, particularly with regard to use and misuse of opioids prescribed for chronic pain, continues to be an area of concern and controversy with potential for misinformation in the public arena. NDARC completed several projects in this field in 2011:

- The Tasmanian opioid prescribing project for the Tasmanian Department of Health and Human Services reviewed opioid prescribing patterns and harms across Tasmania. The Chief Investigator was Professor Richard Mattick, who worked with Dr Fiona Shand. The investigators found that Tasmania has higher levels of opioid prescribing than most other Australian jurisdictions and that this level has increased over the past 15 years along with related harms. The report and recommendations are due to be launched by Tasmania's Chief Health Officer and the Tasmanian Minister for Health in 2012.
- A new project led by Professor Louisa Degenhardt and Dr Fiona Shand will look at the extent to which different forms of medications used to treat opioid dependence are being diverted and injected. A report based on interviews with injecting drug users (IDU), clients in OST and key experts will be delivered to the Therapeutic Goods Administration in early 2013.
- NDARC was awarded a \$1 million NHMRC grant to study the benefits and risks of prescribing opioids for (non-cancer) chronic pain; the prospective longitudinal study of 2,000 patients will commence in 2012. The project is being led by Professor Louisa Degenhardt and Fiona Shand and co-ordinated by Gabrielle Campbell.

- Professor Shane Darke continued his collaboration with the NSW Department of Forensic Medicine, which included research on oxycodone related deaths published in the *Journal of Forensic Science*.
- Professor Shane Darke's major work *The life of the heroin user: Typical beginnings, trajectories and outcomes* (Cambridge University Press) was launched at the NDARC Annual Symposium by former WA Premier Geoff Gallop. The book provides the first natural history of the life of the heroin user, from birth to death.
- Professor Darke was lead author on a follow-up paper from ATOS: *Rates and correlates of mortality amongst heroin users*, published in *Drug and Alcohol Dependence*.

### Classification of mental disorders

- In 2011 Dr Tim Slade and colleagues completed an NHMRC-funded project examining young adults' interpretations of the DSM-IV diagnostic criteria for alcohol use disorders. The results demonstrated that some DSM-IV diagnostic criteria, particularly those centred on the self-reported motivations for drinking, may be misinterpreted by young adults, resulting in an over-estimation of the prevalence of alcohol use disorders. Further funding is being sought to investigate similar biases in reporting of other mental and substance use disorders. Preliminary results were presented, by Sonya Memodovic, at the EABCT conference in Reykjavik.
- Dr Slade, Professor Teesson and colleagues continued to lead national and international collaborative projects using data from the 2007 National Survey of Mental Health and Wellbeing (NSMHWB). The work has produced several published papers examining the relationship between childhood trauma and the development of later mental and substance use disorders; papers on the relationship between delusional-like experiences and the presence of AOD use disorders; and papers on the assessment and diagnosis of alcohol use disorders in the general population.



## THIS YEAR, RESULTS SHOWED THE EMERGENCE OF NEW PSYCHOACTIVE SUBSTANCES AS WELL AS THE RE-EMERGENCE OF CRYSTAL METHAMPHETAMINE.



- Dr Chapman, Dr Slade and Professor Teesson collaborated on other projects from the NSMHWB including an examination of the temporal sequencing of co-morbid mental and substance use disorders over lifetimes, the transition from onset of first drinking to alcohol dependence, and the delay to seeking first treatment for alcohol use disorders in the Australian population.
- Dr Natacha Carragher continued her body of work focusing on the classification of mental disorders. A novel and timely project will prospectively examine the depressive episodes of alcohol-dependent patients; this involves identifying the proportion of episodes initially classified as substance-induced but later reclassified as independent (and vice versa). The findings hold promise for improving treatment decisions and patient care, as well as informing aetiological research and upcoming revisions to the major psychiatric classification systems. The research is currently being completed and will be published in early 2012.
- Dr Carragher, in collaboration with academics in the United States, led the first study of the measurement properties of the mania diagnostic criteria in the Australian general population. She presented the findings at the Annual Meeting of the Society for Research in Psychopathology, Boston, and at the annual conference of the Australasian Society for Psychiatric Research, Dunedin. Dr Carragher is preparing other papers with her collaborators on unresolved issues in the classification of mania and pathological gambling.

### Alcohol Action in Rural Communities

- The five-year Alcohol Action in Rural Communities (AARC) project, the largest of its kind ever conducted anywhere in the world, evaluates community action for alcohol harm using a prospective, cluster

randomised controlled trial design and a rigorous economic benefit-cost analysis. AARC will be completed in 2012 and a major report launched to detail its methods and findings.

- Major milestones in 2011 included Courtney Breen's examination of differences between communities in alcohol consumption and alcohol-related crime. Wealthier communities with a higher socio-economic status were associated with increased alcohol consumption and crime. The number of pubs and clubs in a community was also a significant factor. These findings were presented at the NDARC Annual Symposium.

### Families, babies and alcohol

- The landmark longitudinal birth cohort study, the Triple B study, is now in its second year and has recruited over 800 families. Led by Dr Delyse Hutchinson and Professor Richard Mattick, the \$1.9 million NHMRC-funded study will follow 2,000 families over four years. It will be the first study to investigate the impact of substance use by pregnant women and their partners during the prenatal period on infant development and family functioning. Preliminary findings were presented at the NDARC symposium and at APSAD. The team were also successful in obtaining funding through Rotary Health Australia to commence a pilot assessment of 70 families when their children reach three years of age.

### Drug policy

Most drug policy research at NDARC is carried out through the Drug Policy Modelling Program (DPMP), a program of research headed by Associate Professor Alison Ritter. Significant work by DPMP in 2011 includes:

### The price signal: money, drugs and alcohol

- Several DPMP projects addressed the impact of price and individual spending power on alcohol and drug consumption. These included a

review, by Associate Professor Alison Ritter and Dr Jenny Chalmers, of the impact of the global financial crisis on drug use, and an assessment, by Dr Chalmers, in collaboration with the NSW Bureau of Crime Statistics and Research, of the business relationship between methamphetamine users and their dealers. As a precursor to an Australian Research Council (ARC) funded study of the impact of price on young Australians' drinking and drug use, Dr Chalmers and Dr Carragher completed an international review of pricing and taxation levers used to reduce alcohol-related harm.

### Drug Markets

- Dr Caitlin Hughes examined the scale and nature of cocaine supply in Australia between 1997-1998 and 2009-2010. The indicators pointed to increased cocaine importation since 2006/07, albeit to lower levels than during the heroin shortage. Of equal if not greater significance was that the post 2006/07 expansion coincided with a diversification of trafficking routes to and through Australia (beyond Sydney, the traditional site of entry).

### Policing and law enforcement

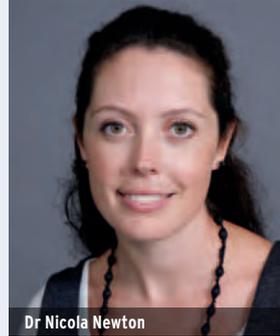
- Dr Hughes, Associate Professor Ritter and NSW Police collaborators Patricia Ward and Fiona Christian, completed the first detailed investigation into patterns of MDMA offending. They also completed work with the ACT Department of Justice and Community Safety examining ACT threshold quantities for drug trafficking offences.
- DPMP doctoral candidate Tim McSweeney and supervisors Dr Hughes, Associate Professor Ritter and Paul Turnbull (Institute for Criminal Policy Research, United Kingdom) have been examining the extent and means by which programs that divert drug-related offenders from the criminal justice system can promote reductions in drug use and related offending. McSweeney is comparing two models of pre-sentence diversion - one 'voluntary' scheme in Australia, the other a 'compulsory' model operating in England. Final results are expected in 2012.



Prof. Richard Mattick



Dr Katherine Mills



Dr Nicola Newton



Dr Melissa Norberg



Dr Sally Rooke

### Public opinion, the media and drug policy

- In 2011 Dr Francis Matthew-Simmons completed his PhD on trends in public opinion regarding illicit drug policy. Findings included that public support for cannabis legalisation has decreased since the mid 1990s but support for harm reduction has increased.



Dr Joanne Ross

### EIGHT GLOBAL BURDEN OF DISEASE PAPERS WERE PUBLISHED IN 2011 INCLUDING A PAPER IN *THE LANCET* ON THE PREVALENCE OF HEPATITIS B AND C AMONG IDU

- This expanding program of research includes a study by Associate Professor Ritter and Kari Lancaster examining whether there has been a conservative shift in drug policy since 1985, or whether there has in fact been a disconnect between the rhetoric of the "Howard Years" and what happens in practice. Another project is using a case study of the "ice epidemic" to better understand how policy is developed and the opportunities for and threats to evidence-informed policy.
- Kari Lancaster is leading a project to investigate how drug users perceive drug policy in Australia. Quantitative data collection is complete and qualitative data collection, in collaboration with the NSW Users and AIDS Association, will commence in 2012.



Dr Marian Shanahan



Dr Fiona Shand

### Drug policy reform

- In a novel take on the Portuguese decriminalisation of illicit drug use, Dr Caitlin Hughes has investigated, with collaborator Professor Alex Stevens of the University of Kent, how evidence is used and misused to support diametrically opposed policy conclusions, notably the accounts of Glenn Greenwald that decriminalisation is a "resounding success" and Dr Manuel Pinto that it is a "disastrous failure." The work is in press in the *Harm Reduction Digest* and has fed into three presentations, including to the International Drug Policy Reform conference in November 2011.

- A study led by DPMP health economist and senior lecturer Dr Marian Shanahan will provide essential new data on how much Australian governments spend on drug policy. The study examines federal and state and territory government spending and will be broken down into the areas of prevention, treatment, harm

reduction, and law enforcement.

- Dr Shanahan completed her PhD in 2011 assessing the economic consequences of cannabis policy options. A cost-benefit analysis and a discrete choice experiment (assessing the preferences for different policy options among a representative sample of the population) found there is no clear difference in net social benefit between the two options studied.

### International

- As members of the Global Burden of Disease project, Louisa Degenhardt, Paul Nelson and Chiara Bucello produced estimates on the use of and dependence on heroin and other opioids, amphetamine-type stimulants, cocaine and cannabis and the related harms. Eight GBD papers were published in 2011 including a paper in *The Lancet* by PhD student Paul Nelson on the prevalence of hepatitis B and C among IDU worldwide.
- Through her long-running Program on International Research and Training, Professor Kate Dolan assisted the Substance Abuse Research Association (SARA) to determine the impact of harm reduction initiatives on HIV transmission among IDUs in Lashio in the North Shan State of Burma. SARA received ethical approval from the Ethical Review Committee of the Department of Health and recruited 280 HIV-negative IDU clients. SARA submitted their preliminary research report "A six-month prospective

study on incidence of HIV among IDUs living in Lashio Township during 2010" in 2011. Unfortunately funding was cut and SARA is trying to secure new funding to complete the study.

- In February 2011, Professor Dolan visited the landmark Iranian women's clinic she helped establish in 2007. While there she interviewed a cohort of women she has been following for three years. Heroin use has reduced among all the women and social functioning has significantly improved among the more severely dependent women. She also gave a keynote presentation at an international conference on women and reproductive health in Tehran. The third paper on this women's clinic has been accepted for publication.
- In June Professor Dolan attended AusAID's consultation to inform Australia's approach and statement for the United Nations' High Level Meeting on HIV/AIDS held in New York in June 2011. She was also invited to become a member of the Asia Pacific Drug Issues Committee of the Australian National Council on Drugs. The Committee will advise on the most appropriate ways to work with our regional neighbours to share the knowledge and understanding we have developed from our successful strategies to reduce demand for illicit drugs, particularly our work with the community sector, as well as to learn from their experiences. In October Professor Dolan participated in a United Nations Office on Drugs and Crime meeting in Vienna to draft "HIV prevention, treatment and care in prisons and other closed settings: A comprehensive package of interventions".

### Prevention and early intervention

#### School-based prevention

- NDARC continued its work in school-based prevention programs under the leadership of Dr Nicola Newton and Professor Teesson. In 2011 Dr Newton and Professor Teesson commenced the NHMRC-funded 'Climate Schools' and 'Preventure' (CAP) project evaluating the effectiveness of a "universal"

substance misuse prevention program combined with a “targeted” intervention program tailored to the personality types of high risk students. The programs will be rolled out in 24 schools (approximately 2,400 students) in 2012, including (for the first time) Government schools, through a cluster randomised controlled trial. The project is a collaboration between NDARC and Patricia Conrod at King’s College University in London, United Kingdom.

- Internationally Dr Newton has been testing the feasibility of introducing NDARC’s universal prevention program “CLIMATE schools” into schools in the United Kingdom. The programs were adapted for the United Kingdom context and were then implemented in three schools (approximately 400 students) in London. Data from this trial will be analysed in early 2012.

### Parents and teenagers

- Professor Richard Mattick is leading a study investigating the impact of parental supply of alcohol on drinking trajectories in Australian adolescents. The research questions are: how does parental supply of alcohol relate to the acceleration or deceleration of harmful drinking trajectories, and how do other related factors mediate and moderate this relationship? The project forms part of Monika Wadolowski’s PhD, and is funded by the ARC, Australian Rotary Health, and FARE. During 2010 -2011 more than 2,000 families from NSW, Tasmania and Western Australia enrolled in this project. Families will be followed up every 12 months for four years.

## Criminal justice system

### Investigating criminal networks using mathematical modelling

- An innovative ARC-funded project led by Dr David Bright in collaboration with the School of Mathematics and Statistics (UNSW) and the University of Montreal will use mathematical modelling to investigate criminal networks. The project aims to improve existing knowledge and

empirical accounts of criminal networks. The results have the potential to lead to enhanced law enforcement capacities for detecting and dismantling these networks. The project builds on work completed by Dr Bright and Dr Catherine Greenhill and Natalya Levenkova from the School of Mathematics and Statistics (UNSW), exploring the effectiveness of different hypothetical intervention strategies to dismantle criminal networks.

- Dr Bright is also leading a project, funded by a Faculty of Medicine Early Career Researcher grant, to document the growth of a drug trafficking network. The project is examining changes in network density and mapping how external factors such as law enforcement pressure impact on the growth and evolution of networks over time. The project is due for completion in 2012.

### Supply, demand and harm reduction in Australian prisons

- Professor Kate Dolan and Ana Rodas completed a survey of supply, demand and harm reduction strategies in Australian prisons on behalf of the Australian National Council on Drugs. Professor Dolan and other collaborators from across NSW received NHMRC funding to continue to investigate the transmission of hepatitis C infection in NSW prisons through The Hepatitis C Incidence and Transmission Study cohort. Since 2000 over 500 inmates have been recruited and the incidence of hepatitis C infection appears to be declining in NSW prisons.
- Under Professor Dolan and Dr Lucy Burns’ supervision, Sarah Larney completed her PhD on a 10-year follow-up study of a cohort of 375 prisoners in methadone treatment. A report on the findings was published by the National Drug Law Enforcement Research Fund (NDLERF). In November Sarah was the recipient of a four-year NHMRC Early Career Research Grant and will spend two years continuing her research at Brown University in the US with Josiah Rich.

## Youth, drugs and crime

- Paul Nelson is undertaking a longitudinal study on drug use, health and offending outcomes for young offenders as part of his PhD, under the supervision of Dr Wendy Swift. The thesis has provided important new data on the poorly understood and complex relationship between drug use and recidivism outcomes among a large group of community-based offenders. Preliminary findings have been presented at national and international conferences.
- Dr Melanie Simpson, Professor Jan Copeland and Dr John Howard from NCPIC continued their Australian Government-funded investigation of the relationship between cannabis use and crime among adolescents. This study is exploring the complex relationship between cannabis use and offending through the use of three smaller studies: a secondary analysis of Drug Use Monitoring in Australia data collected between 2006 and 2010, a prospective follow-up study of 300 young people with varying levels of involvement with the criminal justice system, and a qualitative study with 20 young people with a history of regular cannabis use and involvement in the criminal justice system. Preliminary findings were presented at 32nd International Conference on Law and Mental Health, in Berlin.
- Michelle Tye is investigating predictors of violent offending and victimisation among poly-substance users for her doctoral thesis under the supervision of Professor Shane Darke. The research will examine in detail the substance use-violence relationship, particularly surrounding violent victimisation (community and domestic settings), an area that has been neglected in the AOD literature. It draws from two datasets: a study of 300 cross-sectional quantitative interviews of community-based regular polysubstance users from the Sydney metro area, and survey data from the Co-morbidity and Trauma Study (CATS). The CATS survey consists of 2,000 cross-sectional interviews, and includes 1,500 cases (opioid dependent) and 500 controls (non-opioid dependent).



Dr Tim Slade



Dr Janette Smith



Dr Wendy Swift



Dr Stephanie Taplin

# 2011 STAFF

## Professional and Technical Staff - Research

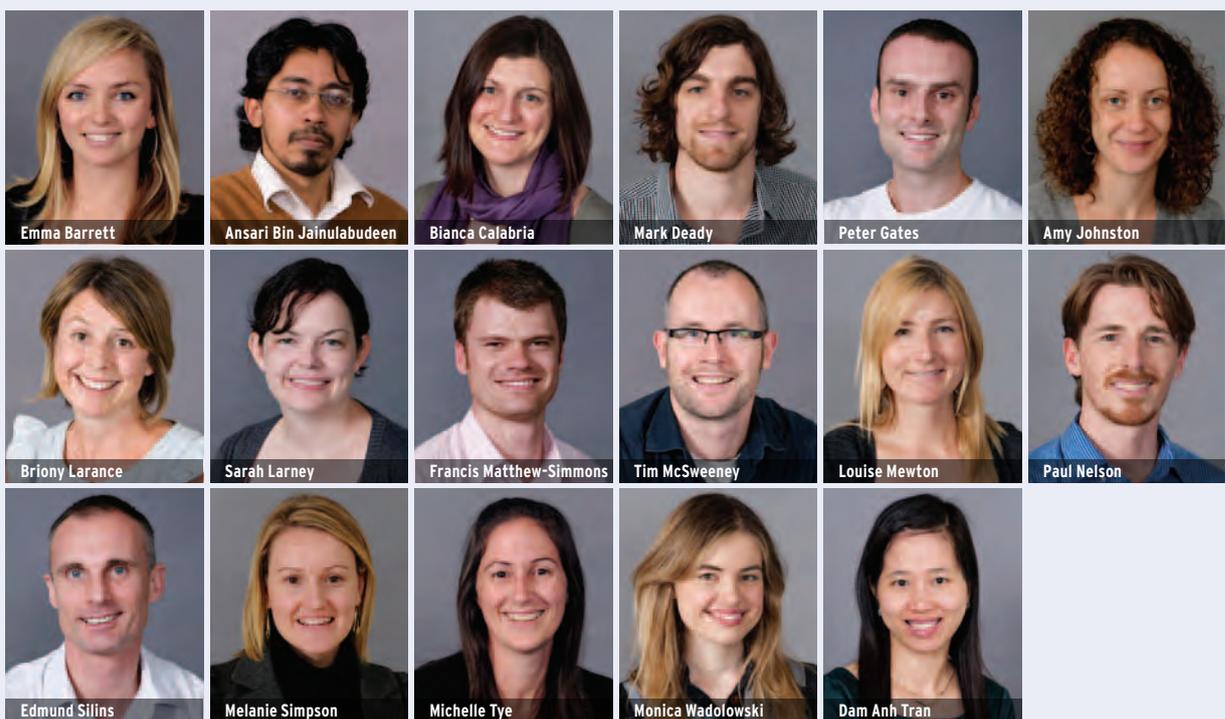


Not pictured: Jenny Geddes, Karla Hesse, Rachel Sutherland.

## Professional and Technical Staff - Support and Communications



## Postgraduate Students



Not pictured: Joshua Byrnes, Kristie Mammen, Lynne Magor-Blatch, Catherine Wolff, Hector Navarro.

# EVENTS, MEDIA AND COMMUNITY

The pages of this Annual Report necessarily focus on NDARC's research and related activities. However as the Centre has grown to around 130 staff (the number varies over the course of the year as projects end and new projects start up) a core administrative team supporting NDARC and specific projects including Drug Trends, DPMP and NCPIC provide a crucial backbone to the centre. This team looks after the building, finances, and the telephones and provides essential support to academic and research staff allowing them to focus on their core research activities. We also have a dedicated NDARC librarian and a full time communications team which manages the media, the website, social media, the NDARC Annual Symposium and publications such as CentreLines and the Annual Report.

The administrative staff serve with academic and research staff on NDARC committees: the Finance Committee, the OHS Committee, the Library Committee, the Employee Assistance Program, the Green Team and the Social Committee. A full list of all NDARC staff and committee memberships is published in appendix A of this report.



The NDARC Annual Symposium attracted a record external audience

**Annual Symposium** The NDARC Annual Symposium 2011 was held on August 30 at the John Niland Scientia Building on the UNSW campus and was our most successful to date. It is our Annual Research Showcase where senior and junior research staff present and translate their work to a clinical and policy audience. We had close to 200 external paying delegates at the Symposium which is also attended by all NDARC staff. A highlight of the day was the launch of Professor Shane Darke's new book, *The Life of the Heroin user: typical beginnings, trajectories and outcomes* by Professor Geoff Gallop. The theme of this year's conference was *New Horizons: Integrating research findings, public policy and clinical practice*. The external chairs of the four sessions were: Ms Colleen Krestensen, Assistant Secretary of the Drug Strategy Branch; Mr David McGrath, Director Mental Health and Drug and Alcohol Problems NSW Health; Dr John Herron Chair of the Australian National Council on Drugs; and Professor Andrew Lloyd, Head of the Infection and Immunity Research Group, UNSW Faculty of Medicine.

## School of Public Health and Community Medicine Symposium

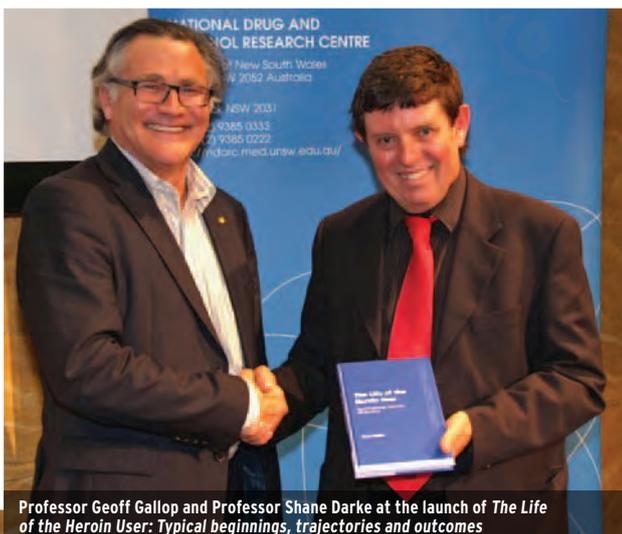
Among the highlights of the 2011 School of Public Health and Community Medicine Symposium was Professor Kate Dolan's receipt of the Peter Baume Public Health Impact Prize. The award recognises Professor Dolan's 'significant international impact and career achievement in public health', most notably her recent work establishing treatment clinics for female drug users in Iran. Also taking part in the Symposium in 2011 were Professor Michael Farrell, A/Prof. Anthony Shakeshaft, Dr Caitlin Hughes, Laura Scott and Bianca Calabria.



Professor Kate Dolan receiving the Peter Baume Public Health Impact Prize



Dr Marian Shanahan receives her Dean's List Award from Dr Peter Smith, Dean of the Faculty of Medicine



Professor Geoff Gallop and Professor Shane Darke at the launch of *The Life of the Heroin User: Typical beginnings, trajectories and outcomes*

**Camaraderie and environmental awareness** As well as the core committees such as Finance, OHS and Library, NDARC has two committees in particular that reflect the philosophies of the organisation and enhance its camaraderie and community spirit - the Social Committee and the Green Team. In 2011 the Social Committee hosted several events including Christmas in July, Melbourne Cupcake Day and a Christmas fundraising BBO. In 2011 the Green Team implemented two large compost bins to collect the food waste of NDARC staff and feed this compost back onto local gardens.



Dean's Award winners Dr Natacha Carragher and Emma Black



Bianca Calabria, one of two best poster winners at the NDARC Annual Symposium

**Media** NDARC academic and research staff gave more than 100 interviews to media outlets over the course of the year both in response to media releases issued by the Centre and in response to issues of the day. Topics we covered included prescription drugs; ADHD; ice; alcohol; tobacco; drug law reform; alcohol and price; raising the legal age of drinking; cannabis use among teenagers and young adults; co-morbidity; parental drug use; parenting and mothers in methadone maintenance treatment.

Over the course of the year NDARC issued 20 media releases and media statements communicating the results of our research and success in new grants. A typical media release generates coverage in around 100 media outlets Australia wide, if it is syndicated through AAP and also internationally.

We engaged a wide range of media including *The Sydney Morning Herald*, *The Australian*, *The Daily Telegraph*, Australian Associated Press, ABC Radio, ABC TV, Channel 7, Channel 9, Channel 10, as well as local and regional print and broadcast media, magazines, and specialist medical press including *Australian Doctor* and *Medical Observer*.

Professor Michael Farrell was profiled in *The Sydney Morning Herald*, Professor Maree Teesson appeared in an ABC TV 7.30 segment on co-morbidity and Professor Shane Darke was interviewed for ABC Radio's *Life Matters*. Head of the Drugs Trends team Dr Lucy Burns gave numerous media interviews including on ABC TV and Radio, *The Sydney Morning Herald* and *The Australian*. A number of NDARC staff spoke to *Cosmos Magazine* for a six page feature on illicit drugs.

**Awards** The outstanding achievements of six NDARC research staff were officially recognised by the Dean of the Faculty of Medicine at the annual awards night in November 2011. Dr Natacha Carragher and Dr Sally Rooke were each awarded the Dean's Rising Star Award for their 'significant contributions to research' as early career researchers. Edmund Silins and Dr Marian Shanahan made the Dean's List for their 'outstanding research', while senior research officers Emma Black and Amanda Roxburgh were recipients of the Dean's Award for Professional and Technical Staff. The awards recognise the achievements of those working in all UNSW Medicine schools and centres, from undergraduate students through to academics.

As well as the Faculty of Medicine awards NDARC recognises its staff through internal awards. The Ian Webster Award went to Dr Lucy Burns and the Jennifer McLaren Award to Dr Louise Mewton.



Etty Matalon, National Clinical Training Manager, conducts a 'Quitting Cannabis 1-6 sessions' workshop at the NCPIC offices



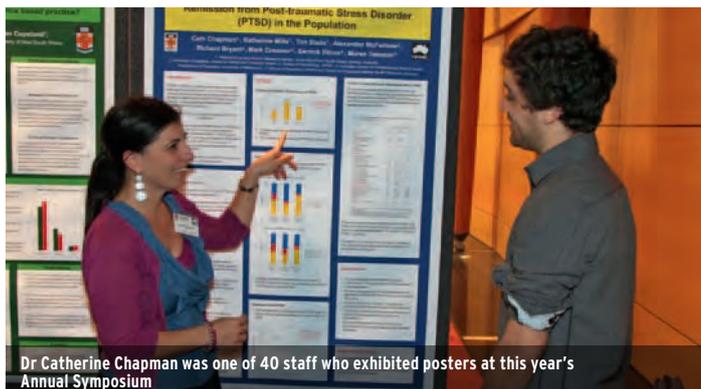
Dr Christina Marel and Dr Katherine Mills at the launch of Comorbidity Booklets at APSAD

**Website and social media** NDARC launched a brand new website on 17 October, 2011. NDARC was the first within the Faculty of Medicine to trial the new website design, which will be rolled out progressively across the faculty in 2012 and beyond. The new site had just shy of 20,000 unique visitors in the 10 weeks between its launch date and the end of 2011, and its new features include detailed profiles of staff members, information sharing with key UNSW databases include Research Gateway and Research Publications, and links to NDARC's presence on Twitter and Facebook.



Professor Michael Farrell welcomes guests to the NDARC Annual Symposium

**Posters** A record 40 posters were exhibited at the NDARC Symposium in August 2011. It was also the first year select poster authors took to the stage to give three minute overviews of their work. The session received resounding praise from Symposium attendees and was one of the most popular sessions of the day.



Dr Catherine Chapman was one of 40 staff who exhibited posters at this year's Annual Symposium

# CURRENT PROJECTS

## Treatment and intervention

### A brief intervention for traumatised clients of alcohol and other drug treatment services

**NDARC staff:** Dr Katherine Mills, Professor Maree Teesson, Dr Frances Kay-Lambkin and Philippa Ewer

**Other investigators:** Professor Amanda Baker (University of Newcastle), Dr Glenys Dore (Royal North Shore Hospital, Sydney)

**Project description:** Trauma and post-traumatic stress disorder (PTSD) are highly prevalent among people with substance use disorders. There is consensus in the literature that AOD treatment services need to incorporate trauma-specific interventions to improve the outcomes of their clients suffering from symptoms of PTSD. Some protocols have been developed to treat this client group, but they tend to be lengthy, have relatively low retention rates and require extensive training and clinical supervision. For these reasons, many AOD clinicians are not able, or willing, to implement these interventions in clinical practice. A brief intervention (BI) for PTSD symptoms may be more attractive, feasible and sustainable to both clients and AOD workers. The present study is the first to examine the feasibility of a BI for traumatised clients of AOD treatment services.

**Aims:** To assess the feasibility of a BI for traumatised clients of AOD treatment services as measured by: improvements in PTSD symptoms, post-traumatic cognitions, substance use and severity of dependence, clients' willingness to participate in the study, the attendance rate, and client satisfaction.

**Design and method:** An uncontrolled pilot study will be conducted to address the research aims. Thirty-two people currently suffering from PTSD or subsyndromal PTSD will be recruited from an AOD treatment service in Sydney.

The intervention consists of a single one-hour session with a therapist involving psychoeducation regarding the symptoms people commonly experience following trauma and how these may relate to a person's substance use, brief discussion of symptom management, and the provision of a self-help booklet.

Attempts will be made to follow-up all participants at one week, six weeks and three months post baseline. Baseline and follow-up interviews include validated instruments to measure demographics, substance use and dependence, substance use and PTSD treatment history, suicidality, trauma exposure and PTSD, depression, anxiety, stress, and borderline personality disorder (BPD).

**Progress:** Recruitment, execution of the brief intervention session and follow ups were completed between January and November 2011.

**Output:** The preliminary results of this study were presented at the Australasian Professional Society on Alcohol and Other Drugs (APSAD) 2011 conference, the European Association for Behavioural and Cognitive Therapies (EABCT) 2011 conference and as an invited keynote at the Network of Alcohol and Drug Agencies 2011 trauma forum.

**Funding:** NSW Department of Health

**Date commenced:** January 2011

**Expected date of completion:** December 2012

### A double-blind, randomised, placebo controlled trial of SATIVEX® for the management of cannabis withdrawal

**NDARC staff:** Professor Jan Copeland, Dr David Allsop and Dr Melissa Norberg

**Other investigators:** A/Prof. Nicholas Lintzeris (Drug & Alcohol Services, South East Sydney Local Health Network and Faculty of Medicine, University of Sydney), Professor Iain McGregor (School of Psychology, University of Sydney), A/Prof. Adrian Dunlop (Drug and Alcohol Clinical Services, Hunter New England Local Health Network, Belmont Hospital), Dr Mark Montebello (School of Psychiatry, UNSW, and The Langton Centre) and Dr Craig Sadler (Calvary Mater Hospital, Drug and Alcohol Clinical Services, Hunter New England Area Health, and School of Medicine and Public Health, University of Newcastle)

**Affiliates:** Dr Raimondo Bruno (School of Psychology, University of Tasmania)

**Project description:** Treatment admissions for cannabis use disorders have risen considerably over the last few years, globally and within Australia. There is currently no effective pharmacotherapy for cannabis dependence, and very low abstinence rates reported from psychotherapy alone. A defined cannabis withdrawal syndrome has been identified, and while it is not life-threatening, the discomfort it causes is reported to contribute to the high incidence of relapse amongst cannabis users. As such cannabis withdrawal may be an important intervention target for dependence on the drug. This study represents the world's first safety and efficacy trial of a novel agonist medication (Sativex®) for alleviating the symptoms of cannabis withdrawal.

#### Aims:

- To assess the effectiveness of Sativex® compared to a placebo control for alleviating the number, severity and duration of cannabis withdrawal symptoms, as well as the overall withdrawal score measured using the Cannabis Withdrawal Scale
- To assess the effect of Sativex® on detoxification completion rates and length of stay in treatment compared with placebo
- To compare reports of adverse events during detoxification treatment between the two groups.

**Design and method:** This study is a phase II, multi-site, double-blind, randomised, placebo-controlled inpatient trial. The trial will involve 50 treatment-seeking, cannabis-dependent adults.

**Progress:** The first patients entered hospital in December 2011 and recruitment is expected to be completed in mid-2012.

**Funding:** National Health and Medical Research Council Project Grant

**Date commenced:** March 2010

**Expected date of completion:** December 2012

### A formative study in the inner city suburbs of Sydney to identify and describe women subject to homelessness, and their reproductive health issues as perceived by service providers

**NDARC staff:** Dr Lucy Burns and Joe Van Buskirk

**Project description:** It is known that women experiencing homelessness are at high risk of unintended pregnancy. Homeless

women cite multiple deterrents to the use of contraception, so family planning services need to be tailored to the specific populations of women experiencing homelessness. There are considerable barriers to engaging and maintaining ongoing care of pregnant women and families who are subject to homelessness.

Currently there are no reproductive health services in the inner city suburbs of Sydney that provide proactive, flexible, ongoing, tailored, appropriate support for this particular group of vulnerable pregnant women. More specifically, there are no:

- Free and accessible antenatal services within walking distance of the areas frequented by women experiencing homelessness
- Outreach clinics from the two tertiary maternity services, the Royal Hospital for Women or Royal Prince Alfred Hospital
- Parenting classes located in this area that provide for the complex needs of this client group.

The acknowledged gaps in effective intersectoral linkages, care planning and case management processes between health, housing and other service providers further act to limit the potential for improvements to the ongoing complex social and health issues experienced by these women and their families. It is believed that identifying and addressing systemic service gaps will result in connecting women and their families to a range of services that will optimise their health outcomes.

**Aims:** This study aims to map and consult service providers based in the statistical local areas of Sydney-Inner and Sydney-East to identify the perceived reproductive health issues for women aged 16 and over who have no fixed abode or are residing in temporary accommodation.

**Design and method:**

- Identification of health and welfare services accessible to women subject to homelessness
- In-depth literature review
- Ethics and access approvals
- Consultation with a minimum of five expert service providers and 2-3 focus groups
- Collation and analysis of available data
- Provide a final report to Women's Health and Community Partnerships, including recommendations.

**Progress:** The ethics application was submitted and approved by South Eastern Sydney Local Health District in October 2011. Site Specific Assessments were submitted and approved in November 2011, allowing the study to be conducted at NSW Health services. Ten interviews have been completed with staff at NSW Health and Non-Government Organisations in Sydney. A further five interviews are to be completed by February 2012.

**Funding:** Health Reform Transitional Organisation Southern/ Women's Health & Community Partnerships.

**Date commenced:** July 2011

**Expected date of completion:** February 2012

## Alcohol Action in Rural Communities (AARC): Working with communities to select, implement and measure the impact of strategies to reduce alcohol-related harm

**NDARC staff:** A/Prof. Anthony Shakeshaft, Dr Courtney Breen, Ansari Abudeen, Dr Hector Navarro, Dr Tim Slade, Bianca Calabria and Barbara Toson

**Other investigators:** Dr Anton Clifford (University of Queensland), Professor Chris Doran (University of Newcastle), Professor Rob Sanson-Fisher (University of Newcastle), Professor Catherine D'Este (University of Newcastle), Dr Dennis Petrie (University of Dundee, United Kingdom) and Dr Alys Havard (University of Western Sydney)

**Project description:** Governments, policy experts, researchers and communities all support the idea of greater coordination of efforts aimed at reducing alcohol-related harm. Nevertheless, no-one has conducted a rigorous evaluation of co-ordinated community action, making it difficult to weigh its value relative to more traditional strategies, such as legislative approaches (e.g. alcohol taxation policy), education (e.g. schools and mass media) and clinical interventions (e.g. pharmacotherapies and psychological treatments). The AARC project addresses this knowledge gap. It is the first evaluation of community action for alcohol harm that uses a prospective, cluster Randomised Controlled Trial (RCT) design, the most scientifically rigorous evaluation design available, and a Benefit-Cost Analysis, the most comprehensive method of economic evaluation appropriate for a community-action intervention. It is the largest trial of its type ever undertaken internationally.

**Aims:** The AARC project has four broad aims:

- Identify the extent to which alcohol harms differ between communities
- Estimate the effectiveness of a community-action approach in reducing alcohol-related harm using a cluster RCT as the most stringent evaluation design
- Conduct a benefit-cost analysis as the most comprehensive economic evaluation
- Contribute to the current research effort in this field and help build capacity for future community-based alcohol intervention research in Australia.

**Design and method:** The design is a prospective, cluster RCT (10 intervention and 10 control communities). A community action approach was used to strategically co-ordinate the implementation of 13 complementary interventions in each of 10 intervention communities in NSW. The simultaneous and sustained implementation of the interventions aimed to maximise their combined effect. The 13 interventions were:

- An engagement process
- Feedback of data and results to key stakeholders
- Feedback of results to communities via local media
- Screening and brief intervention training for GPs
- Feedback and training on alcohol prescribing for GPs
- Workplace policies and training
- High school-based interactive session on alcohol harms
- Pharmacy-based screening and brief intervention
- Aboriginal Community Controlled Health Service-based screening and brief intervention

- Identifying and targeting high risk weekends
- Good Sports program (promoting safer drinking in sports clubs)
- Hospital Emergency Department-based screening and brief intervention
- Web-based screening and brief intervention.

Three primary sets of analyses are being conducted: one comparing rates of alcohol consumption and harms across the 20 AARC communities to identify the extent to which these differ between otherwise similar communities; one to examine the effect of the interventions on the 10 experimental communities, relative to the 10 controls; and one to estimate the benefit-cost of the interventions, that is, whether the benefits of implementing these interventions outweigh their costs. Benefit-cost analyses will measure economic impact from a societal point of view, taking into account the costs and benefits to a range of services and settings, including police, health services, schools and local governments.

**Findings:** Preliminary analyses suggest that the community action approach will achieve statistically significant reductions in some types of problem drinking and for some types of alcohol-related harms. It is also likely that the benefits of community action will outweigh its costs.

**Benefits:** AARC is expected to have achieved significant reductions in rates of problem drinking and alcohol-related harm in the participating communities. For communities more broadly, AARC has articulated a five-step model for ongoing integration and evaluation of community action that they could implement to minimise their experience of alcohol-related harm. For policymakers, AARC will provide the best evidence available on the benefits and costs of community action, which can inform their future policy development for minimising the burden of alcohol-related harm in Australia. For researchers, AARC has demonstrated the feasibility of conducting rigorous, real-world research in public health, and has contributed to the evidence base in multiple content areas (including health economics, complex intervention designs and measures, reliable and valid measures, and descriptive data). It has also contributed significantly to increasing national and international research capacity in the drug and alcohol field: it supported four PhD students; two Masters students; two research medical students; three early career-researchers; and numerous research officers.

**Output:** The detailed methods and results will appear in the approximately 35 papers to be peer-reviewed and published in the scientific literature, 21 of which are already published and eight are under review. A major report is due for release in 2012.

**Funding:** Foundation for Alcohol Research and Education (FARE, formerly AERF)

**Date commenced:** July 2005

**Date due for completion:** June 2012

### Binge drinking and the adolescent frontal lobe

**NDARC staff:** Professor Maree Teesson and Dr Louise Mewton

**Other investigators:** Professor Caroline Rae (Brain Sciences, UNSW & Neuroscience Research Australia) and Professor Roland Henry (Radiology and Biomedical Imaging, University of California)

**Rationale:** Adolescence is a critical period for brain development, with active rewiring of circuitry that is necessary in successful development of 'adult' adaptive patterns of behaviour, such as the frontal lobe and its connections. Binge drinking practices may interfere with the development of these important circuits. The available evidence supports the hypothesis that heavy adolescent alcohol consumption disrupts cortical development and promotes continued impulsive behaviour, alcohol abuse and risk of alcohol dependence. However, there are few studies of the brain particularly targeted to binge drinking effects in adolescent humans and none examining the crucial development of connectivity in relation to cognition.

Our preliminary data (N = 22) show significant cognitive and structural deficits in binge drinkers compared to controls, as well as gender-specific responses to binge drinking.

#### Aims:

- To study brain connectivity patterns in adolescent binge drinkers and abstinent controls by structural and diffusion tensor magnetic resonance (MR) imaging and spectroscopy
- To examine the relationship between selected behavioural and cognitive functional outcomes and brain structure.

**Design and method:** We will study 160 16-17 year olds (80 binge drinkers and 80 non-drinkers, 80 males, 80 females). Brain structure will be assessed using structural and diffusion MR imaging and spectroscopy with particular emphasis on later developing regions of the brain such as the frontal lobes and vulnerable areas such as the hippocampus. Alcohol use, mood, emotional face recognition, memory, executive function and aggression will be measured and the relationship of these variables to brain structure determined.

**Progress:** We continue our collaboration and analysis of preliminary data

**Benefit:** New knowledge on the impact of binge drinking on brain development

**Funding:** NDARC (seeking National Health and Medical Research Council funding)

**Date commenced:** 2009

**Expected date of completion:** Dec 2014

### 'Breaking the ice': development of an online early intervention program for people using psychostimulants

**NDARC staff:** Dr Frances Kay-Lambkin

**Other investigators:** Dr Rebecca McKetin and Dr Robert Tait (Australian National University)

**Rationale:** The increased use of psychostimulants in Australia is a major concern. People using psychostimulants often do not access traditional treatment services, as their need is often greatest outside of regular office hours.

**Aims:** To develop an internet-based brief early intervention for psychostimulant use. The intervention will:

- Target light-moderate psychostimulant use (methamphetamine and ecstasy)
- Focus particularly on young adults (but not to the exclusion of older adults)

- Address risk factors for drug problems and provide more in-depth information and support/referral for individuals at risk
- Address the potential synergistic relationship between drug use problems and mental health disorders.

**Design and method:** A small scale evaluation of the website will take place to determine the effectiveness of the program in addressing the needs of light-moderate psychostimulant users.

**Progress:** Content development of the site has been completed and programming the internet site, 'Breaking the ice', is nearing completion. Ethics approval for pilot testing of the online resource has been obtained, with formal pilot testing to commence in 2012.

**Output:** The 'Breaking the ice' website

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** August 2010

**Expected date of completion:** July 2012.

### Clearing the Cloud

**NDARC staff:** Professor Maree Teesson, Dr Frances Kay-Lambkin and Dr Nicola Newton

**Project description:** Despite the increasing use of the internet by the general community to obtain information about alcohol/other drug use and related conditions, there remains no central portal through which people can reliably access a range of evidence-based information and treatment for alcohol/other drug use.

**Aims:** To develop a portal website ('Clearing the Cloud') that links the general community, health professionals and researchers to the range of evidence-based treatments, information/fact sheets and ongoing research trials run by the NDARC E-Health group.

**Progress:** A website design company has been engaged and development of the site is nearing completion.

**Output:** The 'Clearing the Cloud' website: clearingthecloud.org.au

**Funding:** UNSW Major Equipment & Infrastructure Scheme (MREII)

**Date commenced:** July 2011

**Expected date of completion:** July 2012

### Client satisfaction with GP cannabis use interventions

**NDARC staff:** Peter Gates, Dr Melissa Norberg and Dr David Allsop

**Project description:** The National Cannabis Prevention and Information Centre (NCPIC) launched an online survey of the experiences of cannabis users who have visited a General Practitioner (GP) with any cannabis use concerns. The survey was designed to gain a better understanding of how GPs manage clients who present with cannabis use concerns and the clients' expectations prior to visiting. In addition the survey measured clients' satisfaction with health professionals' responses.

**Aims:**

- To develop an understanding of how GPs and other health practitioners screen for and manage clients who present with cannabis use concerns
- To gain understanding of clients' expectations of the GP and/or health service regarding how the professional would respond to their cannabis use concerns
- To measure GP clients' satisfaction with health professionals' responses to their initial presentation with cannabis use concerns.

**Design and method:** The survey's webpages were created using UNSW Surveys through the website [www.surveys.unsw.edu.au](http://www.surveys.unsw.edu.au). Participants (N=80) were recruited through advertisements on online cannabis forum websites and other online advertisements as well as by informing GPs by email. Participants were screened online to ensure eligibility before beginning the survey. Following their review of project information and provision of consent, participants were forwarded to a separate page containing the survey instrument.

**Progress:** Preliminary results indicate that when cannabis users access GP services to help them reduce their cannabis use, they trust the confidentiality of the service and believe that the GP is qualified to help; however, they are not satisfied with the service. Conversely, GPs do not report frequently attending to clients with cannabis use concerns, feel under-trained, and perceive that they need more support to effectively assist cannabis-using clients seeking their help.

**Output:** Preliminary data were presented at the 2011 APSAD Conference, Hobart, 13-16 November. An article describing project findings will be submitted to a peer-reviewed journal in 2012.

**Funding:** Australian Government Department of Health and Ageing

**Benefit:** This project will give us a better understanding of how cannabis users view the role of GPs in the delivery of screening and management of cannabis-related problems. In addition, we will gain a better understanding of cannabis users' level of satisfaction with their health practitioner after seeking their advice/treatment for a cannabis use concern.

**Date commenced:** January 2011

**Expected date of completion:** June 2012

### The Ecstasy Check-Up: A multi-site trial of a brief intervention for ecstasy use among regular ecstasy users

**NDARC staff:** Professor Jan Copeland and Dr Melissa Norberg

**Other investigators:** Dr Rebecca McKetin (Australian National University) and Dr Leanne Hides (QUT)

**Project description:** Ecstasy is one of the few drugs that have become more prominent within the Australian community, particularly among young people. A recent Australian study indicated that one fifth of ecstasy users reported using weekly or more often, and that almost half used more than one tablet per average use episode. This is of concern, as several studies indicate that ecstasy is associated with a range of short- and long-term harms, such as depression, insomnia, and neurological changes. Despite widespread use and acknowledgment of harm, few ecstasy users seek treatment. Data from the National Minimum Dataset for 2003-2004 revealed that only 0.4% of drug treatment episodes were ecstasy-related, suggesting that interventions that facilitate treatment seeking should be developed. The objective of the current study is to evaluate a brief motivational intervention (Ecstasy Check-up) for regular ecstasy users compared to an educational control intervention. The Ecstasy Check-up consists of 50 minutes of personalised feedback delivered within a motivational interviewing framework. The feedback is based on a comprehensive assessment of an individual's ecstasy use, associated problems, motivation, and self-efficacy for change. The education intervention consists of a few pages of factsheets on ecstasy harms and usage norms.

**Aims:** The aims of the project are to evaluate whether:

- The Ecstasy Check-Up intervention results in more days of continuous abstinence, fewer days of total use and lower quantity of use at one, four and six-month follow-ups than individuals who receive education only
- Individuals who receive the Ecstasy Check-Up will meet fewer DSM-IV dependence criteria at one-month, four-month and six-month follow-up than individuals who receive education only
- Individuals who receive the Ecstasy Check-Up intervention will be more motivated to change their ecstasy use at one-month, four-month, and six-month follow-ups than individuals who receive education only
- The difference between conditions will be more pronounced for heavy ecstasy users than for mild and moderate users
- Sessions in which therapists adhered strongly to motivational interviewing principles are related to greater improvements in motivation, self-efficacy for reducing ecstasy use, and greater reductions in ecstasy use.

**Design and method:** The Ecstasy Check-Up is a two-group RCT. Participants are followed up at one, four and six months after baseline. The study is conducted at two sites: the NDARC therapy offices and the Institute of Health & Behavioural Innovation, QUT.

**Progress:** 174 individuals are enrolled in the trial. Hypothesis testing will begin in 2012.

**Funding:** National Health and Medical Research Council Project Grant

**Date commenced:** January 2010

**Date expected to be completed:** December 2012

### Development of a brief intervention for ecstasy-related problems: The Ecstasy Check-Up Plus

**NDARC staff:** Professor Jan Copeland and Dr Melissa Norberg

**Other investigators:** Dr Rebecca McKetin (Australian National University), Dr Jake Olivier (UNSW) and Dr Leanne Hides (Queensland University of Technology)

**Project description:** Ecstasy is one of the few drugs that has become more prominent within the Australian community, particularly among young people. A recent Australian study indicated that one-fifth of ecstasy users reported using weekly or more often, and that almost half used more than one tablet per average use episode. This is of concern, as several studies indicate that ecstasy is associated with a range of short- and long-term harms, such as depression, insomnia, and neurological changes. Despite widespread use and acknowledgment of harm, few ecstasy users seek treatment. Data from the National Minimum Dataset for 2003-2004 revealed that only 0.4% of drug treatment episodes were ecstasy-related, suggesting that interventions that facilitate treatment seeking should be developed. The objective of the current study is to expand the one-session Ecstasy Check-Up to a three-session intervention that includes one session of motivational enhancement and two sessions of cognitive-behavioural skills training.

**Aims:**

- To evaluate if ecstasy users will participate in cognitive-behavioural therapy

- To compare the relative efficacy of a one-session motivational enhancement session to that of a three-session motivational and cognitive-behavioural intervention.

**Design and method:** The Ecstasy Check-Up is a two-group RCT. Participants are followed up one, four and six months from the baseline session.

**Progress:** 35 individuals have enrolled in the trial.

**Output:** As we discovered some participants were experiencing significant depression upon study enrolment, a case-study was written and submitted to publication documenting the relationship between depression and ecstasy use evidenced for two patients in the trial. This paper is currently under review. We are still in the process of following-up the participants and the main outcome paper will be written upon completion of all the follow-ups and statistical analysis.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** September 2009

**Expected date of completion:** June 2012

### Development of an opioid aberrant drug behaviour scale for use in multiple healthcare settings

**NDARC staff:** Briony Lawrence, Professor Richard Mattick, Emma Black

**Other investigators:** Professor Louisa Degenhardt (Burnet Institute), A/Prof. Nicholas Lintzeris (The Langton Centre, Drug & Alcohol Services, South East Sydney Local Health Network, and Addiction Medicine, University of Sydney)

**Project description:** An emerging body of literature from the United States describes 'aberrant' (i.e. divergent) medication-related behaviours among pain patients, and the extent to which they are associated with harm, including medical morbidity, dependence and diversion. To date, these clinical tools have not been validated in Australian clinical populations. This study seeks to address these issues through the development of an opioid-related behaviour scale designed for use in Australia. The purpose of the scale is to assist in the identification of behaviours relating to pharmaceutical opioids that may reflect problems with treatment so that clinicians can better assist patients to minimise any unintended consequences and harms (such as inadequate pain relief, overdose, accidents, dependence).

**Aims:** To review the aberrant drug behaviour literature and describe the development of an aberrant drug behaviour scale for use in multiple healthcare settings in Australia. These studies will inform the development and validation of a brief assessment tool to help clinicians stratify risks (in terms of severity and likelihood of harm). We will examine behavioural indicators including those associated with medication (non)adherence (taking prescribed doses at specified dosing intervals, via intended route of administration, under specified levels of supervision) and programmatic (non)adherence (attendance at dosing/review appointments, doctor shopping, drug diversion, etc).

**Design and method:** Key experts (KEs) will be surveyed regarding divergent opioid-related behaviours in terms of clinical relevance, frequency and severity of harm associated with the behaviour(s), and potential responses. Nationwide representation will be sought from pharmacies, allied health, mental health, general practice,

opioid substitution treatment, pain treatment, research and consumer representatives.

Information gathered from KEs, the literature and a project advisory committee will inform the development of a patient survey. In this, the second stage of the study, the latent structure of the proposed scale, its construct validity and (inter-rater, test-retest) reliability will be examined using interview data from chronic opioid treatment patients from OST clinics, pain clinics, general practice and pharmacy settings. A brief scale will then be created using classical and modern test theory approaches.

A sub-sample (n=30) will be interviewed within a week of baseline interviews to establish test-retest and inter-rater reliability.

**Progress:**

- Conducted literature review
- Obtained expert input into the design and content of the scale based on the literature, advisory committee input (including the project investigators) and KE surveys (n=41). Forty items on 'aberrant' and related opioid behaviours were included
- Questionnaire completed by 427 chronic (three months or longer) opioid participants - 205 from OST treatment settings and 222 who were primarily in treatment for pain
- Conducted 42 retest questionnaires
- Shortlisted 14 items for consideration in the final scale based on statistical analyses and input from advisory committee
- Further analyses on the full dataset are underway and will be considered by the advisory committee, followed by preparation of a manuscript for a peer-reviewed publication, in early 2012.

**Output:** In 2011 preliminary findings were presented at the 2011 APSAD Conference and in poster format at the Australian Pain Society's Annual Scientific Meeting and NDARC's Annual Symposium. In addition, several presentations were made to service providers including the Hunter Integrated Pain Service (HIPS) and the Pain Clinic at Prince of Wales Hospital, Randwick.

**Funding:** Reckitt Benckiser (Aust) - Contract Research (untied educational grant)

**Date commenced:** January 2010

**Expected date of completion:** April 2012

### Evaluation of the Inner City Youth at Risk Project and the Inner City Assertive Outreach Service

**NDARC staff:** Dr Lucy Burns, Dr Elizabeth Conroy and Bridget Spicer

**Other investigators:** Professor Paul Flatau (Centre for Social Impact, University of Western Australia)

**Project description:** The traditional response of the human service system to the needs of homeless people experiencing mental health conditions involves specialist homelessness, drug and alcohol, and mental health services providing support in a largely autonomous fashion. Cross-sector co-ordination of services is typically limited to referrals from one service domain to another together with limited information sharing and communication.

This research involves the evaluation of the effectiveness of two projects funded under the NSW Implementation Plan of the National Partnership Agreement on Homelessness, the Inner City Assertive Outreach Service (or 'Way2Home') and the Inner City Youth at Risk Project, both of which are based on integrated service models. The

evaluation will examine the effectiveness of the two projects in terms of their ability to achieve both operational and client-based effectiveness criteria and in particular, will seek to assess the impact of the projects on the health, housing, social and economic targets of the two initiatives. Since homelessness is strongly associated with substance use, the evaluation will also seek to determine the impact of the two services on client substance use.

**Aims:** This proposal involves the evaluation of the effectiveness of two projects funded under the NSW Implementation Plan of the National Partnership Agreement (NPA) on Homelessness, the Inner City Assertive Outreach Service and the Inner City Youth at Risk Project.

In respect of the Inner City Assertive Outreach Model (Way2Home), the aims of the evaluation study are to:

- Examine whether the Inner City Assertive Outreach Model has successfully implemented a best practice model of Assertive Outreach and of Housing First Principles
- Determine whether effective integrated support has been provided to clients across a range of housing and health needs
- Assess the extent to which the Model has achieved positive health and housing outcomes for clients and is more effective than existing programs in achieving positive client outcomes
- Assess the key factors leading to identified successes or barriers for the Inner City Assertive Outreach Model with specific reference to the role of the Housing First model, partnerships, the Assertive Outreach approach and the access to services and housing
- Evaluate the extent to which the Model led to positive NPA performance benchmark indicator outcomes
- Determine the overall effectiveness and cost-effectiveness of the Model
- Detail any relevant implications for future NSW Government policy in addressing homelessness.

In respect of the Inner City Youth at Risk Project, the evaluation study seeks to:

- Assess the extent to which the Inner City Youth at Risk Project meets the needs of both young people with high needs who are rough sleepers or chronically homeless as well as homeless young people who are homeless or at risk of homelessness with low to moderate needs
- Determine the extent to which the Project improves the sustainability of tenancies for those clients who received a tenancy and support package
- Evaluate the extent to which the Project improved access to mainstream health supports and identification of those young adults and youth at risk
- Assess the extent to which the Project achieves positive health, housing and social and economic outcomes for young people
- Assess the key factors leading to identified successes or barriers for the Project
- Evaluate the extent to which the Model led to positive NPA performance benchmark indicator outcomes
- Determine the overall effectiveness and cost-effectiveness of the Model
- Detail any relevant implications for future NSW Government policy in addressing homelessness.

**Design and method:** The study utilises a mixed methods design involving quantitative and qualitative components:

- Client outcomes survey
- Case studies of a sub-sample of clients and their primary support worker
- Cost effectiveness analysis (using both survey and administrative data)
- In-depth interviews with key stakeholders regarding service capacity and integration issues.

**Progress:** For the Inner City Assertive Outreach Model (Way2Home):

- Baseline survey with consumers of Way2Home is ongoing
- In-depth interviews with key stakeholders are ongoing.

For the Inner City Youth at Risk Project:

- Baseline survey with young people who have received brokerage through the Inner City Youth at Risk (ICYAR) Project is ongoing
- In-depth interviews with young people housed through the Inner City Youth at Risk Project are ongoing.

**Funding:** NSW Department of Health Contract Research

**Date commenced:** November 2010

**Expected date of completion:** December 2013

### Examination of the long-term physical health effects of regular cannabis use

**NDARC staff:** Dr Sally Rooke, Dr Wendy Swift, Dr Melissa Norberg and Professor Jan Copeland

**Rationale:** Although several studies have investigated the potential health-compromising effects of smoking cannabis, findings have been mixed. While most research has focused on cancers of the head and respiratory tract, there is also evidence that cannabis use is linked with more common respiratory problems such as chronic cough and emphysema, as well conditions such as cardiovascular disease, dental problems, cancers not on the smoke administration route, disturbed sleep, and impairment of the immune system. The literature, however, is still inconclusive.

Recent reviews have highlighted four factors contributing to the lack of consistency in the literature. First, researched cannabis users have often smoked tobacco too, making it difficult to determine the individual effects of cannabis. While several studies have statistically controlled for tobacco use, statistical control has problems that limit its reliability. Second, the mean age of study participants has often been below that at which serious health problems tend to emerge; thus, outcomes may have differed considerably had the sample been older. Third, studies using a case-control design are highly susceptible to underreporting of cannabis use, particularly in regions where cannabis use has serious legal consequences. Fourth, several studies have had too few participants who used cannabis daily or almost daily; this could mislead with regard to heavier use.

No previous study of long-term cannabis use has addressed all four of the major concerns listed above. This is the objective of the proposed research.

**Aim:** To identify health concerns relating to long-term cannabis use.

**Design and method:** A minimum of 240 participants aged 40+ will be recruited. Advertisements will seek four types of volunteers: individuals who (1) smoke cannabis but not tobacco; (2) smoke both cannabis and tobacco; (3) smoke tobacco but not cannabis; and (4) use neither substance. Participants will complete a questionnaire addressing demographics, diagnosed medical problems and other health concerns (e.g. respiratory symptoms, sleep problems, obesity), current and previous cannabis and tobacco use, and use of other substances.

The primary outcome variable will be the odds ratios for health concerns between the four groups. Point biserial correlations between rates of cannabis/tobacco consumption and health concerns will also be examined in users. Analyses will take into account other factors related to health, such as body mass index and level of physical activity.

**Progress:** Two hundred and seventy participants have been recruited into the study. Recruitment is ongoing.

**Funding:** UNSW Faculty of Medicine

**Benefit:** The study could be an initial step in obtaining much-needed information about the physical health consequences of regular cannabis smoking. This could have both national and international benefit by leading to the availability of information regarding possible health effects of regular cannabis use, and a better understanding of the impacts of regular cannabis use over the life course.

**Date commenced:** February 2010

**Expected date of completion:** June 2012

### Group schema therapy for the treatment of co-occurring depression and opioid dependence

**NDARC staff:** Dr Joanne Ross, Dr Frances Kay-Lambkin, Dr Sharlene Kaye, Dr Katherine Mills and Mark Deady

**Other investigators:** Dr Glenys Dore (Northern Clinical School, The University of Sydney), Dr Susan Simpson (School of Psychology, Social Work and Social Policy, The University of South Australia) and Michiel van Vreeswijk (G-kracht private practice, Delfland, Netherlands)

**Project description:** Heroin dependence is a chronic relapsing condition, associated with high levels of psychopathology. On entry to treatment approximately one quarter of heroin users meet criteria for Major Depression (MD). While cognitive behavioural therapy has the greatest evidence base for the treatment of MD, it makes several assumptions that don't hold true for clients with chronic problems such as long term drug dependence and chronic depression. Schema therapy (ST) significantly expands on traditional cognitive behavioural treatments, and appears well suited to clients with chronic psychological disorders who have been difficult to treat. It places greater emphasis on exploring the childhood and adolescent origins of psychological problems, and on maladaptive coping styles. ST has proven useful in treating chronic depression and anxiety and in preventing relapse in substance abusers. The present study proposes to pilot test a manual-based group schema therapy for clients of drug treatment services.

**Aims:** This study aims to pilot test, in a small RCT, the feasibility of a group intervention for chronically depressed, opioid-dependent clients of alcohol and other drug (AOD) treatment services. Specifically, we aim to answer the following research questions.

- Do AOD clients who receive group ST demonstrate improvements in depressive symptoms and maladaptive schemas compared to clients receiving treatment as usual (TAU)?
- Do AOD clients who receive group ST demonstrate improvements in substance use compared to clients who receive TAU?
- Is group ST acceptable to AOD clients (as indicated by clients' willingness to participate in the study, the attendance rate, and client satisfaction)?

The findings will form the basis of a manualised group program which will be the subject of a submission to the NHMRC.

**Design and method:** This is a randomised controlled pilot study. Participants will be recruited from the Herbert Street Clinic in Northern Sydney. Thirty people will be recruited into the study, with 15 assigned to the treatment group and 15 controls. A baseline interview will collect data on demographics, drug use history, severity of dependence, MD and depressive symptoms, maladaptive schemas, borderline personality, and substance use and depression treatment history. Group ST sessions will commence as soon as is practical following the baseline assessment. Follow-up interviews will be conducted one week after the completion of the group schema therapy, and three months after the intervention.

**Progress:** The first months of the project were spent recruiting and training a research assistant. Recruitment of study participants is due to commence in early 2012.

**Funding:** NSW Department of Health/Drug and Alcohol Research Grants Program

**Date commenced:** August 2011

**Expected date of completion:** August 2012

### Homelessness and services and system integration

**NDARC staff:** Dr Lucy Burns and Dr Elizabeth Conroy

**Other investigators:** Dr Paul Flatau (University of Western Australia) and Dr Anne Clear (Murdoch University)

**Rationale:** Prevalence rates of mental disorders among homeless persons typically exceed general population estimates. Despite the high level of need in the homeless population, access to appropriate services is limited, particularly among those with co-occurring substance use and other mental disorders. There is a strong need to address the gap between the homelessness and health service sectors. The Australian government's White Paper on homelessness, 'The Road Home', highlighted the necessity of service and system level integration to prevent homelessness. Such an approach requires that funding streams, government programs and service delivery across diverse sectors are 'joined up' to deliver holistic and tailored interventions for homeless individuals. Although several Australian cross-sectoral approaches exist, evidence about the most effective mechanism for such integration is lacking.

**Aims:** This project aims to increase our understanding of the ways in which homelessness, mental health and drug and alcohol services can be effectively coordinated or integrated, and the extent to which system and service integration is occurring in Australia at present. The project also seeks to provide case study evidence in relation to the purported benefits of different models of integrated care in the Australian context.

**Design and method:** This study is being conducted in Sydney, Melbourne and Perth, and comprises three components:

1. Case studies of different models of integrated services or programs from both the homelessness and health sectors
2. In-depth interviews with key stakeholders from the homelessness and health sectors, including policy and operational levels, as well as members of intergovernmental programs in the human services
3. Agency survey to identify the type and extent of interactions between agencies within a given geographical area (including both health and homelessness agencies, and government and non-government agencies).

**Progress:** In-depth surveys have been undertaken with a range of stakeholders. Case studies have been undertaken in Perth and Sydney. Preliminary analysis is underway.

**Output:** Project staff were invited to present on the integration of mental health, substance use and homelessness services at the *Faces in the Street* 2nd International Conference in Sydney in February 2011. Presentations were also made at NDARC's Annual Symposium in August and the National Homelessness Conference in September 2011.

**Funding:** Murdoch University - Australian Housing and Urban Research Institute Research Grants Shared Grant/Subcontract

**Date commenced:** May 2009

**Expected date of completion:** September 2012

### Improving cardiovascular health among people with depression: the development and pilot testing of an evidence-based internet healthy lifestyles treatment

**NDARC staff:** Dr Frances Kay-Lambkin

**Other investigators:** Professor Robyn Richmond (Public Health and Community Medicine, UNSW) and Professor Amanda Baker (University of Newcastle)

**Rationale:** Depression and cardiovascular disease (CVD) are currently ranked three and four in the top 20 causes of burden of disease worldwide, and are elevated to numbers one and two on this list when middle-high income countries, such as Australia, are considered. Several factors can account for the increased risk of CVD among people with depression, including the impact of unhealthy lifestyle choices. A United States survey of 1,612 patients, which assessed a range of CVD risk factors, indicated that depressive symptomatology was associated with significantly higher caloric intake, significantly decreased physical activity, and significantly increased number of daily cigarettes compared to people without depression.

**Aims:** This project involves the development of the first web-based multi-factor psychological treatment for people with depression, heavy tobacco use and a range of other comorbid CVD risk factors (poor nutrition, physical inactivity, weight). This treatment is known as Healthy Lifestyles.

**Design and method:** The project seeks to increase the accessibility of an innovative, evidence-based psychological treatment (Healthy Lifestyles Treatment, HLT) for improving cardiovascular and mental health among people with depression by translating it to internet-based delivery (iHLT). HLT has already been developed and

evaluated in face-to-face format by the investigative team. *i*HLT will contain interactive components including video demonstrations, voiceovers and in-session exercises and will be made widely available via the internet. It will be menu-driven, with site users able to select a CVD risk factor on which to focus for each session in addition to their depressive symptomatology (i.e. smoking cessation, physical activity, nutrition and diet), with options available to integrate messages regarding other relevant CVD risk factors. The *i*HLT website will contain self-administered assessment instruments covering mental and general health domains. Users of the site will be prompted to complete these questionnaires at suitable points within the *i*HLT program to enable self-monitoring of progress and facilitating ongoing research evaluation with the target group. Site users will also receive a printout and summary of these assessment scores, and be encouraged to discuss these results with their relevant health worker.

**Progress:** The *i*HLT website is completed and ready for testing. Grant applications to fund pilot testing of the resource have been submitted and others are in preparation.

**Benefits:** It is hypothesised that completion of the *i*HLT program will be associated with decreases in CVD risk factors (including alcohol use, tobacco use, physical inactivity, dietary issues, and obesity), decreases in depression, and improvements in quality of life and general functioning. A dose-response relationship is suggested, with greater improvement hypothesised among participants completing more *i*HLT modules. Providing internet-based access to *i*HLT could result in individuals receiving treatment in an earlier phase of their disorder, thereby contributing to the prevention, early detection and management of depression and CVD. An additional benefit is the empowerment of people to become more actively involved in their own healthcare. This approach should also facilitate the strengthening of subsequent client-healthcare professional communications.

**Funding:** Australian Government Department of Health and Ageing contract research

**Date commenced:** July 2010

**Expected date of completion:** December 2012

### Improving co-morbidity treatment within residential substance abuse programs: a randomised trial of a computer-based depression and substance abuse intervention

**NDARC staff:** Dr Frances Kay-Lambkin

**Other investigators:** Professor Amanda Baker (University of Newcastle), Dr Peter Kelly (University of Wollongong) and Professor Frank Deane (University of Wollongong)

**Project description:** It is very common for individuals to have both mental health and substance abuse problems. This is particularly the case for individuals accessing substance abuse treatment, where up to 80% of participants have a co-occurring mental health diagnosis. When compared to people with a single diagnosis, individuals diagnosed with both mental health and substance abuse problems have significantly poorer treatment outcomes across a broad range of outcome domains. It is extremely important that Australian residential substance abuse services provide comprehensive treatment for individuals diagnosed with co-

occurring mental health and substance abuse problems. However, the majority of Australian residential substance abuse services still primarily target only the person's substance abuse problems and cognitive behaviour therapy (CBT) is infrequently employed in these settings, despite its strong evidence base for substance use problems.

**Aims:** To examine the effectiveness of using a computer delivered co-morbidity treatment program for individuals attending long-term residential substance abuse programs. The specific aims of the project are:

- To examine the acceptability of using a computer-based intervention within a residential substance abuse setting
- To examine differences in substance use and mental health outcomes between participants in the treatment condition and participants in the control condition.

**Design and method:** The proposed study will evaluate the effectiveness of 'adding' a computer-delivered co-morbidity CBT intervention (SHADE) to an already established substance abuse program. The study will be conducted as a randomised trial, where the Treatment Condition will complete the SHADE program in addition to treatment as usual (i.e. The Salvation Army residential program, TAU). The Control Condition will complete TAU only (i.e. The Salvation Army program, based on the 12-step approach). As mental illness is not specifically targeted as part of The Salvation Army program, and CBT not systematically available for substance use problems, it is hypothesised that individuals in the treatment condition will report greater improvements in their mental health and reductions in their substance use at follow-up than individuals in the control condition.

**Progress:** The trial is in progress. Funding has been secured for a second year to extend the project into 2012.

**Output:** A protocol paper has been submitted to *BMC Public Health* describing the methodology of the trial.

**Benefit:** If the program proves to be effective it will continue to be offered to all participants who enter William Booth House in Sydney each year. Additionally, the intervention would be expanded across each of the Salvation Army residential substance abuse services across New South Wales, Queensland and the Australian Capital Territory (500 beds in total, 1800 individuals treated annually). An advantage of using a computer-delivered intervention is that high quality, evidence-based clinical interventions are readily available for uptake by clinical services, with expansion of the program not placing any additional burden on the staff or organisation. Rather, implementation will only require the Salvation Army to utilise existing computer terminals and ensure that the intervention is timetabled into the participants' weekly activities. It is hoped that these activities will help to promote the use of computer-based interventions within residential substance abuse settings across Australia.

**Funding:** Australian Rotary Health Research Fund

**Date commenced:** January 2011

**Expected date of completion:** December 2012

## Improving services to women who are pregnant and alcohol-dependent

**NDARC staff:** Dr Lucy Burns, Dr Delyse Hutchinson, Dr Elizabeth Conroy and Dr Courtney Breen

**Other investigators:** Dr Deborah Loxton and Jennifer Powers (Research Centre for Gender Health and Ageing, University of Newcastle), Sue Miers (National Organisation for Fetal Alcohol Syndrome and Related Disorders - NOFASARD) and Dr Adrian Dunlop (Hunter New England Area Health Service)

**Project description:** Alcohol exposure in utero can cause a range of abnormalities in the fetus which are included under the umbrella term Fetal Alcohol Spectrum Disorders (FASD). Identification and treatment of problem drinking prior to and during pregnancy is recognised as an effective strategy for prevention. However, only a small proportion of pregnant women who drink at problematic levels are identified and treated. There is a variety of reasons why women choose not to access treatment, including a lack of services, attributing their problems to mental health rather than alcohol use, and issues relating to their personal situation (children or partner). Given women's changing patterns of alcohol consumption and harm, attention must be paid to the way gender stereotypes influence the prevention and treatment of alcohol-related problems.

**Aims:** To gain information from stakeholders (alcohol-dependent women and clinicians who care for alcohol-dependent pregnant women) on barriers to treatment; to produce a resource for clinicians about the management of alcohol dependence in pregnancy.

**Design and method:** The project comprises three components:

- A literature review of alcohol use in pregnancy
- A qualitative survey of clinicians who work with alcohol-dependent women
- A qualitative survey of alcohol-dependent pregnant women.

**Progress:** 2011 saw the initiation of the literature review, ethics submission and questionnaire development. Ethics approval was obtained and Courtney Breen will commence recruitment of clinicians and clients in early 2012.

**Benefits:** Improving detection and treatment of alcohol-dependent women will reduce preventable FASD.

**Funding:** Foundation for Alcohol Research and Education (formerly Alcohol Education and Rehabilitation Fund)

**Date commenced:** June 2011

**Expected date of completion:** June 2012

## Internet-delivered psychological treatment for comorbid depression and alcohol/other drug use problems: The SHADE project

**NDARC staff:** Dr Frances Kay-Lambkin

**Other investigators:** Professor Amanda Baker, Professor Brian Kelly and Dr Kerry Inder (University of Newcastle)

**Rationale:** Mental health and AOD researchers and clinicians must respond to the increased demand for their services by developing and evaluating treatment programs that address depression and alcohol use disorders whilst minimising cost and maximising efficient use of clinician time and client outcomes.

Available evidence-based treatments provide for single problems (e.g. depression or alcohol misuse) rather than the co-morbidity with which clients typically present. Treatments are often high-intensity, require specialist input and training, and are therefore only accessible to a minority of clients. For these reasons, many clinicians are not able, or willing, to implement these interventions in practice. The increased availability and use of internet-based programs as a supplement to healthcare is a potential solution to well-documented treatment accessibility problems, particularly among people with depression and AOD use co-morbidity.

**Aims:** To conduct a pilot intervention study of the internet-delivered SHADE treatment program with an epidemiological cohort.

**Design and method:** Participants who report elevated psychiatric distress and hazardous alcohol use will be randomly assigned to assisted vs unassisted SHADE treatment programs and monitored over a six-month period.

**Progress:** Content and technical development of the site has been completed, and ethics applications for the conduct of the pilot trial have been obtained. A pilot trial of the site commenced in September 2011.

**Output:** An evidence-based internet-delivered treatment for depression and alcohol use co-morbidity.

**Benefit:** Findings from this research will result in the development of an effective, cost-effective, and acceptable treatment program for people with comorbid alcohol and depressive disorders.

**Funding:** Beyond Blue

**Date commenced:** July 2010

**Expected date of completion:** December 2012

## Process evaluation of the Cannabis Information and Helpline

**NDARC staff:** Peter Gates, Dr Melissa Norberg and Professor Jan Copeland

**Project description:** Despite the widespread use of cannabis in Australia, relatively few cannabis users present to treatment, with only 31,980 episodes of care provided for primary cannabis use problems in 2006-07 (AIHW, 2008). Research into the barriers to cannabis treatment has highlighted the importance of providing additional outpatient treatments that are specific to cannabis. Partly based on the success that telephone counselling has shown for people with tobacco-related problems and this desire for alternative treatments, the Cannabis Information and Helpline (CIH) was launched by Lifeline Australia in collaboration with the NCPIC. However, to date no Australian data exists on the satisfaction of callers to this service or any other telephone service with a focus on a particular illicit drug.

**Aims:** To evaluate the Cannabis Information and Helpline (CIH). The study will establish who calls the CIH, establish what they expect from the service, how satisfied they are with the call, and how the call was helpful to them. In addition, we will investigate trends in counselling style as well as characteristics of callers and associations with call outcomes.

**Design and method:** This study has two phases. First, CIH callers (N = 200) are asked to give consent to participate in a 15-minute phone interview. The interview assesses callers' satisfaction with

the service and the counsellor, various aspects of the call, such as how easy it was for them to reach a counsellor, what happened during the call, and how the call was helpful to them. Secondly, the data routinely collected by CIH will be analysed to identify patterns and if certain types of callers and counsellor behaviours are associated with differential outcomes.

**Progress:** The full sample has been interviewed and the associated dataset has been analysed.

**Output:** One article was published in the *Journal of Telemedicine and Telecare* in 2011. The findings will also be included in the first author's PhD, due for submission in March 2012.

**Benefit:** This project marks the first investigation of caller satisfaction with an illicit substance use helpline. In addition, the project included a regression analysis to determine the predictors of client satisfaction from a list of measures taken from the call content and the caller demographics. The information from this project was used to inform the development and evaluation of a unique telephone-delivered cannabis use intervention. This study provides support for the development of other telephone helplines in the field of illicit substance use.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** August 2009

**Expected date of completion:** March 2012

### Telephone counselling via the Cannabis Information Helpline

**NDARC staff:** Peter Gates, Dr Melissa Norberg and Professor Jan Copeland

**Project description:** Despite widespread use of cannabis in Australia, relatively few cannabis users present to treatment, with only 31,980 episodes of care provided for primary cannabis use problems in 2006-07 (AIHW, 2008). Study on the barriers to cannabis treatment has highlighted the importance of providing additional outpatient treatments that are specific to cannabis. Partly based on the success that telephone counselling has shown for people with tobacco-related problems and this desire for alternative treatments, the Cannabis Information and Helpline (CIH) was launched by Lifeline Australia in collaboration with the NCPIC.

To date, no Australian data exist on the effectiveness of a brief telephone-based intervention in assisting individuals to reduce their cannabis use. The Helpline offers the opportunity to research the efficacy of different brief interventions that may address several barriers to conventional cannabis treatments.

**Aims:** To recruit 120 callers to the CIH requesting assistance in reducing their own cannabis use. Treatment effectiveness will be assessed by reduction in cannabis use and general improvements in quality of life. Participants will be randomised into two groups: immediate treatment or three-month-delayed treatment. Treatment is four sessions of cognitive-behavioural and motivational enhancement therapy. Treatment delivery is meant to be flexible, in that successful patients continue to learn new skills during each session, whereas unsuccessful participants undergo motivational interviewing and problem-solving techniques in an effort to address their lack of improvement. Participants will be interviewed pre-treatment, immediately post-treatment, and at one and three months post-treatment.

The treatment is delivered by CIH counsellors. All counsellors receive two full-days of training. Counselling calls are monitored randomly to assess treatment fidelity.

**Design and method:** The brief intervention is a four-session intervention utilising a directive model that assists participants in recognising the benefits of change and developing coping skills that work towards a reduction of cannabis use and prevention of relapse. Participants are first assessed at baseline and provide information to the researcher that is forwarded to the counsellors at the Helpline. Immediately following the baseline assessment, the participants are randomly placed into one of two groups; those who begin the intervention immediately and those asked to wait three months before beginning the intervention (the 'control' group).

Following the completion of the four sessions (or after four weeks from baseline assessment for those in the control group), each participant is asked to provide the researcher with information on their cannabis use, as well as their physical and mental health via phone interview. Finally, participants complete a second phone interview three months from the baseline assessment date.

**Findings:** The intervention was delivered to 160 individuals. Those allocated to the telephone intervention reported greater confidence in reducing their cannabis at post-treatment, which in turn led to achieving significantly more abstinent days at the three-month follow-up assessment compared to the control participants (intervention participants reported an average of 20.7 days of abstinence in the 28 days prior to follow-up compared to 15.5 days reported by control participants). At the three-month follow-up, 22.8% of the intervention participants reported clinically significant improvement from baseline levels of cannabis use and related problems compared to 13.6% of the control participants.

**Output:** Article submitted to a peer-reviewed journal, PhD thesis chapter completed, findings presented at a drug and alcohol conference.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** August 2009

**Expected date of completion:** March 2012

### Quality assessment of practice guidelines for cannabis use treatment available via the internet

**NDARC staff:** Dr Melissa Norberg, Dr Sally Rooke and Peter Gates

**Project description:** In recent years, there has been a focus on developing practice guidelines to facilitate the delivery of evidence-based interventions. In order for practice guidelines to be useful, they must first be disseminated; however, some methods of dissemination may allow for the ability to publish resources of varying degrees of evidence-based support and quality. Thus, it is imperative that quality assessments of practice guidelines be conducted in order to guide practitioners in deciding which practice guidelines to follow.

**Aims:** To conduct a systematic search of practice guidelines for cannabis use treatment available via the internet and assess their quality.

**Design and method:** The review will evaluate various aspects of guideline quality as well as overall guideline quality. Gaps and other areas in need of improvement will also be identified.

**Progress:** Seven practice guidelines have been identified and subjected to independent review. In 2012, the team will survey health professionals in regards to their knowledge and attitudes about the seven practice guidelines.

**Benefit:** The study will identify high quality online cannabis practice guidelines, and will also highlight areas in which guidelines are in need of improvement.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** August 2011

**Expected date of completion:** December 2012

### Review, update and develop a dissemination strategy for the National Clinical Guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn for NSW

**NDARC staff:** Dr Lucy Burns and Sarah Goodsell

**Project description:** The National Clinical Guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn (the Guidelines) were commissioned by the Ministerial Council on Drug Strategy and were published in March 2006. The aim of the Guidelines was to develop a comprehensive, coherent and consistent approach to the clinical care of women with problematic drug or alcohol use during pregnancy and to the care of mother and child in the early developmental stages of the child's life. The Guidelines are intended for use by all healthcare practitioners working with pregnant women experiencing a drug or alcohol problem.

These nationally agreed guidelines cover a range of topics including but not limited to: the obstetric and neonatal complications associated with the use of a range of substances (including alcohol, tobacco, cannabis, amphetamines, cocaine, inhalants and benzodiazepines), breastfeeding, pain management, vertical transmission of blood-borne viruses and the management of neonatal abstinence syndrome. In addition, where relevant, specific guideline statements identify the needs and appropriate care of Aboriginal and Torres Strait Islander women with drug and alcohol issues.

As part of the response to Recommendation 9 of the NSW Ombudsman's Report of Reviewable Deaths in 2005: Child Deaths, NSW Health was required to investigate the issue of promoting and ensuring compliance with the Guidelines. The findings from a study undertaken to identify the current levels of awareness, knowledge and compliance with the Guidelines across NSW indicated that further work was required. Most notably, the Guidelines required updating to bring them in line with changes to the NHMRC Guidelines regarding alcohol use in pregnancy, recent research findings with respect to the safety of buprenorphine use in pregnancy, and to ensure that the Guidelines were suitable for the NSW context.

**Aims:** The purpose of this project is to:

- Review and update the Guidelines for use in the NSW context
- Develop a dissemination strategy for the revised Guidelines.

**Design and method:** The process uses a similar method (a consensus model) adopted in the development of the Guidelines to revise and update the Guidelines; international and Australian

research literature is reviewed by experts and consensus achieved. A collaborative group of colleagues working within the AOD program of their respective Area Health Services and key experts in the area will be brought together in a face-to-face consensus meeting to comment on the Guidelines.

**Progress:** Substantial progress has been made, including:

- Formation of an expert clinical guidance group, which has met on six occasions, and valuable out-of-session advice has been received
- Formation of a rural/remote expert group for advice on clinical pathways in this setting
- Updated literature reviews covering each of the key drug types
- The drafting of new chapters covering child protection, the use of antidepressant medications during pregnancy and withdrawal management during pregnancy.

However, it has become clear that several areas will require further work to ensure the guidelines are 'gold standard' for NSW. In particular, it has become clear there should be appropriate consultation with key stakeholders with respect to Aboriginal women and women who live in remote/rural areas regarding pathways for care where no specialist services are available and where there are special cultural issues. Another subgroup of women at particular risk is those who are incarcerated and/or leaving the criminal justice system. As such, the second phase of the project will involve semi-structured interviews with health professionals who provide services to these groups of women.

**Benefits:** The project will generate an up-to-date evidence base on the impact of substance use in pregnancy.

**Output:** A poster about the project by Sarah Goodsell was presented at the NDARC Symposium. In November 2011, Dr Lucy Burns participated in the symposium 'Emerging Clinical Issues in the Treatment of Women with Substance Use Disorders: From Pregnancy to Parenting' at the 2011 APSAD Conference.

**Funding:** NSW Health Department

**Date commenced:** June 2010

**Date due for completion:** December 2012

### The cost of homelessness and the net benefit of homelessness programs: a national study

**NDARC staff:** Dr Lucy Burns, Dr Elizabeth Conroy and Bridget Spicer

**Other investigators:** Dr Kaylene Zaretzky (Murdoch University) and Professor Paul Flatau (Centre for Social Impact, University of Western Australia)

**Project description:** Homelessness is a prevailing issue in contemporary Australian society, yet little is known about its social and economic costs to the individual and to the community. The first aim of The National Homelessness Study is to collect information to help understand the effect of a period of homelessness on other aspects of a person's life, such as employment, education and health. Since homelessness is strongly associated with drug and alcohol use, this study will also measure the level of substance use in this group. The second aim of the study is to examine outcomes for people who receive assistance to prevent homelessness. The study will work with agencies in Perth, Sydney, Melbourne and Adelaide that deliver services to assist

people at risk of homelessness and their clients. Services include, but are not limited to, assistance maintaining an existing tenancy, crisis and transitional accommodation, brokerage, and assistance in accessing services required to support income, health, employment, and education requirements.

**Aims:** The overarching aim of the study is to estimate the cost-effectiveness to government of providing services to prevent a period of homelessness. The whole of government cost includes both: 1) the cost of preventing a period of homelessness and 2) the potentially offsetting change in government expenditure in non-homelessness services, such as health and justice, as a result of preventing a period of homelessness.

This will be achieved by:

- Assessment of the cost to government of providing services to assist people at risk of homelessness
- Estimating the impact of homelessness on use of health, justice, income support and welfare services
- Assessing the potential cost to government in the areas of health, justice, income support and welfare services of not undertaking homelessness prevention programs
- Investigating the potential to use linked administrative homelessness, health, justice, income and welfare support data to quantify the costs of homelessness and the costs and benefits of homelessness program assistance

**Design and method:**

- Literature and policy review
- Qualitative and quantitative survey of clients of homelessness prevention services
- Quantitative survey of managers of agencies which operate homelessness prevention services
- Analysis of survey data using descriptive statistics and multivariate statistical methods
- Examination and analysis of the properties of homelessness and non-homelessness administrative data collections
- Interviews with administrative data collection managers

**Progress:**

- The literature and policy reviews have commenced and are ongoing
- The quantitative survey of managers of agencies which operate homelessness prevention services is ongoing
- The baseline client survey is complete with a total of 208 clients of homelessness prevention services recruited across Western Australia, New South Wales, Victoria and South Australia
- Preliminary analysis of baseline client survey data is complete
- Six-month follow-up of baseline client survey respondents is complete
- 12-month follow-up of baseline client survey respondents is ongoing.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** May 2010

**Expected date of completion:** June 2012

### The efficacy of an intervention for post-traumatic stress disorder among illicit drug users

**NDARC staff:** Dr Katherine Mills and Professor Maree Teesson

**Other investigators:** A/Prof. Sudie Black and Professor Kathleen Brady (Medical University of South Carolina), Sally Hopwood (Traumatic Stress Clinic, Westmead Hospital), Professor Amanda Baker (University of Newcastle) and Dr Claudia Sannibale (UNSW)

**Project description:** Trauma and post-traumatic stress disorder (PTSD) are highly prevalent among people with substance use disorders. There is however, a dearth of literature as to how best to treat this co-morbidity. The present study is one of the first RCTs to examine the efficacy of an integrated therapy for PTSD and substance use disorders.

**Aims:**

- Evaluate the efficacy of an integrated intervention for PTSD and substance use disorders by comparing the treatment outcomes of those who receive the intervention with those who receive standard care for their substance use
- Identify factors that influence the efficacy of the integrated intervention, including subject characteristics, demographic, substance use and psychological factors, treatment characteristics, and treatment compliance
- Assess the feasibility of implementing the intervention as measured by treatment retention and client satisfaction.

**Design and method:** An RCT is being conducted to address the research aims. One-hundred and three participants were recruited from AOD treatment services in greater Sydney and via advertisements. Participants were randomised to one of two groups stratified according to sex: those who receive the intervention (n=55), and those who receive standard care (n=48).

The intervention is a modified version of Concurrent Treatment of PTSD and Substance Dependence, an intervention developed in the United States. The intervention consists of 13 90-minute sessions involving cognitive behavioural therapy with exposure techniques. Attempts are made to follow-up all participants at six weeks, three months and nine months post-baseline. Baseline and follow-up interviews include validated instruments to measure demographics, substance use and dependence, substance use and PTSD treatment history, criminal involvement, general physical and mental health, trauma exposure and PTSD, depression, anxiety, borderline personality disorder, and health service utilisation.

**Progress:** Across the nine-month follow-up period both groups evidenced improvements in their substance use, severity of dependence, PTSD symptoms and depression. Participants randomised to the intervention demonstrated significantly greater improvements than the control group in relation to PTSD symptoms. Change in PTSD severity was also related to participant characteristics including the severity of initial PTSD symptoms, education, and age at initiation to substance use. Importantly, change was not influenced by the presence of other comorbidities (depression, anxiety, BPD), trauma history, current drug use severity or pattern of attendance.

**Benefits:** These findings provide evidence in support of treating PTSD among people with substance use disorders using integrated treatment approaches.

**Output:** The results of this study have been presented in forums including the APSAD 2011 conference, the EABCT 2011 conference, at an invited trauma workshop as part of the 2011 Drug and Alcohol Nurses of Australasia conference, the Australasian Society for Psychiatric Research 2010 conference and AWS 2010 conference. Concurrent Treatment with Prolonged Exposure (COPE), the treatment employed in this study, was the subject of an all-day training workshop at the Australian Association for Cognitive and Behaviour Therapy 2011 conference. Papers for peer-review are currently being written.

**Funding:** National Health and Medical Research Council Public Health Fellowship

**Date commenced:** December 2006

**Expected date of completion:** December 2012

### The MISHA Project

**NDARC staff:** Dr Lucy Burns and Dr Elizabeth Conroy

**Other investigators:** Dr Anthony Eardley (Social Policy Research Centre, UNSW), Kathryn Di Nicola (Mission Australia), Dr Paul Flatau (The Centre for Social Impact, The University of Western Australia), Marina Athanassios (Health Services and Outcomes Research Group, University of Western Sydney)

**Project description:** The MISHA (Michael's Intensive Supported Housing Accord) Project is an integrated program that provides long-term stable accommodation and a holistic service delivery approach to homeless men. The aim of the program is for clients to achieve housing stability, improved social inclusion, and a capacity to live within the broader community. NDARC, together with UWA, will assess and report on the program's effectiveness.

**Aims:** The primary aim of this project is to evaluate the MISHA service model and develop an evidence base that can inform and influence government policy in the housing and homelessness fields.

**Design and method:** The key component of the evaluation is a longitudinal survey, the MISHA Survey, of men recruited to MISHA. Other aspects of the research design are the use of relevant administrative data, including National Affordable Housing Agreement service and housing data, a qualitative evaluation of the service, and a cost-effectiveness analysis.

**Progress:** Recruitment commenced in December 2010; all baseline interviews have now been completed (n=74). The six-month and 12-month follow-up interviews are in progress.

**Benefit:** Access to long-term housing and the sustainability of tenancies will be improved; client well-being and social inclusion will be improved.

**Funding:** Mission Australia (shared grant with University of Western Australia and University of Western Sydney).

**Date commenced:** December 2010

**Expected date of completion:** June 2014

### The prevalence of drug and alcohol presentations on hospital-based services

**NDARC staff:** Dr Lucy Burns, Dr Tim Slade, Dr Elizabeth Conroy and Kerryn Butler

**Other investigators:** Cate Wallace (NSW Health), Dr Rosalie Viney, Dr Rebecca Reeve and Kees van Gool (Centre for Health Economics Research and Evaluation, University of Technology Sydney)

**Project description:** Despite a high prevalence of AOD-related morbidity among patients presenting to emergency departments, acute care settings and pre-admission clinics, previous research has found AOD-related morbidity is not commonly identified on admission. AOD-related morbidity has important implications for patient management whilst in hospital as well as on re-admission rates. Consultation Liaison (CL) services are an intervention implemented in clinical settings to provide direct access to specialist services for support, treatment, advice and assistance with the management of a given condition. CL services have been adapted to the AOD field to reduce the health burden and associated costs that AOD problems place on the health system, such as inpatient ward access and exit blockages and re-admissions. NSW Health has provided specific funding to enhance AOD CL services in four Area Health Services: Sydney South West, Hunter New England, Greater Southern and Greater Western.

NDARC, in collaboration with the Centre for Health Economics Research and Evaluation (CHERE), was contracted by the NSW Health, Mental Health and Drug and Alcohol Office (MHDAO), to undertake an evaluation of Drug and Alcohol Consultation Liaison Services (AOD CL) in NSW. This evaluation will include the development of a clinical model of care for the establishment of future CL services in NSW and to standardise service provision in existing hospitals and Area Health Services.

**Aims:** To determine whether the implementation of AOD CL increases the identification of patients with drug and alcohol problems and improves health outcomes and treatment pathways for patients with AOD problems.

**Design and method:** The evaluation comprises three sub-studies:

- **Patient Survey:** This survey will be undertaken in the Emergency Department and additional select wards (e.g. orthopaedic, psychiatry) in eight NSW hospitals to identify the contribution of substance use to patients' current presentations and the proportion of patients presenting with a recent history of substance use requiring an intervention. Data collection will occur over 24 hours a day for a period of 10 days. The Patient Survey is designed to be self-completed. A sub-sample of patients identified as having a substance use problem will be followed up at three months to examine their use of health services and uptake of referrals to drug treatment if attended to by AOD CL staff. This component is being undertaken by NDARC
- **Cost Effectiveness Analysis:** The cost effectiveness of AOD CL services will be ascertained using data linkage of the baseline patient survey, emergency department presentations, hospital separations, use of AOD CL services and Medicare Benefits Schedule / Pharmaceutical Benefits Scheme data. Participants will be tracked for 36 months (18 months either side of their baseline survey date). This component is being undertaken by CHERE

- Model of Care / Clinical Pathways: NDARC researchers will conduct in-depth interviews with AOD CL and general hospital staff to document the model of CL implemented at each site and the impact of AOD CL services on patient management and clinical pathways. Fourteen hospitals are participating in this component.

**Progress:** Patient surveys have been completed at seven NSW Hospitals, with the final hospital scheduled to conduct the patient survey in January 2012. Preliminary descriptive analysis of the patient survey baseline data has been completed for four hospitals to date with the remainder expected to be completed by March 2012. Data collection for the Model of Care Study continues and is expected to be completed by June 2012.

**Funding:** NSW Department of Health contract research

**Date commenced:** November 2010

**Expected date of completion:** December 2012

### Tracking the course of substance-induced versus independent depression: diagnostic change upon follow-up?

**NDARC staff:** Dr Natacha Carragher, Dr Tim Slade, Dr Frances Kay-Lambkin and Professor Maree Teesson

**Other investigators:** Dr Rebecca McKetin (Australian National University)

**Project description:** Over three million Australians have a lifetime alcohol use disorder and one in five will have co-occurring major depression in the last year. The clinical outcomes for those presenting with co-occurring major depression and alcohol use disorders are poor and this is a major health concern for Australia. DSM-IV distinguishes between transient, substance-induced depressive episodes and enduring, independent depressive episodes. This diagnostic distinction marks recognition that these syndromes are likely to differ in their aetiology, clinical course, and response to treatment; however, little longitudinal research has evaluated these syndromes. This novel and timely project prospectively examines the depressive episodes of alcohol-dependent patients.

**Aims:** Identify the proportion of depressive episodes initially classified as substance-induced but later reclassified as independent (and vice-versa) and examine predictors of diagnostic change.

**Design and method:** Secondary analyses of data from the Depression and Alcohol Integrated and Single-focused Interventions study, a multi-site RCT that compared the effectiveness of psychological treatments for 282 patients with co-occurring depression and alcohol use problems.

**Progress:** The research is currently being completed and will be published in early 2012.

**Benefit:** The findings hold promise for improving treatment decisions and patient care, as well as informing aetiological research and upcoming revisions to the major psychiatric classification systems.

**Funding:** UNSW Early Career Researcher Award

**Date commenced:** July 2011

**Expected date of completion:** June 2012

### Twelve-month follow-up of mothers on the NSW opioid treatment program

**NDARC staff:** Professor Richard Mattick and Dr Stephanie Taplin

**Project description:** This project extends the *Child protection and mothers in substance abuse treatment study* by undertaking a 12 month follow-up of study participants. Throughout 2009 and 2010 mothers in opioid pharmacological treatment (OTP) clinics in Sydney were interviewed and the factors that affect the chances of mothers in the OTP becoming involved with the child protection system examined. Overseas research has previously found that families where there is alcohol or other drug misuse are at higher risk of being involved with the child protection system than other families: child protection reports, re-reports and placements in out-of-home care are all more likely. The reasons for this are not always clear and the extent to which these findings apply in Australia is unknown. Findings from the *Child protection and mothers in substance abuse treatment study* showed that women who were more likely to be involved with child protection services were those who had (1) a greater number of children, (2) were on psychiatric medication, and (3) had minimal support from their own parents.

**Aims:** The main aims of this study are to:

- Complete the extraction of 12-month follow-up data about the involvement of study participants and their children with child protection services
- Use the initial data obtained via interview and 12-month follow-up data to analyse predictors of child protection involvement amongst women on the NSW Opioid Treatment Program and their children.

**Design and method:** Information on the involvement of consenting participants with child protection services in the 12 months since their interview will be extracted from NSW child protection service records. The data extracted will focus on child protection reports, assessments, care and protection orders and restorations of children to the care of their birth parent(s). The role of substance use in these decisions will also be examined.

**Progress:** In the latter half of 2011, data were extracted and entered into the SPSS statistical analysis package. Editing and preliminary analyses of the data have commenced.

**Benefit:** Results from this follow-up study will build on the important findings from the *Child protection and mothers in substance abuse treatment study*.

**Funding:** NSW Health Drug and Alcohol Research Grants Program 2011/12

**Date commenced:** August 2011

**Expected date of completion:** August 2012

### Patterns of alcohol and drug use

#### Alcohol-related crime in the City of Sydney Local Government Area

**NDARC staff:** A/Prof. Anthony Shakeshaft

**Rationale:** The City of Sydney Council and residents have recently exhibited considerable concern about escalating rates of alcohol-related harm in inner Sydney. NDARC was approached to provide an empirical determination of whether rates of alcohol-related crime

in the inner city areas of Kings Cross and Darlinghurst have been increasing over time.

**Aim:** To apply a surrogate measure of alcohol-related crime to the Sydney Local Government Area (LGA) to determine whether rates of crime have increased over time.

**Design and method:** Longitudinal data analysis using routinely collected police data, modified to improve the reliability of the measure.

**Progress:** An initial report was published on the City of Sydney Council website, showing an increase in alcohol-related crime in Kings Cross and Darlinghurst between 2000 and 2007. The most likely explanation for the increase in Kings Cross is the density of alcohol outlets and the high proportion of them that are open late at night, while the most likely explanation for Darlinghurst is the substantial increase in the number of alcohol outlets over that time period. The data were reviewed and published as an NDARC Monograph in 2011. Updates will consider whether the upward trends in rates of alcohol-related crime have continued for both Kings Cross and Darlinghurst.

**Output:** NDARC Monograph 63

**Funding:** City of Sydney Council

**Date commenced:** April 2008

**Expected date of completion:** December 2012

### **Australian longitudinal study of heroin dependence: An 11-year prospective cohort study of mortality, abstinence, criminality and psychiatric co-morbidity among heroin users**

**NDARC staff:** Professor Maree Teesson, Professor Shane Darke, Dr Katherine Mills, Dr Tim Slade, Dr Joanne Ross, Dr Lucy Burns, Dr Christina Marel, Sonja Memedovic and Philippa Ewer

**Other investigators:** A/Prof. Michael Lynskey (Washington University)

**Project description:** Heroin dependence is remarkably persistent, and in many cases it is a lifelong condition with a high mortality rate, yet the natural history of heroin dependence has rarely been studied. *The Australian Treatment Outcome Study (ATOS)* is a landmark Australian cohort study examining outcomes from heroin dependence in over 40 research publications over three years (2001-2004). This 11-year prospective cohort study will re-contact and re-interview the 615 individuals who participated in the initial three-year cohort study.

**Aim:** To conduct the longest and most comprehensive prospective follow-up of heroin users in Australia.

**Design and method:** 11-year follow-up interviews examining mortality, abstinence, criminality, psychopathology and suicidal behaviour will be conducted with individuals from the ATOS cohort.

**Progress:** Interviewers are being trained and participants from the original study re-contacted. ATOS has secured NHMRC funding for 2012-2013 and will be fully staffed from January 2012.

**Benefits:** This project will produce a better understanding of the natural history of heroin users in terms of mortality, remission, criminality and psychiatric co-morbidity. The long-term outcomes of the cohort will be examined using both sophisticated data linkage and detailed individual interviews.

The extension of this cohort will address three significant gaps in our knowledge:

- Does Australia have lower mortality rates from heroin dependence?
- What are the long-term remission rates from heroin dependence in Australia?
- What are the long-term health and social consequences of heroin dependence and what factors influence the heroin use trajectory?

**Funding:** National Health and Medical Research Council project grant and UNSW Goldstar

**Date commenced:** October 2011

**Expected date of completion:** December 2013

### **Cannabis Cohort Research Consortium (CCRC)**

**NDARC staff:** Dr Delyse Hutchinson, Professor Richard Mattick, Edmund Silins, Professor Jan Copeland, Dr Marian Shanahan, Dr Tim Slade, Dr Wendy Swift and Professor Maree Teesson

**Other collaborators:** Professor Louisa Degenhardt (Burnet Institute), Professor Steve Allsop (National Drug Research Institute, Curtin University of Technology), Professor David Fergusson (Christchurch School of Medicine and Health Sciences, University of Otago), Professor Wayne Hall (School of Population Health, University of Queensland), Professor Jake Najman and Dr Mohammad Hayatbakhsh (Queensland Alcohol and Drug Research and Education Centre, University Of Queensland), Professor George Patton (Centre for Adolescent Health, University of Melbourne), Professor Richie Poulton (Dunedin Multidisciplinary Health and Development Research Unit, University of Otago), Professor Bryan Rodgers (Australian Demographic and Social Research Institute, Australian National University), Diana Smart (Australian Institute of Family Studies), Professor John Toumbourou (School of Psychology, Deakin University), Dr Craig Olsson (Centre for Adolescent Health, Royal Children's Hospital, Melbourne), Carolyn Coffey (Centre for Adolescent Health, University of Melbourne), A/Prof. John Horwood (Christchurch School of Medicine and Health Sciences, University of Otago), Dr Rachel Skinner (Telethon Institute for Child Health, University of Western Australia), Dr Robert Tait (Centre for Mental Health Research, Australian National University) and Dr Primrose Letcher (School of Paediatrics, Royal Children's Hospital, Melbourne).

**Affiliates:** Dr Dave Allsop (NCPIC), Dr Caitlin Hughes (Drug Policy Modelling Project (DPMP)), Trish Jacomb (Centre for Mental Health Research, Australian National University), Kylie Lee (University of Sydney), A/Prof. Alan Clough (School of Indigenous Australian Studies, James Cook University), Dr John Howard (NCPIC), Dr Eugen Mattes (Telethon Institute for Child Health, University of Western Australia), Paul Nelson (NDARC), Dr Andrew Percy (Queens University, Belfast), Professor Ann Sanson (University of Melbourne), Dr Tim Windsor (Australian National University) and A/Prof. Jenny Williams (Department of Economics, University of Melbourne).

**Project description:** The Cannabis Cohort Research Consortium (CCRC) is a developing collaboration which stemmed from the need to better address pressing questions about the relationship between cannabis, other drug use, life-course outcomes and mental health in children and young adults. The CCRC is a multi-organisational and multi-disciplinary international collaboration

of researchers which consists of highly experienced individuals with expert knowledge from across the disciplines of psychiatry, psychology, child and adolescent health, cannabis and other substance use, biomedicine, health and development, prevention, intervention and knowledge translation. The Consortium brings together researchers from some of the largest and most prolific longitudinal studies in the world. The CCRC aims to achieve its goals by involving partners in capacity-building activities, and by providing capacity to allow collaborative work to proceed to high-level grant application stage. Collaboration between researchers involved in existing cohorts allows for better assessments of relationships to be made, uses existing data more efficiently and increases opportunities for knowledge translation.

**Aims:** The Consortium aims to:

- foster relations among partners
- identify limitations in knowledge on patterns and causes of cannabis use, potential harms and adverse outcomes
- examine priority issues in an efficient and timely way through secondary data analysis of existing national and international cohorts
- provide health and policy feedback to the commonwealth, health professionals and the public.

**Design and method:** The Consortium aims to achieve its goals by involving partners in capacity-building activities and by providing capacity to allow collaborative work to proceed to high-level grant application stage. Collaboration between researchers involved in existing longitudinal cohorts allows for better assessments of relationships to be made, uses existing data more efficiently and increases opportunities for knowledge translation.

**Progress:** NHMRC project grant funding was awarded to the Consortium to undertake work integrating data from four large and long-running Australasian cohort studies to better understand the link between cannabis use and later outcomes. During 2011, Edmund Silins, a postdoctoral researcher at NDARC, has been working with Dr Hutchinson, Professor Mattick and the broader Consortium to prepare numerous peer review papers on outcomes such as depression, anxiety, education and other substance use.

**Funding:** NDARC

**Date commenced:** 2006

**Expected date of completion:** Ongoing

### Contributory and incidental blood concentrations in deaths involving citalopram

**NDARC staff:** Professor Shane Darke and Michelle Torok

**Other investigators:** Professor Johan Duflou (Department of Forensic Medicine, Sydney South West Area Health Service; School of Medical Sciences, UNSW; Department of Pathology, University of Sydney).

**Rationale:** Citalopram is a second-generation, highly selective serotonin reuptake inhibitor (SSRI) commonly prescribed for depressive mood disorders, and is one of the most commonly prescribed antidepressants in Australia. While citalopram has a safer clinical profile than tricyclic antidepressants, adverse events and fatalities have been reported. Adverse effects of citalopram toxicity include drowsiness, somnolence, hyponatremia, dizziness,

cardiac arrhythmias and tachycardia. Moreover, the combination of citalopram with monoamine oxidase inhibitors (MAOIs) may induce serotonin syndrome, and deaths due to this combination have been reported. Despite its widespread use, there are few data available on the toxicity of citalopram in autopsy populations, with most reports being restricted to case studies or small series.

**Aims:** To provide new data on citalopram toxicity by examining contributory and incidental concentrations in a large case series of fatalities in which the drug was detected in standard toxicological tests conducted as part of the medico-legal process. The study also aims to examine the toxicology of deliberate and accidental toxicity, and the presence of psychoactive substances other than citalopram.

**Design and method:** All cases presenting to the New South Wales Department of Forensic Medicine between January 2001 and December 2010 in which citalopram was detected were identified and retrieved for analysis.

**Findings:** A total of 348 cases were identified. In 48% of cases, death was deemed to be suicide. Citalopram was contributory to death in 21% of cases and incidental in 79%. The majority of cases in which citalopram contributed to death involved other substances, with citalopram-only toxicity rare. Citalopram concentrations varied considerably by the presence of other contributory drugs and by suicidal intent.

**Output:** Papers are being prepared.

**Funding:** Australian Government Department of Health and Ageing and the NSW Health Department

**Date commenced:** 2010

**Expected date of completion:** 2012

### Ecstasy and Related Drugs Reporting System

**NDARC staff:** Dr Lucy Burns, Natasha Sindicich, Jenny Stafford, Benjamin Phillips, Laura Scott and Rachel Sutherland

**Other investigators:** Professor Paul Dietze and Phuong Nguyen (Macfarlane Burnet Institute for Medical Research and Public Health (Burnet Institute)), Dr Raimondo Bruno and Allison Matthews (University of Tasmania), A/Prof. Rosa Alati and Dr Fairlie McIlwraith (Queensland Alcohol and Drug Research and Education Centre) and Professor Simon Lenton (National Drug Research Institute)

**Project Description:** The Ecstasy and Related Drugs Reporting System (EDRS) is a national monitoring system for ecstasy and related drugs (ERDs) that is intended to serve as a strategic early warning system, identifying emerging trends of local and national interest in the markets for these drugs. The EDRS is based on the Illicit Drug Reporting System (IDRS) methodology and consists of three components: interviews with regular ecstasy users; interviews with key experts, professionals who have regular contact with regular ecstasy users through their work; and analysis and examination of indicator data sources related to ERDs. The EDRS monitors the price, purity, availability and patterns of use of ecstasy, methamphetamine, cocaine, ketamine, GHB, MDA and LSD. The EDRS is designed to be sensitive to trends, providing data in a timely manner, rather than describing issues in extensive detail.

**Aims:**

- To describe the characteristics of a sample of current regular ecstasy users interviewed in each capital city of Australia

- To examine the patterns of ecstasy and other drug use of these samples
- To document the current price, purity and availability of ecstasy and other party drugs across Australia
- To examine the incidence and nature of harms related to the use of ERDs
- To identify emerging trends in the party drug market that may require further investigation

**Design and method:** Previously known as the Party Drug Initiative, the EDRS is coordinated by NDARC and is conducted by different research institutions in each Australian state and territory. The EDRS uses a similar methodology to the IDRS. Regular ecstasy users are interviewed as they were identified as a group of drug users that are able to provide the required information on patterns of ERD use, the current availability, price and purity of ERDs and perceived drug-related health issues associated with ERD use. A semi-structured survey of experts in the field of ERDs (e.g. party promoters, treatment providers and law enforcement personnel) is also conducted and indicator data (e.g. purity of drug seizures and overdose rates) are analysed. These data sources are examined together to identify convergent trends in ERD use and markets.

**Progress:** The EDRS was conducted successfully in every state and territory in 2011. Around 600 regular ecstasy users were interviewed, providing information on their drug use patterns, ecstasy and related drug markets and related issues. Key experts from a range of professions provided information on the ERD users they encountered. We examined indicator data including Australian Customs Service seizures, purity analysis and drug treatment data. The project is ongoing in 2012.

**Output:** The 2011 EDRS national and jurisdictional reports will be released on 1 April 2012 while the EDRS quarterly bulletins were published in April, July, October and December 2011. Other publications in 2011 included papers in *The Open Addiction Journal* and *Drugs – Education Prevention and Policy*.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** January 2003

**Expected date of completion:** Ongoing

### Illicit Drug Reporting System

**NDARC staff:** Dr Lucy Burns, Natasha Sindich, Jenny Stafford, Benjamin Phillips, Laura Scott, Rachel Sutherland

**Other investigators:** Chris Moon and Paul Rysavy (NSW Department of Health and Community Services), A/Prof. Rosa Alati and Dr Fairlie McIlwraith (Queensland Alcohol and Drug Research and Education Centre), Dr Raimondo Bruno and Barbara de Graaff (University of Tasmania), Professor Simon Lenton and Candice Rainsford (National Drug Research Institute), Professor Paul Dietze and Amy Kirwan (Burnet Institute)

**Affiliates:** Queensland Alcohol and Drug Research and Education Centre, University of Tasmania, Burnet Institute, National Drug Research Institute, NT Government Department of Health and Community Services

**Project description:** The Illicit Drug Reporting System (IDRS) is a national illicit drug monitoring system intended to serve as a strategic early warning system, identifying emerging trends of local and national concern in illicit drug markets. The IDRS consists of

three components: interviews with people who inject drugs (PWID) regularly; interviews with key experts, who are professionals with knowledge of drug trends and/or regular contact with PWID through their work; and analysis and examination of indicator data sources related to illicit drugs. The IDRS monitors the price, purity, availability and patterns of use of heroin, methamphetamine, cocaine and cannabis. The IDRS is designed to be sensitive to trends, providing data in a timely manner, rather than describing issues in detail.

#### Aims:

- To monitor the price, purity, availability and patterns of use of heroin, methamphetamine, cocaine and cannabis
- To identify emerging trends in Australian illicit drug markets that require further investigation.

**Design and method:** The IDRS analyses three main sources of information to document drug trends:

- A quantitative survey of PWID)
- A semi-structured interview with key experts – professionals working in the illicit drug field who have regular contact with and/or specialised knowledge of PWID, drug dealers or manufacturers
- A collation of existing indicator data on drug-related issues.

Data from these three sources are triangulated against each other to determine the convergent validity of trends. The data sources complement each other in the nature of the information they provide. Data from each year's IDRS studies are compared to earlier findings to determine changes in drug trends over time. The IDRS's main strength is that it permits comparisons of data across jurisdictions as well as over time.

**Progress:** The IDRS is an ongoing project conducted annually in all Australian jurisdictions. In 2011, over 800 PWID were interviewed across Australia, providing information on their drug use patterns, drug markets and related issues. Key experts from a range of professions provided information on the PWID with whom they had contact. Indicator data including Australian Customs Service seizures, purity analysis, overdose and treatment data were examined.

**Output:** The 2011 IDRS national and jurisdictional reports will be released 1 April 2012, while the IDRS quarterly bulletins were published in April, July, October and December 2011. The Drug Trends Conference in September 2011 saw IDRS research disseminated to an audience including representatives from criminal justice institutions and private and public workers in the AOD field.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** January 1997

**Expected date of completion:** Ongoing

### Examining the prevalence of ADHD among people with substance use disorders

**NDARC staff:** Dr Sharlene Kaye and Joanne Cassar

**Other investigators:** Professor Steve Allsop and Dr Susan Carruthers (National Drug Research Institute), Professor David Hay and Dr Neilson Martin (School of Psychology and Speech Pathology, Curtin University of Technology), A/Prof. David Groth (School of Biomedical Sciences, Curtin University of Technology) and Professor Louisa Degenhardt (Burnet Institute)

**Affiliates:** Geurt van de Glind (Trimbos Institute, Utrecht), Professor Wim van den Brink (Amsterdam Institute for Addiction Research), Arvid Skutle, Eva Karin Lovaas and Kari Lossius (Bergen Clinics Foundation), Professor Johan Franck and Maija Konstenius (Karolinska University Hospital, Stockholm), Dr Csaba Barta (Semmelweis University, Budapest) and Dr Antoni Ramos Quiroga (Vall d'Hebron University Hospital, Barcelona).

**Project description:** Limited research suggests a strong association between adult Attention Deficit Hyperactivity Disorder (ADHD) and substance use disorders (SUD), with adult ADHD over-represented among people with substance use problems (20-40% prevalence). ADHD complicates the course of SUD, such that substance dependence is likely to have an earlier onset and greater severity among those with ADHD, and be more difficult to treat, with higher rates of relapse. The harms associated with AOD use may be increased when ADHD is present, due to the inattention, carelessness, and impulsive risk-taking that are associated with ADHD. The increased risk of AOD-related harm is of particular concern among younger people with ADHD, who already engage in more high-risk behaviour than their non-ADHD and older counterparts. Risk behaviours that are likely to compound the harms already inherent in drug and alcohol use per se include engaging in high frequency substance use, harmful routes of drug administration, blood-borne virus risk behaviours, and high-risk driving behaviours. This study is part of an international multi-site study, known as the International ADHD in Substance use disorders Prevalence (IASP) study, coordinated by the International Collaboration on ADHD and Substance Abuse. The IASP study is currently being conducted in Australia, Belgium, Finland, France, Hungary, Norway, Spain, Sweden, Switzerland, The Netherlands and the United States.

**Aims:**

- To assess current ADHD symptomatology among adults entering treatment for drug or alcohol dependence
- To test the performance of internationally used screening instruments for adult ADHD among this specific clinical population
- To investigate the relationship between ADHD symptoms and the onset and course of SUD, by comparing psychiatric co-morbidity, onset of SUD, and health and social functioning of patients with and without symptoms of ADHD
- To assess the nature and level of risk-taking behaviour associated with ADHD symptomatology.

**Design and method:** This study employs a cross-sectional survey design. Six hundred adult alcohol and/or illicit drug users (Perth: n=300; Sydney: n=300), entering a new episode of treatment for drug and/or alcohol dependence, will be administered a structured interview designed to screen for adult ADHD and examine SUD, psychiatric history, and drug-related, sexual and driving risk behaviours.

**Progress:** Recruitment of study participants, coordinated by Joanne Cassar (NDARC), Dr Susan Carruthers (NDRI) and Jesse Young (NDRI), continued until 31 August 2011, at which time 303 interviews in Sydney and 185 interviews in Perth had been conducted. Data analysis is currently underway.

**Benefits:** This will be the first Australian study to contribute to internationally comparable estimates of adult ADHD among people with SUD and the largest study of adult ADHD among substance-

dependent populations in Australia to date. It will also be the first Australian study to examine risk behaviours associated with ADHD among SUD populations. Improved identification of adult ADHD among people with SUD will assist in the tailoring of substance dependence treatment to the specific needs of those with ADHD and in the management of ADHD treatment, where indicated, leading to a better treatment outcome for the patient. This research also has important implications for children and adolescents with ADHD, who are at greater risk of developing problematic substance use and comorbid psychiatric disorders and engaging in harmful risk-taking behaviours. Alcohol and other drug use prevention and intervention strategies specifically targeted toward young people with ADHD will be of critical importance in reducing the harm and public health burden associated with SUD complicated by ADHD. Moreover, the findings will inform the development of future trials of ADHD treatment among substance-dependent populations. The proposed study will, therefore, guide the development of programs to detect, diagnose and manage ADHD in people with SUD, contribute to improved and effective treatment of SUD in patients with comorbid ADHD, and inform strategies for prevention and monitoring of SUD in children and adolescents with ADHD.

**Funding:** Curtin University of Technology - Contract Research

**Date commenced:** September 2010

**Expected date of completion:** March 2012

**Global Burden of Disease: Mental Disorders and Illicit Drug Use Expert Group**

**NDARC Staff:** Professor Louisa Degenhardt and Paul Nelson (*Professor Degenhardt was based at the Burnet Institute in 2011*).

**Other investigators:** Harvey Whiteford, Amanda Baxter, Adele Somerville, Fiona Charlson, Alize Ferrari, Roman Scheurer, Bianca Garcia and Allison Ventura (Queensland Centre for Mental Health Research, University of Queensland)

**Project Description:** The original Global Burden of Disease (GBD) Study was commissioned by the World Bank in 1991 and provided burden of disease estimates for the year 1990. New estimates for 2001 were published as part of the second revision of the Disease Control Priorities Project.

The principle guiding the burden of disease approach is that best estimates of incidence, prevalence, and mortality can be generated through the careful analysis of all available sources of information in a country or region (corrected for bias). The disability-adjusted life year, or DALY, was developed to assess burden of disease: a time-based measure that combines years of life lost due to premature mortality and years of life lost due to time lived in health states less than ideal.

The current study will involve a complete systematic assessment of the data on all diseases and injuries, and produce comprehensive and comparable estimates of the burden of diseases, injuries and risk factors for two years: 1990 and 2005. Improved techniques and new data will be used.

As part of the GBD Study, researchers at NDARC and the Queensland Centre for Mental Health Research are currently undertaking research that will determine the global burden of disease of illicit drug use and dependence, and mental health disorders. This represents the work of the Mental Disorders and Illicit Drug Use Expert Group.

**Aims:** The GBD study has two major objectives:

- To produce estimates of the burden of diseases and injuries, and to assess risk factors, for the years 1990 and 2005 organised in 21 regions covering the globe
- To develop a series of tools for use by specific audiences, to standardise and broaden burden of disease research and analysis, and to produce publications tailored to policymakers and a non-research audience

As part of the first GBD Study objective, the Mental Disorders and Illicit Drug Use Expert Group aims to produce estimates of the burden of disease associated with mental health disorders and illicit drug use and dependence.

**Design and method:** The project will examine more than 175 diseases and injuries, and more than 45 risk factors, in 21 regions of the world.

Systematic reviews of the prevalence, incidence and duration of mental health disorders and associated mortality and disabling sequelae will be conducted by the Mental Disorders and Illicit Drug Use Expert Group. Additionally, exposure and effects of risk factors will be assessed. Expert Groups will communicate their figures at defined intervals with other Expert Groups and with the Core Team to ensure consistency across conditions, and will be subjected to external peer review.

NDARC is collecting data on the following drug groups: heroin and other opioids, amphetamine type stimulants, cocaine and cannabis.

**Progress:** The writing and publication of papers continues.

**Output:** In 2011 eight papers were published in journals including *The Lancet*, *Addiction*, *Drug and Alcohol Dependence*, *Drug and Alcohol Review*, *Addictive Behaviours* and *PLoS Medicine*. The total number of papers published since the project's inception is now over 15.

**Funding:** National Health and Medical Research Council Fellowship

**Date commenced:** July 2007

**Expected date of completion:** 2013

### Investigating the relationships between cannabis and other drug use, mental health, early-life factors and life-course outcomes: integrative analyses of data from four Australasian cohort studies

**NDARC staff:** Professor Richard Mattick, Dr Delyse Hutchinson, Dr Wendy Swift, Professor Jan Copeland, Dr Tim Slade and Edmund Silins

**Other investigators:** Professor Louisa Degenhardt (Burnet Institute), Professor Steve Allsop (National Drug Research Institute, Curtin University of Technology), Carolyn Coffey, Dr Craig Olsson and Professor George Patton (Murdoch Childrens Research Institute, University of Melbourne), Dr David Ferguson and A/Prof John Horwood (Christchurch Health and Development Study, University of Otago), Professor Wayne Hall, Dr Mohammad Hayatbakhsh and Professor Jake Najman (School of Population Health, University of Queensland), Dr Primrose Letcher (Royal Children's Hospital, Deakin University), Professor Bryan Rodgers (Australian Demographic and Social Research Institute, Australian National University), Dr Rachel Skinner (Children's Hospital Westmead, University of Sydney), Dr Robert Tait (Centre for Mental Health Research, Australian National University) and Professor John Toumbourou (School of Psychology, Deakin University)

**Project description:** This study is the first of its kind to use integrative data analyses - a highly innovative approach - to pool data from four large and long-running Australasian cohort studies to better understand the link between cannabis use and later-life outcomes. Dramatically improved knowledge of these relationships will create a clearer picture of the interventions required to reduce the harms associated with cannabis use.

**Aims:** This study has the broad aim of producing more comparable and robust findings about the linkages between cannabis use, mental health, other substance use and social development in young people. Specifically, the study aims to: (1) develop integrative analyses across four large and long-running Australasian cohorts of the linkages between the use of cannabis and depression, other illicit drug use, cigarette smoking, income (e.g. employment, welfare dependence), criminal offending and conduct disorder; (2) obtain pooled estimates of the effect of cannabis use on other drug use, mental health and social development in young people to provide better estimates of the relationships between cannabis use and particular life-course outcomes; and (3) to more fully utilise existing cohort data.

**Design and method:** The study will use both traditional meta-analytical approaches and integrative data analyses and explore the utility of these approaches. Data will be harmonised from four long-running Australasian cohort studies which span early childhood, adolescence and young adulthood: The Australian Temperament Project, The Christchurch Health and Development Study, The Mater Hospital and University of Queensland Study of Pregnancy, and the Victorian Adolescent Health Cohort Study. Combined, the studies involve over 12,000 young people.

**Progress:**

- Data harmonisation and data sharing workshops increased capacity in data sharing techniques
- Specific analyses outlined and working groups established
- The following papers have been proposed: (1) Outcomes of early onset cannabis use in young adulthood: A prognostic study across three Australasian cohorts, (2) Child behaviour problems in the prediction of age of cannabis onset, (3) Examining the course of cannabis dependence in young adulthood, (4) Outcomes of early onset cannabis use: An examination of potential causal relationships in three Australasian cohorts, and (5) a pilot study to investigate the relationship between age of onset of cannabis use and the COMT and DRD4 genes
- A paper is in the final stages of preparation (Cannabis and depression: An integrative data analysis of four Australasian cohorts; L. John Horwood, David Fergusson, Carolyn Coffey, George Patton, Robert Tait, Diana Smart, Primrose Letcher, Edmund Silins and Delyse Hutchinson).

**Benefits:** This study will produce comparable analyses and better estimates of the relationships between early-life factors and later cannabis use, and relationships between cannabis use and adverse life-course outcomes. In an environment in which the effects of cannabis use remain hotly debated, dramatically improved knowledge of these relationships will create a clearer picture of the interventions required to reduce the harms associated with cannabis use.

**Funding:** National Health and Medical Research Council

**Date commenced:** 2011

**Expected date of completion:** 2013

### National Illicit Drug Indicators Project (NIDIP)

**NDARC staff:** Dr Lucy Burns and Amanda Roxburgh

**Project description:** NIDIP was established to facilitate the regular dissemination of information about trends in the epidemiology of drug-related harms in Australia, and to provide internationally-comparable monitoring data. International organisations and governments increasingly appreciate the need for evidence-based decision-making in order to respond effectively to drug-related problems, particularly given the transborder issues associated with global drug trafficking. The benefits of NIDIP then, include the enhanced dissemination of information on trends in harms related to opioid and psychostimulant use and use of prescription drugs, a greater evidence base for the development of policy responses and interventions in relation to these harms, and internationally-comparable monitoring of trends.

**Aims:** The aims of NIDIP are to provide epidemiological data on trends over time in drug-related harms, to complement other Australian monitoring systems such as the IDRS and EDRS, and to improve understanding of, and systematically track changes in, drug-related harms for both illicit and prescription drugs.

**Design and method:** To date NIDIP has identified a comprehensive range of data sources and produced reviews of drug-related data indicators at a national level as well as within NSW. These indicators include: information on population patterns of drug use from national surveys, data on deaths due to drug overdoses, drug-related morbidity and drug treatment data, indicators of drug purity and seizures, and drug-related crime data. Analyses of these indicators are published regularly. The project currently publishes annual bulletins on drug-related deaths and drug-related hospital separations on the NDARC website. These bulletins, along with reports and peer-reviewed journal articles, aim to provide a comprehensive overview of trends in drug use and related harms in Australia.

**Progress:** In 2011, NIDIP continued to access and analyse a comprehensive range of national data collections to monitor trends in use and harms associated with illicit drugs in Australia.

**Output:** One of NIDIP's major outputs in 2011 was a comprehensive drug trends report, the first of its kind in Australia, synthesising data across a range of different data sources (including the National Drug Strategy Household Survey, the National Hospital Morbidity Database, the IDRS and the EDRS, and coronial databases) to present trends in use and harms associated with alcohol and illicit drugs. This is an iterative document that will be updated electronically as additional data becomes available.

Another important publication to arise from NIDIP in 2011 was *The prescription of opioid analgesics and related harms in Australia*, documenting trends in the prescription of morphine and oxycodone in Australia, hospital presentations related to opioid poisoning, and deaths related to oxycodone overdose.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** June 2002

**Expected date of completion:** Ongoing

### Impact of parental substance use on infant development and family functioning

**NDARC staff:** Dr Delyse Hutchinson, Professor Richard Mattick, Dr Lucy Burns, Dr Marian Shanahan, Dr Tim Slade, Dr Wendy Swift, Alexandra Aiken, Anne Bleeker, Sarah Brann, Chiara Bucello, Gabrielle Campbell, Joanne Cassar, Laura Dewberry, Maria Gomez, Thea Gumbert and Ingrid Honan

**Other investigators:** Professor Steve Allsop (National Drug and Alcohol Research Institute, Curtin University of Technology), Professor Jake Najman (Queensland Alcohol and Drug Research and Education Centre), Professor Elizabeth Elliot (The Children's Hospital at Westmead, University of Sydney Clinical School), Dr Susan Jacobs (Royal Prince Alfred Hospital), Dr Craig Olsson (Murdoch Children's Research Institute), Anne Bartu (Curtin University), Dr Elizabeth Moore (UNSW) and Lee Taylor (Macquarie University).

**Rationale:** Also known as *The Triple B Study: Bumps, Babies and Beyond*, this project is an innovative new Australian study of families. It is a longitudinal birth cohort study which examines a wide range of biopsychosocial factors that relate to the health and development of Australian children and families. Importantly, the project has a key focus on examining the impacts of substance use by pregnant women and their partners during the prenatal period on infant development and family functioning. The results of this study will inform public health and treatment initiatives that improve the health and wellbeing of Australian children and families.

**Aims:** The aims of this project are to:

- Identify substance use patterns in a cohort of pregnant women and their partners during the prenatal period and the characteristics associated with substance use
- Examine the relationship of maternal and paternal substance use with pregnancy outcomes for mothers and their infants
- Determine the extent to which substance use in pregnant women and their partners predicts problems in (a) infant development (physical, cognitive, behavioural and emotional), and (b) family functioning (marital/intimate partner relationship quality, conflict and violence, parenting behaviour and parent-infant relationship quality).

**Design and method:** This is the first large-scale Australian cohort study to examine the effects of substance use by pregnant women and their partners during the prenatal period on infant development and family functioning. The impact of other factors such as social support, biological factors, income, parents' emotional wellbeing, exercise, nutrition and infant temperament will also be examined. The research design involves a longitudinal birth cohort study, in which 1,800-2,000 pregnant women and their partners will be recruited during the prenatal period (conception to birth). Participants will be recruited through antenatal services attached to major hospitals in NSW and WA. Participants will also be recruited through specialist drug and alcohol antenatal services.

Multi-method assessments will be utilised including interview, questionnaire and observational assessment measures in the prenatal period, at eight weeks and 12 months of age. Parents will be provided with their infant's 12-month development assessment (Bayley Infant Development Scales), which will include feedback and recommendations.

**Progress:** More than 800 families have been recruited through antenatal clinics at the Royal Prince Alfred Hospital, the Royal Hospital for Women, and Liverpool Hospital in NSW. Recruitment is ongoing and has commenced at King Edward Memorial Hospital in Perth. More than 200 families have completed the final 12 month follow-up. We have recently been awarded a Rotary Health Grant to follow-up the families in the pilot study whose children will be turning three years of age (Wave III follow-up of preschoolers).

**Output:** In 2011 preliminary findings from the research were presented at the NDARC symposium and at the APSAD conference. The team also had a paper published in the *International Journal of Pediatrics*.

**Funding:** National Health and Medical Research Council

**Date commenced:** January 2010

**Expected date of completion:** December 2013

## Prevention and early intervention

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

**NDARC staff:** Professor Richard Mattick, Dr Tim Slade, Dr Delyse Hutchinson, Monika Wadolowski and Chiara Bucello

**Other investigators:** Professor Jake Najman (Queensland Alcohol & Drug Research and Education Centre, University of Queensland), Associate Professor Kypros Kypri (School of Medicine and Public Health, University of Newcastle) and Dr Laura Vogl

**Project description:** Parents can positively influence their children's alcohol use. One strategy they use is to provide their children with alcohol, believing it is the best way to teach their children how to drink responsibly. The impact of parental supply of alcohol is not well understood but may be unintentionally harmful. This study will research the consequences of parental alcohol supply within the broader context of parent, child and peer relationships. It will help to determine how parental supply influences patterns of adolescent alcohol consumption over time, providing essential information to help parents prevent alcohol misuse in their children.

**Aims:** This study is investigating the impact of parental supply of alcohol on drinking trajectories in Australian adolescents, including how parental supply of alcohol relates to the acceleration or deceleration of harmful drinking trajectories, and how other related factors may mediate and moderate the relationship.

**Design and method:** Using a longitudinal design, up to 1500 parent-child dyads are being recruited from Year 7 in schools across NSW, TAS and WA. Families will be followed-up every 12 months for four years, regularly completing online or mailed questionnaires. The survey will address areas related to quantity and frequency of alcohol consumption (including supply, supervision and context of supply and consumption), parental modelling of alcohol use, family and peer relationships, family history of alcohol-related problems, alcohol-specific rules and access, and child mental health and behavioural problems. Latent growth curve modelling will be used to analyse the longitudinal data.

**Progress:** Two thousand families were recruited across NSW, TAS and WA schools during 2010 and 2011. Baseline data collection was completed during 2011, and Follow-Up 1 commenced at the end of 2011, continuing through 2012.

**Funding:** Australian Research Council - Discovery Project

**Date commenced:** September 2010

**Expected date of completion:** May 2015

### Combining universal and targeted drug prevention approaches (CAP Project)

**NDARC staff:** Professor Maree Teesson, Dr Nicola Newton, Dr Tim Slade, Emma Barrett and Katrina Champion

**Other investigators:** Dr Patricia Conrod (King's College University, London, United Kingdom)

**Affiliates:** Dr Nick Titov and Professor Ron Rapee (Macquarie University), Gavin Andrews (Clinical Research Unit for Anxiety and Depression, UNSW).

**Project description:** More than one quarter of Australian teenagers put themselves at risk of short-term alcohol-related harm at least once a month and 17% use an illicit drug at least once a year. The need for prevention is clear, but while an array of school-based prevention programs exist, most show minimal effects in reducing drug use and related harms, and some have even reported iatrogenic effects. Given that school-based drug prevention is the primary means by which drug education is delivered, it is essential to focus on increasing program efficacy. Ideally, preventive interventions should aim to delay onset in both adolescents with low-risk profiles who may be influenced to take up substances due to peer influence and social conformity, and adolescents with high-risk profiles whose underlying vulnerability to psychopathology can lead to substance misuse. To date, no school-based drug prevention programs have been shown to produce these outcomes. The current proposal addresses this gap by developing and evaluating a comprehensive approach to preventing substance use and related harms in adolescents by combining effective 'universal' and 'targeted' school-based prevention programs. The proposed model, known as the CAP (CLIMATE Schools and Preventure) intervention, builds on our unique success in this area through developing the effective universal CLIMATE Schools and targeted Preventure programs.

**Aims:** To modify the targeted Preventure program for use in Australia and to evaluate the effects of combining this program with the effective 'universal' CLIMATE Schools program (the CAP intervention) in preventing substance use and related harms in Australian adolescents.

#### Design and method:

1. Modify the targeted Preventure program for Australia: we conducted focus groups with students, and interviews with teachers and health professionals to ensure the content and scenarios of Preventure were relevant to Australia. They were also conducted to ensure the program was age- and context-appropriate and fitted within the Australian school curriculum.
2. Evaluation of the 'CAP intervention': Following the modification of Preventure, we now seek to demonstrate its effectiveness when combined with the CLIMATE Schools program to make up the CAP intervention. To do this we will be running a cluster RCT in 24 Australian schools. Schools have been recruited and randomly allocated to one of four groups; the 'Control' condition, the 'CLIMATE Schools only' condition, the 'Preventure only' condition, or the 'CLIMATE Schools and Preventure' condition. All students will be assessed via an online self-report questionnaire

at baseline, immediately post-intervention, and 12, 24 and 36 months after baseline on their levels of drug knowledge, drug use, related harms, intentions to use drugs and mental health.

**Progress:** The CAP study project manager and research assistant were recruited in 2011. Ethics approval was obtained from UNSW and the Catholic Education Office for both stages of the trial. The trial was registered with the Australian and New Zealand Clinical Trials Registry and focus groups were conducted with schools around Sydney to ensure the Preventure program is relevant to Australia. Analysis of the focus group data suggested the scenarios and content of the program needed alteration, and the program has since been modified for Australian youth. Schools have been recruited for the RCT, which will start in 2012 and will run for three years.

**Output:** Three publications are in press – articles in *Drug and Alcohol Review*, *Substance Use and Misuse* and an invited commentary to appear in *Evidence-Based Child Health: A Cochrane Review Journal*. In 2011 the CAP study was also profiled in *Centrelines*.

**Benefits:** It is expected the schools who receive the combined intervention will have significantly greater reductions in substance use uptake than the schools who receive stand-alone programs or their usual health curriculum.

**Funding:** National Health and Medical Research Council

**Date commenced:** January 2011

**Expected date of completion:** December 2015

### Computerised treatment for cannabis use in an early psychosis service

**NDARC staff:** Dr Frances Kay-Lambkin

**Other investigators:** Vaughan Carr (School of Psychiatry, UNSW), Daniel Pellen (Early Psychosis Treatment Centre, Bondi Junction, NSW)

**Project description:** This project will recruit cannabis-using clients of an early psychosis clinic. Case managers will refer interested clients to the study, which will explore the effectiveness of a computer-delivered psychological treatment for cannabis use (and related problems; the SHADE intervention).

**Aim:** To ascertain the effectiveness of a computer-based treatment for cannabis use problems in an early psychosis population.

**Design and method:** Following provision of informed consent, participants will complete a baseline clinical interview and will then be randomised to active treatment (SHADE) or a wait-list control. Those allocated to SHADE will attend the early psychosis service on a weekly basis to complete their computer sessions; all other treatment will progress as usual. At 12 weeks post-baseline, all participants will complete a follow-up clinical assessment, and wait-list clients will have the opportunity to complete the SHADE 10-week program. Follow-up assessment will occur again for both groups at 24 weeks post-baseline.

**Progress:** Ethics approval has been obtained, and an early psychosis clinic engaged. Participant recruitment will commence in February 2012.

**Funding:** NSW Department of Health – Drug and Alcohol Research grants scheme

**Benefit:** Development of a targeted psychological treatment for cannabis use in early psychosis clients, for whom cannabis use is a major concern.

**Date commenced:** August 2011

**Expected date of completion:** December 2012

### Improving services to families affected by Fetal Alcohol Spectrum Disorder

**NDARC staff:** Dr Lucy Burns, Dr Delyse Hutchinson, Dr Courtney Breen and Dr Elizabeth Conroy

**Other investigators:** Dr Deborah Loxton and Jennifer Powers (Research Centre for Gender Health and Ageing, University of Newcastle), Sue Miers (National Organisation for Fetal Alcohol Syndrome and Related Disorders - NOFASARD) and Dr Adrian Dunlop (Hunter and New England Drug and Alcohol Services)

**Project description:** Alcohol use during pregnancy has been associated with adverse pregnancy outcomes including miscarriage, premature birth, stillbirth and low birth weight. Alcohol exposure in utero can also cause a range of abnormalities which are included under the umbrella term Fetal Alcohol Spectrum Disorders (FASD). There has been limited research undertaken with the families who raise children affected by FASD; in particular, there is limited information on the care needs of families and what support services are available and/or required. It is important to have accurate information from families on the level of disability experienced by children with FASD and the issues involved to ensure suitable services are available. This information could also assist in designing and targeting appropriate interventions for families.

**Aims:** To examine the experiences and needs of families that care for a child or children with FASD to develop a gold standard for family support.

**Design and method:** The project consists of separate quantitative and qualitative surveys of parent/carers of children with FASD.

**Progress:** We prepared ethics applications and questionnaires in 2011, and commenced semi-structured telephone interviews with parents and carers of children with FASD from across Australia; interviewing will continue in 2012.

**Benefits:** The impact of FASD on families and the services required to care for children are not well understood. This study is the first to document the needs of families and this information can be used to inform service requirements and also assist in targeting appropriate interventions.

**Funding:** Foundation for Alcohol Research and Education

**Date commenced:** June 2011

**Expected date of completion:** June 2012

### Preventing adolescent cannabis use through web-based graphic warning images

**NDARC staff:** Dr Sally Rooke and Professor Jan Copeland

**Other investigators:** A/Prof. Don Hine (University of New England)

**Project description:** Cannabis use is a significant problem among Australian adolescents. Evidence suggests that substance use interventions for adolescents must target immediate affective responses to thoughts of using the substance. Therefore, graphic or otherwise emotion-provoking warning images may be effective in deterring adolescent substance use.

**Aims:** The objective of the research is to develop and pilot test a web intervention for adolescent cannabis use that employs warning images aimed at eliciting negative affective responses. The study will determine whether graphic warning images can effectively discourage adolescent cannabis use.

**Design and method:** 200 adolescents aged 15-18 will be randomly assigned to receive the intervention program or to a control condition. Cannabis use will be assessed before the intervention and at six-month follow-up. Adolescents assigned to the intervention condition will rate the images in terms of their perceived effectiveness.

**Progress:** The study recently completed recruitment of 177 participants using a cluster-randomised design; 134 completed the six-month follow-up assessment. Data analysis is currently taking place, and a final report for the study will be completed during the first quarter of 2012.

**Benefits:** Findings of the study will provide an initial indication of whether graphic warning imagery is effective in preventing adolescent cannabis use.

**Output:** A grant application based on the initial findings has been submitted to the National Health and Medical Research Council.

**Funding:** Australian Rotary Health

**Date commenced:** March 2010

**Expected date of completion:** March 2012

### Update of Fetal Alcohol Spectrum Disorders in Australia: Monograph of the InterGovernmental Committee on Drugs Working Party on Fetal Alcohol Spectrum Disorders

**NDARC staff:** Dr Lucy Burns, Emma Black and Dr Courtney Breen

**Other investigators:** Professor Elizabeth Elliot (Sydney University)

**Collaborators:** Chapter authors: Prof Agnes Bankier (Monash University), Prof Carol Bower, Heather D'Antoine, Dr Raewyn Mutch and Dr Jan Payne (Telethon Institute for Child Health Research, University of WA), Lorian Hayes (University of Queensland), Dr Colleen O'Leary (National Drug Research Institute and Telethon Institute for Child Health Research, University of WA), Dr Elizabeth Peadon (The Australian Paediatric Surveillance Unit), Professor Ann M. Roche (National Centre for Education and Training on Addiction) and Dr Anna Woods (Drug and Alcohol Services South Australia)

**Project description:** The monograph is an outcome of the Intergovernmental Committee on Drugs Fetal Alcohol Spectrum Disorder (FASD) Working Party. The Working Party was first established in 2006, at the request of the Ministerial Council on Drug Strategy, to advise on the developments in Australia and overseas in regard to FASD and to identify best practice approaches to reduce the incidence of FASD.

The monograph examines the current status of research, policy and practice regarding alcohol use in pregnancy in Australia, particularly in relation to FASD. The findings identify areas where additional attention is required and enhancements to existing practices might improve the current situation with regard to prevention, early intervention and long term management of this preventable condition.

**Aims:** To update the monograph commissioned in 2007.

**Progress:** The update is underway.

**Benefits:** The findings will identify areas where additional attention is required and enhancements to existing practices might improve the current situation with regard to prevention, early intervention and long term management of FASD.

**Output:** Fetal Alcohol Spectrum Disorders in Australia: An update

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** August 2011

**Expected date of completion:** March 2012

## Drug policy

### A literature review of the epidemiology and interventions research for gay, lesbian, bisexual and transgender people with alcohol, drug and/or mental health problems

**NDARC staff:** Associate Professor Alison Ritter, Dr Natacha Carragher and Dr Francis Matthew-Simmons

**Project description:** Research is lacking in the area of gay, lesbian, bisexual and transgender (GLBT) health (with the exception of HIV-related research). With NSW having the largest GLBT community in Australia, it is important that responses to the problems (including a higher risk of drug use and mental health problems) faced by these populations in NSW are informed by research evidence.

**Aims:** This project has two aims: to review the prevalence of problematic drug use and psychological disorders among GLBT populations, and, from the existing literature, identify effective interventions for these populations.

**Design and method:** The project consists of a comprehensive review of Australian and international literature focused on the prevalence of problematic drug use, psychological disorder, and co-morbidity in GLBT populations. Literature includes published academic literature as well as grey literature. Existing data from Australian surveys will also be sourced and analysed. The review of potential interventions aimed at these populations will be conducted through a systematic search of published academic literature and grey literature and will also be informed by discussions with experts in the field.

**Progress:** The project is nearing completion and the report will be published in early 2012.

**Funding:** NSW Department of Health

**Date commenced:** June 2011

**Date due for completion:** 2012

### Australian government spending on drugs (drug budgets)

**NDARC staff:** Associate Professor Alison Ritter and Dr Marian Shanahan

**Other investigators:** Dr Ross McLeod (Consultant - eSYS Development)

**Project description:** The aim of this project is to update and further develop the Moore (2005) Australian drug budget. As in the earlier Moore project, our study examines both federal and state and territory government spending in response to illicit drug problems. Proactive spending is the amount directly spent by

government on illicit drug policy and is broken down into the areas of prevention, treatment, harm reduction, law enforcement and interdiction.

Developing an up-to-date Australian drug budget is useful in that it allows us to examine the policies the government is currently employing in relation to illicit drug use, examine the funding mix of these policies, and compare our drug budget and spending mix with other countries. Using an approach similar to the one outlined above, the European Monitoring Centre for Drugs and Drug Addiction has committed to producing estimates of government expenditure on 'drug related issues' and to developing comparable estimates for all the European Union countries. Both the United States and the United Kingdom also produce government spending estimates.

**Aims:**

- To estimate spending by the Australian federal, state and territory governments between 2009-10 using publicly available documentation and expert opinion
- To classify spending into the areas of prevention, treatment, harm reduction, law enforcement and interdiction to increase our understanding of the current policy mix.

**Design and method:** The steps involved include:

- Identify all types of interventions and areas of spending; identify 'direct' spending
- Categorise interventions into Prevention, Treatment, Enforcement, Harm Reduction
- Using top-down accounting methods, calculate spending
- Ascertain whether results are concordant with expert opinion.

**Progress:** We have identified the interventions and areas of spending. Data collection and apportioning of expenditures into appropriate categories is well underway. Data have been obtained from many of the states and territories.

**Funding:** Colonial Foundation Trust

**Benefit:** This study will provide information on the funding mix in illicit drug policy. This information is useful for assessing where additional funding might be allocated and where additional research is required.

**Date commenced:** 2010

**Expected date of completion:** March 2012

### Drunk, high or sober: How do alcohol and illicit drug prices affect young Australians' plans for Saturday night?

**NDARC staff:** Dr Jenny Chalmers and Dr David Bright

**Other investigators:** Dr Rebecca McKetin (Australian National University)

**Project description:** Many young people regard alcohol and illicit drugs as part of the repertoire of products that facilitate socialising through intoxication. This has become a pressing public policy issue because the practice costs society dearly. Economic research supports increasing the price of alcohol to reduce harmful drinking, largely ignoring the possibility that alcohol will be replaced with illicit drugs. This project uses an innovative internet tool to canvass young Australians' responses to hypothetical changes in prices

of alcoholic beverages, cannabis and ecstasy, to improve our understanding of policies designed to minimise harmful alcohol and illicit drug use.

**Rationale:** Widespread concerns about the dangers of binge drinking by young Australians led to the National Binge Drinking Strategy in March 2008 and a 70% increase in the excise accruing to RTDs (Ready-to-Drink alcoholic beverages) a month later. Missing from debates about the use of pricing policy to reduce binge drinking was recognition of the possibility that young Australians will replace their alcohol consumption with illicit drugs. Nor was there evidence of a clear understanding of the implications of alcohol price for alcohol consumption in subgroups of the Australian population.

**Aims:** This project aims to identify how young Australians will respond to price increases in particular types of alcohol (e.g. will they drink cheaper forms of alcohol, increase their use of illicit drugs or reduce their alcohol/drug consumption?) and to determine which alcohol pricing policies would minimise excessive consumption of alcohol and illicit drugs on a typical 'night out'.

**Design and method:** This project uses the internet to access a representative sample of 2,400 young Australians. It asks, using an experimental behavioural economics approach, how they would adjust their alcohol and illicit drug use over a night out in response to hypothetical changes in the prices of alcohol, cannabis and ecstasy.

**Progress:** We ran the internet survey in late 2011

**Output:** In early 2012 the NSW Bureau of Crime Statistics and Research will publish a report authored by Natacha Carragher and Jenny Chalmers which reviews the pricing and taxation policy levers that could be used to reduce alcohol-related harm in Australia. Findings from that report were presented at the 2011 NDARC Symposium.

**Funding:** Australian Research Council

**Date commenced:** January 2011

**Expected date of completion:** December 2012

### IDRS/EDRS Policy Influence Assessment

**NDARC staff:** Kari Lancaster and Associate Professor Alison Ritter

**Project description:** Many authors have investigated the ways in which research informs and influences policy. Rarely, if ever, will one sole research product be found to influence definitive policy change. In order to measure the influence or impact of a research project, consideration must be given to a broad range of theories and the dynamic interplay between research and policy. These theories emphasise multiple research uses, interactive mechanisms of dissemination built around relationships, and dynamic policy processes. Thus any measure of 'impact' cannot be limited to examples of direct, instrumental use of research within a single decision point. Nor can it rely on the traditional mechanisms of measuring academic success, such as academic citations.

To date, a systematic method for evaluating the extent of influence of the IDRS and EDRS has not been applied. Whilst mechanistic guides have been developed to help health researchers describe policy influence, systematic approaches to assessment of policy influence are rarely seen in the AOD literature.

**Aims:** The aim of this research is to systematically examine the extent to which the IDRS and EDRS monitoring systems have informed and influenced Australian drug policy; the research will be grounded in the theories of research utilisation, iterative policy processes and the role of interactions between researchers and decision-makers.

**Design and method:** We will analyse policy-relevant sources to ascertain the extent of influence of the IDRS and EDRS on Australian drug policy. Three data sources will be used: policy documents, policy processes and media mentions. Systematic searches and analyses of these sources will be undertaken.

**Progress:** The review of policy documents revealed that the IDRS/EDRS have been used to inform policy development. IDRS/EDRS data are drawn upon by government agencies as well as community and research organisations. We located a range of parliamentary inquiries in which IDRS/EDRS data was mentioned, demonstrating engagement with policy processes. While media mentions were relatively few, coverage of the IDRS/EDRS contributes alternative frames of reference, adding in a small way to public discussion of drug issues.

**Benefits:** The findings of this case study have implications for the ways in which researchers conceptualise the role of evidence in policymaking and the impact of research upon deliberations and policy change. This study demonstrates a systematic method that other researchers can use to evaluate the policy impact of their own work (which is, at present, rarely undertaken in the AOD field).

**Output:** A paper was presented at the annual Drug Trends Conference.

**Funding:** Colonial Foundation Trust

**Date commenced:** October 2010

**Expected date of completion:** June 2012

### Media analysis of alcohol and other drug policy

**NDARC staff:** Dr Caitlin Hughes and Kari Lancaster

**Project description:** The integral role of media in shaping public opinion and political debate is significant. Media can set the agenda and define public interest, frame issues through selection and salience, indirectly shape individual and community attitudes towards risk, and feed into political debate and decision-making. This is true of alcohol and other drugs as much as any other issue. Media build consensus about what issues are the most important within the community and can define the nature of solutions through what they choose to present to their audiences.

Despite media being identified in 2001 as 'a new battleground' for the AOD field, almost a decade on little research has examined the role of media and its effect on audiences, its impact on AOD policy or indeed avenues by which the AOD field can influence media debate.

**Aims:** The aim of this ongoing project is to explore particular AOD policy issues as they emerge in media, with a focus on better understanding the nature and influence of media discourse around policy issues, and the role of evidence in these debates.

**Design and method:** Responding to alcohol and other drug policy issues as they arise in media, we will apply methods commonly used in media and communications studies (such as media content

analysis and discourse analysis) to systematically examine the nature of media portrayals of alcohol and other drug issues.

**Progress:** In 2011 Dr Jenny Chalmers and Dr Natacha Carragher commenced research into news coverage of alcohol pricing debates in Australia and the United Kingdom. This research will be completed in 2012.

**Output:** In 2011 three papers were completed on topics including 'media ownership and content diversity: reporting of illicit drug issues in NSW, VIC, ACT and WA' and 'news media consumption amongst young Australians'.

**Funding:** Colonial Foundation Trust

**Date commenced:** July 2009

**Expected date of completion:** Ongoing

### Ongoing surveillance of the diversion and injection of the medications used in opioid substitution treatment

**NDARC staff:** Professor Richard Mattick, Briony Laranca and Dr Fiona Shand

**Other investigators:** Professor Louisa Degenhardt (Burnet Institute), A/Prof. Nick Lintzeris (Drug & Alcohol Services, South East Sydney Local Health Network and Faculty of Medicine, University of Sydney), A/Prof Robert Ali (Drug and Alcohol Services South Australia and Adelaide University), Dr Nancy White (University of Adelaide), Dr Rebecca Jenkinson and Professor Paul Dietze (Burnet Institute), and Professor Paul Haber (South Western Sydney Local Health District and University of Sydney)

**Project description:** Minimising the extent of diversion and injection of the pharmaceutical opioids used in opioid substitution treatment (OST) reduces harms to the individual (such as dependence, injection-related injuries and diseases, and overdose) and protects the integrity of the OST program. Reports of buprenorphine or methadone injection can undermine public support for OST; this in turn may limit future investment and development, and hinder efforts to make OST more attractive and accessible.

The ongoing surveillance of the diversion and injection of the pharmaceutical opioids used in OST will build on the post-marketing studies of buprenorphine-naloxone (Suboxone® sublingual tablets) conducted by NDARC over 2006-2008. The diversion of methadone, buprenorphine and buprenorphine-naloxone (Suboxone® sublingual film) will be monitored from 2011-2013 using comparable methodology.

#### Aims:

- To monitor the extent of diversion and injection of the pharmaceutical opioids used in OST
- To monitor the harms associated with the diversion and injection of the pharmaceutical opioids used in OST

#### Design and method:

The following data (utilised by the original post-marketing surveillance studies) will continue to be collected by the ongoing surveillance studies:

- indicators of availability of OST medications (sales/prescription data)

- interviews with regular injecting drug users (via the Illicit Drug Reporting System, or IDRS)
- interviews with OST clients
- interviews with key experts
- population-level indicators of injection (needle-syringe program data).

**Progress:** Ethics application and interview questions were prepared at the close of 2011. Interviews will begin in early 2012 to determine the extent of uptake, diversion and injection and harms, and continue throughout the year. These interviews will be with people who inject drugs, patients in opioid substitution treatment, and key experts.

**Benefit:** The project will allow policymakers to determine the extent of diversion and injection of pharmaceutical opioids used in OST, and therefore to make decisions to minimise these problems and the harms associated with them.

**Funding:** Reckitt Benckiser (Singapore)

**Date Commenced:** October 2011

**Expected date of completion:** December 2013

### Public opinion and drug policy: engaging the 'affected community'

**NDARC staff:** Kari Lancaster and Associate Professor Alison Ritter

**Other investigators:** NSW Users and AIDS Association (NUAA)

**Project description:** Public opinion can play an important role in determining policy and informing political processes; however, the majority of public opinion data regarding attitudes to drug policy in Australia is collected at the broader population level. The 'affected community' notion suggests that policy should be directly informed by the people whom it affects – but we do not know, for example, if drug users have similar or different views to the broader population about fundamental drug policy questions such as the role of needle-syringe programs, treatment and drug legalisation. This ignorance stymies opportunities for policymaking to be informed by those it most directly affects.

**Aims:** This project aims to investigate how drug users *themselves* perceive drug policy in Australia.

**Design and method:** The project will use a mixed methods design, analysing quantitative survey and qualitative interview data. The quantitative survey will form a supplement to the 2011 IDRS questionnaire, with the inclusion of drug-related policy questions drawn from the National Drug Strategy Household Survey (NDSHS). A sentinel sample of almost 1000 people who inject drugs in Australia are asked about their levels of support for various drug policy measures, legalisation, and penalties for the supply of illicit drugs. Responses will be compared to the 2010 NDSHS. Qualitative interviews with people who inject drugs will be undertaken in collaboration with NUAA, in Sydney. The nature of the questions to be asked will be derived from the quantitative results: that is, we will use the quantitative results as the springboard for detailed qualitative discussions with drug users.

**Progress:** Quantitative data collection and analysis are complete. Interviews for the qualitative component of this study will take place in mid-2012, with analysis and dissemination of results scheduled for the end of 2012.

**Output:** A paper on this project was presented at the APSAD conference in November 2011 and at the DPMP team meeting in October 2011.

**Benefit:** The drug user community and policymakers will benefit from this policy-relevant research. The research may be used to inform future submissions to government, dialogue with policymakers and help to identify key policy issues of concern to the affected community. As previous public opinion research about drug policy has focused on the attitudes of the general community, these findings will provide an essential resource for researchers, policymakers and advocacy groups alike. This project also affords the opportunity for NUAA to engage in collaborative research with DPMP, which is mutually beneficial for both organisations.

**Funding:** Colonial Foundation Trust; Centre for Research Excellence into Injecting Drug Use.

**Date commenced:** April 2011

**Expected date of completion:** June 2012

### Centre of Research Excellence in Injecting Drug Use: Reducing the health, social and economic burden of injecting drug use in Australia

**NDARC staff:** Associate Professor Alison Ritter

**Other investigators:** Professor Paul Dietze, A/Prof. Margaret Hellard, Dr Stuart Kinner and Professor Robert Power (Centre for Population Health, Burnet Institute), Professor Gregory Dore and Professor Lisa Maher (The Kirby Institute, UNSW), Professor Dan Lubman (Turning Point Alcohol and Drug Centre, Monash University), Professor David Moore (National Drug Research Institute, Curtin University of Technology) and Professor Gail Williams (School of Population Health, University of Queensland)

**Project description:** Injecting drug use is a behaviour strongly associated with other highly marginalised characteristics such as imprisonment, blood-borne virus infections, homelessness and mental illness. This Centre for Research Excellence (CRE) is focused on injecting drug use (IDU); it draws together several innovative studies currently underway and provides a mechanism for research translation.

**Aims:** The aims of the CREIDU are to:

- Improve understanding of IDU by building on existing studies to develop innovative research designs
- Explore IDUs' use of health services, the factors that place them at risk of harm and structural and functional barriers to improved health
- Identify and test new interventions aimed at reducing harm
- Investigate the link between reduced recidivism and health outcomes after release from prison
- Determine the types and structures of services to improve IDUs' access to HCV treatment, sexually transmitted infections, mental illness and drug use
- Translate research findings from the CRE into new and more effective policy and practice
- Train and support promising new researchers to take on the challenges of the field.

**Design and method:** CREIDU is a network of outstanding Australian researchers. Led by the Burnet Institute, it includes researchers from UNSW, the University of Melbourne, University of Queensland and Curtin University. The CRE provides opportunities for post-graduate and post-doctoral students to engage in research on IDU, funds the collaborative network amongst researchers in this area and concentrates on translation of research into policy and practice. The last function is led by DPMP.

**Benefit:** Vastly improved knowledge about IDU and its health and social effects, much better information about how to prevent or reduce the severity of those outcomes through policy and practice, and improved health and social functioning for IDUs.

**Funding:** Burnet Institute / National Health and Medical Research Council Centres of Research Excellence shared grant

**Date commenced:** October 2010

**Expected date of completion:** September 2015

### The characteristics of cannabis in Australia

**NDARC staff:** Dr Wendy Swift

**Other investigators:** Professor Iain McGregor, Dr Jonathon Arnold, Dr Ranjana Sarker, Dr Kong Li and Alex Wong (University of Sydney) and Professor Steve Allsop (Curtin University of Technology)

**Project description:** There is little detailed information about the Australian cannabis market, including the chemical characteristics of the locally available cannabis product. The collection of accurate and current data is crucial for providing appropriate, evidence-based information to the Australian public, to cannabis users and their families, and to health, law-enforcement and other related practitioners. This study builds on previous pilot work to address this issue.

**Aims:** This study aims to establish a methodology to assess the characteristics of the locally available cannabis product, and to use this methodology to collect this information using cannabis cautioning seizures in NSW.

**Design and method:** We will conduct laboratory analysis of 200 cannabis cautioning seizures from urban and rural NSW. Analysis of cannabinoid content (potency) in the seized cannabis samples will follow the high performance liquid chromatography (HPLC) method. Following extraction of the plant material, HPLC with ultraviolet detection will be used to quantify the following cannabinoids: THCA, THC, CBD, CBDA, CBG, CBGA and CBN. We intend to also quantify THCV and CBC in these plants given contemporary interest in their pharmacology and possible modulatory effect on THC actions. Cannabinoid levels derived from HPLC analysis will be cross-checked with those obtained from a gas chromatography - mass spectrometry (GC-MS) approach. An additional arm of our project is to use PCR-based genotyping approaches and GC radioisotope analysis to explore similarities and differences across the 200 seized samples in terms of key gene expression (SNP analysis) and radioisotope (C14, N15) content. This information can point to the diversity or otherwise of current Australian cannabis supplies, perhaps indicating whether the cannabis has been grown in Australia or imported from elsewhere, and whether it has been grown in outdoor plantations or hydroponically.

**Progress:** This project is nearing completion after substantial delays accessing cannabis seizures. We have now received 200 samples from the NSW Cannabis Cautioning Scheme and completed

preliminary potency analyses. These analyses reveal a trend toward high THC levels and low cannabidiol (CBD) levels in street-level cannabis in NSW, which has important implications for its mental health impacts.

**Output:** Dr Swift has submitted an abstract on these findings to the 2012 College on Problems of Drug Dependence meeting in the United States.

**Benefits:** The project has several potential public health and law enforcement benefits, including:

- the provision of important Australian data on the characteristics of cannabis, which can aid in the education of users and health professionals about the health risks associated with market practices
- that the protocol may serve as a model to be expanded to other jurisdictions to provide routine monitoring and to measure longitudinal changes in cannabis characteristics that may result from policy, law enforcement and public health strategies
- increasing the capacity of health, education and law enforcement programs to be credible sources of information about the effects of cannabis
- intersectoral collaboration between NDARC, NCPIC, the University of Sydney and NSW Police.

**Funding:** NCPIC

**Date commenced:** September 2008

**Expected date of completion:** July 2012

### The conservative shift in Australian drug policy (?): evidence and implications

**NDARC staff:** Kari Lancaster and Associate Professor Alison Ritter

**Project description:** Some commentators argue that the increased influence of conservative advocacy groups and the impact of the political social conservatism of 'The Howard Years' led to a conservative shift in Australian drug policy, away from harm minimisation and towards a zero tolerance model. While some commentators claim that Howard's 'Tough on Drugs' policy 'overturned' the harm minimisation framework, others suggest that there has been a 'disconnect' between the political strategy of zero tolerance and the policy practice of harm reduction. The situation is far from clear-cut. Understanding the extent of a conservative shift in either the political strategy (rhetoric) or in policy decision-making has important implications for the future of drug policy and government-funded interventions and responses.

**Aims:** The aim of this project is to systematically investigate whether a conservative shift has occurred in Australia's approach to drug policy since 1985. In doing so, we will explore how drug policy is understood, the narratives which shape policy development over time, how the 'problem of drugs' is represented and the role of stakeholders in shaping these understandings.

**Design and method:** Using discourse analysis, we examine whether the construction of meaning in Australia's drug policy has differed over time, from 1985 to the present. We take all of the iterations of the National Drug Strategy, as well as all drug-related federal parliamentary inquiries and associated reports and submissions, from 1985 to the present as our texts for analysis. This allows for systematic tracking of the issue over time, with a particular focus on discursive elements which have come to be understood as

characteristic of the 'Australian approach' to drug policy, including harm minimisation, balance, partnerships and evidence-informed policy.

**Progress:** Data collection is complete with the final analysis underway and due for completion in 2012.

**Benefits:** It is hoped the systematic analysis undertaken in this project will contribute to understandings of how discourse can shape and inform the ways in which the problem of drugs is understood in Australian society. Such understandings have important implications for the future of drug policy and government-funded interventions and responses.

**Funding:** Colonial Foundation Trust

**Date commenced:** May 2011

**Expected date of completion:** December 2012

### The 'ice epidemic': an analysis of the policy context, process and outcomes

**NDARC staff:** Kari Lancaster and Associate Professor Alison Ritter

**Other investigators:** Dr Hal Colebatch (School of Public Health and Community Medicine, UNSW)

**Project description:** This project forms part of a broader DPMP interest in studying policymaking in Australia. Drug policy is influenced by the research evidence but also by politics, lobby groups, public opinion, and windows of opportunity. This research aims to better understand how policy is developed and the opportunities for and threats to evidence-informed policy through a case study of the 'ice epidemic'.

**Aims:** The aim of this project is to examine the emergence of 'ice' (methamphetamine) as a policy issue in Australia, with a focus on understanding the policy processes and contexts that gave rise to the development of policy responses. By drawing on Kingdon's 'multiple streams' theory of the policy process, we aim to develop a better understanding of how AOD policy issues emerge and develop through the sharing of policy knowledge, with a particular interest in the implications for evidence-informed policy and practice.

**Design and method:** A variety of sources, such as published academic papers, grey literature and media sources, were purposively selected to describe the development of methamphetamine as a policy issue in Australia. Kingdon's (2003) 'multiple streams' theory was then used to guide the analysis. This created a framework within which to interpret the development of methamphetamine as a policy issue, by examining how the issue came to be defined as a problem, the proposed policy solutions to the issue and the political context at the time, as well as identifying possible policy windows.

Using this approach to explore the emergence of methamphetamine as a policy issue in Australia in the last decade, we ask: to what extent does Kingdon's 'multiple streams' formulation of policy processes offer a useful explanation of the development of methamphetamine as a policy issue; how well does Kingdon's formulation work in an Australian context; and to what extent can this approach be effectively applied to other AOD policy issues?

**Progress:** Data collection is complete with the final analysis underway and due for completion in early 2012.

**Funding:** Colonial Foundation Trust

**Benefit:** These findings have implications for how we understand and track drug policy processes in Australia and evaluate policy outcomes. By interrogating the policy processes which give rise to particular understandings of drug policy problems in society, we are able to better understand how policy is developed and the opportunities for and threats to evidence-informed policy.

**Date commenced:** February 2011

**Expected date of completion:** June 2012

## Indigenous

### Assessing the economic efficiency of Indigenous alcohol policy in Australia

**NDARC staff:** Ansari Abudeen and A/Prof. Anthony Shakeshaft

**Other investigators :** Professor Christopher Doran (University of Newcastle)

**Project description:** This PhD research will be jointly conducted with a current NHMRC-funded Access the Cost Effectiveness (ACE) Alcohol Indigenous project. Indigenous people have considerably shorter life expectancy than non-Indigenous Australians and alcohol is one of the contributing factors. Governments spend millions each year trying to close this health gap but there is little evidence to demonstrate this money is being spent appropriately. Assessing the economic efficiency of Indigenous alcohol policy requires examination of the effectiveness and cost-effectiveness of interventions; this will provide much-needed evidence about appropriate and effective policy.

#### Aims:

- To evaluate the return on investment on funds spent on addressing the harm caused by alcohol misuse by Indigenous Australians
- To determine an optimal package of cost-effective interventions to address alcohol misuse in Indigenous Australian communities, within the constraints of current budgets, and for a series of alternative forms of budgetary provision.

**Design and method:** We will take a healthcare perspective to study a range of interventions currently targeted at Indigenous Australians. The ACE-Alcohol model will be used; this model was built on a broader body of priority-setting research that focused on cost-effectiveness analysis. Intervention cost-effectiveness will be evaluated over the lifetime of the Indigenous Australian population eligible for each intervention in a selected baseline year. All the costs for each intervention will be estimated using a combination of top-down and bottom-up methods. All costs of interventions will be adjusted to base year and discounted accordingly. For each intervention, an incremental cost-effectiveness ratio will be evaluated and compared to a threshold level. We will use current practice and partial null as comparators to aid in the comparative analysis and marginal analysis; this will identify how the interventions can be ordered in the most efficient package.

**Output:** Ansari Abudeen is currently writing 'Beating da Binge: baseline findings of an indigenous youth anti-binge drinking campaign'. He also partook in the Australian Institute of Aboriginal and Torres Strait Islander Studies National Indigenous Studies Conference in 2011.

**Benefit:** The findings of the project will strengthen the evidence base required to develop appropriate and effective Indigenous health policy in Australia. It will also provide policymakers with evidence about a suitable mix of policies for a given set of budget constraints.

**Funding:** UNSW University International Postgraduate Award, Foundation for Alcohol Research & Education (2011-2012)

**Date commenced:** February 2011

**Expected date of completion:** February 2014

### The feasibility and effectiveness of a family-based intervention for Indigenous Australians with alcohol dependence

**NDARC staff:** A/Prof. Anthony Shakeshaft, Bianca Calabria and Miranda Rose

**Other investigators:** Dr Anton Clifford (University of Queensland), Professor Christopher Doran (University of Newcastle), Professor Komla Tsey (James Cook University), Dr Julaine Allan and Dr Rod MacQueen (The Lyndon Community, NSW)

**Project description:** Indigenous Australians 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. Few Indigenous-specific intervention programs have addressed these harms, and few rigorous evaluations of Indigenous-specific alcohol interventions have been implemented. Empirical studies show that family-based approaches can be effective for reducing alcohol-related harms among high-risk drinkers and the negative effects of alcohol misuse on other family members. Family relationships have always been vital to the cohesion and wellbeing of Indigenous communities. What happens at the family level shapes the social functioning of Indigenous Australian communities and the wellbeing of individuals. The strength of relationships between Indigenous individuals, their families and communities suggests that family-based approaches are likely to be appropriate and effective for reducing alcohol related harm among Indigenous Australians.

**Aims:** This study aims to assess the acceptability, feasibility and likely cost-effectiveness of an individually-focused Community Reinforcement Approach (CRA) and family-focused Community Reinforcement and Family Training (CRAFT) for Indigenous individuals with alcohol use problems, delivered in the context of routine Indigenous-specific health care services. The hypothesis is that the addition of CRAFT to individually focused CRA will be more acceptable and cost-effective, and equally feasible, for Indigenous clients with high levels of alcohol dependence.

**Design and method:** A demonstration project, using a pre/post intervention study design, to evaluate the feasibility, acceptability and likely cost-effectiveness of CRA and CRAFT for individuals who use alcohol problematically, delivered by a rural Indigenous community-based health service in partnership with a regional AOD clinical service.

**Progress:** We surveyed 116 new and existing Aboriginal clients of Yoorana Gunya and the Lyndon Community to assess the relative acceptability of CRA and CRAFT. We used survey findings to identify specific components of CRA and CRAFT that required modification to optimise their uptake during the intervention phase of the project.

The researchers, in collaboration with healthcare practitioners from Yoorana Gunya and Lyndon Community, are developing a training package (combining a clinical manual and program of training and outreach support) to support healthcare practitioners to deliver the CRA and CRAFT programs to their clients in routine healthcare. Healthcare practitioners who will be delivering the interventions have been trained in CRAFT and are currently undertaking a process to become certified CRAFT therapists. CRA training will follow the CRAFT certification process.

**Output:** In 2011 presentations were given at the 3rd Aboriginal Health Research Conference in Sydney in May; at UNSW's School of Population Health and Community Medicine Research Symposium in August; at the AIATSIS National Indigenous Studies Conference in September; and at NDARC's own symposium. Two posters were also exhibited at the NDARC symposium. One paper was published in *Australian Social Work* and additional papers are currently under review by the *Journal of Studies on Alcohol and Drugs* and *The Medical Journal of Australia*.

**Funding:** National Health & Medical Research Council Project Grant

**Date commenced:** March 2010

**Expected date of completion:** June 2013

## Criminal justice system

### Exploring the relationship between cannabis use and crime among adolescents

**NDARC staff:** Melanie Simpson, Professor Jan Copeland and Dr John Howard

**Project description:** The association between substance use and criminal activity is well established within both the Australian and international literature. The nature of the relationship, however, is still widely debated with no overall consensus being reached on how crime and substance use influence each other. The evidence linking cannabis to crime is no exception to this debate.

Cannabis remains the most widely used and most commonly detected drug among those who come into contact with the criminal justice system in Australia. Young offenders who go on to spend time in custody, in particular, are continuing to use cannabis at very high rates despite an overall decline in use among the general population of the same age.

Despite the acknowledged association between substance use and offending, little research has focused specifically on the role of social factors, situations and the environment on first cannabis use, first involvement in crime and the initial and on-going relationship between the two. This study therefore aims to explore further the complex relationship between cannabis use and offending.

**Aims:** This study aims to increase understanding of the complex relationship between substance use and criminal offending, focusing specifically on cannabis use and crime among adolescents. A primary aim of the study is to examine the social factors and situations that contribute to first cannabis use and first involvement in crime and how the two relate.

**Design and method:** The project is comprised of three sub-studies:

- A secondary analysis of Drug Use Monitoring in Australia data to compare the prevalence, trends and patterns of substance use and criminal offending among cannabis-using adult and adolescent police detainees

- A prospective follow-up study of 300 young people who report involvement with the criminal justice system in NSW
- An in-depth qualitative study of 20-30 young people who report a history of contact with the criminal justice system and cannabis use.

**Progress:** Data collection for the project is complete; the data consist of 302 baseline and 134 follow-up interviews. We conducted an additional 15 qualitative interviews with 20 participants. Data are currently being analysed and written up.

**Output:** A paper entitled 'Cannabis use, mental health and crime among young people in Australia' was presented at the 32nd International Conference on Law and Mental Health, Berlin, in July 2011.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** July 2008

**Expected date of completion:** March 2012

### Identifying current and alternate police options for intervening with MDMA

**NDARC staff:** Dr Caitlin Hughes and Associate Professor Alison Ritter

**Other investigators:** Fiona Christian and Patricia Ward (NSW Police)

**Project description:** We know little about the offending profiles of MDMA (3,4-methylenedioxymethamphetamine) offenders and the optimal means of policing MDMA. NSW is one of two jurisdictions in Australia that does not provide police drug diversion for MDMA use/possess offenders; other forms of police intervention may be more justifiable or effective.

**Aims:** This project seeks to examine the profiles of MDMA offenders in NSW and identify current and alternate police options for intervening with MDMA.

**Design and method:** The NSW Police database will be used to examine the nature of MDMA offending in NSW (and a comparative group of cannabis offenders). This will involve two analyses:

- Descriptive analyses of MDMA offenders and a comparative group of cannabis offenders detected in the reference year 2006 in terms of age, sex, offence type, offence circumstances and legal action taken
- Recidivist and subsequent offending analyses of the subset of MDMA and cannabis use/possess offenders detected in 2006 with previous or subsequent offences (1998-2007) in terms of the proportion with prior/subsequent offences and number and type of priors/subsequent offences.

Interviews with NSW Police officers will then be used to identify and explore the feasibility and desirability of adopting alternate policing options for intervening with MDMA use/possess offenders in NSW, particularly the provision of drug diversion.

**Progress:** In 2011 DPMP researchers Dr Hughes and A/Prof Ritter and NSW Police collaborators Patricia Ward and Fiona Christian completed the investigation into patterns of MDMA offending. This demonstrated that across all indices MDMA use/possess offenders detected by NSW Police had a lower likelihood of prior and subsequent offending, yet they were much more likely to receive a criminal charge.

In early 2012 interviews will be conducted with NSW Police officers.

**Output:** A draft report was submitted to NSW Police in 2011.

**Funding:** Colonial Foundation Trust

**Benefit:** This project provides the first comprehensive evidence that MDMA use/possess offenders are a low criminogenic population and that the use of criminal sanctions for MDMA use/possess offenders is potentially counterproductive.

**Date commenced:** August 2007

**Expected date of completion:** December 2012

### Individual-level predictors of violent offending and victimisation among polysubstance users

**NDARC staff:** Michelle Tye, Professor Shane Darke, Dr Sharlene Kaye and Dr Fiona Shand

**Project description:** This project forms the basis for Michelle Tye's doctoral thesis; it investigates the relationship between individual-specific risks (i.e. psychopathology, personality traits, early life trauma) as they relate to the onset and life course of violent offending and victimisation, using a sample of community-based polysubstance users. This research offers a detailed examination of the substance use-violence relationship, particularly surrounding violent victimisation (community and domestic settings) - an area neglected in the AOD literature.

#### Aims:

- To describe patterns of violent offending and victimisation among polysubstance users
- To provide an in-depth examination of the relationship between psychopathology, personality, and early life trauma to understand the onset and life course of violence
- To model the course of reduction or desistance from violent crime, and identify individual-level factors associated with such desistance.

**Design and method:** This project draws from two datasets: cross-sectional quantitative interviews (ongoing) of community-based regular polysubstance users from the Sydney metro area, and survey data from the Co-morbidity and Trauma Study (CATS). The CATS survey consists of 2000 cross-sectional interviews, and includes 1500 cases (opioid-dependent) and 500 controls (non-opioid-dependent).

**Progress:** We have interviewed 180 of an anticipated 300 community-based regular polysubstance users to date.

**Benefits:** This research will generate important new data on the latent relationships mediating the drug-violence association by focusing on individual-level risks and how they relate to violence, instead of approaching the relationship from the 'drug use causes violence' perspective, as is common in the drug and alcohol use literature. Additionally, this research will provide an in-depth examination of the predictors and course of violent victimisation among polysubstance users, as drug and alcohol researchers have largely neglected this topic. This research may have implications for early identification of people most at risk of violent offending and victimisation, and for informing targeted interventions.

**Funding:** NDARC PhD Scholarship

**Date commenced:** August 2011

**Expected date of completion:** August 2014

## Longitudinal study on drug use, health and offending outcomes for young offenders

**NDARC staff:** Paul Nelson, Dr Wendy Swift and Professor Louisa Degenhardt (*Professor Degenhardt was based at the Burnet Institute in 2011*).

**Other investigators:** Professor Dianna Kenny (University of Sydney)

**Project description:** This project forms the basis for Paul Nelson's doctoral thesis; it investigates relationships between drug use and offending in a large community-based sample of young offenders. This prospective study combines nuanced measures of drug use, multiple offending outcomes, statistical advances, and controls for a wide range of concurrent risks to produce unique insights into the impact of drug use on juvenile offending.

**Aims:** To describe the patterns of drug use and prior offending amongst non-incarcerated juvenile offenders, and to assess the relationship of drug use to participation, type, rapidity, frequency and severity of recidivism.

**Design and method:** We interviewed young offenders recruited from across NSW. Interview data were linked to court records and de-identified data from the NSW Bureau of Crime Statistics and Research. Recidivism outcomes and their relationships to drug use were assessed using logistic, parametric survival and binomial regression models.

**Progress:** Results to date show that drug users are more likely to reoffend than non-drug-users, and that recidivism risk increases with frequency of drug use. This relationship varied greatly, however, across drug and type of offence, as well as by recidivism type. For example, some patterns of use strongly predicted offence rate but not severity of involvement. Furthermore, most drug-crime associations were not significant in the final models (adjusting for criminal history, psychosocial and other risk factors).

**Output:** Preliminary findings have to date been presented at national and international conferences.

**Funding:** Australian Postgraduate Award, NDARC top-up award

**Benefit:** This thesis provides new data on the poorly understood and complex relationship between drug use and recidivism outcomes among a large group of community-based offenders. This research may help improve recidivism prediction and targeting of interventions to specific types of drug-using offender.

**Date commenced:** March 2008

**Expected date of completion:** April 2012

## Promoting compliance, 'recovery' and 'desistance': Comparative case studies of pre-sentence diversion schemes for drug misusing arrestees in Australia and England

**NDARC staff:** Tim McSweeney, Dr Caitlin Hughes and Associate Professor Alison Ritter

**Other investigators:** Paul Turnbull (Institute for Criminal Policy Research, University of London)

**Project description:** A growing body of research evidence demonstrates the ability of a range of pre-sentence diversion options to engage substance misusing defendants in treatment

and reduce illicit drug use and 'related' offending in Australian and British contexts. However, given their main focus on measuring and quantifying impacts, this work necessarily tends to be largely a-theoretical and virtually silent when it comes to explaining the dynamic and interactive processes which might facilitate or hinder these positive outcomes. The broader justifications for and potential value of this project centre on its uniquely comparative and multidisciplinary nature; it combines public health, criminological and socio-legal perspectives on the processes and outcomes of attempts to facilitate engagement and behaviour change amongst drug misusers coming into contact with the criminal justice system in different jurisdictions and settings.

**Aims:** Using two models of pre-sentence diversion as case studies - one 'voluntary' scheme in Australia, the other a 'compulsory' model in England known as 'Tough Choices', this research seeks to better understand (in broad terms):

- How different participants in these settings define and measure 'success'
- To what extent the schemes deliver on these outputs and outcomes
- How aspects of policy, program design and delivery impact on outcomes
- How processes might be refined and adapted to further improve outcomes.

More specifically, the first aim of the research is to assess, using various administrative datasets, the extent to which the two pre-sentence diversion schemes:

- secure 'formal' compliance (as measured by program engagement and completion rates)
- promote 'recovery' from dependent drug use (defined as the absence of, or a progressive reduction in, the number and intensity of substance use related problems)
- encourage 'desistance' from crime (defined as cessation of offending, or a significant reduction in the frequency and seriousness of offending).

The next phase of the research involves in-depth interviews with various purposively sampled participants to identify and understand the mechanisms through which these outputs and outcomes were achieved. We are addressing questions such as: what strategies do these schemes employ to engage and retain different types of participant, such as narcotic and stimulant users, in treatment long enough for them to derive any benefit? How do these interventions affect behavioural change with an intractable group, often within a short period of time?

**Design and method:** The research utilises quantitative and qualitative methods and makes use of a range of primary and secondary data sources. The main methodological approaches adopted in each site in order to answer the key research questions posed by this thesis are:

- content analysis of existing documentation (e.g. in order to explore the extent of adherence to established best practice principles, and consistency between stated policy and actual practice between sites)
- linkage of existing administrative datasets to assess the extent of formal compliance, recovery and desistance (e.g. in NSW this will

involve utilising data from the MERIT Information Management System, the Bureau of Crime Statistics and Research Re-Offending Database and, for the purposes of assembling a comparison group, NSW Correctional Services' Offender Information Management System data)

- in-depth qualitative interviews with at least 30 defendants and 30 professional stakeholders to illuminate and better understand related processes and mechanisms in each setting.

**Progress:** In 2011 we linked administrative datasets to examine impacts such as the rate, seriousness and frequency of known offending. In-depth interviews were conducted with over 70 clients and professionals to examine how aspects of policy, program design and delivery impact on the effectiveness of each scheme. This DPMP project will be completed in 2012.

**Output:** Preliminary results were disseminated via three presentations, including to the International Society for the Study of Drug Policy.

**Funding:** Colonial Foundation Trust

**Date commenced:** August 2009

**Expected date of completion:** August 2012

### The evolution of a criminal network over time: A case study of an Australian drug trafficking network

**NDARC staff:** Dr David Bright

**Project description:** This project will document the growth of a drug trafficking network. Dr Bright will examine changes in network density and node centrality measures, determine whether there is evidence for preferential attachment, document changes in role distribution through the network, and map network growth/evolution to factors internal and external to the network (e.g. law enforcement pressure).

**Aim:** To document the growth of a drug trafficking network.

**Design and method:** The project will use social network analysis techniques to map the growth of a criminal network over time.

**Progress:** Data has been collected from the Department of Public Prosecutions, and analyses are underway.

**Benefit:** The results will add to the body of knowledge about criminal networks - particularly important given the dearth of empirical research into network growth and development. The results will assist law enforcement to determine the most effective methods to dismantle criminal networks at different stages of growth.

**Funding:** UNSW Early Career Researcher grant

**Date commenced:** January 2011

**Expected date of completion:** July 2012

## International

### Program of International Research and Training (PIRT)

**NDARC staff:** Professor Kate Dolan, Benjamin Phillips and Professor Michael Farrell

**Other investigators:** Dr Alex Wodak (Alcohol and Drug Services, St Vincent's Hospital, Darlinghurst)

**Project description:** To facilitate research and training activities in developing countries to minimise the harms from drug use and to increase the effectiveness of drug treatment internationally.

#### Design and method:

- Build capacity in drug treatment research within developing countries
- Build capacity for monitoring drug use and drug problems in developing countries
- Build alliances between Australia and developing countries in terms of understanding drug trends and law enforcement
- Encourage policy-relevant research consistent with national strategies and cultures.

**Progress:** PIRT has commenced a new study reviewing the literature on compulsory and voluntary drug treatment in Asia.

**Output:** PIRT has published three journal articles on our women's clinic in Iran. Dr Dolan travelled to Iran in February 2011 to present results of the women's clinic at an international conference on reproductive health.

**Funding:** United Nations Office on Drugs and Crime (UNODC) Vietnam, UNODC Myanmar

**Date commenced:** 2003

**Expected date of completion:** Ongoing

### HIV incidence among IDUs in the Northern Shan States, Burma

**NDARC staff:** Professor Kate Dolan and Professor Richard Mattick

**Project description:** HIV prevalence among IDU has exceeded 80% in some areas of Myanmar. HIV prevention has been introduced and is being expanded.

**Aims:** The aim of this project is to study the incidence of HIV transmission among IDUs and other drug users living in Lashio Township in the Northern Shan States of Burma, as part of the monitoring mechanism to detect the impact of harm reduction initiatives in this area. We will also study changes in HIV risk behaviours among IDUs, and awareness of HIV/AIDS and Sexually Transmissible Infections (STI) among them and their families. In addition, we will explore community perceptions of environmental security related to drug use.

**Design and method:** Sample size calculations indicated that 162 drug injectors were required in each group; one group accessing HIV prevention programs and one group with little or no access to HIV prevention programs.

**Progress:** Professor Dolan assisted the Substance Abuse Research Association (SARA) to undertake this study. SARA received ethical approval from the Ethical Review Committee of Burma's Department of Health; this was the first time they had received such approval as no way to obtain it existed in the country previously.

SARA recruited 280 HIV negative IDU clients; 136 were followed-up six months later and 39 after 12 months. Clients who were imprisoned were interviewed in prison and had blood taken. SARA submitted their Preliminary Research Report entitled 'A six-month prospective study on incidence of HIV among IDUs living in Lashio Township during 2010' in 2011.

Some stakeholders viewed the research with suspicion, thinking that SARA was collecting data in an attempt to discredit their ability to conduct harm reduction interventions in Lashio. However, conducting advocacy and providing transparency in the research objectives and operational outcomes and not focusing on a single organisation in the research helped in dispelling any misconceptions.

Unfortunately, funding was cut and SARA is trying to secure additional funding to complete the study.

**Output:** Preliminary research report, 'A six-month prospective study on incidence of HIV among IDUs living in Lashio Township during 2010'.

**Funding:** UNODC Myanmar

**Date commenced:** January 2010

**Expected date of completion:** Unknown

# COMPLETED PROJECTS

## Treatment and intervention

### A randomised controlled trial (RCT) to assess the acceptability of a switch from buprenorphine-naloxone (Suboxone®) sublingual tablets to buprenorphine-naloxone sublingual film

**NDARC staff:** Briony Larance and Professor Richard Mattick

**Other investigators:** Professor Louisa Degenhardt (Burnet Institute), A/Prof. Nicholas Lintzeris (The Langton Centre, Drug & Alcohol Services, South East Sydney Local Health Network and Faculty of Medicine, University of Sydney), A/Prof. Robert Ali (Discipline of Pharmacology, The University of Adelaide), Professor Paul Haber (Central Clinical School, University of Sydney), Dr Adrian Dunlop (Drug and Alcohol Clinical Services, Hunter New England Area Health Service and School of Medicine and Public Health, University of Newcastle) and Stefanie Leung (The Langton Centre).

**Project description:** Most buprenorphine-naloxone (Suboxone®) dosing in Australia involves supervised dosing of sublingual tablets in order to enhance medication adherence and to minimise aberrant behaviours such as diversion and/or injecting. The introduction of buprenorphine-naloxone sublingual film may reduce the time required for supervised dosing, thereby reducing the inconvenience and cost of treatment and related aberrant drug behaviours. Buprenorphine-naloxone sublingual film may also help reduce diversion by providing a dosage form that is difficult for the patient to remove from the sublingual mucosa once administered. Research is required that specifically examines whether the film is acceptable to patients and clinicians without any diminution of clinical efficacy and safety.

**Aims:** To assess patient and clinician acceptability of buprenorphine-naloxone sublingual film in patients transferring from buprenorphine-naloxone sublingual tablets.

Primary objectives were to:

- Assess patient and clinician preferences and ratings of ease of use
- Ascertain dose equivalence between film and tablet
- Monitor and record adverse events.

Secondary objectives were to assess:

- Impact of changes upon dispensing time and related cost of service delivery
- Ease by which the film can be removed following dosing
- Any impact upon clinical outcomes such as drug use, psycho-social health and functioning.

**Design and method:** The trial recruited 92 opioid-dependent patients engaged in outpatient buprenorphine-naloxone treatment. The study was a double-blind, double-dummy, randomised parallel group design conducted in three phases over a 31-day period: (1) a baseline phase of supervised buprenorphine-naloxone tablet treatment (7 days) followed by randomly allocated treatment with either film or tablets in two stages; (2) a double-blind treatment phase (10 days), followed by (3) an open-label phase (14 days), using a 1:1 random allocation into either film or tablet groups. The study was conducted as a multisite trial across five sites.

**Findings:** There were no significant differences between buprenorphine-naloxone tablets and film with regard to subjective dose effects, trough plasma buprenorphine or norbuprenorphine levels, adverse events and treatment outcomes. Buprenorphine-naloxone film took significantly less time to dissolve than tablets.

**Benefits:** These findings have important implications for OST policy and provision in Australia.

**Output:** Papers are currently being prepared.

**Funding:** Illawarra Shoalhaven Local Health District and South Eastern Sydney Local Health District (formerly the South Eastern Sydney Illawarra Area Health Service).

**Date commenced:** March 2010

**Date completed:** March 2011

### Child protection and mothers in substance abuse treatment

**NDARC Staff:** Dr Stephanie Taplin and Professor Richard Mattick

**Rationale and aims:** Overseas research has found that families where alcohol or other drug use is present are more likely to come to the attention of child protection services, more likely to be re-reported, more likely to have their children removed from their parents' care, and more likely to have them remain in out-of-home care for long periods of time. Little research has focused on the reasons for this, however, and the appropriateness of the interventions provided to this population. This was the first study to interview a large sample of women in opioid pharmacological treatment in NSW about their children, parenting and child protection involvement; it aimed to increase our knowledge and understanding of these complex issues.

**Design and method:** 175 women on the NSW Opioid Treatment Program at nine sites throughout Sydney were recruited into the study between May 2009 and May 2010. The major selection criterion was that they had a birth child under the age of 16 years.

**Findings:** Just over one-third of the women were involved with child protection services at the time of interview, with one-third of their children (n = 99) in out-of-home care.

Women who were involved with child protection were compared with those who were not to determine the factors associated with child protection involvement. Logistic regression analysis revealed those variables which significantly increased the likelihood of being involved with child protection (while controlling for the other variables) were: (1) having a greater number of children, (2) being on psychiatric medication, and (3) having less than daily contact with their own parents. Although women who had a more extensive substance use history were more likely to be involved with child protection (when no other factors were taken into account), this association was no longer significant in the logistic regression model.

**Benefits:** The results of this study are important for the child protection field. They show that, rather than severity of substance use being associated with mothers' involvement with the child protection system, other factors are of greater importance. Of particular interest was the finding that having greater social support, particularly from parents, significantly reduced the likelihood of being involved with the child protection system.

Women made great improvements while on their treatment program, particularly in relation to reduced substance use.

**Output:** A final report was submitted to the NSW Department of Family and Community Services in 2011. The results of this study were also published in an NDARC technical report and presented at the NDARC Annual Symposium.

**Funding:** NSW Department of Family and Community Services

**Date commenced:** February 2008

**Date completed:** March 2011

### **Increasing access to effective harm reduction interventions for vulnerable and marginalised young drug users**

**NDARC staff:** Dr John Howard

**Collaborators:** Access Quality International/Asian Harm Reduction Network (Thailand), Yunnan Institute for Drug Abuse (China), Youth Vision (Nepal) and Thai AIDS Treatment Action Group (TTAG) (Thailand)

**Project description:** This project aimed to identify and minimise barriers to accessing and enhancing effective health and social care services for vulnerable and/or marginalised young drug users. Based on an in-depth and prospective analysis of injecting drug use by young people in three well-established settings, innovative harm reduction approaches were developed, reviewed, adjusted and implemented, and the capacity of key on-site staff was built.

**Aims:** This project aimed to identify:

- The attributes of harm reduction interventions/program that produce positive outcomes (e.g. reduced risk behaviours, improved social functioning) for young people who use drugs in the target countries
- What is required to scale up effective harm reduction interventions for young people (aged 10-25) who use drugs
- Produce a tool kit providing comprehensive harm reduction measures for young drug users.

**Design and method:** Working with implementing partners in situ, interaction with young people, staff and communities during field visits, ongoing consultation lead to facility and service (re) design and the development of training materials and a tool kit. Data collection systems were enhanced to allow for synthesis of monitoring and evaluation activities.

**Outcomes:** Focus groups at each site (Kathmandu, Kunming and Bangkok) identified the needs and wants of young IDUs and those at risk of IDU, and led to a deeper understanding of their substance use and the contexts within which it emerges and is maintained.

The tool kit was used in training to improve understanding of the rationale for and practice of 'youth friendly' approaches to harm reduction.

After a period of reviewing and revising the draft tool kit, the first regional workshop was held in Bangkok, Thailand, in February 2010. NGO managers and/or field workers of NGOs from nine countries participated, as well as representatives from UNICEF, UNODC, and UNESCAP.

Train the trainer sessions were held in Bangkok with participants from Myanmar, Malaysia, Indonesia, Viet Nam, Nepal and Lebanon.

All participants will facilitate training in their own countries on return. About 40% of the trainees were aged under 26 years.

After the Bangkok workshop, national training sessions on Youth Friendly Harm Reduction were held in Penang (Malaysia), Yangon (Myanmar) and Denpasar (Indonesia).

**Benefits:** The 'Opening Doors' project has been associated with some potentially beneficial activities and outputs, particularly in identifying and responding to what young people need/want. The 'voice' of young people who use drugs is 'louder' and youth participation in shaping and operating services is increasing. Resources have been produced, such as those related to MMT, networks and links to essential partners and education, vocational training and employment have been developed and strengthened, and youth leaders are being developed.

In addition, the tool kit has been translated into Mandarin, Thai, Indonesian, Malaysian and Arabic. National training sessions have been provided in Nepal, Thailand, Malaysia, Indonesia and Myanmar, and a regional train the trainer workshop in Bangkok. An extension of the project into the Middle Eastern and North African region is planned.

**Output:** The 'Opening Doors' tool kit. Publications in *Exartisis: Scientific Journal on Addiction Issues* and NDARC's *Centrelines*. Findings have also been presented at many conferences: in 2011, these included the 22nd International Conference on the Reduction of Drug Related Harm in Beirut, the 6th International Conference on Drugs and Young People in Melbourne, and the Education and Social Integration of Vulnerable Groups International Conference in Greece.

**Funding:** AIDSfonds (Netherlands)

**Date commenced:** September 2009

**Date completed:** September 2011

### **Organic brain damage after non-fatal opioid overdose**

**NDARC staff:** Professor Shane Darke

**Other investigators:** Professor Skye McDonald (School of Psychology, UNSW)

**Rationale:** Treatment compliance in methadone maintenance patients is a major problem for health services. The possibility that non-compliance may reflect organic brain damage rather than psychosocial problems has been overlooked to date, yet the likelihood of major brain damage is high in this population. Brain disorders command different, and potentially far more effective, treatment strategies than those based upon the assumption of intact cognition. This study is a unique contribution towards the treatment of opioid dependence in Australia and elsewhere.

**Aims:**

- To determine the levels of organic brain syndrome associated with non-fatal opioid overdose
- To determine the nature of cognitive deficits associated with non-fatal opioid overdose
- To determine the association between severe organic brain damage and treatment performance

**Design and method:** A Research Officer was employed, instruments designed and printed, liaison with participating agencies conducted and ethical approvals written and obtained. Data collection

commenced in late 2008. Subjects were administered a structured interview and a battery of tests for organic brain syndrome. A final sample of 225 complete neuropsychological assessments were conducted, consisting of 125 opioid maintenance patients, 50 residential rehabilitation clients being treated for opioid dependence, and 50 non-heroin using controls.

**Findings:** The study found high levels of risk factors for brain impairment amongst opioid users, and significantly poorer cognitive performance across all cognitive domains compared to controls. A head injury had been suffered by 55%, 37% had suffered multiple injuries, and 15% had suffered a moderate-severe injury. A higher number of head injuries was associated with poorer global cognitive performance, as well as poorer executive functioning, information processing speed and verbal learning. There were no differences between the cognitive profiles of those maintained on methadone or buprenorphine. Compared to controls, opioid users had poorer executive functioning, information processing speed and verbal learning.

**Benefits:** The study provides the first comprehensive data on the levels and nature of clinically significant organic brain damage due to opioid overdose. The extent to which overdose survivors suffer brain damage has important implications for clinical management, particularly in relation to behavioural irregularity. It also provides the first data on the association between organic brain damage and drug treatment performance. Appropriate neuropsychological screening of those with an overdose history may lead to specialised management of these individuals.

**Output:** A revised paper is currently under review by *Drug and Alcohol Dependence*. Another paper is in press and will appear in *Addiction Theory and Research*. A third paper is in preparation.

**Funding:** National Health and Medical Research Council

**Date commenced:** June 2008

**Date completed:** December 2011

### Pap test screening for cervical cancer among women with a substance use hospital admission in NSW

**NDARC staff:** Dr Lucy Burns and Dr Elizabeth Conroy

**Other investigators:** Dr Anne Kricker (Sydney University)

**Project description:** Women with problematic substance use have high rates of mental health disorders, trauma and blood-borne viruses; they may be at higher risk of cancer, and cervical cancer in particular, due to a disadvantaged and often risky lifestyle. We hypothesised that rates of cervical cancer and the more severe grade of early changes in cells in the cervix, i.e., high-grade epithelial abnormalities (HGAs), would be higher in this group of women than in the general population, due to their engagement in high risk sexual behaviour, often to obtain illicit substances. We hypothesised also that they would have lower rates of Pap tests in the NSW cervical screening program and recorded in the NSW Pap Test Register (PTR).

**Aims:** To use linked administrative health data to examine; (1) cervical cytology screening, (2) HGAs and (3) cervical cancer in a population of women with a substance-related hospital admission.

**Design and method:** Records for women aged 20-54 years in the NSW Admitted Patients Data Collection were linked to records in the NSW Cancer Registry and the NSW Pap Test Register (PTR). We calculated rates of cervical cancer, HGAs and Pap tests in women

who had a hospital admission with a substance use code (cases in our study) with rates in a sample of women of the same age whose hospital admission records did not have a substance use code (the comparison population). A total of 19,760 cases (women with a drug-related hospital admission) and 199,197 controls (women with no drug-related hospital admission) were in the linked dataset. The most commonly recorded diagnosis was mental and behavioural disorders due to psychoactive substance use (85%), mainly for cannabinoids (43%) or opioids (35%), and poisoning by drugs (17%).

**Findings:** Compared to women admitted to hospital who had no substance use diagnosis code, cases were at increased risk of cervical abnormalities and cervical cancer; they also had less screening.

**Benefits:** Improved evidence to advocate for increased screening in women who are substance dependent and to ensure treatment is available for those who screen positive. The project will also make a significant contribution to the international research literature as the first paper to investigate rates of screening, HGAs and cervical cancer in women with and without problematic substance use.

**Output:** A paper for a peer-reviewed journal is in progress.

**Funding:** 2009 NSW Health Drug and Alcohol Grants Program

**Date commenced:** 2009

**Date completed:** July 2011

### Refining the timeline followback to assess cannabis use

**NDARC staff:** Dr Melissa Norberg, Professor Jan Copeland and Karina Hickey

**Project description:** The timeline followback (TLFB) is the most widely used calendar-based method for collecting retrospective estimates of drug use. The TLFB uses a calendar and other memory aids (e.g. birthdays, holidays, special events) to gather retrospective estimates of an individual's daily substance use over a specified time period. The few tools that assess quantity of cannabis consumption provide conflicting guidelines for measurement, therefore it is imperative that researchers develop a reliable assessment method. A better assessment method will permit development of an enhanced understanding of hazardous use, and improve the reliability of between-subject comparisons when evaluating treatment effectiveness.

#### Aims:

- Improve cannabis quantity assessment
- Evaluate the test-retest and inter-rater reliability of the modified TLFB
- Evaluate the validity of the modified TLFB by examining relationships between TLFB data and data obtained from single-item assessment and collateral reports about cannabis use.

**Design and method:** The TLFB study involved current cannabis users attending two face-to-face interviews, 14 days apart, for provision of the TLFB interview for cannabis use assessment over the previous 90 days. Collection of cannabis use data was facilitated by utilising the cannabis substitute Marijuana for weight assessment. At their first visit, participants undertook a clinical interview on their drug and alcohol use. Collateral informants were asked to visit the centre during this 14 day period to complete the TLFB interview regarding the participants' cannabis use.

**Findings:** Inter-rater reliability was excellent, while test-retest reliability was good to excellent. Intra-class correlation coefficients between participant and collateral reports, while similar to previous research, were unacceptable. Quantity of cannabis use significantly added to frequency of use in predicting cannabis problems and dependence severity, and explained more variance in cannabis problem severity than frequency of use. Concurrent and discriminant validity were established with single-item and positive impression management measures, respectively. Marijuana appeared similar to one specimen of street seized cannabis, but not to two others. Importantly, participants' cravings to use cannabis did not increase as a result of using the cannabis substitute to report on their cannabis use.

**Benefits:** The data suggests that utilising Marijuana to facilitate the reporting of grams of cannabis use may be reliable and valid.

**Output:** A manuscript detailing the findings has been accepted for publication in *Drug and Alcohol Dependence*.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** November 2009

**Date completed:** June 2011

## Suicide risk assessment and intervention strategies - Stage 2

**NDARC staff:** Dr Joanne Ross, Professor Shane Darke and Mark Deady

**Project description:** Stage 1 of this project identified the need for the development of three resources to improve the management of suicide risk in residential drug and alcohol treatment settings: a Policies and Procedures Pro-forma (Suicide-PPP) to assist managers in drafting guidelines for managing suicide risk, an Acute Suicide Risk Screener (Suicide-AS), and a Standardised Suicide Risk Formulation Template (Suicide-RFT).

**Aims:** Stage 2 aimed to:

- Design a template that managers of drug and alcohol treatment agencies can use to guide the process of creating supportive links with mental health services, and upon which suicide guidelines can be established
- Develop an acute suicide risk assessment screener
- Design a standardised suicide risk formulation template for identifying what is known about a client's background suicide risk factors (e.g., personality disorders, other psychopathology), and highlighting any unknown factors in the client's suicide risk profile
- Develop a brief resource to accompany these tools, explaining why suicide risk assessment is important, and raising awareness about these assessment tools
- Promote the sustainability of the tools by producing an accompanying instruction manual.

**Design and method:** Development of the resources was informed by the literature on suicide risk assessment and an Advisory Panel consisting of members of the Network of Alcohol and Other Drugs.

**Findings:** Residential services have expressed an interest in using the Suicide Assessment Kit (SAK). Funding for Stage 3 of the study, 'The evaluation and dissemination of the SAK in residential rehabilitation services across Australia', is currently being sought from the Department of Health and Ageing.

**Output:** Three key resources, including a suicide risk screener, a suicide risk formulation template, and a policies and procedures pro-forma, have been produced as part of the SAK. Dr Joanne Ross gave a presentation about the SAK at the 2011 NDARC Symposium and the 2011 Australian Professional Society for Alcohol and Other Drugs (APSAD) conference.

**Benefits:** Once evaluated and disseminated nationally, all residential rehabilitation services across Australia will be able to utilise the SAK to assist them in the assessment and management of suicide risk.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** June 2010

**Date completed:** June 2011

## Web-based intervention for cannabis use

**NDARC staff:** Dr Sally Rooke, Dr Melissa Norberg and Professor Jan Copeland

**Other investigators:** Dr Jim McCambridge (University of London) and Dr Donald Hine (University of New England)

**Project description:** Most individuals with cannabis use disorder do not seek treatment, and this is often due to problems with accessibility and concerns about privacy. Web-based therapy addresses these two major barriers to treatment uptake.

**Aims:** To evaluate the efficacy of a web-based cognitive behavioural therapy (CBT) intervention in treating cannabis use and related problems.

**Design and method:** This study was a two-group RCT involving 225 participants. Participants assigned to the control condition were sent a link to an educational resource relating to cannabis use. Participants assigned to the experimental condition were sent a link to the intervention website, which contained six CBT modules, assessments with feedback, and several optional extras. Between-groups comparisons were conducted at post intervention and at three-month follow-up. Primary outcome variables were cannabis use, abuse, and dependence.

**Findings:** The study had a 49% attrition rate by the three-month follow-up (dropout was equal between study conditions). Final analyses that disregarded dropouts as well as those that employed data imputation showed that participants in the intervention group reduced their cannabis use, abuse and dependence more than did participants in the control group. The differences were statistically significant for most analyses. Past month abstinence was 6.6% in the intervention group compared to 4.7% in the control group.

**Output:** Conference presentations at APSAD and the NDARC Symposium, as well as two international conferences (Association for Behavioral and Cognitive Therapies and College of Problems on Drug Dependence). Grant applications and journal articles relating to the study are in preparation, as is a version of the web intervention that will be accessible from the NCPI website.

**Benefit:** A fully self-guided web-based intervention for cannabis use has been developed and will be publicly available in early 2012.

**Funding:** Australian Government Department of Health and Ageing

**Date commenced:** October 2008

**Date completed:** November 2011

### Working with traumatised clients: The impact of clients' trauma histories on alcohol and other drug workers

**NDARC staff:** Dr Katherine Mills, Professor Maree Teesson and Philippa Ewer

**Other investigators:** Professor Ann Roche (Flinders University)

**Project description:** There is a growing literature documenting the high prevalence of trauma exposure and post-traumatic stress disorder (PTSD) among people with AOD use disorders. Indeed, in this population trauma exposure is almost universal and up to one-third have current PTSD. Studies have shown that individuals who are involved in the assessment and treatment of traumatised clients may be at risk of secondary traumatic stress (STS). STS has been described as particular behaviours, emotions and stress that result from helping or wanting to help traumatised individuals. STS has been referred to as an occupational hazard for those working with trauma survivors, but limited research has been conducted in the area. To our knowledge only one US study has examined STS among the AOD workforce; it found that 19% of the AOD workers assessed met criteria for current STS. While STS has been explored among the AOD workforce in the US, the degree to which it is suffered by AOD workers in Australia is unknown.

**Aims:** To address the research questions: 1) What is the prevalence of STS among AOD workers in Australia? 2) What factors are associated with the presence of STS and its severity (e.g., professional experience and training; a personal history of trauma exposure and PTSD)?

**Design and method:** A cross-sectional survey was conducted of AOD workers from across Australia. Current level of trauma education and training, trauma screening practices, along with both their exposure risk and levels of STS were assessed, as well as levels of past trauma exposure and PTSD among AOD workers.

**Findings:** Data collection was completed in January 2011. The results of the survey indicated the prevalence of STS was 19.9%; and that a higher traumatised workload, receiving fewer hours of clinical supervision, not having completed tertiary education, and current stress and anxiety independently predicted the presence of STS.

**Output:** The preliminary results of this study were presented at the APSAD 2010 conference, at an invited trauma workshop as part of DANA's 2011 conference, and in poster format at the NDARC 2011 Symposium.

**Funding:** NDARC

**Benefit:** To gain an understanding of the prevalence of STS among AOD workers in Australia.

**Date commenced:** June 2010

**Date completed:** June 2011

### Patterns of alcohol and drug use

#### Alcohol use disorders in young adults: "youthful epidemic" or diagnostic bias?

**NDARC staff:** Dr Tim Slade, Professor Maree Teesson, Dr Louise Mewton and Sonja Memedovic

**Other investigators:** Professor Robert F Krueger (University of Minnesota)

**Project description:** Estimates of the prevalence of alcohol use disorders (i.e., abuse and dependence) are consistently higher for younger adults than their older counterparts. Nationally representative surveys have indicated that one in five young Australians aged 18-24 years are diagnosed as having an alcohol use disorder, with evidence suggesting that after the age of 24 the prevalence declines rapidly. In response to this finding, the Australian Government recently announced a \$55 million initiative aimed at reducing alcohol misuse among young Australians. While rates of alcohol use amongst young adults are clearly high, questions remain as to whether this "youthful epidemic" of alcohol use disorders is real or a methodological artefact of the prevailing classification criteria. The current project aimed to resolve these questions.

#### Aims:

- To determine potential sources of bias in young adults' interpretations of the diagnostic criteria for alcohol use disorders
- To propose practical recommendations for revision of these criteria for inclusion in upcoming editions of the major psychiatric classification systems.

**Design and method:** The project sought to build on our previous program of research by using the novel investigative techniques of cognitive interviewing derived from the converging fields of cognitive science and survey methodology to explore the reasons behind the apparent shortcomings in the alcohol use disorder criteria. These novel techniques quantify an individual's understanding of the diagnostic criteria and signal potentially ambiguous or misunderstood criteria.

**Results:** The results of this project demonstrated that some DSM-IV diagnostic criteria, particularly those centred on the self-reported motivations for drinking, may be misinterpreted by young adults, resulting in an over-estimation of the prevalence of alcohol use disorders. Further funding is being sought to investigate similar biases in reporting of other mental and substance use disorders.

**Benefit:** The results of this project provide practical recommendations for modifications to the alcohol use disorders diagnostic criteria in the upcoming revised classification systems.

**Output:** Results were presented at national and international conferences (e.g., the 2011 Kettil Bruun Society Annual Alcohol Epidemiology Symposium, and the 2011 Australasian Society for Psychiatric Research Annual Meeting). Journal publications are currently undergoing peer review. In addition, the data were analysed and included in Dr Louise Mewton's PhD thesis.

**Funding:** National Health and Medical Research Council

**Date commenced:** January 2010

**Date completed:** December 2011

### Diversion and misuse of stimulant medication for ADHD among illicit psychostimulant users

**NDARC staff:** Professor Shane Darke, Dr Sharlene Kaye and Michelle Tye

**Project description:** The main pharmacotherapy for ADHD is stimulant medication. Previous research has demonstrated diversion and/or misuse of prescribed stimulant medication among adolescents and university students. No major studies of the diversion or misuse of ADHD medication have been conducted

among illicit psychostimulant users, among whom high rates of misuse and diversion would be expected.

**Aims:**

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

**Design and method:** This study employed a cross-sectional survey design. Three hundred illicit methamphetamine or cocaine users were administered a structured interview examining prescribed and illicit use of medications used to treat the symptoms of ADHD (i.e. Ritalin, Dexamphetamine).

**Findings:** The most commonly reported use of stimulant medications among the sample was the use of diverted stimulant medication (31%), typically dexamphetamine and methylphenidate. Of participants who had used diverted medications, 20% had injected them and 60% had used them on more than five occasions. The majority of those who used diverted medication did so for recreational purposes, although 18% reported using to self-medicate symptoms of ADHD.

Very few participants reported misusing (4%) or diverting (3%) their medication, reflecting the small proportion that had ever been prescribed stimulant medication (7%). Nevertheless, among those who had been prescribed stimulant medication, misuse was high.

Misuse was in the form of taking more tablets than prescribed (67%), taking tablets more frequently than prescribed (42%), and deliberately missing doses (50%). There were no reports of intranasal use or injecting of tablets. Of those who misused their medication, 40% had misused more than 20 times. Almost one third (32%) of those prescribed stimulant medication had given their medication away to others, and 26% had sold their medication, typically to friends, relatives or acquaintances.

**Output:** Findings were presented at APSAD in November 2011. Articles for publication are currently in preparation and under peer review.

**Funding:** National Health and Medical Research Council

**Date commenced:** July 2009

**Date completed:** June 2011

### Examining supply changes in Australia's cocaine market

**NDARC staff:** Dr Caitlin Hughes, Dr Jenny Chalmers, Dr David Bright, Dr Francis Matthew-Simmons and Natasha Sindicich

**Project description:** Following some of the largest cocaine seizures in Australian history (until December 2010), including 464kg in October 2010, there was increased speculation about a possible expansion in Australia's cocaine supply. Media attention had also increased, as indicated by a 35% increase in cocaine mentions (between 2009 and 2010) in Australian newspapers alone. Yet, questions remained as to whether there had been a real expansion in supply and if so, whether it was Australia-wide and whether it should be of concern to the Australian community.

**Aims:** The purpose of this project was to examine the evidence behind assertions of increased cocaine supply in Australia and the scale and nature of any apparent increase, using proxy indicators of cocaine importation, distribution and use.

**Design and method:** Eight proxies of cocaine importation, distribution and use were adopted, including amount of importation, mode of importation and supply flows to Australia. Each proxy indicator was sourced using publicly available and Australia-wide data, including information on the total weight of border seizures, mode of detection and country of embarkation of individual seizures. Trends were examined over a 12 year period (1997-1998 to 2009-2010).

**Findings:** DPMP researchers identified three discernible periods in Australia's cocaine supply. The indicators pointed to increased cocaine importation since 2006/07, albeit to lower levels than during the heroin shortage. Of equal if not greater significance was that the post 2006/07 expansion coincided with a diversification of trafficking routes to and through Australia (beyond Sydney, the traditional site of entry). This may increase risks of organised crime.

**Output:** The research was published in *Drug and Alcohol Review* and presented in November 2011 to the Commonwealth Department of Health and Ageing for their *Talking Heads* series. Follow-up projects will be undertaken in 2012.

**Funding:** Colonial Trust Foundation

**Date commenced:** 2010

**Date completed:** March 2011

### Substance use and comorbidities in same-sex-attracted young males

**NDARC staff:** Dr John Howard

**Other investigators:** Simon Beck (Medical student, UNSW)

**Project description:** The young male same-sex-attracted (SSA) population has been reported to have a suicide attempt rate 3-6 times higher than that found in the same age range in the non-SSA population, and higher levels of mental health concerns. The reasons behind this are poorly understood but it is thought that many complex factors are involved, including substance use, the availability of adequate support services, social stigma (including family and friends' reaction to SSA disclosure or fear of what this reaction might be), mental illness, and abuse (including emotional, physical and sexual). A better understanding of these factors should lead to the availability of better support services for young SSA people with the goal of reducing the high suicide attempt rate and other comorbidities.

**Aims:** This project aimed to:

- Increase understanding of the relationships between sexuality, mental health and substance use among this marginalised group of young people
- Increase understanding of coping strategies employed by SSA young males
- Increase knowledge about how the "coming out" process, substance use, suicidality and other mental health concerns intersect and interact
- Inform strategies and interventions to assist ACON (Australia's largest community-based GLBT health and HIV/AIDS organisation)

and others providing services to SSA young people to refine and shape more effective interventions for mental health, substance use and co-occurring disorders.

**Design and method:** This was a quantitative study using a self-administered questionnaire with 21 SSA and 41 non-SSA young males aged 18-24.

**Findings:** Higher suicidality was found in participants who reported abuse compared to those with no abuse across all categories of sexuality. In contrast to previous studies, significantly higher levels of substance use for most substances and earlier initiation of use for many substances was found among the heterosexual group, with significantly higher mean Severity of Dependence Scale scores in this group compared to the same-sex attracted group. Sample bias impacted the ability to complete analyses.

**Benefits:** Better understanding of comorbidity in young SSA males, improved assessment and interventions, and reduced suicide.

**Funding:** None

**Date commenced:** March 2010

**Date completed:** March 2011

### Tasmanian Opioid Prescribing Project: A blueprint for the future

**NDARC staff:** Professor Richard Mattick and Dr Fiona Shand

**Other investigators:** Professor Wayne Hall (University of Queensland), Professor Louisa Degenhardt (Burnet Institute), A/Prof. Milton Cohen (UNSW and St Vincent's Hospital) and A/Prof. Nick Lintzeris (The Langton Centre, Drug & Alcohol Services, South East Sydney Local Health Network and Faculty of Medicine, University of Sydney)

**Project description:** Prescription opioids have an important role to play in providing relief of acute pain and in treating opioid dependence. Their role in chronic pain is more limited and controversial. Nevertheless, prescriptions for opioid analgesics have been rising in Australia and other developed nations for more than a decade. At the same time, many jurisdictions have experienced a rise in harms such as opioid poisonings and overdose deaths.

#### Aims:

- To identify recent changes in opioid prescribing and any associated harms in Tasmania
- To review prescribing practices for opioids and other drugs of dependence in Tasmania and make recommendations regarding good clinical practice for chronic non-malignant pain
- To identify the educational requirements to ensure good clinical practice in the area of chronic non-malignant pain
- To review the regulatory frameworks for schedule 8 medications

**Design and method:** The project involved analysis of relevant datasets to identify changes in prescribing patterns and associated harms; interviews with prescribers in Tasmania; reviews of the published and grey literature for chronic non-malignant pain, opioid prescribing, and evidence-based regulatory systems; and the use of expert reference groups to advise on clinical practice and regulatory models.

**Findings:** Tasmania has higher levels of opioid prescribing than most other Australian jurisdictions and this level has increased over the past 15 years. The harms arising from prescription opioid use have also risen, but at a slower rate. These harms are occurring amongst patients with chronic pain and amongst people who inject drugs. The researchers' recommendations encompass education for health professionals, increased multimodal treatment of chronic pain, increased use of alternatives to opioid analgesics for chronic pain, regulatory changes, and engaging the pharmaceutical industry to develop risk evaluation and mitigation strategies.

**Benefit:** This project will inform the policy and practices regarding opioid analgesic prescribing in Tasmania. In doing so, it will contribute to improved management of chronic non-malignant pain and potentially reduce the risk of harms associated with prescription opioids.

**Output:** A report is due to be launched by Tasmania's Chief Health Officer and the Tasmanian Minister for Health in February 2012.

**Funding:** Tasmanian Department of Health and Human Services

**Date commenced:** August 2010

**Date completed:** October 2011

## Prevention and early intervention

### Patterns and correlates of cannabis use in young adulthood

**NDARC staff:** Edmund Silins, Dr Delyse Hutchinson, Dr Wendy Swift, Dr Tim Slade and Professor Richard Mattick

**Other investigators:** Professor Bryan Rodgers (Australian Demographic Research Institute, ANU)

**Aims:** To examine the correlates, predictors and consequences of patterns of cannabis use in young adulthood, using two successive waves of data from 2,404 young adults enrolled in the PATH Through Life Project, an Australian longitudinal survey of the influence of lifestyle and social factors on health.

**Findings:** The findings demonstrate that, although cannabis use tends to decline in young adulthood, a notable proportion of young adults remain involved with the drug. Relapse to cannabis use in young adulthood is common among former users. Those who first use cannabis in young adulthood generally do not continue or progress to intensive use. A range of factors spanning numerous domains are correlated with cannabis use in young adulthood. A close connection exists between licit drugs and cannabis use. Early cannabis use and the pattern of cannabis use in young adulthood are particularly important predictors of subsequent use of the drug. Regular cannabis use in young adulthood increases the likelihood of later psychosocial and substance use problems including educational underachievement, heavy drinking, tobacco use, cannabis dependence and other illicit drug use. In contrast, ceasing cannabis use in young adulthood has considerable benefits in terms of reducing potential harms (mental health problems, cannabis dependence, other illicit drug use) and increasing adult role participation. Risk and protective factors associated with variability and stability of cannabis use in young adulthood include gender, first use at an early age, dimensions of personality, religiosity, conflict and hostility in friendships and an environment of licit drug use.

**Benefits:** The results clarify the patterns of cannabis use in young Australian adults and the factors that contribute to explaining them. The findings make an important contribution to the development of prevention and intervention strategies for young adults by drawing attention to specific areas of vulnerability and resistance.

**Funding:** Cannabis and Mental Health PhD Scholarship (NDARC)

**Date commenced:** January 2008

**Date completed:** December 2011

## Drug policy

### ACT schedule for serious drug offences: determining amounts of trafficable, commercial and large commercial drug offences

**NDARC staff:** Dr Caitlin Hughes and A/Prof. Alison Ritter

**Other investigators:** Victor Martin and Nikki Besch (ACT Department of Justice and Community Safety) and Helene Delany (ACT Health)

**Project description:** One of the key measures for determining the seriousness of drug trafficking offences (i.e., for distinguishing between low and high level trafficking) is the quantity of drug involved. To date, there has been surprisingly little use of research to inform decisions on how threshold quantities should be set or what threshold quantities should be used for different offences and different drug types.

**Aims:** The ACT Government, in the process of reviewing its drug legislation, engaged the Drug Policy Modelling Project (DPMP) as a consultant to provide expert advice on determining amounts for trafficable, commercial and large commercial drug offences. The initial goal was to determine whether existing thresholds made sense in terms of the commercial realities of the drug market and, if not, to propose alternate threshold quantities for the five main illicit drug types: heroin, methamphetamine, cocaine, ecstasy and cannabis.

**Design and method:** Five evidence-informed metrics were put forward through which to evaluate current and potential drug trafficking threshold design. These were used to examine whether the ACT thresholds, as they apply to heroin, methamphetamine, cocaine, MDMA and cannabis:

1. Provide reasonable grounds to assume that all who exceed the trafficable threshold quantities constitute drug traffickers. Do they enable the ACT judiciary to filter out drug users, and minimise the chance that users get charged/sentenced as traffickers for possession for personal use alone?
2. Are proportional to the potential seriousness of the drug trafficking offence. Do the thresholds enable the ACT judiciary to determine the level of criminality of the alleged trafficker, taking into account traders in different controlled drugs?

The metrics were:

1. User patterns of consumption
2. User patterns of purchasing
3. Retail value
4. Harms to individuals and society
5. Social cost.

Publicly available data was used for each metric, including data on retail price and purity from the Illicit Drug Data Report and patterns of use and purchasing from the Illicit Drug Reporting System and the Ecstasy and Related Drug Reporting System. Indicators of harm to individuals and society were derived from Nutt et al. (2010) and social costs were derived from Moore (2007).

**Findings:** Application to ACT thresholds revealed risks of unjustifiable and inequitable sanction, including sanctioning users for trafficking offences. This work has called for a major rethink of threshold design.

**Benefits:** The work put forward the first set of evidence-informed metrics through which to evaluate the capacity of thresholds to enable proportional sanctioning of drug offenders.

**Output:** The work has been disseminated via four presentations, including to an expert meeting on thresholds hosted by the European Monitoring Centre of Drugs and Drug Addiction and a DPMP monograph (in press), and given rise to a Criminology Research Council grant (Dr Hughes, A/Prof. Ritter and Nicholas Cowdery AM QC) that will evaluate risks posed by Australian drug trafficking thresholds in other states and territories.

**Funding:** Colonial Foundation Trust

**Date commenced:** October 2010

**Date completed:** March 2011

### An assessment of illicit drug policy in Australia (1985 to 2010): themes and trends

**NDARC staff:** A/Prof. Alison Ritter and Kari Lancaster

**Other investigators:** Professor Peter Reuter (University of Maryland)

**Project description:** Driving this report were questions regarding factors that influence patterns of drug use and harms in Australia. We explored whether any reductions in drug use can be ascribed to successful government action or have been generated through shifts in drug fashions; whether social policy such as welfare policies, macroeconomic factors and socio-economic conditions account for changes in patterns of use and harms irrespective of what governments do; and the extent to which Australia's policy approach is grounded in scientific evidence.

**Aims:** To provide an accessible description and assessment of drug policy in Australia from 1985 to 2010, including a description of the policy context, the successive iterations of the National Drug Strategy, trends in drug use and harm, and drug policy actors. It is hoped the resulting report will become the source document for those wanting an overview of the Australian situation.

**Design and method:** The report aimed to cover:

- The Australian context (socio-economic climate - employment, poverty, social cohesion)
- Description of drug policy in Australia and international comparisons (policies, approaches, distinguishing features)
- Analysis of trends in drug use and harms (comparisons across and between drugs, and comparisons with global trends)
- Government action on drugs (government spending across the four "pillars" of prevention, law enforcement, harm reduction and treatment)

- Analysis of the Australian policy landscape (key roles played by actors in the policy subsystem).

**Findings:** Australia has achieved a great deal since the adoption of the harm minimisation approach to drug policy in 1985, with a high degree of consistency and coherence in the overall approach. Despite Australia's historical position as a champion of "harm minimisation", it appears that Australia is now falling behind some other nations. The consideration of the multiple, and often competing, voices in the drug policy system is important in this context. Five voices - the research community; the state; the third sector; international regulatory bodies; and the general public - make distinct contributions to Australian drug policy.

**Benefits:** In providing an accessible description and assessment of drug policy in Australia it is hoped this work will be a valuable resource for policymakers and practitioners alike, in Australia and internationally.

**Output:** The research was disseminated in the form of a DPMP monograph, a presentation at the DPMP Symposium in Sydney, and via NDARC's in house seminar series.

**Funding:** Colonial Foundation Trust

**Date commenced:** 2007

**Date completed:** March 2011

### Development of a policy for the management of alcohol use problems amongst elderly people who are homeless

**NDARC staff:** Dr Lucy Burns and Dr Elizabeth Conroy

**Other investigators:** A/Prof. Stephen Wilson (Mater Hospital, Sydney)

**Project description:** The Haymarket Foundation provides care and short term accommodation for homeless people in inner-Sydney. Research at the Haymarket Foundation had shown that 20% of clients were there primarily for substance use problems and that alcohol was the major problem substance (80%), although there was a high rate of polydrug use amongst those with alcohol problems.

The homeless population in inner Sydney is rapidly ageing and alcohol increases the ageing process, with problematic alcohol use magnifying this effect. This project sought to determine a model of care for elderly people in inner Sydney who are homeless who also have an alcohol-related problem. The information gained will assist in the development of an appropriate assessment, management and referral policy for this heavily marginalised and vulnerable group of Australians. This policy will provide a standard of care for services that assist these individuals.

**Aims:** To determine a model of care for elderly people in inner Sydney who are homeless who also have an alcohol-related problem.

**Design and method:**

- Literature review to determine the best standard of care for aged homeless people with alcohol problems
- Visit to Wintringham Aged Care Facility Melbourne
- A survey of older homeless residents of Haymarket Centre (approximately 50) to determine their physical and mental health status and health needs

- Interviews with experts in the area of homelessness, alcohol use and aged care to advise on what would constitute an appropriate model of care

**Benefits:** This project will have beneficial impacts on clients of the Haymarket Foundation, the organisation itself and will also contribute significantly to improving the health and security of older vulnerable Australians who lack the protection of secure accommodation.

**Output:** A report has been prepared for the Foundation for Alcohol Research and Education (formerly the Alcohol Education and Rehabilitation Foundation).

**Funding:** Foundation for Alcohol Research and Education

**Date commenced:** January 2010

**Date completed:** December 2011

### Public opinion, the media, and illicit drug policy in Australia

**NDARC staff:** Dr Francis Matthew-Simmons

**Project description:** Whilst many believe that policy decisions should be based, where possible, on scientific evidence, the realities of democratic politics dictate that many policy decisions also need to be acceptable to a majority of the voting population. This project seeks to understand the dynamics of public opinion regarding illicit drug policy in Australia.

**Aims:** By examining public opinion data, and conducting two case studies (involving the legal status of cannabis, and treatments for heroin dependence), this project aims to understand the factors that can influence public opinion. The first case study considers the possibility that policy decisions on cannabis use (notably decriminalisation) can "send a message" about drug use. The second examines the role of the news media in influencing public opinion, particularly regarding treatments for heroin dependence.

**Design and method:** The project involves secondary analysis of attitudinal data from the National Drug Strategy Household Survey. In addition, a content analysis of print news media was conducted. Analyses seek to determine relationships between attitudes and several explanatory factors, including media content, policy environment, and demographic factors.

**Findings:** Public support for cannabis legalisation has decreased since the mid-1990s but support for harm reduction has increased. Those individuals who lived in states with cannabis depenalisation were no more likely to approve of cannabis use. Media reporting of naltrexone has been more positive than that of methadone, and is related to support for naltrexone (but not methadone).

**Benefits:** This project provides the most comprehensive review and analysis of public opinion data on drug policy that has been undertaken in Australia to date.

**Output:** Matthew-Simmons' PhD thesis

**Funding:** Colonial Foundation Trust

**Date commenced:** August 2007

**Date completed:** October 2011

## Responding to illicit drugs in Australia: towards evidence-based strategic policy

**NDARC staff:** A/Prof. Alison Ritter

**Project description:** Alcohol and other drug problems represent substantial health and social harms to individuals and the community. Research effort in Australia has been focused on epidemiological, intervention and treatment research but there has not been any substantial and dedicated capacity in drug policy research. This NHMRC Career Development Award has enabled the creation of new drug policy research capacity in Australia which will continue to inform governments about optimal solutions to alcohol and other drug problems.

**Output:** The Award enabled the establishment of a new program of research in Australia on illicit drug policy (the Drug Policy Modelling Program) and built sustained capacity in this domain for the future. The award funded the Director (Alison Ritter) for five years, to lead the new drug policy research program and conduct original research. Over the course of the five years, more than 30 projects were completed across the DPMP. Some examples of specific research findings include:

- Estimates of unmet demand for pharmacotherapy maintenance treatment (we need about 50% more treatment services)
- Cost-effectiveness of drug law enforcement directed towards methamphetamine (clandestine laboratory detections are the most cost-effective)
- Drug policy makers are most likely to access research evidence through contact with experts, followed by internet sources, rather than academic publications
- Hepatitis C treatment would be preferentially directed towards those injecting drug users who are not currently in drug treatment
- Arrest rates for drug users outstrip arrest rates for drug dealers/traffickers, posing questions about drug law enforcement effort
- Theories of public policy processes (from political science and similar disciplines) can be usefully applied to illicit drug policy decision-making to understand the factors at work in decisions, over and above the role of research evidence.

**Funding:** National Health and Medical Research Council Career Development Award

**Date commenced:** 2007

**Date completed:** 2011

## Criminal justice system

### Supply demand and harm reduction strategies in Australian prisons: An update

**NDARC staff:** Professor Kate Dolan and Ana Rodas

**Other investigators:** Dr Alex Wodak (Alcohol and Drug Service, St.Vincent's Hospital, Darlinghurst)

**Project description:** The Australian National Council on Drugs requested a review of the prevalence of alcohol and/or drug use problems among adult prisoners and the range and availability of supply, demand and harm reduction programs and services in prisons.

### Aims:

- Collate current data on the number and proportion of prisoners reporting problematic alcohol, tobacco and/or illicit drug use, and place these data in context by comparing to previous years.
- Assess the availability, access and extent of use of demand, harm and supply reduction programs and services in prisons. Attention will be given to the extent to which these programs and services adhere to the principles of the National Correctional Drug Strategy.

**Design and method:** We conducted a literature review of publicly available data through medical and criminal justice databases as well as reports produced by the respective Departments of Corrective Services/Justice. The review focused on alcohol and drug use and information about demand, supply and harm reduction programs. A questionnaire requested data held by health and prison departments on supply, demand and harm reduction strategies.

**Findings:** All jurisdictions in Australia used drug detection dogs and urinalysis to reduce the supply of drugs in prisons. The most common drug detected was cannabis; heroin use was rarely detected. All jurisdictions operated a detoxification service for drug dependent prison entrants. There were improvements in the provision of methadone treatment for inmates in most states except in Queensland. All jurisdictions operated inmate programs and counselling services. In some jurisdictions, the range of services provided was extensive; most services were in the form of group programs, using cognitive-behaviour therapy and motivational interviewing principles. Individual counselling was less common and, in some cases, was being phased out in favour of group programs. Five out of eight jurisdictions operated drug-free wings or units for prisoners. All jurisdictions provided harm reduction education in 2009 and tested inmates for blood-borne viruses. Condoms were available in NSW, WA, SA, Tasmania and Victoria. No jurisdictions provided needle and syringe programs. While there are many supply, demand and harm reduction programs operating in Australian prisons, few have been rigorously and independently evaluated.

**Benefits:** This study provides an updated overview of how Australian prison departments respond to drug use and drug users.

**Output:** The report has been written and is with the funder for comments.

**Funding:** Australian National Council on Drugs

**Date commenced:** March 2010

**Date completed:** December 2011

### The application of social network analysis to law enforcement strategies in combating illicit drug markets

**NDARC staff:** Dr David Bright

**Other investigators:** Dr Catherine Greenhill (School of Mathematics and Statistics, UNSW)

**Project description:** Drug law enforcement (DLE) agencies within Australia and internationally strive to disrupt illicit drug markets as one way of managing addiction. This project aimed to evaluate the capacity of interventions driven by Social Network Analysis (SNA) to be effective in dismantling such networks. Based on a robust and systematic case study application of SNA, we evaluated the

usefulness of the methodology and outcomes in disrupting and dismantling criminal networks.

**Aims:**

- Determine whether criminal networks (case examples) are scale-free;
- Examine the impact of degree-targeted attack (i.e., target the hubs) vs random attack.

**Design and method:**

- Review and analysis of three data sources: Court transcripts, Department of Public Prosecution records, judges' sentencing comments
- SNA was conducted using the software programs Ucinet 6 and Visone. These programs are commonly used by academic researchers to conduct SNA, including the application of SNA to criminal networks.
  - We constructed a network map to represent the individuals (nodes) and the connections between individuals (ties)
  - We calculated several measures to describe the structure of the network, and to determine the key players in the network. The measures provide insight into the main players within the network and areas of weakness which can be exploited by law enforcement to make effective arrests.
- Hypothetical enforcement scenarios were tested via simulation. For example, examination of the impact of removing a particular individual (or set of individuals) from the network (to simulate arrest), or the impact of adding an individual (e.g., an informant) to the network.
- The analyses include an exploration of the extent to which criminal networks are scale-free. The results will instruct law enforcement on the likely impact of specific interventions on drug trafficking networks.

**Findings:** Data were collected and analysed throughout 2011. Social network analyses were conducted and law enforcement simulations were tested. The results of the study suggest that in effectively targeting criminal networks, law enforcement should consider both node level features (such as the roles played by individuals in the network) and topography features such as centrality scores. In fact, only using role information to select nodes to target is less effective than using either centrality scores or centrality scores in concert with individual attributes. The results underscore the utility of centrality measures when selecting individuals to target when the aim is to dismantle criminal networks.

**Benefit of project:** The results offer law enforcement agencies some guidance in determining the most effective strategies for dismantling criminal networks.

**Output:** Findings were presented at the 2011 Illicit Networks Workshop in Montreal, Canada.

**Funding:** Colonial Foundation Trust

**Date commenced:** July 2010

**Date of completion:** December 2011

## International

### Development and evaluation of specialist services for female drug users in Iran

**NDARC staff:** Professor Kate Dolan

**Other investigators:** Dr Bijan Nassirimanesh (Persepolis NGO) and Dr Azarakhsh Mokri (Iranian National Centre of Addiction Studies, Tehran University of Medical Sciences)

**Project description:** The project involved establishing a methadone clinic for female drug users in Iran. The clinic offered a range of services for women such as primary health care, sexual health care and staff including a social worker, a psychologist and a lawyer. The clinic also provided condoms, a needle and syringe program and employment training.

**Aims:**

- To improve the health, welfare and social functioning of women who use drugs in Tehran
- To design, deliver and evaluate a coordinated range of services to meet the health and welfare needs of this vulnerable population
- To provide services that are non-judgemental, professional, culturally sensitive, accessible and acceptable to Iranian women in this target population.

**Design and method:** The activities carried out in this program of work were:

- The design and establishment of a women-only community-based clinic to provide a range of services including methadone maintenance treatment, sexual health services, needle syringe program, contraception and family planning, primary healthcare, counselling, employment training, legal services and a drop-in centre
- Research to produce evidence on the efficacy of project activities, including a study of the prison methadone program.

**Findings:** Over 100 women attended the clinic in the first year. Of the 78 women recruited, 40 were followed up approximately seven months later. Most women were chronic drug users with a multitude of problems who had received no prior treatment for their drug problem. One in four women reported a history of drug injection. At follow up the women had improved outcomes in multiple areas: drug use, social functioning and HIV risk behaviour.

**Benefits:** Many women with no exposure to treatment for drug problems responded well to treatment. There are now five clinics for female drug users in Tehran.

**Output:** Four presentations have been made at international conferences. Journal articles have been published (1), are in press (2) or in preparation (1). A book is being written on the clinic and a cohort of clients.

**Funding:** The Drosos Foundation, Switzerland

**Date commenced:** 2007

**Date completed:** June 2011

## Health economics

### Assessing the economic consequences of cannabis policy options

**NDARC staff:** Dr Marian Shanahan and A/Prof. Alison Ritter

**Other investigators:** Dr Rosalie Pacula (RAND Corporation)

**Rationale:** Changes to the status of cannabis, ranging from legalisation through to tougher enforcement of prohibition, are frequently posed. To date, the debate has centred on arguments associated with liberty and harm but not on economic analyses.

**Aims:**

1. To estimate the current societal costs related to cannabis
2. To investigate the economic costs and benefits of legalised and regulated policy options.

**Design and method:** A cost benefit analysis (CBA) was undertaken using a static economic model to assess the costs and benefits of the two policy options. Costs pertaining to enforcing cannabis policies or treating the consequences, including those incurred by the criminal justice system, health care system, regulatory structures, consumers, their family and society at large, were quantified in monetary terms.

**Findings:** The results from the CBA indicate there is no clear difference in net social benefit between the two policy options. The results from the DCE reveal that compared to the current policy there is a moderate preference for legalisation of cannabis among a community sample and strong antagonism to the complete criminalisation of cannabis. The results also demonstrate the trade-offs between different harms and benefits as well as the interactions between personal characteristics and the policy preferences.

**Output:** Output in 2011 included Marian Shanahan's doctoral thesis and her presentation at the NDARC Annual Symposium in August. Other conferences at which Dr Shanahan has presented this project's findings include the 2011 International Society for the Study of Drug Policy Conference (Netherlands), 2010 Australian Health Economics Society Conference, Health Economists' Study Group 2010 Summer Conference (Ireland) and the 8th European Conference on Health Economics (Finland, 2010).

**Funding:** Australian Research Council Discovery Grant and Colonial Foundation Trust

**Date commenced:** January 2007

**Date completed:** December 2011

# STAFF AND STUDENT LIST

## 2011 staff

### Executive Committee

<b>Michael Farrell</b>	Professor, Director
<b>Jan Copeland</b>	Professor, Assistant Director; Director, NCPIC
<b>Christopher Doran</b>	Associate Professor, Assistant Director (to February 2011)
<b>Alison Ritter</b>	Associate Professor, Assistant Director; Director, DPMP
<b>Anthony Shakeshaft</b>	Associate Professor, Assistant Director
<b>Maree Teesson</b>	Professor, Assistant Director
<b>Shale Preston</b>	Executive Officer (to December 2011)

### Academic Staff

<b>David Allsop</b>	Lecturer, NCPIC
<b>Courtney Breen</b>	Research Fellow
<b>David Bright</b>	Research Fellow
<b>Lucy Burns</b>	Senior Lecturer
<b>Natacha Carragher</b>	Post-Doctoral Research Fellow
<b>Jenny Chalmers</b>	Senior Research Fellow
<b>Catherine Chapman</b>	Senior Research Fellow
<b>Anton Clifford</b>	Lecturer (to May 2011)
<b>Elizabeth Conroy</b>	Research Fellow (to October 2011)
<b>Shane Darke</b>	Professor, Convenor Research Staff Professional Development Program
<b>Kate Dolan</b>	Professor
<b>Matthew Dunn</b>	Lecturer (to March 2011)
<b>Wendy Gong</b>	Research Fellow (to May 2011)
<b>John Howard</b>	Senior Lecturer, NCPIC/NDARC
<b>Caitlin Hughes</b>	Research Fellow
<b>Delyse Hutchinson</b>	Senior Research Fellow
<b>Sharlene Kaye</b>	Research Fellow
<b>Frances Kay-Lambkin</b>	Senior NHMRC Research Fellow
<b>Christina Marel</b>	Post-Doctoral Research Fellow
<b>Kristie Martire</b>	Research Fellow (to 31 January 2011)
<b>Richard Mattick</b>	Professor
<b>Rebecca McKetin</b>	Senior Research Fellow (to April 2011)
<b>Katherine Mills</b>	Senior Lecturer
<b>Nicola Newton</b>	UNSW Vice-Chancellor's Post-Doctoral Research Fellow
<b>Melissa Norberg</b>	Senior Lecturer, National Clinical Services & Evaluation Manager, NCPIC
<b>Sally Rooke</b>	Research Fellow, NCPIC
<b>Miranda Rose</b>	Research Fellow (to June 2011)
<b>Joanne Ross</b>	Senior Lecturer
<b>Claudia Sannibale</b>	Research Fellow (to May 2011)
<b>Marian Shanahan</b>	Senior Lecturer/Health Economist
<b>Fiona Shand</b>	Associate Lecturer
<b>Tim Slade</b>	Senior Research Fellow
<b>Janette Smith</b>	UNSW Vice-Chancellor's Post-Doctoral Research Fellow
<b>Wendy Swift</b>	Senior Lecturer

<b>Stephanie Taplin</b>	Research Fellow
<b>Tracey Wright</b>	Research Officer (to February 2011)

### Professional and Technical Staff – Research

<b>Alexandra Aiken</b>	Research Officer
<b>Lucy Albertella</b>	Research Officer, NCPIC
<b>Dion Alperstein</b>	Research Officer, NCPIC
<b>Sheena Arora</b>	Research Officer
<b>Emma Black</b>	Senior Research Officer
<b>Annie Bleeker</b>	Senior Research Officer
<b>Delphine Bostock Matusko</b>	Research Officer (to March 2011)
<b>Chiara Bucello</b>	Research Officer
<b>Kerryn Butler</b>	Research Officer
<b>Gabrielle Campbell</b>	Senior Research Officer
<b>Joanne Cassar</b>	Research Officer
<b>Laura Dewberry</b>	Research Officer
<b>Philippa Ewer</b>	Research Officer
<b>Jenny Geddes</b>	Project Officer (to April 2011)
<b>Amy Gibson</b>	Research Officer (to March 2011)
<b>Maria Gomez</b>	Senior Research Officer
<b>Rachel Grove</b>	Research Officer
<b>Karla Heese</b>	Research Officer (to April 2011)
<b>Karina Hickey</b>	Research Officer, NCPIC
<b>Ingrid Honan</b>	Research Assistant
<b>Laila Khawar</b>	Research Assistant, NCPIC
<b>Kari Lancaster</b>	Research Officer
<b>Jennifer Mackenzie</b>	Research Officer (to June 2011)
<b>Sonja Memedovic</b>	Research Officer
<b>Benjamin Phillips</b>	Research Officer
<b>John Redmond</b>	Research Assistant, NCPIC
<b>Ana Rodas</b>	Research Officer (to November 2011)
<b>Amanda Roxburgh</b>	Senior Research Officer
<b>Megan Sety</b>	Senior Research Officer (to March 2011)
<b>Laura Scott</b>	Research Officer
<b>Stephanie Scott-Smith</b>	Research Assistant
<b>Natasha Sindich</b>	Senior Research Officer
<b>Bridget Spicer</b>	Research Officer
<b>Jenny Stafford</b>	Senior Research Officer
<b>Rachel Sutherland</b>	Research Officer
<b>Johanna Thomas</b>	Research Officer (to June 2011)
<b>Michelle Tye</b>	Senior Research Officer
<b>Joe Van Buskirk</b>	Research Assistant
<b>Professional and Technical Staff – Support and Communications</b>	
<b>Evie Alis</b>	Executive Assistant to the Director (to November 2011)
<b>Tori Barnes</b>	Administrative Officer, NCPIC
<b>Jasmin Bartlett</b>	Administrative Assistant
<b>Clare Chenoweth</b>	Communications Officer, NCPIC
<b>Crisanta Corpus</b>	Finance Manager

# STAFF AND STUDENT LIST

<b>Paul Dillon</b>	National Communications Manager, NCPIC
<b>Marion Downey</b>	Communications and Media Manager
<b>Jackie Du</b>	Finance Officer NCPIC/NDARC
<b>Colleen Faes</b>	Administrative Officer
<b>Carly Harris</b>	Executive Assistant, NCPIC
<b>Julie Hodge</b>	Administrative Officer
<b>Mary Kumvaj</b>	Librarian
<b>Etty Matalon</b>	National Clinical Training Manager, NCPIC
<b>Morag Millington</b>	Communications Officer, NCPIC
<b>Erin O'Loughlin</b>	Communications Officer
<b>Ursula Perry</b>	National Clinical Trainer, NCPIC
<b>Jemma Sale</b>	Administrative Assistant/Acting Executive Assistant to Director
<b>Carla Santos</b>	Administrative Officer
<b>Caroline Santoso</b>	Administrative Assistant (to July 2011)
<b>Barbara Toson</b>	Statistician/Biostatistician (to November 2011)
<b>Michaela Turner</b>	Administrative Officer (to October 2011)

## Postgraduate Students

<b>Emma Barrett</b>	Research Associate/Doctoral Candidate
<b>Ansari Bin Jainulabudeen</b>	Senior Research Officer/Doctoral Candidate
<b>Joshua Byrnes</b>	Doctoral Candidate
<b>Bianca Calabria</b>	Senior Research Officer/Doctoral Candidate
<b>Mark Deady</b>	Senior Research Officer/Doctoral Candidate
<b>Peter Gates</b>	Senior Project Coordinator, NCPIC/Doctoral Candidate
<b>Amy Johnston</b>	Research Associate/Doctoral Candidate
<b>Briony Larence</b>	Senior Research Officer/Doctoral Candidate
<b>Lynne Magor-Blatch</b>	Doctoral Candidate, NCPIC
<b>Kristie Mammen</b>	Doctoral Candidate
<b>Francis Matthew -Simmons</b>	Research Officer/Doctoral Candidate
<b>Tim McSweeney</b>	Doctoral Candidate
<b>Louise Mewton</b>	Doctoral Candidate/Post Doctoral Research Fellow
<b>Hector Navarro</b>	Senior Research Officer/Doctoral Candidate
<b>Paul Nelson</b>	Research Officer/Doctoral Candidate
<b>Edmund Silins</b>	Senior Research Officer/Doctoral Candidate
<b>Melanie Simpson</b>	Senior Research Officer/Doctoral Candidate, NCPIC
<b>Dam Anh Tran</b>	Doctoral Candidate
<b>Monika Wadolowski</b>	Research Officer/Doctoral Candidate
<b>Catherine Wolff</b>	M(Phil) Candidate

## Conjoint Staff

<b>Katherine Conigrave</b>	Associate Professor
<b>Johan Duflo</b>	Associate Professor
<b>Paul Haber</b>	Professor
<b>Wayne Hall</b>	Professor
<b>Trevor King</b>	Lecturer
<b>Andrea Mant</b>	Associate Professor
<b>Mark Montebello</b>	Lecturer

<b>Catherine Spooner</b>	Senior Lecturer
<b>Ingrid Van Beek</b>	Senior Lecturer
<b>Deborah Zador</b>	Senior Lecturer

## Visiting Academic Staff

<b>Matthew Dunn</b>	Visiting Fellow (from April 2011)
<b>John Lewis</b>	Visiting Fellow (from May 2011)
<b>Rebecca McKetin</b>	Visiting Fellow

## Adjunct Staff

<b>Claudia Sannibale</b>	Adjunct Lecturer (from June 2011)
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## NDARC COMMITTEES

### Finance Committee

Michael Farrell (Chair)
Maree Teesson
Shale Preston
Crisanta Corpus
Michaela Turner
Jackie Du

### OHS Committee

Wendy Swift (Chair)
Julie Hodge
Michael Farrell
Shale Preston
Marian Shanahan
Elizabeth Conroy
Martina Lavin (Faculty of Medicine)
Jasmin Bartlett (Secretary)

### Library Committee

Shane Darke (Chair)
Sharlene Kaye
Wendy Swift
Mary Kumvaj (librarian)

### Employee Assistance Program

Sharlene Kaye (Chair)
Alison Ritter
Katherine Mills

### Green Committee

Karina Hickey (Chair)
Morag Millington
Emma Black
Jenny Chalmers
Shale Preston
Alexandra Aiken
Barbara Toson

# EXTERNAL APPOINTMENTS

## Memberships of External Committees, Advisory Boards and Editorial Boards

### Dr David Bright

Chair, NSW Section of the APS College of Forensic Psychologists (2008-present)

Member, National Executive Committee, APS College of Forensic Psychologists (2008-present)

Committee member of the Australian and New Zealand Association of Psychiatry, Psychology, and Law (ANZAPPL, NSW Branch)

### Dr Lucy Burns

Director, Haymarket Foundation for Homeless People with Substance Abuse Problems (2004-present)

Academic member, NSW Health Drug and Alcohol Council, Research Sub-Committee, NSW Health Department (2009-present)

Trustee, NDARC Educational Trust (2009-present)

Member, NSW Population and Health Services Research Ethics Committee (2010-present)

Member, Perinatal Substance Use, National Special Interest Group (2010-present)

Population Health Research Network NSW ACT Policy and Program Advisory Group (2011-present)

Member, UNSW Medical / Community Human Research Ethics Advisory Panel (2011-present)

### Bianca Calabria

Student member, UNSW Higher Degrees Research Committee (2010-2011)

### Dr Natacha Carragher

Member, UNSW Faculty of Medicine Postdoctoral Advisory Committee (2010-present)

### Dr Jennifer Chalmers

Member, The Alcohol and Drug Council of Australia's Human Services/Systems Working Group (2010-present)

### Dr Catherine Chapman

Chair, Management Committee, The Mental Health Services Conference of Australia and New Zealand Inc (2010-2011)

### Professor Jan Copeland

President, Board of Management, Drug and Alcohol Multicultural Education Centre (DAMEC) (2002-2012)

Member, Board of Management of Odyssey House: The McGrath Foundation, a non-government therapeutic community; co-chair of the Operations Committee (2004-2012)

Assistant Editor (Services and Prevention, Technology Transfer, and Treatment), *Drug and Alcohol Dependence*

Assistant Editor, *Addiction* (2002-2011)

Assistant Editor, *Journal of Substance Abuse Treatment* (2001-2012)

Associate Editor, *BMC Research Notes* (2008-2011)

Member, Editorial Board, *Addiction Science and Clinical Practice* (2010-2012)

Member, Advisory Committee for NADA Data Information Project to advise on the data for routine drug and alcohol and mental health data in the non-government sector in NSW (2009-2011)

Member, Cannabis Working Group for NSW Health (2007-2012)

Member, US College on Problems of Drug Dependence (CPDD) International Committee (2010-2013), Chair-elect from July 2012

Member, Drug and Alcohol Health Promotion Subcommittee of the Drug and Alcohol Program Council, NSW Department of Health

Member, Australian Cannabis Cohort Research Consortium (2008-present)

Member of the Australian Government's Intergovernmental Committee on Drugs Working Party on the national minimum data set (2004-2012)

### Professor Shane Darke

Regional Editor, *Addiction* (2006-present)

Associate Editor, *Drug and Alcohol Dependence* (1993-present)

Assistant Editor, *Journal of Drug Issues* (2006-present)

### Professor Kate Dolan

Member, World Health Organization (WHO) Network for HIV and Health in the Western Pacific Region (WPR) (2009-present)

Member, ANEX's Harm Minimisation in Prisons Committee (2008-present)

Member, UNODC Expert Group on the Comprehensive Package for HIV in Prisons (2011-present)

Member, ANCD's Asia Pacific Drug Issues Committee (2011-present)

Member, Australian Society for HIV Medicine Conference Committee and Judging Panel (2011)

Member, Iran's Congress on Social and Environmental Aspects of Reproductive Health (2011)

### Professor Michael Farrell

Member, European Monitoring Centre for Drugs and Drug Addiction (2007-present)

Member, World Health Organization Expert Committee on Drug Dependence (1996-present)

Member, Quality in Treatment (QIT), NSW Health (2011-present)

Member, Asia-Pacific Drug Issues Committee (APDIC), Australian National Council on Drugs (2011-present)

### Karina Hickey

Member, NADA Health Promotion Sub Committee (2011-present)

### Dr John Howard

Member, ANCD Asia-Pacific Drug Issues Committee (2004-present)

Member, NSW Child Death Review Team (2004-present)

Board Member, National Centre for Education and Training on Addiction (NCETA) (2005-present)

Member, Clinical Advisory Panel, Family Drug Support (2002-present)

Member, NSW Ministerial Advisory Committee on Hepatitis (2008-present)

Member, Advisory Group, NSW Department of Health, Mental Health and Drug and Alcohol Office, Quality in Treatment (QIT) (2002-present)

Member, Drug and Alcohol Multicultural Education Centre (DAMEC) - Research Subcommittee (2010-present)

Member, Consulting Editors Group, *Youth Studies Australia* (2010-present)

### Dr Caitlin Hughes

Member, Of Substance Editorial Reference Group (2011-present)

Member, UNSW Faculty of Medicine Postdoctoral Advisory Committee (2011-present)

### Dr Delyse Hutchinson

Co-Convener and member, Longitudinal Studies Network, Australian Research Alliance for Children and Youth (ARACY) (2011-present)

Co-Director and member, Cannabis Cohort Research Consortium (CCRC) (2006-present)

Member, University of New South Wales Women's Employment Strategy Committee (2011-present)

Organisational Member, Australian Research Alliance for Children and Youth (ARACY) (2005-present)

### Dr Sharlene Kaye

Assistant Editor, *Addiction* (2009-present)

Board Member (Secretary), International Collaboration on ADHD and Substance Abuse (ICASA) (2010-present)

### Mary Kumvaj

Member, National Drug Sector Information Service (NDSIS) Advisory Committee (2009-present)

### Professor Richard Mattick

Member, ANCD National Illicit Drug Campaign Reference Group (2004-present)

# EXTERNAL APPOINTMENTS

Member, NSW Minister of Health Expert Advisory Group on Drugs (2004-present)

Member, Alcohol Beverages Advertising Code adjudication panel (2005-present)

Member, Sax Institute Research Partnerships for Better Health (2006-present)

## **Dr Katherine Mills**

Assistant Editor, *Addiction* (2010-present)

Deputy Editor, *Drug and Alcohol Review* (2010-present)

Member, Community Mental Health Drug and Alcohol Research Network Steering Committee (2011-present)

Member, Trauma Informed Care and Practice Reference Group (2010-present)

Member, National Health and Medical Research Council Public Health Postgraduate Scholarships Review Panel (2009-2011)

## **Dr Nickie Newton**

Advisory Board Member, Angelus Foundation (Expert committee on Legal Highs in UK) (2010-present)

Member, Internet Prevention and Treatment Program (2011-present)

## **Dr Melissa Norberg**

National Health & Medical Research Council (NHMRC) Grant Review Panel (2011)

Associate Editor, *International Journal of Mental Health and Addiction* (2011-present)

Australian Psychological Society Illicit Drugs in Sport Reference Group (2010-2011)

## **Associate Professor Alison Ritter**

Immediate Past President, Australasian Professional Society on Alcohol & Drugs (2007-2011)

President, International Society for the Study of Drug Policy (2011-present)

Vice President, Alcohol and Drug Council of Australia (from 2011)

Member, Board of Directors, Alcohol and Drug Council of Australia (2010-present)

Editor, *Drug and Alcohol Review* (2001 to present)

Associate Editor, *Journal of Drug Policy Analysis* (2010-present)

Associate Editor, *International Journal of Drug Policy* (2011-present)

Chair, Expert Reference Group, National Drug and Alcohol Clinical Care and Prevention Modelling Project (2010-present)

Advisory Panel Member, Development of needs-based planning models for substance use services and supports in Canada (2011- present)

Member, Global Science Group for Addictions and Lifestyles in Contemporary Europe (ALICE) project (2011-present)

Chair, Drug Policy Working Group, National Institute on Drug Abuse (from 2011)

Member, NSW Health Quality in Treatment Committee (2010-present)

Member, National Drug Strategy Household Survey Technical Advisory Group (2009-2011)

Member, Evaluation Advisory Group - evaluation of drug policies and services at the ACT's Alexander Maconochie Centre (2010-2011)

Technical Advisor, International Centre for Science in Drug Policy (2011-present)

## **Dr Joanne Ross**

Assistant Editor, *Addiction* (2006-present)

Member of the Allied Health Worker Advisory Committee, NSW Health (2010-present)

## **Associate Professor Anthony Shakeshaft**

Assistant Editor, *BMC Public Health* (2010-present)

Conjoint Associate Professor, Faculty of Health, University of Newcastle (2010-present)

Visiting Scholar, Cairns Institute, James Cook University (2011-present)

Member, Faculty of Medicine's Promotion Committee (A/Professor level), UNSW (2011-present)

## **Dr Tim Slade**

Member, Expert Advisory Group for the second National Child and Adolescent Mental Health Survey (2011-present)

Member, Expert Advisory Group for the second Australian National Survey of Mental Health and Wellbeing (2007-present)

Regional Editor, *Social Psychiatry and Psychiatric Epidemiology* (2009-present)

## **Professor Maree Teesson**

Member, Australian Cannabis Cohort Research Consortium (2008-present)

Member, Expert Working Group, NSW Mental Health Commission (2011)

Chair, Mental Health Services Conference Summer Forum (1996-present)

Co-Chair, UNSW Women's Employment Strategy Committee (2011-present)

# POSTGRADUATE STUDENTS

## Emma Barrett (2007-2011)

*Aggression and violent crime among substance users with post-traumatic stress disorder.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Dr Katherine Mills, Professor Maree Teesson.

**Date of submission:** December 2011.

## Courtney Breen (2004-2010)

*Alcohol consumption and related harms in regional communities: Exploring individual and community factors.*

Part-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Anthony Shakeshaft, Professor Richard Mattick.

**Date of submission:** 31 August 2010.

**Conferred: 11 January 2011.**

## Joshua Byrnes (2008-2011)

*The impact of price on alcohol consumption and the cost effectiveness of a volumetric tax in Australia.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Chris Doran, A/Prof. Anthony Shakeshaft.

**Date of submission:** August 2011.

## Bianca Calabria (2010-present)

*Family-focused alcohol intervention for Indigenous Australians.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Dr Anton Clifford, A/Prof. Anthony Shakeshaft, A/Prof. Chris Doran.

**Expected date of submission:** March 2013.

## Mark Deady (2011-present)

*Co-morbid depression and alcohol misuse in young people and the development of an internet-based intervention.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisors:** Professor Maree Teesson, Dr Frances Kay-Lambkin.

**Expected date of submission:** December 2014.

## Peter Gates (2008-present)

*The Cannabis Information and Helpline: Evaluation and randomised controlled trial.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Jan Copeland, Dr Melissa Norberg, Dr Erol Digiusto.

**Expected date of submission:** March 2012.

## Alys Havard (2007-2010)

*Targeting alcohol problems among patients of rural Australian emergency departments: Establishing an evidence base.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Anthony Shakeshaft, A/Prof. Kate Conigrave.

**Date of submission:** October 2010.

**Conferred: 1 February 2011.**

## Ansari Jainulabudeen (December 2010-present)

*Economics of Indigenous Alcohol Policy*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Chris Doran, A/Prof. Anthony Shakeshaft.

**Expected date of submission:** February 2014.

## Amy Johnston (2008-present)

*Suicidality in the general population.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Shane Darke, Dr Tim Slade, Dr Joanne Ross.

**Expected date of submission:** December 2012.

## Briony Larence (2006-present)

*Non-adherence with opioid substitution therapy in Australia.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Louisa Degenhardt, Professor Richard Mattick.

**Expected date of submission:** March 2012.

## Sarah Larney (2007-2010)

*Opioid substitution treatment in prisons and post-release: Effects on criminal recidivism and mortality.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Kate Dolan, Dr Lucy Burns, Dr Alex Wodak.

**Date of submission:** 8 October 2010.

**Conferred: 24 February 2011.**

## Lynne Magor-Blatch (2009-present)

*Testing the usefulness of a social cognition model of treatment within a therapeutic community setting.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Jan Copeland, Dr John Howard.

**Expected date of submission:** June 2013.

## Kristie Mammen (2006-present)

*Monitoring the implementation of buprenorphine-naloxone (Suboxone®) in Australia.*

Part-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. James Bell, Professor Richard Mattick.

**Expected date of submission:** January 2013.

## Francis Matthew-Simmons (2007-2011)

*Public opinion, the media, and illicit drug policy.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Alison Ritter, Dr Katherine Mills.

**Date of submission:** July 2011.

**Conferred: 2 November 2011.**

## Tim McSweeney (2009-present)

*Promoting compliance, 'recovery' and 'desistance': Comparative case studies of pre-sentence diversion schemes for drug misusing arrestees in Australia and England.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Dr Caitlin Hughes, A/Prof. Alison Ritter and Paul Turnbull (Institute for Criminal Policy Research, University of London).

**Expected date of submission:** January 2013.

# POSTGRADUATE STUDENTS

## **Louise Mewton** (2008-2011)

*The classification of substance use disorders in young adults.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Maree Teesson, Dr Tim Slade.

**Date of submission:** July 2011.

**Conferred: 30 November 2011.**

## **Hector Navarro** (2008-2011)

*Economic evaluations of community action interventions to reduce alcohol-related harm in rural communities in New South Wales.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Chris Doran, A/Prof. Anthony Shakeshaft, Dr Dennis Petrie.

**Date of submission:** July 2011.

**Conferred: 23 November 2011.**

## **Paul Nelson** (2008-present)

*Longitudinal study of drug use, health and offending outcomes for young offenders.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Louisa Degenhardt, Professor Dianna Kenny, Dr Wendy Swift.

**Expected date of submission:** April 2012.

## **Marian Shanahan** (2007-2011)

*Assessing the economic consequences of cannabis policy options.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Alison Ritter, Professor Glenn Salked, Dr Karen Gerard.

**Date of submission:** March 2011.

**Conferred 24 June 2011.**

## **Fiona Shand** (2007-2010)

*Patterns of substance abuse and mental health co-morbidity in a heroin dependent group.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Louisa Degenhardt, Dr Tim Slade.

**Date of submission:** 11 November 2010.

**Conferred: 15 March 2011.**

## **Edmund Silins**(2008-2011)

*Initiation, persistence and cessation of cannabis use and subsequent mental health outcomes.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Dr Delyse Hutchinson, Dr Tim Slade, Dr Wendy Swift.

**Date of submission:** December 2011.

## **Melanie Simpson** (2008-present)

*Exploring the relationship between cannabis use and criminal offending among adolescents.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Jan Copeland, Dr John Howard.

**Expected date of submission:** March 2012.

## **Dam Anh Tran** (2009-present)

*Accessibility to anti retroviral (ARV) treatment in Vietnam.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** A/Prof. Chris Doran, A/Prof. Anthony Shakeshaft, Dr Duc Anh Ngo.

**Expected date of submission:** June 2013.

## **Michelle Tye** (2011-present)

*Violence among substance users with ADHD and co-morbid psychiatric disorders.*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Shane Darke, Dr Fiona Shand, Dr Sharlene Kaye.

**Expected date of submission:** December 2014.

## **Monika Wadolowski** (2010-present)

*Parental modelling and supply of alcohol: Does this improve or worsen drinking outcomes in young Australians?*

Full-time PhD in the School of Public Health & Community Medicine, UNSW.

**Supervisor/s:** Professor Richard Mattick, Dr Delyse Hutchinson.

**Expected date of submission:** July 2013.

# RESEARCH GRANTS AND FUNDING

PROJECTS	FUNDING SOURCE	TOTAL AWARD (\$)		EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
New centre core funding (disaggregated multi-schedule agreement)	AGDHA	8,818,029		2862011	3044820
Schedule 6 - Injecting drug users interview component (IDRS)	AGDHA	745,964	2 years	170647	106160
Schedules 7, 16, 17 and 19 - Ecstasy and Related Drugs Reporting System (EDRS)	AGDHA	1,907,888	2 years	242751	320022
Schedule 8 - Brief intervention - the ecstasy check-up	AGDHA	198,655	2 years	59119	38475
Schedule 9 - Redevelopment and reprint of On Thin Ice: a users guide	AGDHA	54,540	2 years	0	14500
Schedule 10 - Evaluation of treatment outcomes for methamphetamines (MATES) - follow-up study	AGDHA	126,000	2 years	96369	6919
Schedule 15 - Suicide risk assessment and intervention strategies Part 2	AGDHA	119,625	2 years	42030	77608
Schedule 18 - Dissemination of comorbidity information booklets	AGDHA	88,815	1 year	0	88815
Effective treatments for depression & substance use comorbidity	NHMRC	259,000	4 years	77029	1487
Asian harm reduction Network	AIDS FONDS NL	86,446	2 years	40726	15403
Discovery Project - Is one drop too many?	ARC	760,000	5 years	111406	139049
Impact of parental alcohol, tobacco and other substance	NHMRC	1,910,470	4 years	359036	385024
The ecstasy check-up: a multi-site trial of a brief intervention	NHMRC	446,250	2 years	73250	110140
A family-based intervention for Indigenous Australians	NHMRC	212,500	2 years	63734	96844
Epidemiology, classification and treatment of comorbid substance use	NHMRC CDA	377,000	4 years	93847	96659
Assessing the effectiveness of community intervention for alcohol misuse with Indigenous Australians	ARC	80,000	2 years	0	69116
Alcohol use disorders in young adults	NHMRC	193,650	2 years	36366	156420
Preventing adolescent cannabis use through web-based graphic warning images	ARHRC	18,000	1 year	-2912	1127
Alcohol use amongst elderly people who are homeless	AERF	20,000	1 year	16548	999
Development of an aberrant drug behaviour scale	RECKITT BENCKISER	160,000	1 year	54856	89764
The Salvation Army (NSW) Property Trust/ANCD	ANCD	54,512	1 year	18274	23467
Impact of alcohol use during pregnancy	AERF	15,301	1 year	5210	10091
The cost of homelessness and benefit of programs	AHURI	34,692	3 years	13716	2172
Drug use in pregnancy, birth and early years of new born	HAC	27,273	1 year	9043	22592
A randomised controlled trial (RCT) -suboxone film protocol	SESAHS	65,000	1 year	15000	43123
Pap screening for cervical cancer among women	HAC	18,535	1 year	4276	5320
PTSD brief intervention	HAC	45,625	2 years	18708	26405
Outreach evaluation of the inner city youth at risk project	HAC	159,346	4 years	24039	134110
Recommendations for the prescribing of opioids in Tasmania	DH (TASMANIA)	279,974	1 year	0	128849
Psychostimulant intervention	AGDHA	101,676	1 year	0	39130
Examining the prevalence of ADHD among those with SUD	CURTIN UNIV	73,824	1 year	0	54785
The prevalence of drug and alcohol presentations on hospital-based services	HAC	275,000	2 years	0	186828
How do alcohol and illicit drug prices affect young Australians' plans for Saturday night?	ARC, DOJ & AG, NSW	105,595	2 years	0	30084
Combining universal and targeted drug prevention approaches	NHMRC	723,665	5 years	0	23379
A double blind placebo randomised controlled trial of Sativex in cannabis withdrawal	NHMRC	232,637	1 year	0	69134
Integrative analyses of data from four Australasian cohort studies	NHMRC	244,472	2 years	0	55045

# RESEARCH GRANTS AND FUNDING

PROJECTS	FUNDING SOURCE	TOTAL AWARD (\$)		EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Reducing the health, social and economic burden of injecting drug use in Australia	BURNET/ NHMRC	312,999	5 years	0	0
Young people, drinking, and the parental supply of alcohol	ROTARY HEALTH	68,059	1 year	0	68059
Technology and innovation in the delivery of effective treatments for comorbid conditions	NHMRC/CDA	384,160	4 years	0	77253
Parental supply of alcohol: an expansion of a longitudinal cohort study to public schools Tasmania	AERF	17,609	1 year	0	17,955
Improving services to women who are pregnant and alcohol dependent	AERF	50,057	2 years	0	15687
Improving services to families affected by Fetal Alcohol Spectrum Disorder (FASD)	AERF	50,057	2 years	0	15485
Improving cardiovascular health among people with depression: healthy lifestyles treatment	AGDHA	112,203	1 year	0	25383
Literature reviews on GLBT	DH NSW	150,000	1 year	0	144987
Study to identify women subject to homelessness and their reproductive health issues	HRT0	30,000	1 year	0	29160
Twelve month follow-up of mothers on the NSW Opioid Treatment Program (OPT)	DH NSW	36,135	1 year	0	5916
Group schema therapy for the treatment of co-occurring depression and opioid dependence	DH NSW	34,450	1 year	0	60
The Misha Project - Univ of Western Australia/Mission Australia Contract Research Shared Grant	UNIV OF WA	122,000	4 years	0	7124
Ongoing surveillance of the diversion of medications used in opioid substitution treatment	RECKITT BENCKISER	1,048,447	3 years	0	137696
Anxiety sensitivity and taper schedules as predictors of cannabis withdrawal severity	HNELHD/ DACS	17,273	1 year	0	0
Double-blind, randomised, placebo controlled trial of SATIVEX for cannabis withdrawal	HNELHD/ DACS	32,727	1 year	0	3670
Reducing alcohol-related harm in rural communities: a randomised control trial	AERF (via UNEWC)	1,200,000	5 years	389363	65666
Drug Policy Modelling Program - Stage Two	CF	7,661,973	5 years	888500	795555
National Cannabis Prevention and Information Centre (NCPIC) - new project	AGDHA	11,958,090	4 years	4023089	3579398
The efficacy of an intervention for PTSD among illicit drug users	NHMRC	558,125	3 years	32918	483
Organic brain damage after non-fatal opioid overdose	NHMRC	235,500	3 years	68143	80663
The statistical relationship between alcohol-related crime and liquor outlets in the City of Sydney	CCS	16,063	5 years	297	435
Examining the relative cost effectiveness of different types of law enforcement directed towards methamphetamine	NDLERF	377,813	3 years	91607	-4430
Michael Project	MA	114,266	3 years	47050	28932
The diversion and misuse of stimulant medication for Attention Deficit Hyperactivity Disorder (ADHD) among illicit psychostimulant users	NHMRC	148,000	2 years	102226	6749
Homelessness and services and system integration	AHURI	105,450	2 years	64231	12100
Stepped-care for patients with alcoholism and panic disorder	NSW Health	36,000	1 year	6299	3947
Intergenerational homelessness	AHURI	16,578	3 years	7259	-3713
<b>SUB-TOTAL FOR PROJECTS</b>		<b>43,933,993</b>		<b>10,226,061</b>	<b>10,828,087</b>

See inside back cover for acronym definitions

# RESEARCH GRANTS AND FUNDING

SCHOLARSHIPS AND FELLOWSHIPS	FUNDING SOURCE	TOTAL AWARD (\$)	EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Career Development Award - Responding to illicit drugs in Australia: towards evidence-based strategic policy	NHMRC	441,250 5 years	45883	310
Public Health Fellowship - Developing and disseminating effective treatments for depression and substance use comorbidity	NHMRC	269,000 4 years	6945	3177
Senior Research Fellowship for Maree Teesson	NHMRC	607,500 5 years	-20103	0
Senior Research Fellowship for Louisa Degenhardt	NHMRC	607,500 5 years	-29060	108026
Vice-Chancellor's Postdoctoral Fellowship	UNSW	288,000 3 years	4,000	18,000
PhD Scholarship	AERF	121,709 4 years	66,942	32,622
PhD Scholarship	NDARC	484,735 3 years	192,265	124,590
NHMRC PhD Scholarship	NHMRC	62,043 3 years	7,084	2,476
APA (3)	DEST	235,602 3 years	9,620	6,431
PhD Scholarship	DPMP	98,996 4 years	24,817	6,119
PhD Scholarship	ARC	81,441 3 years	13,723	7,756
Parental modeling and supply of alcohol: Does this improve or worsen drinking outcomes?	ARHRF	15,350 3 years	0	6,140
Faculty Support for Research Fellow Projects	UNSW	165,329	166,000	221,871
EARLY CAREER RESEARCH	UNSW	108,000 3 years	36,000	55,410
2011 Goldstar Award	UNSW	79,361 1 year	0	79,361
Annual Symposium	NDARC	71,430 1 year	0	23,664
<b>SUB-TOTAL FOR SCHOLARSHIPS AND FELLOWSHIPS</b>		<b>3,737,246</b>	<b>524,116</b>	<b>695,954</b>

FACULTY RESEARCH	FUNDING SOURCE	TOTAL AWARD (\$)	EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Research Suspense NDARC	NDARC	500,000	-68,295	-28,324
Research Surplus NDARC	NDARC	81,337	0	0
Research Initiatives	NDARC	883,769	51,042	-4,408
NDARC External Consultancy Research	NDARC	4,220	-789	10
Offence-related debt offenders	NDARC	14,650	7,191	3,819
UNAIDS Global Report IDU & HIV	NDARC	54,000 2 years	30,001	23,850
Mental Health and Wellbeing	NDARC	42,670 2 years	12,804	1,508
Non-GMO Research Income	NDARC	16,000 10 years	35,441	2,500
Technical support, server activation & access, disk storage, Major Research Equipment and I S	UNSW	97,320 1 year	0	97,320
<b>SUB-TOTAL FOR FACULTY RESEARCH</b>		<b>1,693,966</b>	<b>67,395</b>	<b>96,275</b>

INFRASTRUCTURE	FUNDING SOURCE	TOTAL AWARD (\$)	EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Faculty Support for Research Infrastructure	UNSW		1,339,905	1,083,295
DVC Strategic Support for Research Infrastructure	UNSW		449959	257833.26
Publications	UNSW			183768
<b>SUB-TOTAL FOR INFRASTRUCTURE</b>		<b>1,524,896</b>	<b>1,789,864</b>	<b>1,524,896</b>

<b>GRAND TOTAL OF RESEARCH AWARDS TO NDARC</b>		<b>50,890,101</b>	<b>12,607,436</b>	<b>13,145,212</b>
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# RESEARCH GRANTS AND FUNDING

COMPLETED PROJECTS	FUNDING SOURCE	TOTAL AWARD (\$)		EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Old centre core funding	AGDHA	8,149,235	5.5 years	-23,777	-5,219
Schedule 4 - Fetal alcohol spectrum disorder monograph	AGDHA	5,818	1 year	1595	427
Schedule 5 - CLIMATE Schools ecstasy module - the development and evaluation of an interactive computer based prevention program for ecstasy	AGDHA	187,614	2 years	148617	1
Schedule 11 - Illicit drugs and the media	AGDHA	149,473	2 years	116469	0
Schedule 12 - Ecstasy use among young women in Australia	AGDHA	49,624	2 years	39944	9681
Economic evaluation - harm reduction	NHMRC	568,500	3 years	39250	4234
Dept of Health Victoria-Victorian Pharmacotherapy review	VICDHS	86,340	1 year	15572	70768
Schedule 13 - National comorbidity guidelines reprint and distribution	AGDHA	60,071	1 year	60071	0
Schedule 14 - Information booklet for substance users	AGDHA	135,812	2 years	72	137711
Use of IT system for indigenous health practitioners	AIATSIS	26,299	1 year	6202	1299
Community pharmacy participation in the NSW Opioid Treatment Program (OPT)	HAC	21,000	1 year	0	21000
United Nations Office on Drugs	UNODC	35,752	2 years	3802	0
Development of Guidelines: Drug Detoxification and Drug Treatment in Areas of High Prevalence or Risk	WHO	186,000	2 years	13266	0
Illicit Drug Reporting System (IDRS)	AGDHA	735,025	4 years	-16805	0
Monitoring party drug markets in Australia (EDRS)	AGDHA	1,417,582	5 years	-39720	0
Reckitt Benckiser	RECKITT BENCKISER	0	2 years	0	-20938
Capacity Building of local organisation in Myanmar	UNODC	67,820	1 year	54083	9575
Evaluation of the MDECC parents' prepared program	MDECC	34,722	3 years	0	0
Using population health data to improve health services, policy and planning	NHMRC	497,367	5 years	0	0
Longitudinal treatment outcomes for methamphetamine dependence: a treatment cohort study	NHMRC	720,500	4 years	620	0
An empirical investigation of psychosis proneness in amphetamine users	NHMRC (via GU)	160,750	3 years	0	0
CLIMATE Schools: psychostimulant and cannabis module	AGDHA	250,046	3 years	-936	0
Illicit drug use in Australia-epidemiology, use patterns and associated harm	AGDHA	23,400		0	0
Development of clinical guidelines for the management of cannabis use disorder	AGDHA	238,631	2 years	-17129	0
Review of literature on the secondary supply of alcohol to minors	AGDHA	36,140		0	0
Fear, sadness and alcohol use in adolescence: a test of new curriculum models to prevent adverse outcomes	ARC	270,000	3 years	-6042	0
Development and evaluation of specialist services for female drug users in Iran	DROSOS	277,778	2 years	-1136	0
Integrating treatment for alcohol use problems and comorbid PTSD	NHMRC	651,725	3 years	58025	1501
Comparative rates of violent crime amongst methamphetamine and opioid users	NDLERF	194,051	3 years	-6841	0
Longitudinal study of opioid maintenance treatment in NSW: mortality among opioid dependent persons in pharmacotherapy 1985-2006	NHMRC	144,500	2 years	21403	0
Investigating the availability and nature of hepatitis C antiviral therapy in NSW, particularly for illicit drug users	SCHER	6,097		0	0

# RESEARCH GRANTS AND FUNDING

COMPLETED PROJECTS	FUNDING SOURCE	TOTAL AWARD (\$)		EXPENDITURE 2010 (\$)	EXPENDITURE 2011 (\$)
Secretariat for the United Nations Reference Group on HIV/AIDS and injecting drug use	UNOV	592,593	3 years	45,500	0
Developing a model to assess the economic consequences of cannabis policy options	ARC	244,310	3 years	97606	0
Using epidemiology to inform psychiatric classification	NHMRC	363,300	3 years	120936	9268
Enhancing the management of alcohol-related problems among Indigenous Australians	AGDHA	142,295	2 years	18103	0
Alcohol use in pregnancy	HAC	99,710	2 years	-2542	0
Athletes and illicit drug use	AGDHA	240,454	2 years	331981	14957
The long-term impact of methadone maintenance treatment on criminal behaviour and imprisonment	NDLERF	54,353	2 years	30123	7
Building capacity in health economic evaluation	NHMRC	1,502,000	4 years	101207	36396
Fetal alcohol spectrum disorder monograph	DASSA	12,430	2 years	0	0
Improving hepatitis C and methadone treatment services	NSW Health	57,837	1 year	19259	0
Second national survey of mental health and wellbeing	AGDHA	220,480	2 years	158607	0
CBT intervention for regular amphetamine use and depression: a stepped care approach	HAC (via UNEWC)	18,000	1 year	0	0
Suicide risk assessment and intervention strategies: current practice among drug and alcohol treatment providers	AGDHA	160,042	2 years	39191	0
The range and magnitude of alcohol's harm to others	AERF	94,174	2 years	85106	409
Cannabis Cohort Research Consortium: fostering collaborative partnerships to investigate the causes and consequences of cannabis and other drug use	ARACY	43,667	1 year	26007	-5458
Comorbidity Stage 1 and 2 - pilot, print and disseminate the National Comorbidity Guidelines	AGDHA	203,238	2 years	87310	0
Secretariat for the United Nations Reference Group on HIV/AIDS and injecting drug use, particularly in developing and transitional countries	UNODC	149,996	2 years	140326	19880
Alcohol action in rural communities (NHMRC Newcastle)	NHMRC (via UNEWC)	126,000	3 years		0
Improving shared care hepatitis C antiviral and methadone services	SWSAHS	92,565	3 years	39877	0
Development of a sexual health and contraception intervention for women who are drug dependent	NSW Health	19,000	1 year	16223	-1607
Reducing alcohol-related harm in rural Aboriginal communities	NHMRC	259,000	4 years	47663	405
Child protection and mothers in substance abuse treatment - Fellowship	DOCS	201,000	3 years	59984	8603
Adolescents & substance abuse	NDARC	23,012		23,012	0
<b>TOTAL COMPLETED PROJECTS</b>		<b>20,307,128</b>		<b>1,952,084</b>	<b>312,901</b>
<b>TOTAL CURRENT AND COMPLETED PROJECTS</b>		<b>71,197,229</b>		<b>14,559,520</b>	<b>13,458,113</b>

# NDARC SEMINAR SERIES

## External presenters

### February 10

*The neurobiology of the stress/addiction relationship*

Professor Kathleen Brady (Director, Clinical Neuroscience Division, Medical University of South Carolina)

### March 15

*Outpatient clinical trials of medications to treat drug use disorders*

Professor Eric Strain (Editor-in-Chief, *Drug and Alcohol Dependence*, and Medical Director, Behavioral Pharmacology Research Unit, John Hopkins Bayview Medical Center)

### March 24

*Social cognition and acquired brain damage*

Professor Skye McDonald (School of Psychology, UNSW)

### March 31

*Prevalence and patterns of alcohol and drug use in the UK*

Dr Gillian Smith (Nottingham Trent University, UK)

### April 28

*Drug use amongst prisoners*

Dr Stuart Kinner (Macfarlane Burnet Institute for Medical Research and Public Health)

### May 5

*Human ethics: Traps for the unwary*

Margaret Wright (Manager, Ethics Secretariat, UNSW)

### May 26

*Hepatitis B and IDU: The forgotten epidemic*

A/Prof. Carolyn Day (Senior Lecturer, Addiction Medicine, University of Sydney)

### July 21

*What happens in non-government drug and alcohol treatment: Practice to research opportunities*

Dr Julaine Allan (Senior Research Fellow, Lyndon Drug and Alcohol Community, Orange)

### August 25

*Early life predictors of childhood development and academic functioning: A NSW population cohort study using record linkage*

Dr Elizabeth Moore (Postdoctoral Research Fellow, School of Psychiatry, UNSW)

### September 22

*Homelessness amongst needle and syringe program clients*

Dr Libby Topp (Senior Lecturer, Kirby Institute for infection and immunity in society, UNSW)

### October 18

*Emerging drugs in Ireland*

Dr Chris Luke (Consultant, Cork University Hospital)

### October 21

*In randomisation we trust? Overlooked issues in the design and conduct of behaviour change trials*

Dr Jim McCambridge (Senior Lecturer, London School of Hygiene & Tropical Medicine)

### October 27

*What works in reducing violence in the night-time economy: Recent findings from a multi-site project*

Dr Peter Miller (Howard Florey Fellow, School of Psychology, Deakin University)

### November 10

*Characteristics of influential public health researchers in Australia*

Professor Simon Chapman (School of Public Health, University of Sydney)

### November 24

*The introduction of RBT in NSW: A politician's perspective*

Kevin Rozzoli (Immediate past Chair, NDARC Advisory Board)

### November 30

*Treatment and care for ageing drug users in Europe*

Dr Alessandro Pirona (European Monitoring Centre for Drugs and Drug Addiction)

## In-house presenters

### February 17

*The older heroin user: The forties and beyond*

Professor Shane Darke

### February 24

*The effects of substance use on athletic performance: A systematic literature review*

Dr Matthew Dunn

### March 3

*The treatment system: How is it structured and what works?*

Professor Shane Darke

### March 10

*Methamphetamine: Epidemiology, psychosis and treatment outcomes*

Dr Rebecca McKetin

### March 17

*Development of the Cannabis Withdrawal Scale reveals patterns and predictors of cannabis withdrawal*

Dr David Allsop

### April 14

*Family-based intervention to reduce alcohol-related harms among Indigenous Australians: The process of consultation with communities*

Bianca Calabria

### April 21

*The diagnosis of alcohol use disorders in young adults: "Youthful epidemic" or a case of measurement error?*

Dr Tim Slade

### May 12

*Cannabis policy and public opinion in Australia*

Dr Francis Matthew-Simmons

### May 19

*Precursors and consequences: Suicidality and substance use*

Amy Johnston

### June 9

*Cannabis facts: Clearing the smoke*

Annie Bleeker and Karina Hickey

### June 16

*Ecstasy and related drug users: What do they want and need to know?*

Janneke Rijnart (international student placement)

### June 23

*Ecstasy policy*

Annette Keates (international student placement)

### June 30

*Minimum pricing of alcohol: Hard to swallow or easy to take?*

Dr Natacha Carragher

### July 14

*Voices in drug policy: Analysing the Australian drug policy landscape*

Kari Lancaster

### August 4

*Analysing the National Household Survey: Traps for the unwary*

Amanda Roxburgh

### August 4

*General Practitioners and cannabis treatment seeking*

Peter Gates

### August 11

*Remission from PTSD in the population*

Dr Catherine Chapman

### August 18

*The Suicide Assessment Kit*

Dr Joanne Ross

### August 25

*Intangible costs of alcohol harm to others*

Ansari Abudeen

### September 8

*Substance use, mental health and involvement with the criminal justice system in men who are homeless in Sydney*

Bridget Spicer

### September 15

*The road to heroin: Childhood and adolescent antecedents*

Professor Shane Darke

### October 6

*Economic evaluation: An introduction for researchers and practitioners*

Dr Marian Shanahan

### October 13

*Regulating volatile substance misuse: Responding to misuse in the Alice Springs town camp*

Dr Christina Marel

### October 20

*Supply, demand and harm reduction strategies in Australian prisons*

Ana Rodas

*Caught red-eyed and red-handed. A qualitative study of the social and environmental influences that contribute to first cannabis use and first criminal offence among at-risk young people in Sydney*

Melanie Simpson

# PUBLICATIONS

## NDARC Monograph

**63. Shakeshaft, A. P., Love, S., & Wood, E.** (2011). *Alcohol-related crime in City of Sydney local government area: An analysis for the Council of the City of Sydney*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

## NDARC Technical Reports

**317. Breen, C. L., Shakeshaft, A. P., Slade, T. N., D'Este, C., & Mattick, R. P.** (2011). *Alcohol-related crime: Finding a suitable measure for community-level analyses using routinely collected data*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**318. Campbell, G., Stubbley, C., Darke, S., Popple, G.** (2011). *WHOS RTOD - Residential Treatment for Opioid Dependence Stabilisation Program*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**320. Taplin, S., & Mattick, R. P.** (2011). *Child protection and mothers in substance abuse treatment*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

## NCPIC Technical Reports

**2. Norberg, M. M., Battisti, R.A., Olivier, J., Copeland, J., Hermens, D. F. & Hickie, I. B.** (2011). *A brief intervention for help-seeking young adult and adolescent cannabis users with psychiatric comorbidity findings and treatment manual*. Sydney, NSW: National Cannabis Prevention and Information Centre, University of New South Wales.

## Australian Drug Trends Series

**55. Stafford, J., & Burns, L. A.** (2011). *Australian Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**56. Phillips, B., & Burns, L. A.** (2011). *NSW Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**57. Spicer, B., Arora, S., & Burns, L. A.** (2011). *ACT Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**58. Reddel, S. E., Horyniak, D., Dietze, P., & McElwee, P.** (2011). *Victorian Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**59. de Graaff, B., & Bruno, R.** (2011). *Tasmanian Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**60. Heese, K., & Burns, L. A.** (2011). *SA Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**61. Rainsford, C., & Lenton, S.** (2011). *WA Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**62. Rysavy, P., & Moon, C.** (2011). *NT Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**63. McIlwraith, F., Hickey, S., & Alati, R.** (2011). *Queensland Drug Trends 2010: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**64. Sindicich, N., & Burns, L. A.** (2011). *Australian Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**65. Scott, L., & Burns, L. A.** (2011). *NSW Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**66. Arora, S., & Burns, L. A.** (2011). *ACT Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**67. Feigin, A., Dietze, P., & Lloyd, B.** (2011). *Victorian Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**68. Matthews, A., & Bruno, R.** (2011). *Tasmanian Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**69. Heese, K., & Burns, L. A.** (2011). *SA Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drug Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**70. Miller, J., Rainsford, C., & Lenton, S.** (2011). *WA Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**71. Phillips, B., & Burns, L. A.** (2011). *NT Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

**72. Hickey, S., McIlwraith, F., & Alati, R.** (2011). *Queensland Trends in Ecstasy and Related Drug Markets 2010: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

## National Cannabis Prevention and Information Centre (NCPIC)

**Michalopoulos, A., Soames, G., Howard, J., & National Cannabis Prevention and Information Centre, & Youth off the Streets.** (2011). *Clear your vision: Groupwork program: Facilitator's manual*. Sydney, NSW: National Cannabis Prevention and Information Centre, University of New South Wales.

**National Cannabis Prevention and Information Centre.** (2011). *Cannabis facts: Clearing the smoke*. Sydney, NSW: National Cannabis Prevention and Information Centre (NCPIC), University of New South Wales.

**National Cannabis Prevention and Information Centre, & Youth off the Streets.** (2011). *Clear your vision: a do-it-yourself guide to quitting cannabis: [booklet]*. Sydney, NSW: National Cannabis Prevention and Information Centre, University of New South Wales.

**Norberg, M. M., & Copeland, J.** (2011). *Quitting cannabis in 8 days: self-guided manual*. Sydney, NSW: National Cannabis Prevention and Information Centre (NCPIC), University of New South Wales.

## Drug Policy Modelling Program (DPMP) Monographs

**21. Ritter, A., Lancaster, K., Grech, K., & Reuter, P.** (2011). *An assessment of illicit drug policy in Australia (1985 to 2010): Themes and trends*. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.

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- Mills, K. L., Marel, C., Baker, A. L., Teesson, M., Dore, G., Kay-Lambkin, F. J., Manns, L., & Trimmingham, T.** (2011). *Psychosis and substance use* [Substance use booklets]. Sydney, NSW: National Drug and Alcohol Research Centre, University of New South Wales.
- Phillips, B., & Burns, L. A.** (2011). Eleven years of cocaine trends among people who inject drugs in Sydney: Price, purity and availability 2000-2010. *Drug Trends Bulletin*, April, 1-4.
- Roberts, A., Vogl, L., Liang, W., & Horvath, J.** (2011). *Travelling together: A comprehensive treatment program for families of young offenders*. Sydney, NSW: National Drug and Alcohol Research Centre, NDARC Education Trust, University of New South Wales.
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- Scott, L. A., & Burns, L. A.** (2011). Has ecstasy peaked? A look at the Australian ecstasy market over the past eight years. *EDRS Drug Trends Bulletin*, April, 1-6.
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- Sindicich, N., Scott, L., Keates, A., Rijnart, J., & Burns, L. A.** (2011). What consumers are using now: which drug is on top? Feasibility study of regular stimulant users. *EDRS Drug Trends Bulletin*, December, 1-6.
- Slade, T. N.** (2011). Estimating trends in the prevalence of drug use over time amongst regular injecting drug users. *Drug Trends Bulletin*, April (Supplement), 1-11.
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- Stafford, J., & Burns, L. A.** (2011). Key findings from the 2011 IDRS: a survey of people who inject drugs. *Drug Trends Bulletin*, October, 1-5.
- Sutherland, R., & Burns, L. A.** (2011). Driving behaviours among people who inject drugs in South Australia, 2006-2011. *Drug Trends Bulletin*, December, 1-6.
- Vogl, L., Roberts, A., Liang, W., & Horvath, J.** (2011). *X-roads: The drug and crime treatment program for young offenders*. Sydney, NSW: National Drug and Alcohol Research Centre, NDARC Education Trust, University of New South Wales.

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- Murphy, J., Murray, S., Chalmers, J. J., Martin, S., & Marston, G.** (2011) *Half a citizen*. Sydney, NSW: Allen & Unwin.

## Book Chapters

- Cortoni, F., Anderson, D., & Bright, D. A.** (2011). Locus of control, coping and sexual offenders. In B. K. Schwartz (Ed.), *Handbook of Sex Offender Treatment* (Ch 14). Kingston, NJ: Civic Research Institute.

**Grisham, J. R., Norberg, M. M., & Certoma, S. P.** (2011) Treatment of compulsive hoarding. In G. Steketee (Ed.), *The Oxford Handbook of Obsessive Compulsive and Spectrum Disorders* (pp. 422-435). New York, NY: Oxford University Press.

**Hughes, C. E.** (2011). Portugal. In M. A. R. Kleiman & J. E. Hawdon (Eds.), *Encyclopedia of Drug Policy* (Vol. 2, pp. 658-659). Thousand Oaks, CA: SAGE Publications.

**Newton, N. C., O'Leary-Barrett, M., & Conrod, P. J.** (2011). Adolescent substance misuse: Neurobiology and evidence-based interventions. In Geyer, M. A., Ellenbroek, B. A., Marsden, C. A. (ed.), *Current Topics in Behavioral Neurosciences: Advance online publication* (pp. 1-24). Berlin: Springer-Verlag.

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## Journal Articles

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- Ali, H., & Howard, J.** (2011). Prevalence of injecting drug use among youth in the Pacific island countries and territories: what is the evidence? [Letter to the Editor]. *Asia-Pacific Journal of Public Health*, 23(1), 112-114.
- Allsop, D. J., Norberg, M. M., Copeland, J., Fu, S., & Budney, A. J.** (2011). The Cannabis Withdrawal Scale development: Patterns and predictors of cannabis withdrawal and distress. *Drug and Alcohol Dependence*, 119(1-2), 123-129.
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- Barrett, E. L., Mills, K. L., & Teesson, M.** (2011). Hurt people who hurt people: Violence amongst individuals with comorbid substance use disorder and post traumatic stress disorder. *Addictive Behaviors*, 36(7), 721-728.
- Berridge, B. J., Hall, K., Dillon, P., Hides, L., & Lubman, D. I.** (2011). MAKINGtheLINK: a school-based health promotion programme to increase help-seeking for cannabis and mental health issues among adolescents. *Early Intervention in Psychiatry*, 5(1), 81-88.
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# CONFERENCE PRESENTATIONS

**Allsop, D., Norberg, M., Fu, S., Budney, A., Copeland, J., & Howard, J.\*** *The Cannabis Withdrawal Scale Development: Patterns and predictors of cannabis withdrawal and associated distress.* Presented at the Drug and Alcohol Nurses of Australasia (DANA) Conference, Melbourne, 15-17 June.

**Allsop, D., Gates, P., & Rooke, S.\*** *From cannabis problems to treatment delivery: Issues and recommendations.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Allsop, D.\*, Norberg, M., Copeland, J., Fu, S., & Budney, A.** *The Cannabis Withdrawal Scale development: Patterns and predictors of cannabis withdrawal and associated distress.* Poster presented at the National Institute on Drug Abuse (NIDA) International Forum, Hollywood, USA, 17-20 June.

**Allsop, D.\*, Norberg, M., Copeland, J., Fu, S., & Budney, A.** *The Cannabis Withdrawal Scale development: Patterns and predictors of cannabis withdrawal and associated distress.* Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD), Hollywood (FL), 18-23 June.

**Alperstein, D.\*, Matalon, E., & Copeland, J.** *Train the Trainer: A sustainable model of disseminating evidence based practice?* Presented at the 14th NSW Rural Mental Health Conference, Coffs Harbour, 22-24 June.

**Alperstein, D.\*, Matalon, E., & Copeland, J.** *Train the Trainer: A sustainable model of disseminating evidence based practice?* Presented at the Australian and New Zealand Mental Health Association, 12th International Mental Health Conference, Gold Coast, 24-26 August.

**Alperstein, D.\*, Matalon, E., & Copeland, J.** *Train the Trainer: A sustainable model of disseminating evidence based practice?* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Alperstein, D.\*, Matalon, E., & Copeland, J.** *Train the Trainer: A sustainable model of disseminating evidence based practice?* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Arora, S.\*** *Over the counter codeine use by people who inject drugs regularly in Australia.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Arora, S.\* & Burns, L.** *Alcohol use disorders, psychological distress and risky behaviours amongst a group of poly-drug users.* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Arora, S.\*, Cassar, J., de Graff, B., Phillips, B., Bruno, R., Neilsen, S., & Burns L.** *Over the counter codeine use by people who inject drugs regularly in Australia.* ACT Alcohol, Tobacco and Other Drug Sector: 4th Annual Conference, Canberra, 23 June.

**Arora, S.\*, Roxburgh, A., Bruno, R., Neilsen, S., & Burns, L.** *The use of over the counter codeine by people who inject drugs regularly in Australia.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Arora, S.\*, Scott, L., Sindicich, N., & Burns, L.** *How illicit drug monitoring can contribute to drug policy.* Presented at the Emerging Health Policy Research Conference, Menzies Centre for Health Policy, Sydney, 17 August.

**Arora, S.\*, Sindicich, N., & Burns, L.** *What's behind the common risk-taking practices and help-seeking behaviours of regular ecstasy users?* Presented at Young People, Risk and Resilience: The Challenges of Alcohol, Drugs and Violence Conference, Melbourne, 7-8 March.

**Barrett, E.\*, Mills, K., Indig, D., Sunjic, S., Sannibale, C., & Najavits, L.** *Breaking the chain: Treating substance use and trauma among prisoners.* Presented at The Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Barrett, E.\*, Mills, K., & Teesson, M.** *The perpetration of violent crime among substance users with PTSD: A longitudinal investigation.* Presented at the Australian Psychological Society (APS) Forensic Psychology National Conference, Noosa, 4-6 August.

**Barrett, E., Mills, K., & Teesson, M.** *Breaking the cycle: Treating substance use and trauma among prisoners.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Barrett, E., Marel, C., Nelson, P., Rodas, A., Simpson, M., Sindicich, N., & Sutherland, R.** *NDARC Crime Research Network: Capitalising on 150 years of criminal justice research experience.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Barrett, E.\*, Mills, K., Indig, D., Sunjic, S., Sannibale, C., & Najavits, L.** *Breaking the cycle: Treating substance use and trauma among prisoners.* Poster presented at the Australian Psychological Society (APS) Forensic Psychology National Conference, Noosa, 4-6 August.

**Black, E., Cohen, M., Murnion, B., Larance, B., Lintzeris, N., Degenhardt, L., & Mattick, R.** *Minimising the unintended consequences of opioid treatment: Development of an Australian Aberrant Drug Behaviour Scale.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Bleeker, A.\*** *Latest evidence based information about cannabis use in Australia - focusing on mental health harms.* Presentation to Grampians Mental Health Conference, Ballarat, 22 March.

**Breen, C.\*** *One size does not fit all. Alcohol use and harm across rural NSW.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Breen, C.\*, Shakeshaft, A., Slade, T., D'Este, C., Mattick, R., & Petrie, D.** *Using routinely collected data to assess alcohol-related harm in a community based RCT.* Presented at the Scottish Health Informatics Programme (SHIP) Conference: Exploiting Existing Data for Health Research, St Andrews, Scotland, 9-11 Sept.

**Breen, C., Shakeshaft, A.\*, Mattick, R., Sanson-Fisher, R., & D'Este, C.** *Identifying community factors associated with risky alcohol consumption and alcohol-related crime in regional NSW.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Bright, D., Greenhill, C., & Levenkova, N.** *Dismantling criminal networks: can node attributes play a role?* Presented at the 3rd Illicit Networks Workshop, Montreal, Canada, 3-4 October.

**Bright, D.\*, & Ritter, A.** *Assessing the rights and rewards of crime: Decision making and deference in drug trafficking offenders.* Poster presented at the 2011 Australian Psychological Society (APS) Forensic Psychology National Conference, Noosa, 4-6 August.

**Burns L.\*** *Alcohol and parenting - what and where is the risk?* Invited presentation to the 37th Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society, Melbourne, 11-15 April.

**Burns, L.\*** *Trends in ecstasy and emerging use of related drugs.* Invited presentation to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) Conference, Lisbon, 11-12 May.

**Burns, L.\*** *Update Australia.* Invited presentation to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) Conference, Lisbon, 11-12 May.

**Burns, L.\*** *Current Issues in Drugs in Pregnancy.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Burns, L.\* & Sindicich N.** *The Australian Drug Market in 2010.* Presented at the 73rd Annual Meeting of The College on Problems of Drug Dependence, Hollywood (FL), 18-23 June.

**Campbell, G., Honan, I., Hutchinson, D., Mattick, R., Allsop, S., Najman, J., Elliott, E., Burns, L., Jacobs, S., Olssen, C. & Bartu, A.** *An examination of lifetime and current illicit substance use in a sample of non-frequent users.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

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- Calabria, B.\*, Clifford, A., Shakeshaft, A., Doran, C., Allan, J., Rose, M., Tsey, K., & MacQueen, R.** *A family based approach to reducing alcohol-related harms among Aboriginal Australians in rural New South Wales.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Calabria, B.\*, Clifford, A., Shakeshaft, A., Doran, C., Allan, J., Rose, M., Tsey, K., & MacQueen, R.** *The acceptability of a family based alcohol intervention to Indigenous clients of a rural Aboriginal Community Controlled Health Service and Drug and Alcohol Treatment Agency.* Presented at the School of Population Health and Community Medicine's 2011 Annual Research Symposium on Advances in Public Health and Health Services Research, Sydney, 5 August.
- Calabria, B.\*, Clifford, A., Shakeshaft, A., Doran, C., Allan, J., Rose, M., Tsey, K., & MacQueen, R.** *The acceptability of a family based alcohol intervention to Indigenous clients of a rural Aboriginal Community Controlled Health Service and Drug and Alcohol Treatment Agency.* Presented at the Coalition for Research to Improve Aboriginal Health (CRIA), 3rd Aboriginal Health Research Conference, Sydney, 5-6 May.
- Calabria, B.\*, Clifford, A., Shakeshaft, A., Doran, C., Allan, J., Rose, M., Tsey, K., & MacQueen, R.** *The acceptability of a family based alcohol intervention to Indigenous clients of a rural Aboriginal Community Controlled Health Service and Drug and Alcohol Treatment Agency.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Carragher, N., Weinstock, L., & Strong, D.** *Item response theory analysis of the diagnostic criteria for mania: Findings from the 2007 Australian National Survey of Mental Health and Well-Being.* Poster presented at the Society for Research in Psychopathology (SRP), Boston, USA, 22-25 September.
- Carragher, N., Weinstock, L., & Strong, D.\*** *A psychometric evaluation of the DSM-IV diagnostic criteria for mania: Results from a nationally representative survey of the Australian population.* Presented at the Annual Conference of the Australasian Society for Psychiatric Research (ASPR), Dunedin, New Zealand, 5-8 December.
- Carragher, N.\*, & Chalmers J.** *Which way forward? Weighing up the evidence base of pricing and taxation levers to redress alcohol-related harms in Australia.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Carragher, N.\*, Weinstock, L., Strong, D.** *Item response theory analysis of the diagnostic criteria for mania: Findings from the 2007 Australian National Survey of Mental Health and Well-Being.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Cassar, J., Bleeker, A.\*, Campbell, G., Hutchinson, D., Dewberry, L., Gomez, M., Honan, I., Bucello, C., Mattick, R., Allsop, S., Najman, J., Elliott, E., Burns, L., Jacobs, S., Olssen, C., & Bartu, A.** *The association between maternal and partner drug and alcohol use during pregnancy in a longitudinal birth cohort of Australian families.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.
- Cassar, J., Burns, L.\*, Arora, S., De Graaff, B., Phillips, B., Bruno, R., & Neilsen, S.** *Use of over the counter codeine in Australia.* Presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence, Hollywood (FL), 18-23 June.
- Chapman, C.\*, Mills, K., Slade, T., McFarlane, A., Bryant, R., Creamer, M., Silove, D., & Teesson, M.** *Remission from Post-traumatic Stress Disorder in the Australian population.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Chapman, C.\*, Mills, K., Slade, T., McFarlane, A., Bryant, R., Creamer, M., Silove, D., & Teesson, M.** *Factors associated with remission from PTSD in the population.* Presented at The Mental Health Services Conference of Australia and New Zealand, Adelaide, 7-9 September.
- Chapman, C.\*, Mills, K., Slade, T., McFarlane, A., Bryant, R., Creamer, M., Silove, D., & Teesson, M.** *Factors associated with remission from PTSD in the population.* Presented at the 34th National Australian Association for Cognitive and Behaviour Therapy (AACBT) Conference, Sydney, 26-30 October.
- Chapman, C.\*, Mills, K., Slade, T., McFarlane, A., Bryant, R., Creamer, M., Silove, D., & Teesson, M.** *Remission from Post-traumatic Stress Disorder in the general population.* Presented at the Annual Conference of the Australasian Society for Psychiatric Research (ASPR), Dunedin, NZ, 5-8 December.
- Copeland, J.\*** *Cannabis + tobacco use: The null hypothesis & intervention approaches.* Invited presentation to the Australian Association of Smoking Cessation Professionals, Sydney, 29 November.
- Copeland, J.\*** *Cannabis and Sport Don't Mix: A community based prevention project.* The 8th Australian & New Zealand Adolescent Youth Health Conference, Sydney, 10 November.
- Copeland, J.\*** *Preventing criminal justice outcomes associated with the use of cannabis.* Young People, Risk and Resilience: The Challenges of Alcohol, Drugs and Violence, Melbourne, 8 March.
- Copeland, J.\*, Wright, T., Norberg, M. & Hickey, K.** *A pilot study of a postal treatment for cannabis dependence.* 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD), Hollywood (FL), 23 June.
- Darke, S.\*** *The ageing heroin user: Clinical and policy implications.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Deady, M.\*, & Teesson, M.** *Affective and anxiety disorders and their relationship with chronic physical conditions in Australia: Findings of the 2007 National Survey of Mental Health and Wellbeing.* Presented at the 34th National Australian Association for Cognitive and Behaviour Therapy (AACBT) Conference, Sydney, 26-30 October.
- Dewberry, L., Cassar, J., Bucello, C., Hutchinson, D., Campbell, G., Honan, I., Mattick, R., Allsop, S., Najman, J., Elliott, E., Burns, L., Jacobs, S., Olssen, C. & Bartu, A.** *Parental Alcohol Use, Relationship Quality and Spousal Abuse During Pregnancy.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Dewberry, L.\*, Bucello, C., Cassar, J., Campbell, G., Hutchinson, D., Gomez, M., Honan, I., Mattick, R., Allsop, S., Najman, J., Elliott, E., Burns, L., Jacobs, S., Olssen, C., & Bartu, A.** *The relationship between current stress indices and maternal alcohol and other drug use during pregnancy.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.
- Dolan, K.\*, & Ayyaz, Z.** *"HIV what's that?" Disaster in the making as IDUs routinely share syringes and HIV on the streets of Bahawalpur, Pakistan.* Poster presented at the 23rd Australasian HIV/AIDS Conference for the Australasian Society for HIV Medicine (ASHM), Canberra, 26-28 September.
- Dolan, K.\*, Salimi, S., Nassirimesh, B., Mohsenifar, S., Allsop, D., & Mokri, A.** *A women's drug clinic in Iran: Improvements in drug use, social functioning and low HIV / HCV seroincidence.* Presented at the Public Health Forum at the University of New South Wales, 5 August.
- Dolan, K.\*, Larney, S., & Wodak, A.** *Randomly allocating inmates to methadone: Where are they now?* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.
- Dolan, K.\*** *Sexual behaviour of female drug users in Iran.* Keynote address at Iran's Congress on Social and Environmental Aspects of Reproductive Health, Tehran, Iran, 17 February.
- Ewer, P.\*** *A brief intervention for alcohol and other drug users who have experienced trauma.* Presented to the Network of Alcohol

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and other Drug Agencies (NADA) forum, Sydney, 5-6 December.

**Ewer, P.\*** *A brief intervention for alcohol and other drug users who have experienced trauma.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Ewer, P.\*** *Secondary stress among AOD workers in Australia.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Farrell, M.\*** *Treatment Journey: An overview of issues, trends in Europe and Australia.* Australasian Therapeutic Communities Association Conference at Curtin University, Perth, 1-2 June.

**Farrell, M.\*** *Risks in and after prison: An overview of drugs in prison.* Presented at the National Drug and Alcohol Research Centre Annual Symposium, Sydney, 30 August 2011.

**Farrell, M.\*** *Psychostimulant morbidity and substance use in prisons and beyond.* The Mental Health Services Conference Inc, Adelaide, 6 September.

**Farrell, M.\*** *Treatment options: agonist replacement and antagonist relapse prevention - not only for opioid dependency?* Presented at the 13th Annual Meeting of the International Society of Addiction Medicine, Norwegian Centre for Addiction Research, Oslo, Norway, 10 September.

**Farrell, M.\*** *Treatment options: Agonist replacement and antagonist relapse prevention - not only for Opioid Dependence?* Presented at the Australasian Professional Society on Alcohol and other Drugs Conference, Hobart, 13-16 November.

**Gates, P.\*, Copeland, J., & Norberg, M.** *Randomised controlled trial of a brief cannabis intervention delivered by telephone.* Presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD), Hollywood (FL), 18-23 June.

**Gates, P.\*, Copeland, J., Norberg, M., & Digiusto, E.** *Randomised controlled trial of a brief cannabis intervention delivered by telephone.* Poster presented at the Advances in Public Health and Health Services Research at UNSW Research Symposium, 5 August.

**Gates, P.\* & Norberg, M.** *General Practitioners and Cannabis Treatment Seeking.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Goodsell, S.\*, Conroy, E., Burns, L., & Flatau, P.** *Patterns of substance use and comorbid mental disorder among homeless men in Sydney: Outcomes from the Michael Project Evaluation.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Goodsell, S.\* & Burns, L.** *Guidelines for managing substance use in pregnancy: Where to now?* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Gumbert, T.\*, Campbell, G., Honan, I., Hutchinson, D., Dewberry, L., Cassar, J., Bucello, C., Gomez, M., Mattick, R., Allsop, S., Najman, J., Elliott, E., Burns, L., Jacobs, S., Olssen, C., & Bartu, A.** *A detailed study of no, low, moderate and high maternal drug and alcohol use during pregnancy.* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Howard, J.\*, de Kort, G., Pandey, B., Joshi, S., Kaplan, K., Suwannawong, P., Jian, L., & Zhang, C.** *"Opening Doors" - delivering youth friendly harm reduction in Asia.* Presented at the International Conference on Education and Social Integration of Vulnerable Groups, University of Macedonia, Thessaloniki, Greece, 24-26 June.

**Howard, J.\*, de Kort, G., Pandey, B., Joshi, S., Kaplan, K., Suwannawong, P., Jian, L., & Zhang, C.** *"Opening Doors" - delivering youth friendly harm reduction in Asia.* Presented at the 22nd International Conference on the Reduction of Drug Related Harm, Beirut, 3-8 April.

**Howard, J.\*, de Kort, G., Pandey, B., Joshi, S., Kaplan, K., Suwannawong, P., Jian, L., & Zhang, C.** *"Opening Doors" - a participatory approach to increasing access to and participation in youth friendly harm reduction.* Presented at the Australian Drug Foundation's 6th International Drugs and Young People Conference, Melbourne, 2-4 May.

**Howard, J.\* & Ali, H.** *Alcohol, Cannabis, ATS and IDU among young Pacific Islanders.* Presented at the Australian Drug Foundation's 6th International Drugs and Young People Conference, Melbourne, 2-4 May.

**Howard, J.\* & Chenoweth, C.** *Cannabis - it's not our culture.* Presented at the Australian Drug Foundation's 6th International Drugs and Young People Conference, Melbourne, 2-4 May.

**Howard, J.\* & Roncarati, M.** *Building capacity for community-based treatment for young drug users in the greater Mekong sub-region.* Presented at the International Conference on Education and Social Integration of Vulnerable Groups, University of Macedonia, Thessaloniki, Greece, 24-26 June.

**Howard, J.\*** *Evidence-based approaches to youth substance use: A brief intervention for cannabis use to increase the capacity of those who work with young cannabis users to engage and enhance motivation for change.* Plenary presentation to School Nurses International, 16th Biennial Conference, Hong Kong, 25-29 July.

**Howard, J.\* & de Kort, G.** *"Opening Doors" - A participatory approach to increasing access to and participation in youth friendly harm*

*reduction in Asia - any lessons for Australia.* Presented at the NSW Needle and Syringe Program (NSP) Workers Forum, Sydney, 17-18 October.

**Howard, J.\*, Chenoweth, C., & Dillon, P.** *Cannabis - not our culture.* Presented at the 8th Australian and New Zealand Adolescent Health Conference, Sydney, 9-11 November.

**Howard, J.\*, de Kort, G., Pandey, B., Joshi, S., Kaplan, K., Suwannawong, P., Jian, L., & Zhang, C.** *"Opening Doors" - engaging with young people to deliver youth friendly harm reduction.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Howard, J.\*, Kwong, A., Arcuri, A., Copeland, J.** *Self-managed change from problematic cannabis use.* Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD) & NIDA International Forum, Hollywood (FL), 18-25 June.

**Hughes, C.\* & Ritter, A.** *Reducing the harm from drug trafficking thresholds.* Presented at the 5th Annual Conference of the International Society for the Study of Drug Policy (ISSDP), Utrecht, 23-24 May.

**Hughes, C.\*, Lancaster, K., Spicer, B., Matthew-Simmons, F., & Dillon, P.** *Read all about it: The impact of news media on Australian youth attitudes to drugs.* Presented at the 6th International Drugs and Young People Conference, Melbourne, 2-4 May.

**Hughes, C.\*** *Diversion of drug offenders in Australia: Towards optimal system design.* Keynote address to the ACT Alcohol, Tobacco and Other Drug Sector: 4th Annual Conference, National Library of Australia, Canberra, 23 June.

**Hughes, C.\*** *Decriminalising illicit drug use in Portugal: Impacts on prevalence and patterns of illicit drug use.* Presented at the School of Public Health and Community Medicine 2011 Annual Research Symposium, University of New South Wales, Sydney, 5 August.

**Hughes, C.\*** *What can we learn from the Portuguese decriminalisation of illicit drugs?* Keynote address (remote) at the Quebec National Institute of Public Health Symposium on Public Policies related to Psychoactive Substances, Quebec, Canada, 28 September.

**Hughes, C., & Ritter, A.** *Reducing the harm from drug trafficking thresholds.* Presented at the 24th Annual Australian and New Zealand Society of Criminology Conference, Geelong, Victoria, 28-30 September.

**Hughes, C.\*** *The Portuguese Decriminalisation Model in Global Context.* Presented to the 2011 International Drug Policy Reform Conference, LA, USA, 2-5 November.

**Hutchinson, D.\*, Maloney, E., Mattick, R., Allsop, S., Najman, J., Elliott, E., & Burns, L.** *Parental Substance Use during Pregnancy:*

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*Assessing maternal psychosocial characteristics, obstetrics and neonatal outcomes.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Hutchinson, D.\*, Taylor, L., Moore, E., Burns, L., Mattick, R., & Haber, P.** *Parental substance use during pregnancy: Assessing maternal characteristics and infant development.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Jainullabudeen, A.\*** *Intangible costs of victims due to someone else drinking.* Poster presented to the International Health Economics Association 8th World Congress, Toronto, 10-13 July.

**Jainullabudeen, A.\*** *Beating da Binge: community collaboration to reduce harm from young people's binge drinking and what young people said.* Presented to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) National Indigenous Studies Conference, Canberra, 19-22 September.

**Johnston, A.\*, Darke, S., Slade, T. & Ross, J.** *Precursors and consequences: Suicidality and substance use.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Kaye, S.\*** *ADHD and substance use disorders: Challenges for harm minimisation.* Presented at the 3rd International Congress on ADHD, Berlin, Germany, 26-29 May.

**Kaye, S., Darke, S., & Torok, M.** *The diversion and misuse of stimulant medication for ADHD among illicit psychostimulant users.* Poster presented at The Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Lancaster, K.\*, & Ritter, A.** *Voices in drug policy: Analysing the Australian drug policy landscape.* Presented at the Drug Policy Modelling Program (DPMP) Symposium, Sydney, 18 March.

**Lancaster, K.\* & Ritter, A.** *Public opinion and drug policy: Engaging the 'affected community'.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Larance, B.\*** *The diversion and injection of opioid substitution therapy in Australia.* Presented at the 2011 National Drug Trends Conference, Sydney, 17 October.

**Marel, C.\*** *Regulating volatile substance misuse: Responding to substance misuse in the Alice Springs town camp.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Marel, C.\*** *Regulating legal substances: Volatile substance misuse in the Alice Springs town camps.* Poster presented at the National Drug

and Alcohol Research Centre (NDARC) Annual Symposium, 30 August.

**Matalon, E., & Howard, J.\*** *ACCU - The Adolescent Cannabis Check-Up.* Presented at the Drug and Alcohol Nurses of Australasia (DANA) Conference, Melbourne, 15-17 June.

**Matalon, E.\*** *A Brief Intervention for Cannabis.* Presented at the Mental Health Services Conference, Adelaide, September 9.

**Matalon, E.\*** *ACCU - The Adolescent Cannabis Check-Up.* Presented at the 12th International Mental Health Conference, Gold Coast, 26 August.

**Matalon, E.\*** *ACCU - The Adolescent Cannabis Check-Up.* Presented at Youth Health 2011 Sydney, November 10.

**Matalon, E.\*** *Cannabis - everything you need to know.* Presented at the 12th NSW Early Psychosis Forum, Westmead, 6 September.

**Matalon, E.\*** *Could it be cannabis?* Presented at HealthEd Women's and Children's Health Update, Sydney, 19 February; Melbourne, 5 March; Adelaide, 28 May; Brisbane, 30 July; Perth, 6 August; Melbourne, 27 August; Sydney, 10 September.

**Matalon, E.\*** *Guidelines on the management of Cannabis Use Disorder.* Presented at the 12th International Mental Health Conference, Gold Coast, 26 August.

**Matalon, E.\*** *Guidelines on the management of Cannabis Use Disorder.* Presented at the Australian Association for Cognitive and Behaviour Therapy (AACBT) Conference, Sydney, 26 October.

**Matalon, E.\*** *Quitting Cannabis 1-6.* Presented at the College of Mental Health Nurses, Gold Coast, 7 October.

**Matthew-Simmons, F.\*, Ritter, A., & Mills, K.** *A miracle cure? Naltrexone and methadone in the Australian news media.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Mattick, R.\*, Black, E., Larance, B., Degenhardt, L., Lintzeris, N., Bruno, R., Nielsen, S., Murnion, B., Cohen, M., Ali, R., Dunlop, A., & Holland, R.** *Minimising the unintended consequences of opioid treatment: Development of a drug behaviour scale for use in Australia.* Presented at the Australian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**McSweeney, T.\*** *Assessing the impact of a policy for the compulsory testing and assessment of drug-using arrestees on 'related' offending.* Presented at the 5th Annual Conference of the International Society for the Study of Drug Policy (ISSDP), Utrecht, 23-24 May.

**McSweeney, T.\*** *Does an English policy which enables the compulsory testing and assessment of drug misusing arrestees deliver its intended outcomes?* Poster presented at the National Drug

and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Memedovic, S.\*, Slade, T., Teesson, M., Mewton, L., & Krueger, R.** *Are the current DSM-IV diagnostic criteria for alcohol use disorders appropriate for diagnosing young adults?* Presented at the 41st European Association for Behavioural Cognitive Therapies (EABCT) Conference, Reykjavik, 31 August-3 September.

**Memedovic, S., Mewton, L., Slade, T.\*, Teesson, M., & Krueger, R.** *Is the DSM-IV hazardous use criterion for alcohol use disorders understood as intended by young adults?* Poster presented at the Annual Conference of the Australasian Society for Psychiatric Research (ASPR), Dunedin, New Zealand, 6-8 December.

**Memedovic, S., Mewton, L.\*, Slade, T., Teesson, M., & Krueger, R.** *Is the DSM-IV hazardous use criterion for alcohol use disorders understood as intended by young adults?* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Mewton, L.\*, Slade, T., McBride, O., Grove, R., & Teesson, M.** *An evaluation of the proposed DSM-5 alcohol use disorder criteria using Australian national data.* Poster presented at the American Psychiatric Association (APA) 164th Annual Meeting, Hawaii, USA, 14-18 May.

**Mewton, L.\*, Slade, T., McBride, O., Grove, R., & Teesson, M.** *An evaluation of the proposed DSM-5 alcohol use disorder criteria using Australian national data.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Mills, K.\*, Teesson, M., Barrett, E., Merz, S., Rosenfeld, J., Ewer, P., Sannibale, C., Baker, A., Hopwood, S., Back, S., & Brady, K.** *Integrated treatment for substance use and Post-Traumatic Stress Disorder: Predictors of treatment outcome.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Mills, K.\*, Teesson, M., Barrett, E., Merz, S., Rosenfeld, J., Farrugia, P., Sannibale, C., Hopwood, S., Baker, A., Back, S., & Brady, K.** *Prolonged exposure for PTSD among people with substance use disorders.* Presented at the 41st European Association for Behavioural and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Mills, K.\*, Ewer, P., Teesson, M., Kay-Lambkin, F., & Sannibale, C.** *A brief cognitive behavioural intervention for traumatised clients of substance abuse treatment services.* Presented at the 41st European Association for Behavioural and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Mills, K.\*** *Trauma, PTSD and substance use.* Keynote address to Trauma Informed Care and

# CONFERENCE PRESENTATIONS

Practice: Meeting the Challenge Conference, Sydney, 23-24 June.

**Mills, K.\*** *Evidence based treatment for substance use clients with PTSD.* Keynote address to Alcohol, Tobacco and other Drugs Council of Tasmania Comorbidity Symposium, Hobart, 30 May.

**Nelson, P.\*, Toson, B., Swift, W., Kenny, D., & Degenhardt, L.** *Binge drinking and violent recidivism by young offenders.* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Nelson, P.\*, Sindicich, N., Barrett, E., Marek, C., Sutherland, R., Rodas, A., & Simpson, M.** *NDARC Crime Research Network: increasing capacity to undertake drug and alcohol research with offenders and criminal justice agencies.* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Newton, N.\*, Conrod, P., O'Leary-Barrett, M., Mackie, C., Castellanos-Ryan, N., & Topper, L.** *The Adventure Trial: Efficacy of personality-targeted interventions for substance misuse as delivered by educational professionals.* Presented at the 41st European Association for Behavioural and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Newton, N., Teesson, M., Conrod, P., Slade, T., & Andrews, G.** *The CAP intervention: A comprehensive model to substance use prevention.* Poster presented at the 41st European Association for Behavioural and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Newton, N.\*, Teesson, M., Vogl, L., Andrews, G., & Conrod, P.** *Effects of the 'CLIMATE Schools: Alcohol and Cannabis' course in Australia and the UK.* Presented at the 41st European Association for Behavioural and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Norberg, M.\*** *Social anxiety and health risk behaviors in adolescents and college students.* Presented at the Annual Convention of the Association for Behaviour and Cognitive Therapies (ABCT), Toronto, 10-13 November.

**Norberg, M., Perry, U.\* Hides, L., & Copeland, J.** *Therapist adherence and competence in delivering a brief motivational interviewing intervention to ecstasy users.* Presented at the Annual Convention of the Australian Association for Cognitive and Behaviour Therapy (AACBT), Sydney, 26-30 October.

**Perry, U.\*** *Guidelines on the management of Cannabis Use Disorder.* Presented to the Australian Psychological Society (APS) Conference, Canberra, 6 October.

**Phillips, B.\*** *Pharmaceutical opioids and pain (IDRS).* Presented at the 2011 National Drug Trends Conference, Sydney, 17 October.

**Ritter, A.\*** *Making change happen: Slow transitions or sudden transformations.* Keynote addressed to the Victorian Alcohol and Drug Association (VAADA) Conference, Melbourne, 17-18 February.

**Ritter, A.\*** *The role of research evidence in drug policy development in Australia.* Presented at the International Political Science Conference (IPSA) RC32 Conference 'Developing policy in different cultural contexts: learning from study, learning from experience', Dubrovnik, Croatia, 10-12 June.

**Ritter, A.\*, & Chalmers, J.** *The relationship between drug use and the business cycle: Potential implications of the global financial crisis.* Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD), Hollywood (FL), 18-23 June.

**Ritter, A.\*, & Chalmers, J.** *The relationship between drug use and the business cycle: Potential implications of the global financial crisis.* Poster presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Ritter, A.\*** *Translating research findings in the area of injecting drug use.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Rooke, S., Copeland, J., Norberg, M.\*, & McCambridge, J.** *Randomised controlled trial of a web-based intervention for cannabis use.* Presented at the 45th Annual Convention of the Association for Behaviour and Cognitive Therapies (ABCT), Toronto, 10-13 November.

**Rooke, S.\*, Copeland, J., Norberg, M., & McCambridge, J.** *Randomised controlled trial of a web-based intervention for cannabis use.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Rooke, S.\*, Copeland, J., Norberg, M., & McCambridge, J.** *Randomised controlled trial of a web-based intervention for cannabis use.* Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence (CPDD), Hollywood (FL), 18-23 June.

**Rooke, S.\*, Copeland, J., Norberg, M., & McCambridge, J.** *Web-based intervention for cannabis use.* Presented at the 5th meeting of the International Society for Research on Internet Interventions (ISRII), Sydney, 7-8 April.

**Ross, J.\*, Darke, S., & Deady, M.** *The Suicide Assessment Kit (SAK).* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Ross, J.\*, Darke, S. & Deady, M.** *Suicide risk assessment in residential rehabilitation services: Gaps in current practice and development of the Suicide Assessment Kit (SAK).* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart 13-16 November.

**Roxburgh, A.\*** *Oxycodone deaths in Australia 2000 to 2009.* Presented at the 22nd International Harm Reduction Association Conference, Beirut, 3-7 April.

**Roxburgh, A.\*** *Australian illicit drug markets - what's the score? Trends in drug use and related harms.* Presented at the 22nd International Harm Reduction Association Conference, Beirut, 3-7 April.

**Roxburgh, A.\*** *Reporting drug-related deaths in Australia - the impact of changing procedures.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Salimi, S., Dolan, K., Nassirimanesh, B., Mohsenifar, S., Allsop, D.\*, & Mokri, A.** *An Iranian Women's Drug Clinic: Reports from women about their journey into drugs.* Presented at the 2011 International Women's Fourth Meeting and Conference, Drug Use, Abuse, and Dependence in Women: Promising Interventions and Treatments, Hollywood, USA, 17 June.

**Scott, L.\*, & Burns, L.** *Exploring drug use, drug-related problems and risky behaviours among young, regular ecstasy users.* Presented at the 6th International Conference on Drugs & Young People, Melbourne, 2-4 May.

**Scott, L.\*, & Burns, L.** *Has ecstasy peaked? A Look at the Australian ecstasy market over the past nine years and its global context.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Shakeshaft, A.\*, Doran, C., Breen, C., Havard, A., Abudeen, A., Navarro, H., Byrnes, J. & Clifford, A., on behalf of the AARC team.** *Working with communities to reduce alcohol-related harm in NSW.* Presented to the North Coast Drug and Alcohol Conference, Coffs Harbour, 28 January.

**Shakeshaft, A.\*** *Integrating research into Community Drug Action Team projects: When, why & how?* Keynote address to Community Drug Action Teams' Annual Conference, Sydney, 13 May.

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J. & Clifford, A., on behalf of the AARC team.** *The cost-benefit of community action in reducing alcohol harm: The Alcohol Action in Rural Communities (AARC) project.* Presented at the International Health Economics Association (iHEA) Transforming Health and Economics: 8th World Congress on Health Economics Conference, Toronto, 10-13 July.

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J. & Clifford, A., on behalf of the AARC team.** *Is community-action a cost-beneficial way to reduce alcohol-related harm?* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

# CONFERENCE PRESENTATIONS

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J. & Clifford, A., on behalf of the AARC team.**

*SBI delivered simultaneously in multiple settings: cost-effective but can it influence community-level outcomes?* Presented at the 8th Annual International Network on Brief Interventions for Alcohol Problems (INEBRIA) Conference, Boston, USA, 21-23 September.

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J. & Clifford, A., on behalf of the AARC team.**

*Does BI influence GPs' prescribing for alcohol dependence?* Presented at the 8th Annual International Network on Brief Interventions for Alcohol Problems (INEBRIA) Conference, Boston, USA, 21-23 September.

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J., Clifford, A., on behalf of the AARC team.**

*The Alcohol Action in Rural Communities (AARC) project: a cost-benefit analysis.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Shakeshaft, A.\*, Byrnes, J., Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Clifford, A., on behalf of the AARC team.**

*Improving the per incident cost estimates for alcohol-related crime in NSW, Australia.* Presented at the Crime Prevention and Policy: New Tools for Contemporary Challenges conference, Sydney, 23-24 November.

**Shanahan, M.\*** *Quantifying the costs and benefits of two cannabis policies.* Presented at the 5th Annual Conference of the International Society for the Study of Drug Policy (ISSDP), Utrecht, 23-24 May.

**Shanahan, M.\*** *Cost benefit analysis of cannabis legalisation.* Presented at Cannabis Policy: Where to From Here? University of Melbourne, Carlton, 7-8 November.

**Shanahan, M.\*** *Cannabis policy: Estimating the economic costs to the criminal justice system.* Presented at the Crime Prevention & Policy Conference: New Tools for Contemporary Challenges, Sydney, 23-24 November.

**Shanahan, M.\*** *To legalise or not? The economic consequences of cannabis policy options.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Shand, F.\*, Degenhardt, L., Slade, T., Nelson, E., & Mattick, R.** *Heroin dependence: severity of comorbidity and its impact on outcomes.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Shand, F.\*, Mattick, R., Degenhardt, L., Hall, W., Cohen, M., & Linzteris, N.** *Prescription opioids: New findings on their use and misuse in Tasmania and Australia.* Presented at the

Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Silins, E.\*** *Association of young adults' pattern of cannabis use with psychosocial outcomes and substance use at age 27 years.* Poster presented at The Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Simpson, M., Howard, J.\*, & Copeland, J.** *Cannabis, a 'soft drug' with hard outcomes? Cannabis use, mental health and crime among young people in Australia.* Presented at the 32nd International Congress on Law and Mental Health, Berlin, 17-23 July.

**Sindicich, N.\*, & Burns, L.** *The Australian drug market: Findings from the Ecstasy and Related Drugs Reporting System.* NIDA Community of Epidemiology Working Group Meeting (CEWG), Scottsdale, USA, 19-21 January.

**Sindicich, N.\*, & Burns, L.** *What's happened to ecstasy and what are consumers using now? Findings from the Ecstasy and Related Drugs Reporting System 2011.* Presented at the 2011 National Drug Trends Conference, Sydney, 17 October.

**Sindicich, N.\*, Barrett, E., Mills, K., Indig, D., Sannibale, C., Sunjic, S., & Najavits, L.** *Treating trauma and substance use among male prisoners: A feasibility study of a treatment delivered in two NSW prisons.* Keynote addressed to the Correctional Services Healthcare Summit, Melbourne, 20-21 October.

**Sindicich, N.\*, & Maxwell, J.** *How the Aussie meth(amphetamine) market compares to the Texmeth market.* Presented at The Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Smith, J.\*, Jamadar, S., Provost, A., & Michie, P.** *Motor and non-motor inhibition in the Go/NoGo task: An ERP and fMRI study.* Poster presented at the 21st Australasian Society for Psychophysiology Conference (Australasian Cognitive Neurosciences Conference), Sydney, December 9-12.

**Slade, T.\*, Teesson, M., Mewton, L., Memedovic, S., & Krueger, R.** *Do young adults interpret the DSM diagnostic criteria for alcohol use disorders as intended? A cognitive interviewing study.* Presented at the Annual Conference of the Australasian Society for Psychiatric Research (ASPR), Dunedin, New Zealand, 5-8 December.

**Slade, T.\*, & Chapman, C.** *Sex and age effects on the time to first drink and the time from first drink to alcohol use disorders: Results of the 2007 National Survey of Mental Health and Wellbeing.* Presented at the Annual Conference of the Australasian Society for Psychiatric Research (ASPR), Dunedin, New Zealand, 5-8 December.

**Slade, T.\*, Teesson, M., Mewton, L., Memedovic, S., & Krueger, R.** *Do young adults interpret the DSM diagnostic criteria for alcohol use disorders as intended? A cognitive interviewing study.* Poster presented at the 25th Annual Meeting of the Society for Research in Psychopathology, Boston, 22-25 September.

**Slade, T.\*, McEvoy, P., Chapman, C., & Grove, R.** *Temporal sequencing of anxiety, mood and substance use disorders in the Australian population: Results of the 2007 National Survey of Mental Health and Wellbeing.* Presented at the 34th Annual Australian Association of Cognitive and Behavioural Therapy (AACBT) Conference, Sydney, 26-30 October.

**Slade, T.\*, Teesson, M., Mewton, L., Memedovic, S., & Krueger, R.** *Understanding how young adults interpret the DSM-IV diagnostic criteria for alcohol use disorders.* Presented at the 37th Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society (KBS), Melbourne, 11-15 April.

**Spicer, B.\*, Conroy, E., Burns, L., & Flatau, P.** *Comparison of homeless persons with and without problematic substance use on indices of relative deprivation and social exclusion.* Presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Spicer, B.\*, Conroy, E., Burns, L., & Flatau, P.** *Substance use, mental health, and involvement with the criminal justice system in men who are homeless in Sydney.* Presented at the 2011 Australian Psychological Society (APS) Forensic Psychology National Conference, Noosa, 4-6 August.

**Stafford, J.\* & Burns, L.** *Exploring gender differences among people who inject drugs in Australia: Findings from the 2011 Illicit Drug Reporting System (IDRS).* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Stafford, J., & Burns, L.\*** *Results from the 2011 Illicit Drug Reporting System.* Presented at the 2011 National Drug Trends Conference, Sydney, 17 October.

**Sutherland, R.\* & Burns, L.** *Trends in the prevalence of drug use, criminal behaviour and arrest among injecting drug users: 2007-2011.* Poster presented at the Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference, Hobart, 13-16 November.

**Sutherland, R.\* & Burns, L.** *SA IDRS 2011: Trends & current issues.* Poster presented at the 2011 National Drug Trends Conference, Sydney, 17 October.

**Swift, W.\*, Coffey, C., Degenhardt, L., Carlin, J., Romaniuk, H. & Patton, G.** *Adolescent cannabis use and its impact into young adulthood: Findings and implications from a prospective Australian cohort study.* Presented

# CONFERENCE PRESENTATIONS

at the 41st Annual Congress of the European Association for Behavioural and Cognitive Therapies (EABCT) Conference, Reykjavik, 31 August-3 September.

**Taplin, S.\*, & Mattick, R.** *Child protection, children and mothers on methadone: Results from a NSW study.* Presented to the Child Protection in Australia and New Zealand - Issues and Challenges for Judicial Administration Conference, Brisbane, 5-7 May.

**Taplin, S.\*, & Mattick, R.** *Child protection involvement and illicit-drug using mothers: Results from a NSW study.* Presented to the Australian Social Policy Conference, University of New South Wales, 6-8 July.

**Taplin, S.\*, & Mattick, R.** *Mothers on the Opioid Treatment Program and their involvement with the child protection system.* Presented at the National Drug and Alcohol Research Centre (NDARC) Annual Symposium, Sydney, 30 August.

**Teesson, M.\*** *Effectiveness of a computerised school based intervention to reduce cannabis and psychostimulant harms.* Presented at the European Association for Behavioral and Cognitive Therapies (EABCT) Conference, Reykjavik, 31 August-3 September.

**Teesson, M.\*** *Alcohol use and adolescent brain development.* European Association for Behavioral and Cognitive Therapies (EACBT) Conference, Reykjavik, 31 August-3 September.

**Teesson, M.\*** *Can we really prevent drug and alcohol problems?* Keynote address to the Australian Association for Cognitive Behaviour Therapy (AACBT) National Conference, Sydney, 26-30 October.

**Teesson, M.\*, Mitchell, P., Deady, M., Memedovich, S., & Slade, T.** *Anxiety and affective disorders relationship with chronic physical disorders.* Presented at the Australian Association for Cognitive Behaviour Therapy (AACBT) National Conference Sydney, 26-30 October.

\*Denotes presenter.

# WORKSHOPS AND INVITED LECTURES

**Barrett, E.\*** *Hurt people who hurt people: Violence among substance users with PTSD.* Invited lecture: University of NSW, Masters Psychology (Forensic) Program, Sydney, and 23 May.

**Bright, D.\*** *Drug trafficking networks: What does network structure tell us about their vulnerability to law enforcement interventions?* Drug Policy Modelling Program (DPMP) Research Symposium, Sydney, 18 March.

**Carragher, N.\*** *The road to DSM-5 and policy pathways to redress alcohol-related harms in the community.* Brown University and Butler Hospital, Providence, United States, 26 September.

**Carragher, N.\*** *Applied statistics using SPSS.* Dundalk Institute of Technology, Ireland, 29 September.

**Chalmers, J.\*** *Half a citizen. Life on welfare in Australia.* Invited presentation: The Australian Government Department of Human Services, Canberra, 23 September.

**Copeland, J.\*** *NCPIC: Australia's cannabis information and prevention response.* Address to the Chinese delegation of Deputy Directors of Narcotics Control Divisions, Public Security Department for Australian Technical Experts Network, Sydney, 31 October.

**Copeland, J.\*** *Australian National Cannabis Centre: testing delivery of brief interventions for cannabis dependence via post, telephone and web & beyond.* National Development and Research Institutes, Inc, New York, New York, 27 June.

**Copeland, J.\*** *Women & drugs: use, harms and treatment issues.* Guest Speaker, Odyssey House Women's Lunch, Sydney, 3 June.

**Copeland, J.\*** *Cannabis: patterns of use, myths and interventions.* Forum for Charleville Health Care Providers, Queensland, 30 May.

**Copeland, J.\*** *Cannabis and young people.* Forum for Charleville High School Parents, Queensland, 29 May.

**Darke, S.\*** *The ageing heroin user: clinical and policy implications.* Kirrketon Rd Centre, Sydney, 8 December.

**Darke, S.\*** *The comparative toxicology and major organ pathology of fatal methadone and heroin toxicity cases.* Sydney South West Area Health Service, Sydney, 16 August.

**Darke, S.\*** *The ageing heroin user: clinical and policy implications.* National Treatment Centre, London, 15 July.

**Dolan, K.\*** *Female drug users and HIV; Basic interventions for women drug users being referred to reproductive health services.* Invited workshops: Congress on social and environmental aspects of Reproductive Health, Tehran, Iran, 16-18 February.

**Dore, G., Murray, R., Mills, K.\*, Ewer, P.** *Stuck in a Moment in Time: PTSD and Substance Use Disorders.* Invited workshop: *Drug and Alcohol Nurses Australasia (DANA) Conference, Melbourne, 15-17 June.*

**Ewer, P.\*, Mills, K., Sannibale, C., Teesson, M., Roche, A.** *The prevalence and correlates of secondary traumatic stress among alcohol and other drug (AOD) workers in Australia.* Presented at: Drug and Alcohol Nurses of Australasia (DANA) workshop "Stuck in a Moment in time: PTSD in patients with Substance Use Disorders", Melbourne, 15-17 June.

**Goldman, M., Chun, S., Porrini, L., Johansson, K.O., Tammi, T., Ritter, A.\*, & Obot, I.** *Activities in national organisations and their needs/perceived benefits from international cooperation.* Panel discussion at the International Society of Addiction Journal Editors. Hilton Head, SC, USA, 11-14 September.

**Howard, J.\*** *Building capacity for community-based treatment for young drug users in the Greater Mekong Sub-region - lessons for Egypt.* Presentation at workshop: Drug Abuse Research in Egypt: innovative, science-based and culturally appropriate methods at the National Mental Health Commission, Ministry of Health, Cairo, Egypt, 1-18 January.

**Howard, J.\*, Campbell-Salazar, L., Oreoluwa, K.** *Building capacity for youth friendly harm reduction.* Workshop presentation to: 22nd International Conference on the Reduction of Drug Related Harm, Beirut, Lebanon, 3-8 April.

**Howard, J.\*, de Kort, G., Pandey, B., Joshi, S., Kaplan, K., Suwannawong, P., Jian, L., & Zhang, C.** *"Opening Doors"- engaging with young people to deliver youth friendly harm reduction - any lessons for Australia.* Invited presentation to: National Centre in HIV Social Research (NCHSR) Seminar, Sydney, 13 December.

**Howard, J.\*** *WHO street children project - Lessons for Egypt.* Presentation at workshop: Drug Abuse Research in Egypt: innovative, science-based and culturally appropriate methods at the National Mental Health Commission, Ministry of Health, Cairo, Egypt, 1-18 January.

**Howard, J.\*** *Young People & Cannabis.* Presentation to: Y Foundations, Kings Cross, 17 February; Youth off The Streets, Merrylands, 18 February; Community Connections, Geelong, 11 March; Nepean Hospital Detox Unit, Penrith, 14 March; Northern Sydney GP Drug & Alcohol Network, St Leonards, 15 March; Rosemount Good Shepherd, Marrickville, 18 March; Centacare, Kalgoorlie, 9 May; Midwest Community Drug Service, Geraldton, 11 May; Drug & Alcohol Office, Mt Lawley, 12 May; Kimberley Mental Health & Drug Service, Broome, 13 May; Wilfred Lopes Centre, Lindsfarne, 23 May; The Link Youth Health, Hobart, 24 May; Anglicare, Campbell Town, 25 May; DHHS, Burnie, 26 May; Queensland Police, Charleville, 30 May; Dual Diagnosis Hume

Education Collaborative, Wangaratta, 6 June; Dual Diagnosis Hume Education Collaborative, Shepparton, 7 June; Concord Centre for Mental Health, 2 August; Coomealla Health Aboriginal Corporation, Dareton, 9 August; ATODS, Mt Gravatt, 10 August; Barwon Youth, Warrnambool, 15 August; Barwon Youth, Geelong 16 August; Mid North Coast Local Health Network, Port Macquarie, 18 August; Mid North Coast Local Health Network, Coffs Harbour, 19 August; Kimberley Community Drug Service, Kununurra, 8 & 9 September; Nepean TAFE, 20 October; Wyong Central Coast Youth Health Service, Wyong, 1 November; Drug Arm Australasia, Annerley, 1 December; Odyssey House, Melbourne, 7 December.

**Hughes, C.\*** *Examining supply changes in Australia's cocaine market.* Presentation to: the Drug Strategy Branch and Tobacco Taskforce, *Talking Heads Series*, Canberra, 18 November.

**Hughes, C.\*** *Legislative thresholds for serious drug offences: The need for a rational system for devising threshold quantities.* Presented at: the Drug Policy Modelling Program (DPMP) Research Symposium, Sydney, 18 March.

**Hughes, C.\*** *The threshold dilemma: Debate in Australia.* Presented at: the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Trans-National Institute (TNI) expert seminar on threshold quantities, Lisbon, Portugal, 20 January.

**Hughes, C.\*** *What can we learn from the Portuguese decriminalisation of illicit drug?* Presented at: Public Meeting of the ACT Legislative Assembly, Canberra, 17 November.

**Hutchinson, D.\*, & Olsson, C.\*** *Longitudinal Studies Network Data Harmonisation and Data Sharing Workshop.* Presented at Deakin University, Melbourne, 4 October.

**Jainullabudeen, A.\*** *Addiction Policy: Comparison of Australian and Malaysian approaches.* Workshop presentation to: Consumer Association of Penang, Penang, Malaysia, 30 June.

**Lancaster, K.\*** *Voices in drug policy: Analysing the Australian drug policy landscape.* Presented at: the Drug Policy Modelling Program (DPMP) Research Symposium, Sydney, 18 March.

**Matalon, E.\*** *ACCU - The Adolescent Cannabis Check-Up.* Presentation to: Regional School Counsellor Conference (x 3 workshops), Sydney, 27 April; Hanover Welfare Services, Southbank, 17 May; Lifeline, Gordon, 24 May; Child and Adolescent Mental Health Services Conference (x 2 workshops), Sydney, 3 June; Centacare, Adelaide, 8 June; ATODS, Brisbane, 27 June; ATODS, Bundaberg, 1 July; Norwood Association, Caroline Springs, 4 July; ATODS, Dalby, 1 August; Queensland Forensic Mental Health Service (x 2 workshops), Brisbane, 14 September; ATODS, Townsville, 16 September; Australian Psychological Society Conference,

# WORKSHOPS AND INVITED LECTURES

Canberra, 4 October; Australian Psychological Society, Brisbane, 6 October & 28 November; Drug Arm Australasia, Annerley, 29 November.

**Matalon, E.\*** *Cannabis - Everything You Need To Know*. Presentation to: Sydney South West Area Mental Health Service, Concord, 21 June; ATODS, Brisbane, 27 June; ATODA, Canberra, 14 October.

**Matalon, E.\*** *Clinical Guidelines for the Treatment of Cannabis*. Presentation to: UWS Counselling Service, Parramatta, 9 February; Alcohol & Other Drugs, Alice Springs, 2 March; Kimberley Mental Health & Drug Service, Broome, 15 March; Drug & Alcohol Office, Mount Lawley, 18 March; TAFE Wollongong, 28 March; TAFE North Sydney Counselling Unit, 31 March; Remote Vocational Training Scheme, Melbourne, 4 April; Hanover Welfare Services, Southbank, 16 May; Hanover Welfare Services, Southbank, 17 May; Hanover Welfare Services, Dandenong, 18 May; Hanover Welfare Services, Cheltenham, 23 May; Queensland Health, Maryborough, 28 June; ATODS, Bundaberg, 30 June; Barwon Youth, Geelong, 5 July; ATODS, Dalby, 1 August; ATODS, Townsville, 15 September; Northside West Clinic, Wentworthville, 27 September; Eastern Suburbs Mental Health Service, Bondi Junction, 28 September; Australian Psychological Society, Brisbane, 6 October & 28 November; ATODA, Canberra, 14 October.

**Matalon, E.\*** *Clinical Train the Trainer*. Presentation to: Alcohol & Other Drug Services, Darwin, 22 & 23 February; Alcohol & Other Drug Services, Alice Springs, 1 & 2 March; Kimberley Mental Health & Drug Service, Broome, 14-15 March; Drug & Alcohol Office, Mount Lawley, 17-18 March.

**Matalon, E.\*** *Quitting Cannabis 1-6 Brief Intervention for Cannabis Use*. Presentation to: Hanover Welfare Services, Southbank, 16 May; Hanover Welfare Services, Dandenong, 18 May; Hanover Welfare Services, Cheltenham, 23 May; Centacare, Adelaide, 8 June; Sydney South West Area Mental Health Service, Concord, 21 June; ATODS, Brisbane, 27 June; Queensland Health, Maryborough, 28 June; ATODS, Bundaberg, 30 June; Barwon Youth, Geelong, 5 July; ATODS, Townsville, 15 September; Northside West Clinic, Wentworthville, 27 September; Drug Arm Australasia, Annerley, 29 November.

**Mattick, R.\*, Hutchinson, D.\*, & Silins, E.\*** *Cannabis Cohort Research Consortium Meeting*. Presented at Deakin University, Melbourne, 5 October.

**Mills, K.\*** *Integrated treatment for substance use disorders and post traumatic stress disorder*. Invited seminar presented to: Dual Diagnosis Improved Service Initiative Symposium, Newcastle, March.

**Mills, K.\*** *Is PTSD treatment effective for AOD clients?* Invited seminar presented to: Herbert St Clinic, Royal North Shore Hospital, Sydney, March.

**Mills, K., Ewer, P.\*, Teesson, M., Sannibale, C., Baker, A., Kay-Lambkin, F., & Dore, G.** *A brief intervention for alcohol and other drug users who have experienced trauma*. Invited key note presented to: Network of Alcohol and other Drugs Agencies (NADA) Trauma Informed Care and Practice Forum, Sydney, 5 December.

**Mills, K., Teesson, M., Barrett, E., Merz, S., Rosenfeld, J., Ewer, P.\*, Sannibale, C., Hopwood, S., Baker, A., Back, S., Brady, K.** *Is exposure therapy for post traumatic stress disorder (PTSD) efficacious among people with substance use disorders (SUD)? Results from a randomised controlled trial*. Invited seminar presented to: Calvary Mater Hospital, Newcastle, 14 April.

**Mills K.\*** *The Epidemiology and Treatment of Post Traumatic Stress Disorder and People with Substance Use Disorders*. Invited seminar presented to: Centre for Epidemiology and Research and Mental Health and Drug and Alcohol Office, NSW Health, April.

**Mills K.\*** *Treating PTSD among people with substance use disorder*. Invited seminar presented to: St Vincent's Hospital Alcohol and Other Drug Service, Sydney, July.

**Norberg, M.\*** *Cannabis*. Guest lecture presented to Royal Australian and New Zealand College of Psychiatrists (RANZCP) NSW Branch Rural Psychiatry Project, Rozelle, 2 July.

**Perry, U.\*** *ACCU - The Adolescent Cannabis Check-Up*. Presentation to: Department of Education & Training, Ryde, 31 October; Department of Education & Training, Manly, 7 November; St John of God, Richmond, 21 November; Department of Education & Training, Adamstown, 28 November; St Leo's Catholic College, Wahroonga, 5 December; Calvary Alcohol & Other Drug Service, Wagga Wagga, 12 December.

**Perry, U.\*** *Clinical Guidelines for the Treatment of Cannabis*. Presentation to: Calvary Alcohol & Other Drug Service, Wagga Wagga, 17 October; Department of Education & Training, Adamstown, 28 November; St Leo's Catholic College, Wahroonga, 5 December.

**Perry, U.\*** *Everything You Need to Know - Indigenous*. Presentation to: AMS, Nowra, 19 September; AMS, Falls Creek, 20 September.

**Perry, U.\*** *Quitting Cannabis 1-6 Brief Intervention for Cannabis Use*. Presentation to: Calvary Alcohol & Other Drug Service, Wagga Wagga, 18 October; St John of God, Richmond, 21 November.

**Ritter, A.\*** *Drug Policy Modelling Program Update*. Presentation to Colonial Foundation Trust, Melbourne, 28 February.

**Ritter, A.\*** *NHMRC Partnership Projects: Constructing a competitive proposal*. NHMRC Partnership Grant Workshop, UNSW, Sydney, 14 March.

**Ritter, A.\*** *The use of agent-based modelling as a tool to inform illicit drug policy*. Centre for Health Economics Seminar Series 2011, Monash University, 16 March.

**Ritter, A.\*** *Introduction*. DPMP Research Symposium, Sydney, 18 March.

**Ritter, A.\*** *Drug policy: Issues and challenges*. Lecture to the School of Public Health and Community Medicine, UNSW, Sydney, 5 April.

**Ritter, A.\*** Presentation at the International Society for the Study of Drug Policy (ISSDP) Annual General Meeting 2011, Utrecht, Netherlands, 22 May.

**Ritter, A.\*** *Drug and Alcohol Clinical Care and Prevention: National planning model*. NSW Health DA-CCP Road Show to ACT Government and research community, Canberra, 20 July; NSW Health DA-CCP Road Show to Alcohol and Drug Council of Australia, Melbourne, 29 July; NSW Health DA-CCP Road Show to Tasmanian service providers and Government, Hobart, 8 August; NSW Health DA-CCP Road Show to Tasmanian service providers and Government, Launceston, 9 August; NSW Health DA-CCP Road Show to National Drug and Alcohol Research Centre, UNSW, Sydney, 26 September; NSW Health DA-CCP Road Show to South Australian service providers and Government, Adelaide, 28 September; NSW Health DA-CCP Road Show to Western Australian service providers and Government, Perth, 29 September; NSW Health DA-CCP Road Show to Department of Health, Victoria, Melbourne, 9 November.

**Ritter, A.\*** *Working with the Research Strategy Office*. 2011 Personal Leadership and Career Planning Program for Academic Women, UNSW, Sydney, 23 August.

**Ritter, A.\*** *Illicit drug policy research: methods, challenges and results*. Kirby Institute/AMR Research Seminar Series 2011, Sydney, 24 August.

**Ritter, A.\*, Graham, K., Camarini, R., Ziegler, R.** *International regional addiction research federations associations and their views on the benefits of broader international cooperation*. Panel discussion at the International Society of Addiction Journal Editors. Hilton Head, SC, USA, 11-14 September.

**Ritter, A.\*** *Cannabis Policy in Australia: Current Policy Context, Explanations for Status quo, Barriers to Reform, and Critical Issues*. Panel discussion at the 1<sup>st</sup> International Collaborative Workshop: Cannabis Policy: Where to from here? University of Melbourne, Melbourne, 7-8 November.

**Ritter, A.\*** *Research translation: speaking truth to power?* National Centre for HIV Social Research (NCHSR) Seminar Series, UNSW, Sydney, 10 November.

# WORKSHOPS AND INVITED LECTURES

**Rooke, S.E., Copeland, J.\*, Norberg, M., & McCambridge, J.** *Web-based intervention for cannabis use.* Presented at the 5th meeting of the International Society for Research on Internet Interventions, Sydney, 7 April.

**Rooke, S., Copeland, J.\*, Norberg, M. & McCambridge, J.** *Randomised controlled trial of a web-based intervention for cannabis use.* 73rd Annual Scientific Meeting of CPDD, Hollywood, USA, 23 June, 2011.

**Shakeshaft, A.\*, Breen, C., Doran, C., Havard, A., Abudeen, A., Byrnes, J., Clifford, A., Navarro, H., on behalf of the AARC team.** *Working with communities to reduce alcohol harm: using routinely collected health data.* Presented to: Epidemiology Special Interest Group, Centre for Epidemiology and Research; and Mental Health and Drug and Alcohol Office, NSW Department of Health, North Sydney, 1 April.

**Shakeshaft, A.\*, Doran, C., Navarro, H., Breen, C., Havard, A., Abudeen, A., Byrnes, J., Clifford, A.** *The AARC project: Alcohol Action in Rural Communities.* Presentation to: The Centre for Addictions Research of British Columbia, Vancouver, Canada, 1 July; and the British Columbia Department of Health, University of Victoria, Victoria, Canada, 4 July.

**Shakeshaft, A.\*** *Integrating community action & evaluation: can we make it routine?* Presented to: The Broken Hill Community Drug Action Team, June; and the Barrier Liquor Accord, Broken Hill, 16 June.

**Shakeshaft, A.\*, Sanson-Fisher, R.** *Improving chronic disease care services in Aboriginal Community Controlled Health Services in NSW.* Workshop with Aboriginal Community Controlled Health Services, NSW Health and the research team, Sydney, 12 - 13 October.

**Shanahan, M.\*** *Societal preferences for cannabis policies: A discrete choice experiment.* Presented at: Monash, Centre for Health Economics, Melbourne, 28 September.

**Simpson, M.\*** *Cannabis and criminal offending among adolescents: An overview.* Invited presentation to the NSW Aboriginal Drug and Alcohol Network Leadership Group, Sydney, 9 December.

**Taplin, S.\*, & Mattick, R.** *Child protection and mothers on the Opioid Treatment Program study.* Invited presentation to the NSW Health Drug and Alcohol Program Council Quality in Treatment (QIT) Subcommittee, Sydney, 12 August.

**Teesson M\* & Mills, K.\*** *Integrated treatment for substance use disorders and post traumatic stress disorder.* Workshop presented at the Australian Association for Cognitive Behaviour Therapy (AACBT) National Conference, Sydney 26-30 October.

# ACRONYMS

<b>AGDHA</b>	Australian Government Department of Health and Ageing	<b>HRT0</b>	Health Reform Transitional Organisation
<b>AHURI</b>	Australian Housing and Urban Research Institute Limited	<b>IDRS</b>	Illicit Drugs Reporting System
<b>AIDSFONDS NL</b>	AIDS Fonds Netherlands	<b>MA</b>	Mission Australia
<b>AIATISIS</b>	Australian Institute of Aboriginal and Torres Strait Islander Studies	<b>MDECC</b>	Manly Drug Education & Counselling Centre
<b>ANCD</b>	Australian National Council on Drugs	<b>NBCSR</b>	NSW Bureau of Crime Statistics and Research
<b>APSAD</b>	Australasian Professional Society on Alcohol and Other Drugs	<b>NCETA</b>	National Centre for Education and Training on Addiction
<b>ARC</b>	Australian Research Council	<b>NCPIC</b>	National Cannabis Prevention and Information Centre
<b>ARHRF</b>	Australian Rotary Health Research Fund	<b>NDARC</b>	National Drug and Alcohol Research Centre
<b>CCS</b>	Council of the City of Sydney	<b>NDLERF</b>	National Drug Law Enforcement Research Fund
<b>CF</b>	Colonial Foundation	<b>NDRI</b>	National Drug Research Institute
<b>CLIMATE</b>	Clinical Management & Treatment Education	<b>NHMRC CDA</b>	National Health and Medical Research Council Career Development Award
<b>DASSA</b>	Drug & Alcohol Services South Australia	<b>NIH</b>	National Institute of Health (USA)
<b>DIISRTE</b>	Department of Industry, Innovation, Science, Research and Tertiary Education*	<b>PTSD</b>	Post-Traumatic Stress Disorder
<b>DOCS</b>	Department of Community Services, NSW	<b>QADREC</b>	Queensland Alcohol and Drug Research and Education Centre
<b>DOH VICTORIA</b>	Department of Health, Victoria	<b>RB</b>	Reckitt Benckiser
<b>DOJ AND AG, NSW</b>	Department of Justice and Attorney General, NSW	<b>RTA</b>	Roads & Traffic Authority, NSW
<b>DPMP</b>	Drug Policy Modelling Program	<b>SALV</b>	Salvation Army
<b>DROSOS</b>	Drosos Foundation, Switzerland	<b>SCHER</b>	Schering PTY LTD
<b>EDRS</b>	Ecstasy and Related Drugs Reporting System	<b>SESIAHS</b>	South Eastern Sydney and Illawarra Area Health Service
<b>FARE</b>	Foundation for Alcohol Research and Education**	<b>TP</b>	Turning Point Alcohol and Drug Centre
<b>GU</b>	Griffith University	<b>UNEW</b>	University of Newcastle
<b>HAC</b>	Health Administration Corporation	<b>UNAIDS</b>	United Nations Programme on HIV/AIDS
<b>HERON</b>	Health Evaluation Research Outcomes Network	<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>HNELHD/DACS</b>	Hunter New England Local Health District/Drug and Alcohol Clinical Services	<b>UNOV</b>	United Nations Office in Vienna
		<b>UNSW</b>	University Of New South Wales
		<b>WHO</b>	World Health Organisation
		<b>WU</b>	Washington University, USA

\*Formerly Department of Education, Science and Training (DEST)

\*\*Formerly Alcohol Education and Rehabilitation Foundation (AERF)



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