

NATIONAL DRUG AND
ALCOHOL RESEARCH CENTRE
2006 ANNUAL REPORT



NDARC

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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 in May 1986 and officially opened in November 1987. It is funded by the Australian Government as part of the 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 of the University of NSW, as well as with a range of other institutions and individuals in Australia and 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 research projects currently being carried out within the Centre, NDARC engages in collaborative projects with other researchers throughout Australia to provide a national focus for research in the alcohol and other drug field. NDARC also has links with researchers overseas.

In addition to the research conducted at the Centre, other NDARC activities include an Annual Symposium and a range of special conferences and educational workshops. As well as contributing to scientific journals and other publications, NDARC produces its own Research Monographs and Technical Report Series. In conjunction with the National Drug Research Institute (NDRI) in Perth, NDARC also produces a free quarterly newsletter, *CentreLines*, to increase communication between the national research centres, other researchers and workers in the alcohol and other drug field within Australia.

MISSION STATEMENT

The overall mission of NDARC is:

“to conduct high quality research and related activities that increases the effectiveness of the Australian and International treatment and other intervention responses to alcohol and other drug related harm”.

In order to increase the effectiveness of the Australian treatment response to drug problems four goals need to be met:

- (1) the harms to which treatment should be directed need to be known
- (2) effective treatments should be available for responding to these harms
- (3) those providing treatment should be aware of which treatments are effective; and
- (4) those who suffer the harms for which the treatments are intended should be made aware of ways in which to minimise harm, and of the availability of effective forms of treatment.

Key Goals

- (1) to improve our understanding of the nature and extent of alcohol and other drug-related harms to which treatment and other interventions should be directed
- (2) to increase knowledge on the range and effectiveness of treatment and other interventions that is aimed at reducing forms of alcohol and other drug-related harm
- (3) to increase knowledge among treatment and intervention providers about which programs are effective and which individuals are most suited to them
- (4) to increase the community's knowledge of appropriate and effective treatment and other intervention programs for alcohol and drug-related problems.

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FOREWORD

As will be seen from the report that follows, the Centre has again seen a year of activity and expansion. This is a tribute to the valuable research being undertaken by our staff and in turn the high reputation the Centre holds in the national and international community.

The variety and substance of the work being undertaken at the Centre continues to delight and amaze me. Of particular interest to me personally is the Drug Policy Modelling Program which has moved to the Centre for the duration of its second phase of operation. It will focus not only on identifying policy options for prevention, treatment and harm reduction but the integration of these policies to produce satisfactory long term outcomes. To achieve these goals it will conduct ongoing research into the efficacy of policy-making processes in this country with an emphasis on the way evidence-based knowledge can inform our decision makers. This is an area in which I am vitally interested and to which I contribute in a number of the fields in which I work.

The Centre continues to address emerging issues such as the rising incidence of methamphetamine in the community. I am particularly pleased with the successful implementation of the Methamphetamine Treatment Evaluation Study which is unique to Australia.

It is also pleasing to see the number of our researchers who continue to be actively involved in programs of international significance, the details of which are given in the body of the report.

Success brings increased responsibilities and demands. Our need for additional accommodation and infrastructure is ongoing. I thank the University for recognising the need for increased funding for infrastructure support. We are now in negotiations with the University to address our need for permanent long-term accommodation.

I wish to thank the leadership team, Professor Richard Mattick and Associate Professor Maree Teeson for their outstanding contribution and Professor Shane Darke, Dr Anthony Shakeshaft and Associate Professor Louisa Degenhardt for their role in supporting them during Professor Mattick's recent sabbatical leave.

I am also grateful for the continuing commitment of the Board. Their contribution is greatly valued in maintaining the on-going direction and stability of the Centre. All Board members are extremely busy within their own disciplines, but none the less, give their time generously, as and when it is needed.

Once again I commend the Annual Report to all who have an interest in the cutting edge of research in the alcohol and other drug field.



The Hon. Kevin Rozzoli
Chairman, NDARC Board of Management

YEAR IN REVIEW: 2006 – DIRECTORS REPORT

The 2006 year was a busy and productive one that saw our capacity to undertake research substantially increased by the addition of a number of significant academic positions, as well as a large number of other staff members. Also, 2006 saw a continuing and growing recognition of the work of the Centre both nationally and internationally.

During the second half of the year, I had the opportunity to take special studies leave and amongst other tasks worked with Associate Professor Jan Copeland, Mr Paul Dillon, Mr Greg Martin, Ms Jennifer McLaren, and partners to develop a successful application for NDARC to run (with national partners) the National Cannabis Control and Prevention Centre. This exciting new initiative will allow for previous work on cannabis and especially on the 2006-2009 National Cannabis Strategy to be capitalised upon during 2007 to 2010, and hopefully beyond that time.

I thank the Deputy Director of the Centre, Associate Professor Maree Teesson for her efforts during this period when she took over for six months as Acting Director. The Centre's functioning is dependent on the good governance of the Directors and Maree was well-assisted by Professor Shane Darke, Associate Professor Louisa Degenhardt and Dr Anthony Shakeshaft in the Acting Deputy Director role.

Whilst assisting in running the Centre, A/Prof Teesson has continued to lead a significant research program in the area of comorbidity. Comorbidity between drug and alcohol and mental disorders remains a considerable challenge, with eight out of 10 leading causes of burden of disease among young Australians being mental disorders and drug and alcohol problems. Her research focus has been threefold, understanding the harms associated with comorbidity, preventing those harms and improving the treatment response. With colleagues both nationally and internationally, she, like others at NDARC continues to work on developing new and innovative interventions to prevent and treat comorbidity.

A significant research program in 2006 has been the development of computer delivered interventions. Dr Laura Vogl, supervised by A/Prof Teesson developed CLIMATE Schools Alcohol, a successful computerised interactive prevention program. This program of research has been funded to extend into fear, sadness and alcohol (ARC Discovery grant with Professor Andrews), cannabis (PhD candidate Ms Nickie Newton) and psychostimulants. A/Prof Teesson also continued to work closely with major clinical services developing new interventions. With clinical colleagues at Sydney University (Professor Paul Haber) and Macquarie University (Dr Andrew Baillie) they have developed a novel intervention for those with both alcohol and anxiety or depression. They are trialling the intervention called "Stepped care" in a large randomized controlled trial funded by Alcohol Education Research Fund.

Also interested in the area of comorbidity is Dr Katherine Mills. After completing her PhD earlier in the year with A/Prof Teesson, Dr Mills was awarded an NHMRC Postdoctoral Fellowship to commence pilot work on an integrated treatment for post-traumatic stress disorder (PTSD) among people with substance use disorders. This work is in preparation

for a randomized controlled trial of the treatment, the first examination of its kind to be undertaken internationally and is being undertaken with international collaborators (Professor Kathleen Brady and Dr Sudie Back from the Medical University of South Carolina). Dr Mills is also working closely with A/Prof Teesson on the development on the second National Survey of Mental Health and Wellbeing, the largest epidemiological study of mental disorders and drug and alcohol dependence in Australia due to be undertaken in 2007.

In 2006, Dr Claudia Sannibale, AER Foundation Research Fellow, was successful in securing funding for a three year study on the efficacy of integrated treatment for PTSD and hazardous alcohol consumption among men and women in the general community. This study, a randomized controlled trial, will aim to recruit 264 participants to three treatment settings in greater Sydney. Recruitment will commence in July 2007.

Additionally, A/Prof Sitharthan Thiagarajan has led, with me, the study of treatment-outcomes among problem drinkers with comorbid depression and anxiety, funded by AERF for a study of 1000 participants.

Later during the year, the first comprehensive book on mortality amongst illicit drug users, with Professor Darke as senior author, was published by Cambridge University Press (Darke, S., Degenhardt, L. & Mattick, R.P. *Mortality amongst illicit drug users: epidemiology, causes and intervention*). As a result of the work on this book, he conducted a study of the toxicology of homicide victims in NSW over a ten year period, in collaboration with the NSW Department of Forensic Medicine. Prof Darke was also successful in being awarded a grant by NDLERF to examine violent assault amongst methamphetamine users.

Prof Darke continued to conduct work on the health effects of psychostimulants, with a strong emphasis on cardiac pathology. This work forms part of a long-standing programme of research on psychostimulant toxicity.

In January, Prof Darke was appointed as the Australasian Regional Editor of *Addiction*, the leading international journal in the substance abuse field. He had previously been acting as Deputy Regional Editor. He was also awarded the Senior Scientist Award by the Australasian Professional Society on Alcohol and other Drugs (APSAD).

Continuing to work closely with Prof Darke is Dr Sharlene Kaye, who was pleased to accept a Research Fellow position at NDARC, having previously been employed at the Centre as a Senior Research Officer. Her primary role was as the coordinator of a study monitoring psychostimulant-related deaths in Australia.

We were pleased to welcome A/Prof Alison Ritter and the Drug Policy Modelling Program (DPMP) to NDARC this year. The DPMP originated in 2002, when Prof Margaret Hamilton was asked to provide advice to a philanthropic funding body about the relative priorities that it should follow in allocating resources to the best drug policy interventions. There was little research to answer such a 'big picture' question. No-one in Australia had conducted research on the relative investments between

drug treatment, law enforcement responses, harm reduction initiatives or prevention programs. Thus, DPMP was born.

An initial feasibility stage (\$1.2m) coordinated at Turning Point Alcohol and Drug Centre was followed by a subsequent application to the funding body for a five year continuation of the research program. This second stage is auspiced by NDARC and commenced in July 2006. DPMP focuses on understanding the best mix of policy options (law enforcement, prevention, treatment and harm reduction) and the ways in which these different policy options dynamically interact. The work includes developing the evidence-base for policy; creating and using dynamic models of drug issues to better inform policy decision-making; and ongoing study of policy-making processes in Australia. DPMP is a collaborative endeavour between NDARC, the Australian National University, Griffith University and Turning Point Alcohol and Drug Centre. DPMP is funded by Colonial Foundation Trust (2006 to 2011). A/Prof Ritter is funded through a five-year NHMRC Career Development Award.

Drug use in pregnancy has continued to receive government and media attention throughout the year and the Health Evaluation Research Outcomes Network project with Dr Lucy Burns has been examining drugs in pregnancy and contributed to this debate by examining the impact of alcohol, tobacco, methadone and illicit drugs on neonatal outcomes. Dr Burns is also working on the policy implementation aspects of alcohol use in pregnancy as a member of the IGCD Fetal Alcohol Spectrum Disorder.

Dr Wendy Swift works part-time and is collaborating on a number of projects. These include one of Dr Burns's studies, a longitudinal examination of neonatal and maternal outcomes in pregnant, drug-using women. However, cannabis has continued to be her main focus. This year she commenced a pilot study to assist in establishing some evidence on the controversial issue of cannabis potency and contamination. This study involves a literature review, interviews with key experts on these issues and a survey of users, the ultimate aim being to collect pilot data to assist in obtaining funding to carry out scientific analyses of cannabis seizures. She is also continuing her collaboration with the NSW Bureau of Crime Statistics and Research examining the issue of cannabis and driving, and collaborating with Ms Laura Vogl and colleagues on the cannabis module of CLIMATE Schools.

Dr Shakeshaft continues his work on the Alcohol Action in Rural Communities (AARC) project – a large scale randomized controlled trial aiming to reduce alcohol-related harm in rural communities. The project is funded by the Alcohol Education and Rehabilitation Foundation. Work to date has focused on establishing methodologically rigorous baseline data, against which any effect of the community-wide intervention will be assessed. This project has resulted in significant media coverage in the communities involved and this is expected to continue.

Dr Shakeshaft also traveled with Dr Bradley Mathers to Mongolia as part of NDARC's Program of International Research and Training (PIRT) and on behalf of the World Health Organization Regional Office for the Western Pacific to conduct a Rapid

Assessment and Response to HIV and Drug Use in Mongolia. The report is currently in the process of being ratified by WHO.

Three major grants were received by A/Prof Kate Dolan. These were to establish and evaluate a specialised health clinic for female drug users in Tehran, complete a review of HIV prevention, care and treatment in prisons in India, Indonesia, Thailand and Nepal and finally, to establish and evaluate a pre-release prison methadone program in China. Her work continues to attract international attention and during the year she was a keynote presenter at the Indonesian National HIV/AIDS Conference.

A/Prof Copeland has led a number of significant projects in 2006. These include a NH&MRC funded randomized controlled trial of the Adolescent Cannabis Check-up that built upon the successful feasibility study funded by the Australian Government Department of Health & Ageing (AGDHA). Jan has also led innovative alcohol projects this year including an experimental study of the acceptability of ready-to-drink (RTD) beverages among young people and the development of a specialist alcohol treatment outcome measure (AATOM). Ms Devon Indig, supervised by A/Prof Copeland has conducted a number of studies examining the impact of alcohol on accident and emergency room presentations in Sydney hospitals. In addition, she has worked with Mr Dillon on two large projects exploring aspects of ecstasy and related drug education, the first, examining information needs among medical practitioners and the other a quasi-experimental study of peer education with a novel educational message on serotonin syndrome. Mr Dillon and A/Prof Copeland also managed a survey of the alcohol and other drug use of British backpackers funded by the John Moores University in Liverpool with a companion study of Australian backpackers in the UK. Jan has also led a pilot randomized controlled trial to test a novel intervention known as the Ecstasy Check-up.

Over the past year, Dr Delyse Hutchinson's work has focused on research activities in two main areas, firstly the assessment of the impact of parental substance use on children and families; and secondly, the identification of risk and protective factors for the development of adolescent substance misuse. She has been involved in collaborative research in these areas with the Queensland Alcohol and Drug Research Education Centre (QADREC) at Queensland University, the Centre for Adolescent Health at the University of Melbourne, and the National Centre for Epidemiology and Population Health at the Australian National University. In particular, the issue of drug use in the family has continued to receive considerable government and media attention. Dr Hutchinson's recent published works have contributed to an improved understanding of the impacts of drug use in the family context, and provide guidance for parents with respect to managing alcohol and other drug related issues in the home.

Media interest in 'ice' has meant Dr Rebecca McKetin spending much time in the past year providing expert comment on methamphetamine to radio, television and newspapers. Some of the highlights included feature stories in the Australian Magazine, WHO Weekly, Rolling Stone, ABC Health Matters and the PM show. Sensational documentaries on 'ice' also meant

doing many follow-up stories and proactive dissemination to try and keep perspective on methamphetamine-related problems. During 2006, Dr McKetin conducted 35 methamphetamine information seminars for alcohol and other drug professionals and the general community. Fact sheets were also produced and made freely available off the NDARC website, while an information booklet on harms from using ice was disseminated to users of the drug.

Many of the reports that Dr McKetin has written in the past year have been in response to increasing demand for up-to-date information on methamphetamine. These have included commissioned reports for the NSW Bureau of Crime Statistics and Research on methamphetamine use and violence, book chapters and commentaries on the Australian methamphetamine situation, including a National Drug Strategy monograph and a Parliamentary enquiry into Amphetamine and Other Synthetic Drugs.

On a research front, the most exciting development is the successful implementation of the Methamphetamine Treatment Evaluation Study (MATES). This study is the first of its kind in Australia – and is also unique by international standards. NDARC collaborators on this study include Dr McKetin and Dr Joanne Ross. The study aims to evaluate whether or not the treatment that is currently being provided for dependent methamphetamine users in our community is effective in reducing their drug use and any related mental health problems (depression, anxiety and psychosis). Ongoing collaboration with both A/Prof Amanda Baker at the University of Newcastle, Dr Frances Kay-Lambkin (NDARC), and Dr Nicole Lee from Turning Point, have led to Dr McKetin's involvement in two trials to pilot the efficacy of psychosocial treatment approaches for methamphetamine dependence and comorbid depression. Other research activities have involved collaborations with the North Coast Area Health Service, to conduct detailed studies into methamphetamine use patterns in a regional setting.

On an international front, Dr McKetin was invited to Taiwan to attend a regional drug trends meeting, and working collaboratively with the United Nations Office on Drugs and Crime to improve ATS monitoring systems in the Asia Pacific region. A particularly interesting and challenging aspect of this work has been the development of systems to monitor drug use in the Pacific region.

In 2006, A/Prof Degenhardt continued her work examining the epidemiology of illicit drug use and its related harms. She was awarded several new research grants, including an NH&MRC funded study using a data linkage design to examine the mortality of all persons who entered opioid pharmacotherapy in NSW between 1985 and 2006.

The monitoring and surveillance systems she oversees, the Illicit Drug Reporting System (IDRS), the Ecstasy and Related Drugs Reporting System (EDRS), and the National Illicit Drug Indicators Project (NIDIP), continued in 2006. These were complemented by evaluation work for drug monitoring systems in New Zealand, and consultations with the World Health Organization on approaches to monitoring drug use and related harm.

In July-October 2006, A/Prof Degenhardt took four months' sabbatical leave in the United States, where she began her involvement with the consortium for the WHO's World Mental Health Survey, with Professors Ron Kessler (Harvard University) and James Anthony (Michigan State University). She began a series of papers examining the epidemiology of illicit drug use across 17 countries. Thus far the ongoing collaboration has yielded seven peer reviewed publications, with work continuing.

She was also awarded the 2006 *Young Tall Poppy Science Award* (by the Australian Institute of Political Science) for her scientific contribution and excellence in communication and service as a young researcher.

The coming year promises to be a demanding, yet exciting one, for the Centre. Although NDARC was first established at the University of New South Wales in May, 1986 we were not officially opened until November, 1987. This means that we celebrate our 20th year of operation in 2007. As such it will be important for us to look back at the last 20 years and reflect on our achievements. Five years ago the Parliamentary Secretary to the Minister for Health and Ageing, the Hon Trish Worth officially opened our new building at the Randwick campus of UNSW. At that time we believed these premises would see us through 'the next 10 to 15 years'. That now looks doubtful as we continue to grow and expand, with major projects such as the DPMP and housing the National Cannabis Control and Prevention Centre resulting in substantial growth of the Centre.

As always, the major task for NDARC staff over the coming year will be ensuring that the timely completion and publication of research findings and roles on national committees usefully contributes to the formulation of public policy.

RESEARCH DISSEMINATION

NDARC has continued to be an effective centre for the media to obtain comment on a wide range of alcohol and other drug issues. As always, there were a wide range of alcohol and other drug issues covered in the media. Methamphetamine, and most particularly crystalline methamphetamine or 'ice', continued to be a popular topic with both print and broadcast media alike. However, alcohol use and abuse, ecstasy and related drugs (ERDs) and cannabis use and psychosis were just some of the other issues that also made the headlines.

The strategy of making the Centre staff available to the media for comment has continued to ensure excellent access to the media when we have wanted to disseminate results of specific research projects to the general public. Fourteen press releases were issued by NDARC during 2006, all of which were linked to the findings of specific research projects conducted at the Centre. Copies of these can be found on our website and cover such diverse topics as drug use among Sydney sex workers, through to rural injectors and drug use and pregnancy. All of the press releases issued were successful in attracting media coverage, however, as is to be expected, some generated more attention than others. This was particularly true of Dr Copeland's work on 'ready to drinks' and their palatability amongst young people which was released in April.

NDARC's Media Liaison Manager, Paul Dillon, has continued to develop positive relationships with journalists representing a variety of media. He, along with many other members of staff, has conducted many interviews responding to media interest in news stories of the day.

Apart from general media dissemination it remains vital that research findings can be accessed by drug and alcohol workers and policy-makers. *CentreLines* has continued to expand its readership across Australia and internationally and is currently being received by almost 1000 subscribers. There were three issues of *CentreLines* published in 2006 and the topics examined by NDARC academic staff in the *Issuing Forth* section of the publication were psychostimulants and heart disease, drinking in pregnancy and the Drug Policy Modelling Program.

We work extremely hard to ensure that our web page is kept up-to-date and, as such, it has continued to prove to be a valuable tool for a wide audience, including policymakers, alcohol and other drug workers and the general public. It continues to receive the most 'hits' of any of the schools and faculties of UNSW and has proven most effective in delivering information on our publications and research projects. Users of the web can find abstracts of nearly all of our technical reports and monographs on-line, as well as full PDF versions of many of these. Once again we have developed new fact sheets to disseminate information. Dr McKetin's work on methamphetamine has resulted in a series of fact sheets designed to provide quality information on a range of topics dealing with the drug. These include patterns of use, health issues, supply, psychosis, forms available, and crime. We also collaborated with NBN Television in Newcastle and their 'We Care' Project to develop a series of three fact sheets for parents around young people and alcohol and drug use. Continuing to develop and disseminate this type of information on the NDARC website has ensured that this important data is made available to a potentially large audience quickly and effectively. NDARC's web page is located at ndarc.med.unsw.edu.au.

The NDARC Annual Symposium continues to prove extremely popular, with workers from around the country travelling to Sydney to attend. Once again, there was no one specific theme used, following the success of the 2005 program, the day was broken up into four sections highlighting a range of projects examining such diverse topics as naltrexone-related deaths, serotonin syndrome, medical cannabis and mental health issues among street-based sex workers. Once again the Annual Symposium acted as an extremely effective tool to disseminate the findings of the Centre to the alcohol and other drug field.

NDARC is increasingly being asked to provide information and training to a wide variety of workers in the field, as well as members of the public. To assist in coping with this demand the NDARC Education Trust (NET) was created. NET is a separate arm of NDARC that provides education, resources and training to a variety of audiences. In 2006 NET, in collaboration with the NSW Users and AIDS Association (NUAA) produced a Training Calendar to provide information on a range of topical alcohol and other drug issues. A range of workers from across many sectors benefited from this venture, including alcohol and other drug workers, teachers, law enforcement personnel and local

government workers. Some of the more successful days included the following: 'Drugs and Driving: What Do We Know?', 'E, K, G and Charlie; An Introduction to Ecstasy and Related Drugs' and 'Cannabis: The Truth Behind The Headlines.'

NDARC resources continue to be popular with both workers in the field, as well as drug users. During 2006 NDARC continued to produce, update and disseminate booklets on a range of topic areas. NDARC's expertise in producing quality resources has resulted in a number of resource production projects being funded by the AGDHA. Following on from the success of the NEPOD and PIEDs booklets in 2004, NDARC was commissioned by the Department to develop a resource aimed at 'ice' users. *On Thin Ice: A User's Guide* covered what the substance is, how it is used and its effects, perceived positive benefits and harms associated with use, issues around psychosis and overdose, different routes of administration and associated harms and tips on how to reduce use or quit. The booklet was distributed across the country in mid 2006. An announcement was made on the Alcohol and other Drug Council of Australia (ADCA) Update that the booklet was available and the first print-run proved so successful that an additional 50,000 copies needed to be printed.

STAFFING

As of 31 December 2006, NDARC staff numbered 76, including support staff, part-time staff, conjoint and honorary appointments. A full list of staff is given in Appendix B.

MANAGEMENT STRUCTURE

NDARC's Board of Management met four times during 2006 with Mr Kevin Rozzoli continuing as Chairman.

The Research Committee, the main administrative body of the Centre, comprises: Professor Richard Mattick (Chair); Associate Professor Maree Teesson; Professor Shane Darke; Associate Professor Jan Copeland; Dr Louisa Degenhardt; Associate Professor Kate Dolan; Dr Rebecca McKetin; Dr Anthony Shakeshaft; Dr Wendy Swift; Dr Joanne Ross; Dr Claudia Sannibale; Dr Lucy Burns; Dr Delyse Hutchinson; Ms Marian Shanahan; Mr Paul Dillon; Ms Heli Wolk; Ms Alys Havarad (representing NDARC staff) and Ms Laura Vogl and Ms Amy Gibson (representing PhD students). The Research Committee meets monthly, immediately after the NDARC Staff Meeting, to maintain regular checks on the progress of projects listed in the Strategic Plan, to regularly review the progress of PhD students, and to assess the Centre's success in enacting its Strategic Plan. To ensure that they are as efficient as possible, the meetings are rostered to deal with a distinct subject area each month. These areas are as follows: administration, research activities, and research directions.

In addition to the Research Committee an Executive Advisory Group now meets regularly (at least monthly, but occasionally more regularly) to discuss issues around strategic direction. The members of this committee are Professor Mattick (Chair); Associate Professor Teesson; Professor Darke; Associate Professor Copeland; Dr Degenhardt; Associate Professor Dolan; Dr McKetin; Dr Shakeshaft; and Mr Dillon.

The Staff Meeting continues to be held on the first Thursday in every month and members of staff take turns to chair these meetings. The remaining management structure of the Centre (i.e. Computing Committee, Library Committee, Accommodation Committee, and regularly-meeting steering committees for all major projects) remain as in past years.

FUNDING

Allocation for base-line core funding from the Australian Government Department of Health and Ageing for the financial year 2005/06 was \$1,520,094. This was expended as follows

	2004-2005 \$	2005-2006 \$
SALARIES	1,083,198	1,149,018
OPERATIONAL	330,769	331,833
EQUIPMENT AND FURNITURE	33,848	39,243
TOTAL	1,447,815	1,520,094

Expenditure during 2006 of funds from external grants awarded to NDARC was \$4,646,970. Details of these grants may be found in Appendix C.

NDARC POSTGRADUATE STUDENTS

NDARC offers both PhD and Masters Degrees by research in a wide variety of topic areas, depending on student background and interest. Congratulations to Dr Kath Mills, Dr Anna Williamson, Dr Neil Donnelly and Dr Jo Kimber who were awarded their doctorates in 2006. Further congratulations to Heather Proudfoot who recently submitted her PhD for assessment. Examples of current PhD projects include:

- Examining the diversion and injection of methadone, buprenorphine and buprenorphine-naloxone
- Mortality associated with pharmacotherapies for opioid dependence
- Alcohol-related emergency department presentations
- Reducing alcohol-related harm in rural communities in NSW
- CLIMATE Schools Cannabis Module: Evaluating the efficacy of a computer based preventative cannabis module for schools
- Agonist pharmacotherapy for psychostimulant dependence
- Prevalence and consequences of child maltreatment among heroin dependent cases and matched controls
- Patterns of suicidal behaviour, comorbidity and drug use among opioid dependent subjects and matched control subjects
- Brief intervention for adolescent cannabis users
- CLIMATE Schools Alcohol Module: Evaluating the efficacy of a computer based preventative alcohol module for schools

The students have a representative on the Research Committee and meet quarterly with the Executive Director to discuss progress and any issues of concern. The students meet monthly to discuss relevant issues and to offer support and encouragement to each other. Some of these groups constitute more formal seminars, where issues are presented by a staff member or other relevant person.

RESEARCH SUPERVISION

The following undergraduate and postgraduate research supervision was undertaken by Centre staff during 2006.

Bashford, J. (2002-present). Development of cannabis screening questionnaire. Full-time PhD in School of Psychology, Massey University, New Zealand. Joint supervision by A/Prof Copeland and Dr Swift. Expected date of submission December 2007.

Breen, C. (2004-present, course leave 2006). Reducing alcohol-related harm in rural communities in NSW. Part-time PhD in School of Community Medicine, UNSW. Joint supervision by Dr Shakeshaft and Prof Mattick. Expected date of submission February 2010.

Conroy, E. (2005-present). Prevalence and consequences of child maltreatment among heroin dependent cases and matched controls. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Degenhardt and Dr Ward. Expected date of submission January 2008.

Gibson, A. (2005-present). Mortality associated with pharmacotherapies for opioid dependence. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Degenhardt and Dr Burns. Expected date of submission February 2008.

Indig, D. (2005-present). Alcohol-related emergency department presentations. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Copeland and Dr Kate Conigrave. Expected date of submission February 2008.

Larance, B. (2006-present). A comparative study of the diversion and injection of methadone, buprenorphine and buprenorphine-naloxone. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Degenhardt and Prof Mattick. Expected date of submission March 2009.

Maloney, E. (2005-present). Patterns of suicidal behaviour, comorbidity and drug use among opioid dependent subjects and matched control subjects. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Degenhardt and Prof Darke. Expected date of submission February 2008.

Mammen, K. (2006-present). Monitoring the implementation of buprenorphine-naloxone (Suboxone®) in Australia. Part-time PhD in School of Community Medicine, UNSW. Supervision by A/Prof Bell and Prof Mattick. Expected date of submission December 2008.

Martin, G. (2002-present). Brief motivational intervention for adolescent cannabis users. Part-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Copeland and Prof Darke. Expected date of submission July 2007.

Newton, N. (2006-present). CLIMATE Schools: The development of a computer-based drug and alcohol prevention program for Year 8 students. Full-time PhD in School of Community Medicine, UNSW. Supervision by A/ Prof Teesson and Prof Andrews. Expected date of submission December 2008.

Proudfoot, H. (2000-present). Treatment seeking for alcohol use disorders. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Teesson and Dr Ross. Submitted.

Shearer, J. (2005-present). Agonist pharmacotherapy for psychostimulant dependence. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by Prof Darke and Prof Alex Wodak. Expected date of submission March 2008.

Vogl, L. (2003-present). CLIMATE Schools Alcohol Module: Evaluating the efficacy of a computer based preventative alcohol module for schools. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by A/Prof Teesson and Dr Kevin Bird. Expected date of submission December 2006.

Wood, E. (2005-present). Alcohol Action in Rural Communities. Part time Masters of Applied Anthropology, Macquarie University. Joint supervision Dr Shakeshaft and Dr Biddle. Submitted.

EPIDEMIOLOGY

TITLE: ALCOHOL AND OTHER DRUG USE IN SIX NON-ENGLISH SPEAKING BACKGROUND (NESB) COMMUNITIES

NDARC Staff: Jan Copeland

Other Investigators: Michelle Toms, Kelvin Chambers and Richard Taylor (DAMEC)

Aims: This study will partially replicate the previous series of studies of NESB communities' patterns of alcohol and other drug use conducted by the Drug and Alcohol Multicultural Education Centre (DAMEC) over the last decade. This series of surveys over three years will determine the prevalence and patterns of alcohol and other drug use in Chinese, Vietnamese, Arabic-speaking, Spanish-speaking, Italian and Pacific Islander communities in NSW.

Start Date: March 2004

Expected Completion Date: July 2007

Funding: Alcohol Education and Rehabilitation Fund

TITLE: NATIONAL ILLICIT DRUG INDICATORS PROJECT (NIDIP)

NDARC Staff: Louisa Degenhardt and Amanda Roxburgh

Aims: The aims of the surveillance project are to improve the understanding of, and systematically track changes in, heroin and psychostimulant use and related harms.

Design and Method: The project involves identifying and compiling a large number of state and national data sources and their indicators. Examples of relevant data indicators include: information on population patterns of drug use from national surveys, data on deaths due to drug overdoses, morbidity data, treatment data, indicators of drug purity and seizures, crime data and attitudes. It is envisioned that the data indicators will be updated, analysed and published regularly on a NDARC web page. This will provide an accessible and more complete picture of trends in use and harms over time.

Benefits: This project will provide a number of benefits, including enhanced dissemination of information on heroin and psychostimulant use and harms, and a greater ability of agencies and policymakers to assess the need for, and outcomes of, policy and other interventions.

Outputs: Some of the publications to arise from this project include:

Barker, B., Conroy, E., Degenhardt, L., Kimber, J., & Dolan, K. (2005). *Global indicators for monitoring the illicit drug environment in NSW: Catalogue of datasets and data sources.* Sydney: National Drug and Alcohol Research Centre.

Barker, B., Degenhardt, L. & Breen, C. (2003). *Indicators of drug use and treatment in Australia: Preliminary findings from the National Illicit Drug Indicators Project*. Sydney: National Drug and Alcohol Research Centre.

Barker, B. & Degenhardt, L. (2003). *Cross-national comparisons of drug-induced deaths*. Sydney: National Drug and Alcohol Research Centre.

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

Barker, B. & Degenhardt, L. (2003) *Accidental and suicidal drug-induced deaths in Australia 1997-2001*. Technical Report No. 164. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L. & Barker, B. (2003). *2002 Australian Bureau of Statistics data on accidental opioid induced deaths*. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L. & Barker, B. (2003). *Investigating trends in cocaine and methamphetamine mentions in accidental drug-induced deaths in Australia 1997-2002*. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L., Barker, B. & Topp, L. (2004). Patterns of ecstasy use in Australia: Findings from a national household survey. *Addiction* 99, 187-195.

Degenhardt, L. & Dietze, P. (2005). *Data sources on illicit drug use and harm in Australia*. Melbourne: Turning Point Inc.

Degenhardt, L., Knox, S., Barker, B., Britt, H., & Shakeshaft, A. (2005). The management of alcohol, tobacco and illicit drug use problems by general practitioners in Australia. *Drug and Alcohol Review* 24, 499-506.

Degenhardt, L., Roxburgh, A. & Barker, B. (2005). Underlying causes of cocaine, amphetamine and opioid-related deaths in Australia, *Journal of Clinical Forensic Medicine*, 12, 187-195.

Degenhardt, L., Roxburgh, A. & Black, E. (2004). *Cocaine and amphetamine mentions in accidental drug-induced deaths in Australia, 1997-2003*. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L., Roxburgh, A. & Black, E. (2004). *2003 Australian Bureau of Statistics data on accidental opioid induced deaths*. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L., Roxburgh, A., Black, E., & Dunn, M. (2006). *Accidental drug-induced deaths due to opioids in Australia, 2004*. Sydney: National Drug and Alcohol Research Centre.

Degenhardt, L., Roxburgh, A., Black, E. & Dunn, M. (2006). *2004 cocaine and amphetamine related drug-induced deaths in Australia*. Sydney: National Drug and Alcohol Research Centre.

Jauncey, M., Taylor, L. & Degenhardt, L. (2005). Classification of opioid-induced deaths in Australia: Implications for surveillance, *Drug and Alcohol Review* 24, 401-409.

Topp, L., Barker, B. & Degenhardt, L. (2004). The external validity of results derived from ecstasy users recruited using purposive sampling strategies. *Drug and Alcohol Dependence* 73, 33-40.

Start Date: June 2002

Expected Completion Date: Ongoing

Funding: Australian Government Department of Health and Ageing

TITLE: HEALTH EVALUATION AND RESEARCH OUTCOMES NETWORK (HERON): SUBSTANCE USE IN PREGNANCY STREAM

NDARC Staff: Lucy Burns and Richard Mattick

Other Investigators: Bruce Armstrong, Richard Taylor, Anne Cricker and Judy Simpson (School of Public Health, USyd); Louisa Jorm (NSW Health); Dianne O'Connell (Cancer Council of NSW); Christine Roberts (Centre for Perinatal Health Services Research, USyd); Elizabeth Sullivan (NPSU, UNSW); and Anthony Zwi (PH&CM, UNSW)

Aims: To assess the magnitude and outcomes of substance use in pregnancy.

Design and Method: The overall aim of HERON is to use population health datasets to explore issues of clinical or policy significance to guide health policy and service provision. In the perinatal stream of this project HERON will provide information for service planning for pregnant drug users. Using retrospective and prospective methods the maternal and neonatal outcomes of babies born to substance-dependent women will be explored. Included in this will be the relative outcomes for pregnant women receiving methadone and other pharmacotherapies for opioid dependence. The project will link the Methadone Database with the Midwives Data Collection and other relevant databases.

Progress: Data analysis using linked data is continuing in this project. To date, publications have been undertaken in the areas of alcohol use in pregnancy, illicit drug use in pregnancy, the impact of methadone retention on neonatal outcomes and the prevalence and correlates of neonatal abstinence syndrome. Currently analysis is underway examining the impact of tobacco use in pregnancy among women who use other substances, and the hospitalisation rates and reasons for hospitalisation among women on the NSW Methadone Program. A further analysis is planned examining mortality of infants born to women on the NSW Methadone Program.

Output: Publications arising from this project include:

Burns, L., Mattick, R.P. & Cooke, M. (2006). The use of record linkage to examine illicit drug use in pregnancy. *Addiction* 101, 873-882.

Burns L., Mattick, R.P. & Cooke, M. (2006). The use of linked data to examine alcohol use in pregnancy. *Alcoholism: Clinical and Experimental Research* 30, 642-648.

Presentations have included the following:

Burns, L. *Substance use in pregnancy.* In-house presentation to National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Burns, L. *Alcohol use in pregnancy. Issues and Outcomes.* Invited presentation to the Expert Advisory Committee on Drugs, Sydney.

Burns, L. *Alcohol use in pregnancy. National clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn.* Invited presentation to Drug and Alcohol Nurses of Australasia (DANA) Conference, Sydney.

Burns, L. *Illicit drug use in pregnancy.* Invited presentation to the Drug and Alcohol Nurses of Australasia (DANA) Conference, Sydney.

Wallace, C. *Sedative use in pregnancy.* Presentation to the Drug and Alcohol Nurses of Australasia (DANA) Conference, Sydney.

Burns, L. *Measuring maternal and neonatal outcomes for drug dependent pregnant women.* Invited presentation to the NSW Department of Community Services, Sydney.

Burns, L. *Examining substance use in pregnancy.* Presentation to NSW Health Department, Sydney.

Burns, L. *The use of data linkage to examine the prevalence and outcomes of drug use in pregnancy.* Presentation to the Australian Epidemiological Association Conference. Melbourne.

Burns, L. *Methadone in pregnancy: Treatment retention and neonatal outcomes.* Presentation to the 37th Public Health Association of Australia Annual Conference. Tackling the Determinants of Health, Sydney.

Burns, L. *Measuring substance use in pregnancy.* Presentation to Anatomy Department, Faculty of Medical Sciences, Sydney.

Burns, L. *The prevalence and correlates of Neonatal Abstinence Syndrome.* Presentation to the Combined APSAD and Methadone Conference, Cairns.

Burns, L. *The case of alcohol use in pregnancy: Who is at risk?* Presentation to the NSW Health Department.

Start Date: January 2004

Expected Completion Date: January 2009

Funding: National Health and Medical Research Council

IDENTIFICATION OF POTENTIAL HARMS

TITLE: AN EXAMINATION OF CANNABIS POTENCY AND CONTAMINATION IN AUSTRALIA

NDARC Staff: Wendy Swift, Paul Dillon and Jen McLaren

Other Investigators: Steve Allsop (NDRI) and Colin Priddis (Chemistry Centre (WA))

Rationale: There is little detailed information about the Australian cannabis market, yet widespread speculation about several of its aspects, including the domination of highly potent cannabis and contamination of local cannabis product. One major concern associated with cannabis potency is that more potent cannabis is responsible for a perceived increase in mental health problems, particularly among young people. However, to date, there is little data on cannabis potency with which to support these claims. This pilot study aims to gain a better understanding of cannabis potency and the presence of contaminants in Australian cannabis.

Aims: This innovative, collaborative study aims to improve our understanding of potency and contamination in cannabis available on the Australian market. It uses various methodologies to identify, and discuss the implications of, trends in cannabis potency and the presence of contaminants.

Design and Method: This pilot study will comprise (i) a literature review and international consultations with key informants on potency and contamination; (ii) an audit of websites associated with cannabis cultivation, including hydroponics sites (focusing on Australian sites), for information on pesticides, growth promoters and microbial contaminants relevant to local conditions; and (iii) an online survey of growers and users addressing their knowledge and beliefs about potency and contamination. It is hoped to obtain further funding to conduct an examination of police exhibit logs from cannabis seizures for information on the type of cannabis seized and circumstances of the seizure and a laboratory analysis of cannabis seizures in the WA jurisdiction over a 6 to 12 month period. These analyses would measure potency and screen for natural and synthetic contaminants, growth enhancers, pesticides and heavy metals, identified from the pilot study.

Progress: The project has been delayed briefly due to staffing issues. However, ethics approval has been received from UNSW and key informant interviews have commenced.

Benefits: This study has several potential public health and law enforcement benefits, including: (i) the provision of important Australian data on potency and contamination. This can aid in the education of users and health professionals about the health risks associated with market practices; and (ii) the protocol may be a useful tool to measure longitudinal changes in potency, etc that may result from policy, law enforcement and public health strategies.

Start Date: June 2006

Expected Completion Date: June 2007

Funding: National Drug and Alcohol Research Centre

TITLE: THE PFIZER HEALTH REPORT: AUSTRALIAN ATTITUDES TOWARDS CANNABIS USE

NDARC Staff: Wendy Swift, Jan Copeland and Paul Dillon

Aims: This project aims to obtain population-based data on Australians' attitudes towards the physical health, mental health and social effects of cannabis use, their sources of information on cannabis use and their attitudes towards interventions to reduce cannabis-related harm. This may help in developing appropriately targeted Australian education campaigns on the effects of cannabis.

Design and Method: This research was conducted among a representative sample of approximately 1000 Australian households as part of the Pfizer Health Report Series. The Health Report surveys are conducted about 4 times a year, with various organizations invited to submit research questions to form an omnibus survey. This study involved self-completion of 28 questions on attitudes towards cannabis use.

Progress: Data collection is complete and the findings should be launched in February 2007.

Start Date: August 2006

Expected Completion Date: March 2007

Funding: Pfizer and National Drug and Alcohol Research Centre

TITLE: AN EXPLORATORY STUDY EXAMINING FACTORS ASSOCIATED WITH INHALANT USE AND CESSATION AMONGST URBAN YOUNG PEOPLE

NDARC Staff: Jan Copeland, Paul Dillon and Cath Finney-Lamb

Rationale: According to the second national survey on the use of over the counter and illicit substances conducted in 1999, 32% of 12 year old males and 37% of females had ever experimented with inhalants. Little research has been conducted on the experiences of non-Aboriginal inhalant users, for example, how inhalants are used, which substances are favoured and motivations for inhalant use and cessation. Anecdotal information suggests that the reasons why young people stop use of inhalants is because of the unpleasant after-effects of the using inhalants or because they go on to using other drugs.

Aims: This study is being conducted to inform the development of prevention programs for young people around inhalant use and to improve our understanding of the reasons for cessation.

This research aims to:

- identify and describe motivations for inhalant use
- identify and describe motivations for cessation of inhalant use

Design and Method: A qualitative study will be conducted to enable in-depth descriptions of these factors. In-depth interviews will be conducted with people who have used inhalants in the past, but have ceased inhalant use in the last 6 months. A thematic analysis will be conducted on the data.

Progress: Recruitment for this study proved extremely difficult which is an interesting finding of the study. The recruitment period was lengthened and the final sample size was 10 (9 males and one female). The data has been entered in a qualitative database and a thematic analysis is currently being conducted. A paper for submission to a peer-reviewed journal will form the basis of the final report.

Output: A presentation on the findings of this project has been made:

Dillon, P. *An exploratory study examining factors associated with inhalant cessation amongst non-Aboriginal Australians.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns.

Start Date: December 2005

Expected Completion Date: March 2007

Funding: Australian Government Department of Health and Ageing

TITLE: DEMOGRAPHICS, CIRCUMSTANCES, TOXICOLOGY AND MAJOR ORGAN PATHOLOGY OF PSYCHOSTIMULANT-RELATED DEATHS IN AUSTRALIA

NDARC Staff: Shane Darke, Sharlene Kaye and Rebecca McKetin

Other Investigators: Johan Duflo

Aims: This project aims to investigate illicit psychostimulant-related death in Australia. The National Coroners Information System (NCIS) contains information from the coronial files of all Australian states and territories, including case demographics, circumstances of death, toxicology reports and autopsy reports. Information from the NCIS database will be used to investigate deaths where illicit psychostimulants are implicated in the cause of death. Drug classes examined will include amphetamine, amphetamine-type stimulants (ATS), and cocaine. Specifically, the demographic profiles, circumstances of death, toxicology and major organ pathology of cases will be examined.

Design and Method: Cases in the NCIS database where illicit psychostimulants are noted as a direct cause of death, an antecedent cause of death, or a significant associated condition contributing to death, will be selected. Drug classes examined will include amphetamine, ATS and cocaine. De-identified case information, e.g. age, gender, circumstances of death, toxicology results and autopsy results will be entered into a separate database maintained by, and restricted to, the nominated investigators.

Progress: One hundred and twenty five cases of cocaine-related death have been identified and analysed. Three hundred and sixty five cases of methamphetamine-related death have been identified and analysed. The findings have been released in an oral presentation to the AGDHA and a report containing these findings is currently in preparation. Sixty two cases of death related to MDMA, MDA and PMA have been identified and analysed.

Start Date: July 2005

Expected Completion Date: April 2007

Funding: Australian Government Department of Health and Ageing

TITLE: THE ROLE OF CANNABIS DEPENDENCE AS A RISK FACTOR FOR METHAMPHETAMINE PSYCHOSIS

NDARC Staff: Rebecca McKetin and Maree Teesson

Aims: To determine whether cannabis use increases the risk of psychotic symptoms among methamphetamine users.

Design and Method: This project will be implemented as a PhD Candidature and will build on existing research on methamphetamine use and psychosis being carried out at NDARC.

Progress: The establishment of the PhD candidature has been delayed, although data for the project is currently being collected through existing National Health and Medical Research Council (NHMRC) projects on methamphetamine use and psychosis. Preliminary data from this research shows that dependent methamphetamine users who engage in heavy cannabis use have a higher prevalence of psychotic symptoms compared to those who do not. The project will involve examining these findings in detail, and carrying out further research to elucidate the nature of the relationship between cannabis use and psychotic symptoms in the context of methamphetamine dependence.

Start Date: June 2006

Expected Completion Date: June 2008

Funding: Australian Government Department of Health and Ageing

TITLE: AN EMPIRICAL INVESTIGATION OF PSYCHOSIS PRONENESS AMONG AMPHETAMINE USERS: CURRENT AND PREDICTIVE VALIDITY

NDARC Staff: Rebecca McKetin and Maree Teesson

Other Investigators: Sharon Dawe (Griffith University); Ross Young (Queensland University of Technology); David Kavanagh and John Saunders (University of Queensland)

Aims: This project is being conducted through Griffith University in collaboration with NDARC. The project aims to investigate:

- the relationship between dose, pattern and duration of amphetamine use and emergent psychotic symptoms
- the relative contribution of amphetamine dose, schizotypal features and family history of schizophrenia on the increase of positive psychotic symptoms
- the progression of psychotic symptoms over time, and specifically what is the evidence for the development of sensitisation to amphetamine such that smaller doses precede an increase in psychotic symptoms?

Design and Method: A cohort of 300 methamphetamine users will be recruited from needle and syringe exchange programs in inner Brisbane and Sydney. The cohort will undergo a detailed assessment of psychosis and drug use history at baseline, and will then be followed up at one-month intervals over one year. Follow-up interviews will include assessment of current positive psychotic symptoms and drug use. Psychotic symptoms and diagnostic status will be measured using the Diagnostic Interview for Genetic Studies and the Brief Psychiatric Rating Scale. Premorbid schizotypal features will be assessed using the Premorbid Schizophrenia-spectrum Traits measure and the Oxford-Liverpool Inventory of Feelings and Experiences. Drug use will be assessed for the preceding 30 days using Timeline FollowBack method.

Progress: Data collection is underway for this project in Brisbane, and participant recruitment has recently started in Sydney. Recruitment of participants was delayed in Sydney due to staffing changes and training on the interview schedule.

Start Date: June 2005

Expected Completion Date: June 2008

Funding: National Health and Medical Research Council

TITLE: A QUALITATIVE FIELD STUDY OF USERS OF PERFORMANCE AND IMAGE ENHANCING DRUGS (PIEDS)

NDARC Staff: Paul Dillon, Jan Copeland, Briony Larance and Cath Finney-Lamb

Other Investigators: Sophie Pointer, Robert Ali and Victoria Dennington (DASSA) and Jo Taylor and Jackie Ruddock (Streetwize)

Aims: To explore the motivations, behaviours, risks and physical and psychological harms associated with the use of performance and image enhancing drugs (PIEDs).

Design and Method: There are three components to this study:

- a comprehensive review of the national and international literature in respect of the use of PIEDs for reasons other than improved elite sporting performance

- a national qualitative survey of current and past users of PIEDs from three target groups – adolescent males aged 16 years and above; members of the gay community; and employees in the security industry
- a qualitative survey of key informants who have knowledge of PIEDs users in the three target groups

Progress: Recruitment was completed at the end of August. Unfortunately, the number of participants was lower than expected. Streetwise, NDARC and DASSA reviewed the recruitment situation and remedial strategies to increase recruitment were implemented (including conducting extra media and advertising campaigns). Although remedial strategies did result in an increase of participants, both DASSA and Streetwise continued to encounter considerable recruiting difficulties. A total of 70 user and 24 key expert interviews were conducted. All interviews have been transcribed and are now with NDARC for coding and analyses.

Start Date: July 2005

Expected Completion Date: March 2007

Funding: Australian Government Department of Health and Ageing

TITLE: OPIOID DEPENDENCE: CANDIDATE GENES AND GENETIC X ENVIRONMENT INTERACTIONS (COMORBIDITY AND TRAUMA STUDY (CATS))

NDARC Staff: Richard Mattick, Louisa Degenhardt, Maree Teesson, Fiona Shand, Elizabeth Conroy, Caitlin McCue, Elizabeth Maloney and Michelle Torok

Other Investigators: Elliot Nelson, Michael Lynskey and Andrew Heath (Washington University); Dixie Statham and Megan Campbell (QIMR); and Bill Rawlinson and Yong Pan (Prince of Wales Hospital)

Aims: The study aims to:

- identify polymorphisms and/or mutations in candidate genes to be typed in cases and controls
- assess retrospectively childhood trauma to enable its inclusion as a risk modifying variable
- analyse genotype and interview data to test for candidate gene effects on opioid dependence, and the moderation by history of childhood trauma
- identify patterns of comorbidity amongst cases and controls

Design and Method: This is a case-control genetic association study of opioid dependence with the inclusion of childhood trauma history as a potential confounding variable. Researchers are interviewing and collecting blood samples from 1500 opioid dependent cases and 1500 non-dependent controls, matched by age, sex and employment status. Childhood trauma and psychiatric comorbidities are measured by a computerised, structured interview which will enable DSM-III and DSM-IV-R

diagnoses to be made. Participants will be recruited over 3 years, with interviews being conducted at NDARC, methadone clinics, and community centres in the greater Sydney area.

The study is being conducted in collaboration with Washington University, St Louis; the Queensland Institute of Medical Research (QIMR), Brisbane; and the Prince of Wales Hospital, Randwick. NDARC will be responsible for the collection of blood samples and interview data from participants, and the genetic analysis will occur at QIMR and Washington University.

Progress: As at December 2006, around half of the sample has been recruited and interviewed. Recruitment of controls has been more difficult than expected, with only one third of the participants already interviewed being controls. Case recruitment in the Sydney area has been completed at most methadone clinics, and interviews have been conducted in Wollongong. Alternative recruitment strategies are being trialled, pending approval from the UNSW Ethics Committee.

Start Date: November 2004

Expected Completion Date: December 2008

Funding: National Institute of Drug Abuse

TITLE: AN EXAMINATION OF CONTENTS OF CONFISCATED INJECTING EQUIPMENT AND NEEDLESTICK INJURIES IN PRISONS

NDARC Staff: Kate Dolan and Sarah Larney

Aims: The aims of this project are:

- to provide evidence, other than self-report data, on the level of syringe sharing that occurs in prison
- to provide evidence, other than self-report data, on the level of syringe cleaning that occurs in prison
- to provide evidence, other than self-report data, of HIV positive and/or hepatitis C positive inmates engaging in syringe sharing in prison

Progress: Approval was initially obtained to conduct this study in Western Australia and Victoria. Prison officers in these states have completed a survey about their experiences with needles and syringes in prison, including needlestick injuries. Prison officers in NSW will be requested to complete this survey also. Survey results from all three states should be available mid-2007.

Approximately 30 syringes have been collected from these states. Approval has also recently been obtained to collect syringes from New South Wales prisons. Once these syringes have been collected, the contents of the stored syringe will be tested for HIV and hepatitis C antibodies and the presence of bleach. A type of DNA test will also be conducted to determine the minimum number of individuals who have used the syringe. Results from the syringe testing are expected to be available by mid-2007.

Output: Data from these surveys has been presented:

Larney, S. *Injecting drug use in prisons: Occupational needlestick injuries and evidence of multiple users and blood borne viral infections in prison syringes.* Paper presented at the Australasian Professional Society on Alcohol and other Drugs Conference, Cairns.

Start Date: April 2005

Expected Completion Date: April 2007

Funding: Unilife Medical Solutions through Unitract Syringe Pty Ltd

HEALTH ECONOMICS

TITLE: ASSESSING THE HOSPITAL COSTS RELATED TO ADMISSION WITH ANY INDICATION OF ILLICIT DRUG OR ALCOHOL USE

NDARC Staff: Louisa Degenhardt, Marian Shanahan, Steve Riddell and Amanda Roxburgh

Aims: To build on the existing work of the National Illicit Drug Indicators Project, this project will examine the cost trends of hospital separations where an illicit drug has been recorded. These trends will be examined by drug type, across time, disease category as well as other characteristics such as age, gender and hospital type.

Design and Method: This project using data from the National Hospital Morbidity Database (NHMD) for the years 1999/2000 to 2004/05 will also use the Australian Refined Diagnostic Related Groups (AR-DRG) and their associated Cost Weights to assess cost trends for cases where there is an indication of illicit drug use. Methods such as aetiological fractions will be used to estimate the proportion of each separation which is directly attributable to an illicit drug.

Progress: Data analysis is currently underway. A NDARC Technical Report is expected to be completed by March 2007.

Benefits: This current study will be useful in improving our understanding of both the cost implications to the health care system from the use of different types of illicit drugs and alcohol, and the extent to which variations in the use of illicit drugs and alcohol over time impact upon the use of hospital resources.

Start Date: July 2006

Expected Completion Date: March 2007

Funding: Australian Government Department of Health and Ageing

TITLE: ESTIMATING THE COST-SAVINGS OF REDUCED CRIME WHILE ON METHADONE TREATMENT

NDARC Staff: Marian Shanahan, Kate Hetherington and Richard Mattick

Other Investigators: Don Weatherburn (BOCSAR)

Aims: To estimate the cost-savings (cost-offset) of crimes averted through the use of methadone/buprenorphine maintenance for heroin users in NSW between January 1999 and December 2000.

Design and Method: Using previously linked data on a group who were enrolled in the NSW methadone treatment program, the costs of treatment, and the costs of recorded offences both on and off methadone treatment were estimated. The costs of treatment and costs of crime while on treatment were compared to the cost of crime including gaol while off treatment.

Progress: The sample spent more free time on-methadone (53%) than off-methadone (47%) with a large preponderance of the time spent out of gaol (92%). Despite this, the largest component of costs was gaol, which accounted for 65% of the total while methadone treatment accounted for approximately 25% of the total costs. The costs of crime excluding gaol was about 10% of the total. Additional analyses found that for every day in treatment the cost of crime decreased by more than the cost of treatment suggesting that at a minimum treatment pays for itself.

Benefits: This study proposes to provide an estimate in dollars, of one of the benefits of this expanded NSW Pharmacotherapy Program by estimating the cost savings due to decreased crime.

Output: A NDARC Technical Report will be available in early 2007.

Start Date: February 2006

Expected Completion Date: March 2007

Funding: NSW Health

TITLE: A RANDOMIZED TRIAL OF EFFECTIVENESS AND COST-EFFECTIVENESS OF SUPERVISED VERSUS UNSUPERVISED ADMINISTRATION OF BUPRENORPHINE-NALOXONE FOR HEROIN DEPENDENCE

NDARC Staff: Marian Shanahan and Richard Mattick

Other Investigators: James Bell and Anni Ryan (The Langton Centre); Adrian Dunlop (Turning Point); Adam Winstock (South Western Sydney Area Health Service); Robert Batey (Royal Newcastle Hospital)

Aims: To compare the effectiveness and cost-effectiveness of combination buprenorphine-naloxone (Suboxone®) in the treatment of heroin dependence under two conditions – supervised and unsupervised.

Design and Method: This study was conducted at The Langton Centre, Royal Newcastle Hospital, and Bankstown Hospital in NSW and at Turning Point in Victoria. This randomized control trial, recruited subjects on days 3-5 post inception to buprenorphine. Heroin users seeking maintenance treatment were randomly allocated to either supervised (daily administration) or unsupervised (weekly dispensed) medication for three months. All subjects received buprenorphine-

naloxone, weekly clinical reviews, and research interviews at baseline and three months. The hypothesis of the study was that retention in treatment would be superior in unsupervised subjects. Primary end-points were retention in treatment, and heroin use at three months. Costs of treatment were measured, and cost-effectiveness of supervised and unsupervised treatment compared.

Progress: Data analysis is complete and a paper is currently being prepared.

Benefits: This study will provide evidence as to the relative effectiveness and cost-effectiveness of supervised versus unsupervised treatment, and will assist in the development of policy around use of Suboxone®.

Output: The findings of this project were presented at a national conference:

Shanahan, M. *Estimating the cost-savings of reduced crime while on methadone treatment.* Paper presented at the 2006 APSAD Conference, Cairns, Queensland.

Start Date: November 2003

Expected Completion Date: March 2007

Funding: Reckitt Benckiser and NSW Health

DRUG MARKET ANALYSIS AND SUPPLY REDUCTION

TITLE: THE ILLICIT DRUG REPORTING SYSTEM (IDRS)

NDARC Staff: Louisa Degenhardt, Jennifer Stafford, Susannah O'Brien, Emma Black, Gabrielle Campbell and Richard Mattick

Other Investigators: Christopher Moon and Jaclyn Newman (Department of Health and Community Services); Stuart Kinner and Belinda Lloyd (Queensland Alcohol and Drug Research and Education Centre); Robert Ali, Robyn Vial and Nancy White (Drug and Alcohol Services SA); Raimondo Bruno and Barbara de Graaff (University of Tasmania); Craig Fry, Rebecca Jenkinson and Brendan Quinn (Turning Point Alcohol and Drug Centre Inc.); and James Fetherston and Simon Lenton (National Drug Research Institute)

Aims: The aims of this project are:

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

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

- a quantitative survey of injecting drug users (IDUs)

- a semi-structured interview with key experts (KEs), who are professionals working in the illicit drug field, and have regular contact with and/or specialised knowledge of illicit drug users, dealers or manufacture
- 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 detected. 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 strength of the IDRS is the ability to compare data across jurisdictions as well as over time.

Progress: The IDRS is an ongoing project that is conducted annually in all Australian jurisdictions. In 2006, over 900 IDUs were interviewed across Australia, providing information on their use patterns and drug markets. Over 250 KEs provided information on the drug users they had contact with.

Output: The annual National Drug Trends Conference was held in Cairns in November, in conjunction with the 2006 APSAD Conference, where a summary of jurisdictional drug trends findings, as well as a national overview, was presented to relevant health professionals, law enforcement, and policy-makers. Throughout the year, quarterly bulletins outlining current drug trends or issues of interest were also disseminated. These bulletins are available on the NDARC website to ensure broader dissemination. More detailed findings from each jurisdiction, and a national overview, are documented in comprehensive reports.

Stafford, J., Degenhardt, L., Black, E., Bruno, R., Buckingham, K., Fetherston, J., Jenkinson, R., Kinner, S., Newman, J., & Weekley, J. (2006). *Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Monograph No. 59. National Drug and Alcohol Research Centre.

Buckingham, K., Ward, J., et al. (2006). *Australian Capital Territory Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 257. Sydney: National Drug and Alcohol Research Centre.

Jenkinson, R. & O'Keefe, B. (2006). *Victorian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 256. Sydney: National Drug and Alcohol Research Centre.

Kinner, S., Fischer, J., et al. (2006). *Queensland Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 254. Sydney: National Drug and Alcohol Research Centre.

Fetherston, J. & Lenton, S. (2006). *West Australian Drug Trends 2005: Finding from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 252. Sydney: National Drug and Alcohol Research Centre.

Weekley, J., Simmonds, L. & Ali, R. (2006). *South Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 250. Sydney: National Drug and Alcohol Research Centre.

Black, E., Degenhardt, L. & Stafford, J. (2006). *New South Wales Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 248. Sydney: National Drug and Alcohol Research Centre.

Bruno, R. (2006). *Tasmanian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 245. Sydney: National Drug and Alcohol Research Centre.

Newman, J. & Moon, C. (2006). *Northern Territory Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. NDARC Technical Report No. 243. Sydney: National Drug and Alcohol Research Centre.

Start Date: January 1997

Expected Completion Date: Ongoing

Funding: Australian Government Department of Health and Ageing

TITLE: THE ECSTASY AND RELATED DRUGS REPORTING SYSTEM (EDRS)

NDARC Staff: Louisa Degenhardt, Jennifer Stafford, Matthew Dunn, Susannah O'Brien, Gabrielle Campbell and Richard Mattick

Other Investigators: Craig Fry and Jennifer Johnston (Turning Point Alcohol & Drug Centre); Allison Matthew and Raimondo Bruno (University of Tasmania); Nancy White, Robyn Vial and Robert Ali (Drug & Alcohol Services South Australia); Jaclyn Newman (NT Government Department of Health and Community Services); Stuart Kinner, Belinda Lloyd and Shelley Cogger (QADREC); and Jessica George and Simon Lenton (National Drug Research Institute)

Aims: The aims of this project are:

- 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 participants' perceptions of the incidence and nature of ecstasy-related harm, including physical, psychological, financial, occupational, social and legal harms
- to identify emerging trends in the ecstasy and related drugs (ERDs) market that may require further investigation

Design and Method: Previously known as the PDI, 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 Illicit Drug Reporting System (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 ERDs use,

the current availability, price and purity of ERDs and perceived drug-related health issues associated with ERDs use. A semi-structured survey of experts in the field of ERDs (e.g. party promoters, treatment providers, law enforcement personnel) is also conducted and indicator data (e.g. purity of drug seizures and overdose rates) is analysed. These data sources are examined together to identify convergent trends in ERDs use and markets.

Progress: The EDRS was conducted successfully in every state and territory in 2006. Over 700 regular ecstasy users were interviewed on their drug use patterns and provided information on drug markets. Key experts from a range of professions provided information on the ecstasy and related drug users they had contact with. Indicator data including custom seizures, purity analysis and treatment data was examined.

Output: The results of the 2006 EDRS were presented as part of the National Drug Trends Conference which was held in Cairns in November in conjunction with the 2006 APSAD Conference. The December 2006 Ecstasy and Related Drugs Bulletin presents a brief overview of the 2006 results. Some of the publications to arise from the project during 2006 are as follows:

Kinner, S. & Degenhardt, L. (2006). Reflections on the development and implementation of an early warning system for ecstasy and related drug markets in Australia. *Drug and Alcohol Review* 25, 445-449.

Breen, C., Degenhardt, L., Kinner, S., Bruno, R., Jenkinson, R., Matthews, A., & Newman, J. (2006). Alcohol use and risk-taking among regular ecstasy users. *Substance Use and Misuse* 41, 1095-1109.

Degenhardt, L., Stafford, J., Kinner, S., Johnston, J., Fry, C., Bruno, R., & Agalotis, M. (2005). *Reflections on a two-year national pilot study of the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 236. Sydney: National Drug and Alcohol Research Centre.

White, B., Day, C., Degenhardt, L., Kinner, S., Fry, C., Bruno, R., & Johnston, J. (2006). Prevalence of injecting drug use and associated risk behaviour among regular injecting ecstasy users in Australia. *Drug and Alcohol Dependence* 83, 210-217.

Stafford, J., Degenhardt, L., Dunn, M., Fischer, J., George, J., Johnston, J., Matthews, A., Newman, J., Proudfoot, P., & Weekley, J. (2005). *Australian trends in ecstasy and related drug markets 2005: Findings from the Party Drugs Initiative*. NDARC Monograph No. 59. National Drug and Alcohol Research Centre.

Dunn, M., Degenhardt, L. & Stafford, J. (2006). *NSW Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 249. Sydney: National Drug and Alcohol Research Centre.

Newman, J. & Moon, C. (2006). *Northern Territory Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 244. Sydney: National Drug and Alcohol Research Centre.

Johnston, J. & Jenkinson, R. (2006). *Victorian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 246. Sydney: National Drug and Alcohol Research Centre.

Proudfoot, P., Ward, J., Staniforth, A., & Buckingham, K. (2006). *ACT Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 247. Sydney: National Drug and Alcohol Research Centre.

Matthews, A. & Bruno, R. (2006). *Tasmanian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drug Initiative (PDI)*. NDARC Technical Report No. 251. Sydney: National Drug and Alcohol Research Centre.

George, J. & Lenton, S. (2006). *West Australian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 253. Sydney: National Drug and Alcohol Research Centre.

Weekley, J., Simmonds, L., et al. (2006). *South Australian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 255. Sydney: National Drug and Alcohol Research Centre.

Fischer, J., Cogger, S., et al. (2006). *Queensland Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. NDARC Technical Report No. 258. Sydney: National Drug and Alcohol Research Centre.

Start Date: January 2003

Expected Completion Date: Ongoing

Funding: Australian Government Department of Health and Ageing

PREVENTION AND EARLY INTERVENTIONS

TITLE: ALCOHOL ACTION IN RURAL COMMUNITIES (AARC)

NDARC Staff: Anthony Shakeshaft, Richard Mattick, Courtney Breen, Alys Havard, Elissa Wood and Lisa Robins

Other investigators: Rob Sanson-Fisher (University of Newcastle), Ann Roche (NCETA), Chris Doran and Catherine D'Este (University of Queensland)

Aims: This project aims to conduct a cost-benefit analysis of a community action intervention strategy to reduce alcohol-related harm in rural communities in NSW.

Design and Method: The community action approach used in this study involves the systematic and coordinated implementation of a range of intervention strategies across whole communities. The simultaneous and sustained implementation of a number of complementary interventions aims to maximise their combined effect, even though the interventions themselves may be of variable effectiveness. This approach will be evaluated using a randomized controlled trial

design. Ten matched pairs of rural communities were identified and one community in each pair was randomly allocated to the intervention condition, and the other to the control condition. Alcohol-related harm will be measured using alcohol-related problems (as measured by a community survey), alcohol-related criminal incidents, alcohol-related traffic accidents, alcohol-caused hospital admissions and alcohol-related emergency department presentations. This project will also undertake a cost-benefit economic analysis to determine whether the community action approach is associated with positive net social benefits.

Progress: All pre-test data, with the exception of emergency department presentations, has been obtained and analysed. Through an open community forum, meetings with key stakeholders and local media, experimental communities have been provided with tailored feedback on the level of alcohol harm experienced by their community. The first round of interventions have been implemented and completed. Included among these interventions were: school-based education; training GPs in screening and conducting brief interventions; training of workplaces in minimising harm arising from alcohol-related issues; and provision of a screening tool for use in pharmacies. Other interventions have been offered on an ongoing basis, including: the provision of relevant resources on the AARC webpage; web-based screening and brief intervention; and access to a free controlled drinking by correspondence program. A proposal for the next round of interventions has been drafted and will be trialled in early 2007.

Output: There has been a range of outputs from this project throughout the year. Papers and reports that have been published include the following:

Wood, E., Shakeshaft, A., Gilmour, S., & Sanson-Fisher R. (2006). A systematic review of school-based studies involving alcohol and the community, *Australian and New Zealand Journal of Public Health*, 30.

Shakeshaft, A. Alcohol Action in Rural Communities. *ADCA News*, Issue 32, 2006.

Shakeshaft, A. Alcohol Action in Rural Communities. *Centre Lines*, July 2005.

Presentations on the results of the project include:

Shakeshaft, A. *Alcohol Action in Rural Communities (AARC)*. National Drug and Alcohol Research Centre seminar series, Sydney.

Shakeshaft, A. *Alcohol Action in Rural Communities (AARC)*. National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Shakeshaft, A. *Alcohol Action in Rural Communities (AARC)*. Social Policy Research Centre, Sydney.

Sanson-Fisher, R. *Alcohol Action in Rural Communities (AARC)*. Alcohol Education and Rehabilitation Foundation National Conference, Sydney.

Shakeshaft, A. *Alcohol Action in Rural Communities (AARC)*. Australian Professional Society on Alcohol and other Drugs, Cairns, 5-8 November 2006.

Start Date: January 2004

Expected Completion Date: December 2009

Funding: Australian Education and Rehabilitation Foundation Pty Ltd.

TITLE: CLIMATE SCHOOLS: ALCOHOL MODULE – THE DEVELOPMENT AND EVALUATION OF A UNIVERSAL COMPUTER DRIVEN SCHOOL-BASED PREVENTION PROGRAM FOR PROBLEMS WITH ALCOHOL MISUSE AND RELATED HARMS

NDARC Staff: Laura Vogl, Maree Teesson and Paul Dillon

Other Investigators: Helen van Vliet and Gavin Andrews

Aims: To develop and evaluate an evidence-based computer-delivered alcohol misuse prevention program for school students.

Design and Method: The development of CLIMATE Schools: Alcohol Module was completed in January 2004. The development of this program involved the collaboration of teachers, students, police and specialists in the area of alcohol and other drug research. The program is designed to be embedded in the NSW Personal Development, Health and Physical Education Curriculum. The program consists of six interactive computer-driven lessons and a range of other classroom activities. CLIMATE Schools: Alcohol Module utilises a cartoon-based soap opera which allows students to learn about preventive strategies in real-life contexts.

A longitudinal cluster randomized controlled trial involving 1435 Year 8 students (13 years old) from 16 schools was utilized to evaluate this program. Schools were randomly assigned to complete the CLIMATE program or alcohol education as usual. Students were followed for a two year period after the intervention.

Progress: The 12 month follow-up results demonstrated that the CLIMATE Schools: Alcohol Module was more effective than standard alcohol prevention education for increasing young people's knowledge about skills required to minimize alcohol related harm and for decreasing young people's expectations regarding the positive social benefits of drinking alcohol.

The program was considerably more effective in decreasing average alcohol consumption, alcohol misuse and related harms for females than standard alcohol prevention programs delivered in schools. For males, immediately after the intervention, CLIMATE Schools: Alcohol Module was more effective than standard alcohol education programs for decreasing average alcohol consumption and delaying the onset of use of alcohol. These differences in consumption were not

sustained six months after the program had been completed. These differences are consistent with other school-based drug education programs which have also found superior prevention outcomes for females.

CLIMATE Schools: Alcohol Module was positively evaluated by both students and teachers. Teachers rated this program to be better than other drug education programs and students were keen to learn other educational topics using this delivery format.

Two year follow-up data has been collected and remains to be analyzed.

Start Date: March 2003

Expected Completion Date: February 2007

Funding: Australian Government Department of Health and Ageing and the National Drug and Alcohol Research Centre

TITLE: CLIMATE SCHOOLS: PSYCHOSTIMULANT AND CANNABIS MODULE – THE DEVELOPMENT AND EVALUATION OF AN INTERACTIVE COMPUTER-BASED PREVENTION PROGRAM FOR PSYCHOSTIMULANTS AND CANNABIS

NDARC Staff: Laura Vogl, Maree Teesson, Wendy Swift, Alys Harvard, Paul Dillon, and Rebecca McKetin

Other Investigators: Gavin Andrews (UNSW)

Aims: Psychostimulants and cannabis have emerged as two of the three most commonly used illicit drugs among Australian school students (inhalants is the third), providing a compelling argument to develop a new CLIMATE Schools module for these substances. Hence, the aim of the current project is to develop and evaluate the effectiveness of an evidence-based, computer-driven prevention program to reduce use and harms associated with psychostimulants and cannabis in high school students.

Design and Method: CLIMATE Schools: Psychostimulant and Cannabis Module is currently being developed in collaboration with students, teachers and experts in the area of cannabis and psychostimulants.

A cluster randomized controlled trial will be used to evaluate the efficacy of this module. Twenty schools will be randomly allocated to either receive the module or drug education as usual. To determine program efficacy, outcome measures will be collected on four separate occasions; pre, immediate post, six and 12 month follow-up. The outcomes of focus will be: psychostimulant and cannabis use, harmful consequences associated with use and other factors that may mediate program efficacy.

Start Date: June 2006

Expected Completion Date: December 2008

Funding: Australian Government Department of Health and Ageing

TREATMENT AND OTHER INTERVENTIONS

TITLE: THE INTRODUCTION OF SUBOXONE® (BUPRENORPHINE-NALOXONE) IN AUSTRALIA: EXTENT OF DIVERSION AND RELATED HARMS**NDARC Staff:** Louisa Degenhardt, Richard Mattick and Briony Larance**Other Investigators:** Robert Ali (DASSA); James Bell (South East Sydney and Illawarra Area Health Service); and Adam Winstock (Sydney South West Area Health Service)**Aims:** Buprenorphine-naloxone (Suboxone®) was registered in Australia in 2005 by the Therapeutic Goods Administration and has been available on the Pharmaceutical Benefits Scheme since April 2006. The present study monitors the extent of diversion and injection of buprenorphine-naloxone over the three years following its release.**Design and Method:** Comparisons will be made between the three main pharmacotherapies for opioid dependence (methadone, buprenorphine and buprenorphine-naloxone). The study will triangulate data from the following sources:

- interviews with regular injecting drug users (through the Illicit Drug Reporting System (IDRS))
- interviews with pharmacotherapy clients (methadone, buprenorphine and buprenorphine-naloxone clients in NSW, Vic and SA)
- interviews with key experts (e.g. clinicians, pharmacists, needle and syringe program (NSP) workers, outreach workers)
- a postal survey of authorised prescribers
- prescription data
- secondary indicators of morbidity and mortality (e.g. hospital, emergency department, law enforcement and coronial data)

The study will also review the international experience of buprenorphine-naloxone and the Australian policy context (national and jurisdictional).

Progress: The project commenced in March 2006. An Advisory Committee (made up of alcohol and other drug (AOD) specialists and researchers from across Australia) was established to inform the methodology and development of the project. The above methodology was agreed and ethical approval has been obtained from UNSW and the relevant health services. Baseline IDRS data was collected in June-July 2006. The project will conduct the first cross-sectional survey of pharmacotherapy clients (NSW, Vic and SA), KE interviews and the national postal survey of prescribers in January-June 2007.**Output:** Baseline data has been presented at two conferences:**Larance, B.** *The introduction of buprenorphine-naloxone (Suboxone®) in Australia: A comparative study of diversion and injection.* SPHCM Postgraduate Research Student Conference, Sydney.**Larance, B.** *The introduction of Suboxone®: Monitoring the extent of diversion and related harms.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns.**Start Date:** March 2006**Expected Completion Date:** March 2009**Funding:** Reckitt Benckiser Pty Ltd**TITLE:** DEMAND REDUCTION IN PRISONS AND COMPULSORY DRUG TREATMENT SETTINGS IN CHINA, VIETNAM AND INDONESIA**NDARC Staff:** Kate Dolan and Sarah Larney**Other Investigators:** Benjamin Phillips (St Vincent's Hospital Alcohol and Drug Service)**Aims:** To document the availability of demand reduction interventions such as education and drug treatment in prisons and other closed settings in China, Vietnam and Indonesia.**Design and Method:** A comprehensive literature review will be undertaken. Key informants in each country will be asked to provide unpublished reports and complete a survey on drug treatment and other demand reduction strategies provided in prisons and closed settings in their country.**Progress:** Data collection has been completed. The survey has revealed a lack of evidence-based drug treatment in prisons and compulsory drug treatment settings in these countries. However, it has also highlighted some innovative programs, particularly in Indonesia, that can serve as models for the region.**Output:** A presentation on the findings of this project has been made:**Larney, S.** *Demand reduction in closed settings in China, Vietnam and Indonesia.* Paper presented at the Australasian Professional Society on Alcohol and Other Drugs Conference, Cairns.

A report on the findings is being prepared and will be submitted to United Nations Office on Drugs and Crime (UNODC) for publication. Articles will also be prepared and submitted for publication in peer-reviewed journals.

Start Date: January 2006**Expected Completion Date:** January 2007**Funding:** United Nations Office on Drugs and Crime (Bangkok)

TITLE: THE EFFICACY OF PEER-LED INTERVENTIONS WITH ECSTASY AND RELATED DRUGS (ERDS) USERS

NDARC Staff: Annie Bleeker, Paul Dillon and Jan Copeland

Aims: The aim of this project is to test the effectiveness of peer-led dissemination of health information for ERDs users using a unique message about serotonin syndrome.

Design and Method: A quasi-experimental study design will be utilised over four study sites – three in Australia and one in the Netherlands.

A literature review will be written on the efficacy of peer-led interventions. Using the review a Peer Training Program will be designed, developed and implemented. Utilising information collected from the project 'Development of materials on ecstasy and related drugs (ERDs) for primary health care practitioners' a unique message relating to serotonin syndrome will be created and incorporated into the Training Program. The trained peers will then attend 12 events over the 2006/2007 summer across three sites in Australia (with cases and controls) where they will disseminate a series of safer partying messages, including the serotonin message.

A series of instruments will be designed to measure process mechanisms and assess the effectiveness of the peer program. Follow-up interviews will be conducted with cases and controls.

Progress: Four study sites have been chosen and organizations have been identified to assist in the peer intervention. Sydney, Adelaide and Canberra will be the three Australian sites with the Australian Red Cross conducting the intervention in all three jurisdictions. Keep-It-Simple (KIS) will also be a part of the Sydney project. Unity, a peer project run out of Jellinek in Amsterdam, The Netherlands, will be the overseas partner. Peers have been recruited in all jurisdictions and training has been conducted. Two messages have been chosen – the original serotonin syndrome message, as well as a water message which was put forward by Jellinek. Resources promoting the messages (information brochures, t-shirts, water bottles, etc) have been developed. Dance festivals have been identified in all jurisdictions for both the control and the intervention components of the study and negotiations are currently underway with organisers and promoters to ensure that the peer interventions can take place at these events.

Start Date: February 2006

Expected Completion Date: September 2007

Funding: Australian Government Department of Health and Ageing

TITLE: THE ECSTASY CHECK-UP: A DEVELOPMENT AND FEASIBILITY STUDY OF A BRIEF INTERVENTION FOR ECSTASY-RELATED PROBLEMS

NDARC Staff: Jan Copeland, Greg Martin and Paul Dillon

Aims: Rates of ecstasy use have continued to rise over the past 10-15 years, particularly among young people. This intervention project targets people who use ecstasy but are not necessarily seeking assistance to reduce or cease their ecstasy use. There are no existing services which specifically target this group. Earlier work has shown brief motivational interventions to be useful in ameliorating problematic alcohol and cannabis use. We believe the development of a brief intervention that specifically targets ecstasy use is warranted, will fill a gap in existing services, and has the potential to reduce problematic ecstasy use and related harms. This study will provide data on the feasibility of the intervention and include an assessment of ecstasy-related risk perception among users.

Design and Method: This project will develop and assess the feasibility of a Check-up style model that incorporates a brief motivational enhancement and cognitive-behavioural intervention. A randomized controlled trial will be conducted with 25 participants receiving the Ecstasy Check-up (ECU) and 25 participants receiving brief educational material only. Both groups will receive a brief assessment of their ecstasy-related risk-perception. This study will provide further information on patterns of use and risk-perception in addition to the feasibility of the intervention and an indicator of its ability to attract clients and of their treatment outcome three months post assessment. The advantage of a small randomized controlled trial is that it will also provide an indication of the effect of the intervention controlling for the influence of time.

Progress: To date 44 people have participated in the study. The mean age of participants was 29 (range 18-51), 57% were male and the majority (83%) were employed. The intervention has been well received, with 100% of those who received the intervention rating it as 'extremely helpful' or 'moderately helpful'. Follow-up data collection is currently underway.

Start Date: May 2006

Expected Completion Date: May 2007

Funding: Australian Government Department of Health and Ageing

TITLE: A TWO YEAR STUDY OF MORTALITY AMONG PARTICIPANTS IN A DOUBLE BLIND RANDOMIZED CONTROLLED TRIAL OF THE EFFICACY OF METHADONE AND BUPRENORPHINE IN THE TREATMENT OF OPIOID DEPENDENCE

NDARC Staff: Richard Mattick, Amy Gibson, Susannah O'Brien and Louisa Degenhardt

Other Investigators: Jason White and Robert Ali (University of Adelaide)

Aims: This study aims to look at the mortality in a group of study participants recruited to a randomized controlled trial of buprenorphine or methadone to compare the impact of treatment on mortality and causes of death.

Design and Method: A multi-site randomized controlled trial using a double blind, double dummy design. Three treatment centres (two in Sydney, one in Adelaide) recruited a total of 405 heroin dependent people who were randomly allocated to methadone or buprenorphine maintenance treatment in a study that commenced in 1996. This study will obtain Births, Deaths and Marriages mortality and cause of death data for these subjects. Predictors of mortality in the two treatment groups will be analysed using the study baseline and follow up data.

Progress: All mortality and treatment data from NSW and South Australia has been collected. Analysis and write up of the results is now in progress.

Benefits: There are few RCT studies directly comparing outcomes of methadone and buprenorphine maintenance treatment, and this is the first study to compare the mortality and causes of death in a group of subjects from such a study.

Start Date: January 2006

Expected Completion Date: June 2007

Funding: National Drug and Alcohol Research Centre

TITLE: METHAMPHETAMINE TREATMENT COHORT STUDY

NDARC Staff: Richard Mattick, Rebecca McKetin, Joanne Ross and Erin Kelly

Other Investigators: Robert Ali (DASSA and the University of Adelaide) and Dan Lubman (University of Melbourne). Associates are Jake Najman (QADREC); Amanda Baker (University of Newcastle); Nicole Lee (Turning Point Alcohol and Drug Centre); Sharon Dawe (Griffith University); and Matthew Law (National Centre for HIV Epidemiology and Clinical Research, UNSW)

Aims: To conduct the first Australian treatment cohort study of dependent methamphetamine users, examining:

- rates of psychiatric disorders (Major Depression, Panic Disorder, Agoraphobia, Social Phobia, and Generalized and Anxiety Disorder) and psychotic symptoms among people seeking treatment for methamphetamine dependence
- the characteristics of those entering treatment for methamphetamine dependence, in terms of abstinence rates, criminal involvement, general health functioning, and contact with health services and the criminal justice system
- differences between the characteristics of those entering treatment and dependent methamphetamine users not seeking treatment in terms of their level of drug use, psychiatric morbidity, criminal involvement and general health functioning
- factors predictive of abstinence, psychiatric morbidity, criminal involvement and contact with the health and criminal justice system

Design and Method: The study will consist of a longitudinal follow-up of 400 methamphetamine users: 300 people receiving treatment for methamphetamine use and a comparison group of 100 out-of-treatment dependent methamphetamine users. Participants will be interviewed at baseline, three months and 12 months. Treatment modalities included will be counselling, residential rehabilitation and withdrawal management. The main predictor variable in the study will be treatment exposure (treatment retention, treatment completion and dose of treatment measured in days of treatment exposure/counselling sessions). The main outcome measure will be level of methamphetamine use at three month and 12-month follow-up (days of abstinence, diagnosis of methamphetamine dependence, severity of methamphetamine dependence). Other data collected will include rates of psychiatric diagnoses (DSM-IV diagnosis of Major Depression, Panic Disorder, Agoraphobia, Social Phobia, and Generalized Anxiety Disorder); symptoms of psychosis; treatment experience; criminal involvement; HIV risk-taking; and contact with the health and criminal justice system.

Progress: Data collection is underway for this project, and the recruitment of participants is on schedule. One hundred and seventy-seven participants (143 treatment entrants and 34 non-treatment comparison participants) had been recruited for the study as of October 2006. Recruitment of participants from counselling services has been slow, but is improving. Follow-up of participants has been good (in excess of 80% follow-up to-date) Participant recruitment for the project is expected to be completed by December 2007, and 12-month follow-up interviews will be completed by December 2008.

Start Date: June 2005

Expected Completion Date: June 2009

Funding: National Health and Medical Research Council

TITLE: METHAMPHETAMINE TREATMENT COHORT STUDY – ESTABLISHMENT OF A MULTI-SITE STUDY

NDARC Staff: Rebecca McKetin, Joanne Ross and Richard Mattick

Other Investigators: Jake Najman and Shelley Cogger (QADREC)

Rationale: Australia has a substantial and growing population of dependent methamphetamine users: methamphetamine accounts for 96% of psychostimulant treatment episodes in Australia, around one-third of all injecting drug use, and is the leading cause of psychosis due to substance use. Currently there is a dearth of information on the effectiveness of treatment provided to this population within a community setting. NDARC has been funded by the National Health and Medical Research Council (NHMRC) to establish a Methamphetamine Treatment Cohort Study in Sydney to examine (a) treatment outcome at three months and 12 months post treatment; (b) comorbid mental health disorders among methamphetamine users in treatment; and (c) the impact of comorbid mental health disorders on treatment outcome and vice versa.

Design and Method: The current study will expand the Sydney Methamphetamine Treatment Cohort Study to include a second recruitment site in Brisbane. An additional 100 treatment participants from this second site will be recruited using the same methodology employed under the Methamphetamine Treatment Cohort Study. This arm of the study will be undertaken by the Queensland Alcohol and Drug Research and Education Centre.

For further details on the aims and methodology of this study please refer to the Methamphetamine Treatment Cohort Study.

Progress: Data collection is underway for this project, and the recruitment of participants is on schedule. Sixty-seven participants had been recruited for the study as of October 2006. Participant recruitment for the project is expected to be completed around December 2006, and 12-month follow-up interviews will be completed by around December 2007.

Start Date: June 2005

Expected Completion Date: June 2008

Funding: Australian Government Department of Health and Ageing

TITLE: TWO CONCURRENT RANDOMIZED PLACEBO CONTROLLED TRIALS OF MODAFINIL IN METHAMPHETAMINE AND COCAINE DEPENDENCE

NDARC Staff: Richard Mattick, James Shearer, Rebecca McKetin and Shane Darke

Other Investigators: Alex Wodak (St Vincent's Hospital Alcohol and Drug Services); Ingrid van Beek (Kirketon Road Centre); and John Lewis (Pacific Laboratory Medicine Services)

Aims: Modafinil is a novel wake promoting agent which may have potential in the treatment of psychostimulant dependence withdrawal symptoms including low mood, excessive sleepiness, poor concentration and drug craving thereby protecting against relapse. Modafinil is a well tolerated drug with few major side effects and appears to have a low abuse liability. The aim of the two studies is to evaluate the safety and efficacy of modafinil (200 mg/day over 10 weeks) plus a brief cognitive behavioural therapy (CBT) program for psychostimulant (cocaine and methamphetamine) dependence.

Design and Method: Two concurrent randomized placebo controlled trials will be conducted at the Kirketon Road Centre, a primary health care centre, and Rankin Court, an alcohol and drug treatment centre, both located in inner-city Sydney. Recruitment targets are 60 for the amphetamine study and 30 in the cocaine study. Subjects in both studies will be randomized equally to two groups. The experimental groups will receive a modafinil dose of 200 mg/day under a weekly script for 10 weeks. The control group will receive a placebo under equivalent conditions. Both groups are offered a four-session manualised brief CBT intervention designed for amphetamine users. Treatment efficacy will be primarily evaluated by a between group comparison of the proportion of urine samples

negative for psychostimulant over 10 weeks. Safety will be evaluated by between group comparison of side effects and adverse events. Self-reported stimulant use, other drug use and retention will be compared between groups. Improvements in health and psychosocial harms associated with regular stimulant use and patterns of use will also be compared.

Benefits: The project is an original and rigorous contribution to the development of effective treatments in an area where few treatments currently exist and treatment need is great and growing. Results will be of wide national and international interest to service providers, researchers, policy-makers and stimulant users.

Start Date: July 2005

Expected Completion Date: July 2007

Funding: Australian Government Department of Health and Ageing

TITLE: NATIONAL CORRESPONDENCE PROGRAM TO REDUCE ALCOHOL CONSUMPTION AND CO-OCCURRING DISORDERS (DEPRESSION/ANXIETY): A RANDOMIZED CONTROLLED TRIAL

NDARC Staff: Richard Mattick

Other Investigators: Thiagarajan Sitharthan (Western Sydney Area Drug and Alcohol Services)

Aims: The aims of the project are to:

- conduct a randomized controlled trial to evaluate the impact of correspondence treatments (treatments by mail) to problem drinkers who have a co-occurring mental disorder, namely, anxiety and depression
- identify the predictors of favourable treatment outcomes

Design and Method: Participants will be required to complete a questionnaire which will assess symptoms of depression and anxiety, their alcohol consumption, and related psychological stress and worry. Participants will be given individual personal feedback based on their responses from the questionnaire. During the course of the study, participants will be allocated to one of three treatment conditions that will consist of six fortnightly mailings. These mailings are designed to give participants ideas and tips to manage their negative moods and reduce their alcohol consumption. These strategies are based on cognitive behavioural therapy techniques, widely used by clinical psychologists to assist people to manage symptoms of depression and anxiety as well as managing alcohol use. Some participants will be required to wait for three months before they receive treatment.

Benefits: This is a world first study looking at developing an innovative approach to effectively assist people to manage their depression, anxiety and alcohol consumption by correspondence. Depression, Australia's most common disabling illness, is often associated with anxiety and high alcohol consumption, however sufferers are reluctant to seek help and

often have difficulty in accessing clinical services. For those who do seek help, current treatment services rarely address mental health issues and alcohol use at the same time. As a result people have to access mental health services and drug and alcohol services separately in order to receive treatment. Unfortunately, this does not suit most people. The advantage of delivering the treatment by correspondence is that people can be treated in the comfort of their own homes and with relative anonymity.

Progress: Recruitment of participants has started. Contact has been made with the Media Offices of the University of Sydney and UNSW to publicise the project to facilitate the recruitment of participants. Area Health Service Directors have also been contacted through personal communication informing them of this program. Various community organizations have also been informed regarding the commencement of this program.

Start Date: June 2006

Funding: Alcohol Education and Rehabilitation Foundation

TITLE: DEVELOPMENT AND PILOT TESTING OF A HEALTH LIFESTYLE INTERVENTION PACKAGE FOR DELIVERY BY URBAN ABORIGINAL COMMUNITY HEALTH CENTRES

NDARC Staff: Anthony Shakeshaft

Other Investigators: Lisa Jackson-Pulver, Anton Clifford and Dennis McDermott (The Muru Marri Indigenous Health Unit, SPHCM), Rowena Ivers and Robyn Richmond (UNSW)

Aims: The objective of this project is to evaluate existing resources aimed at modifying lifestyle factors associated with increased health risk, incorporate those with best evidence for their effectiveness into a new package, and to pilot test its use among Aboriginal clinical health staff.

Design and Method: Two Aboriginal Community Controlled Health Services (ACCHS) (one from Illawarra and the other from Wagga Wagga) have worked with the research team to consider barriers to implementing a healthy lifestyle intervention and to pilot test a best-evidence package.

The study comprises three broad components: a systematic literature review to identify current best-practice resource materials; an examination of the barriers to implementing a treatment model that utilizes the best-practice resources identified in the literature search; and a pilot study of an intervention package that utilizes best-practice resources and addresses the likely barriers to uptake.

Outcome measures for this project are: the extent to which the intervention package is able to be integrated into the provision of routine clinical care; its acceptability to health workers; and the extent to which it improves integration between health care providers.

Progress: To date the systematic review of the literature has been completed, the intervention package designed and put together, and a series of focus groups held with Aboriginal health workers to identify barriers to using this best-practice intervention package. Training workshops for the delivery of the package have been organized and will be held shortly, followed by an implementation phase.

Start Date: January 2004

Funding: Alcohol Education and Rehabilitation Foundation

TITLE: THE DEVELOPMENT OF A STANDARDISED TREATMENT MONITORING TOOL FOR USE BY RESEARCHERS AND CLINICIANS: THE AUSTRALIAN ALCOHOL TREATMENT OUTCOME MEASURE (AATOM)

NDARC Staff: Jan Copeland, Alison Ritter, Peter Gates and Melanie Simpson

Other Investigators: Nicole Lee (Turning Point) and Larry Pierce (NADA)

Aims: The project aims to develop a standardised instrument (questionnaire) designed to measure outcomes for individuals in treatment for alcohol use in Australia. A further aim of the project will be to assess the feasibility of implementing this instrument into routine clinical practice in Australia.

Design and Method: The Australian Alcohol Treatment Outcome Measure (AATOM) will comprise of two versions: one intended for use amongst clinicians for the purpose of routine treatment outcome monitoring for service development or funding requirements (AATOM-C) and one for use amongst researchers (AATOM-R). This study will also examine the psychometric properties of the AATOM-R including biological validation. The feasibility of conducting routine, ongoing outcome monitoring with the AATOM-C will be assessed in a range of treatment settings and modalities. This phase of the project will utilise a software version of the AATOM to facilitate the collection, collation and reporting of data. It will also include a formal assessment of clinician attitudes towards routine outcome monitoring in general and the use of the AATOM in particular.

Progress: The project has completed psychometric data collection and recruitment to the feasibility study will be completed in February 2007.

Start Date: July 2005

Expected Completion Date: March 2007

Funding: Alcohol Education and Rehabilitation Fund (AERF)

INFORMATION AND TRAINING

TITLE: DEVELOPMENT OF GUIDELINES: DRUG DETOXIFICATION AND DRUG TREATMENT IN AREAS OF HIGH HIV PREVALENCE OR RISK AND CLOSED INSTITUTIONS

NDARC Staff: Kate Dolan, Bradley Mathers and Sarah Larney

Aims: This project aims to develop two sets of guidelines covering drug detoxification and drug treatment for use in compulsory drug treatment facilities in China, Malaysia and Vietnam. The guidelines will deal with detoxification and treatment for a range of substances including alcohol, opiates, amphetamine type substances (ATS), benzodiazepines and barbiturates. The detoxification guidelines will include both medicated and non-medicated detoxification protocols relevant for use in prisons and drug rehabilitation centres. The treatment guidelines will detail protocols for various treatment modalities including methadone maintenance treatment, cognitive behavioural therapy, self-help programs and therapeutic communities.

Design and Method: The project will involve a review of current evidence-based drug detoxification and drug treatment practice. A 'fact finding' mission to China, Malaysia and Vietnam will be conducted to observe closed settings and conduct a situational analysis.

A training package will be produced and delivered on how to use the guidelines to closed setting staff in China, Malaysia and Vietnam.

Start Date: February 2006

Expected Completion Date: March 2007

Funding: World Health Organization, Western Pacific Regional Office

TITLE: REVISE AND REDESIGN OF THE DRINKING DECISIONS: YOUNG PEOPLE AND DRINKING BOOKLET

NDARC Staff: Paul Dillon, Jan Copeland, Cath Finney-Lamb, Fiona Shand and Laura Vogl

Rationale: In 2003 the resource *Drinking decisions: Young people and drinking* was developed by the AGDHA. NDARC has been contracted to revise and re-develop this resource. It has been noted that this booklet is specifically designed for those young people (17-25 year olds) who may have problems with their drinking but needs to be made more 'youth-friendly'.

Aims: The aims of this project are as follows:

- to redevelop and redesign the the resource *Drinking decisions: Young people and drinking* so that it is appealing, credible and useful to its target audience, i.e. 17-25 year olds who are problem drinkers

- to run a series of focus groups with young adults to assess what information on alcohol they feel should be included in the resource. These focus groups should also gather information of the style, language and content appropriate for the target group
- to focus test the resource once it has been developed to ensure that the style, language and content is appropriate for the target group

Design and Method: Two phases of focus testing will be conducted, and will be interleaved with the development of the resource.

The first phase will explore general reactions to *Drinking decisions: Young people and drinking* and to several proposed graphic designs for a new resource. The second phase of focus group testing will be conducted after the new document has been developed. This phase will explore in detail young people's reactions to the updated resource.

Four to six focus groups will be conducted with young people aged 17 to 25 years. The focus groups will collect young people's comments on the appeal of the resource. Detailed information will be collected on young people's reactions to the artwork and images, font, length of the booklet, tone and readability, information provided in each section, and messages received.

Progress: The first series of focus groups have been conducted with two different 'sets' of young people – university students and young people who are not at university. Their comments and responses to the original booklet were collated. Based on these, the following recommendations for the updated version of *Drinking decisions: Young people and drinking* were made:

- The title of the booklet should be changed. The booklet deals with problem drinking and many believed that the title did not reflect this. Many of the participants did not relate to the term 'young people', believing that it referred to those under the age of 18 years.
- The number of pages of the booklet should be dramatically cut and a number of the sections be removed as both groups felt that the resource was much too long. Many of the participants regarded some of the sections as condescending and others as irrelevant to the target group, e.g. some commented that some of the messages were far more targeted towards younger people aged between 15-17 years who have had little experience with alcohol.
- Much of the language needed to be adjusted to suit the target group and some of the groups were critical of the tone of the resource. This will need to be considered when the re-write occurs.

The booklet is currently being rewritten and redesigned based on the focus group findings.

Start Date: September 2006

Expected Completion Date: March 2007

Funding: Australian Government Department of Health and Ageing

TITLE: DEVELOPMENT OF MATERIALS ON ECSTASY AND RELATED DRUGS (ERDS) FOR PRIMARY HEALTH CARE PRACTITIONERS (IT15)

NDARC Staff: Jan Copeland, Paul Dillon and Edmund Silins

Other Investigators: Iain McGregor (University of Sydney); David Caldicott (Royal Adelaide Hospital); Robert Ali (DASSA); and Ann Roche (NCETA)

Rationale: The use of a range of pharmaceuticals and supplements, in a variety of combinations, for contradictory purposes suggests there is a need for harm reduction information on the risks associated with this practice. Particular attention should be placed on informing ERDs users of the potentially fatal serotonin syndrome which is more likely to develop from combining ecstasy and other serotonergic drugs with antidepressants.

Aims: The aims of the study are to:

- examine the relationship between ERDs and antidepressant use, including patterns and harms of current use
- examine the sources of pharmaceuticals among ERDs users
- examine the role of general practitioners (GPs) in the prescription of antidepressants to ERDs users
- identify gaps in knowledge about ERDs and their side effects among GPs
- examine the management of young people presenting to GPs for antidepressants, including screening for ERDs use
- examine the management of ERDs-related presentations to Accident and Emergency Rooms of major Australian hospitals
- inform key personnel at Accident and Emergency Rooms of major Australian hospitals on the findings of current ERDs-related research
- inform the development of information materials on ERDs-related issues

Design and Method: Review of literature on serotonin syndrome in relation to the use of ERDs and other serotonergic substances; survey 2000 GPs across Australia; in-depth interviews with 30 regular ecstasy users who use antidepressants; and interviews with key nursing and medical personnel at inner-city accident and emergency departments.

Progress: Based on available evidence, the risk of serotonin syndrome associated with the use of ecstasy and other serotonergic substances has been described in a clinically relevant hierarchy. Findings from the survey of GPs indicate that a minority have a working knowledge of ERDs and ERDs-related problems. In addition, when prescribing antidepressants, only a minority screen for illicit drug use. These preliminary findings suggest there is a demand for the development of materials to improve the screening of people who present to GPs with symptoms of illicit drug use, in particular ecstasy-related

depression. In-depth interviews with ERDs users are presently underway and interviews with key hospital personnel are expected to begin in early 2007. This project partners a peer education study presently underway at NDARC.

Start Date: January 2006

Expected Completion Date: June 2007

Funding: Australian Government Department of Health and Ageing

TITLE: BRIEF INTERVENTIONS FOR CANNABIS DEPENDENCE TRAINING WORKSHOPS

NDARC Staff: Jan Copeland and Ety Matalon

Aim: These workshops are provided on request to a variety of local, national and international organizations that are interested in training their staff in the delivery of a brief intervention for cannabis use disorder that is based on the findings of a randomized controlled trial.

Start Date: January 1999

Expected Completion Date: Ongoing

Funding: Contracting organizations

TITLE: PROGRAM OF INTERNATIONAL RESEARCH AND TRAINING (PIRT)

NDARC Staff: Kate Dolan, Alex Wodak, Richard Mattick, Sarah Larney and Bradley Mathers

In 2002 the Centre established the Program of International Research and Training (PIRT) under the management of A/Prof Kate Dolan. PIRT functions as the international arm of NDARC's core business. To date the activities of this program have focused on developing and transitional countries.

Aim: To facilitate research and training to minimise the harms from drug use and to increase the effectiveness of drug treatment internationally by:

- building capacity into research in drug treatment within developing countries
- building capacity for monitoring drug use and drug problems in developing countries
- building alliances between Australia and developing countries in terms of understanding drug trends and law enforcement
- encouraging policy-relevant research consistent with national strategies and cultures

Design and Method: PIRT works on a range of issues encompassing licit and illicit drug use and related harms. The geographical focus of our work is the Asia-Pacific region. Particular areas of specialisation include:

- HIV prevention for injecting drug users
- methadone maintenance treatment in community and prison settings
- HIV prevention in prisons and other closed settings

Research: PIRT conducts original research and encourages collaboration with international partner organizations. PIRT staff have conducted rapid assessments of drug use and HIV in community and prison settings. Examples of past and current research projects include:

- a literature review to identify 50 key documents on HIV prevention, treatment and care for injecting drug users. This project was conducted for the International Harm Reduction Association (IHRA), with funding from AVERT
- a qualitative study of the process by which We Help Ourselves, an abstinence-based therapeutic community, introduced harm reduction strategies into their service model. This project was funded by the World Health Organization Western Pacific Regional Office (WHO WPRO)
- a rapid assessment of drug use, HIV prevalence and HIV risk behaviours in prisons in Jakarta, Indonesia in 2005
- a rapid assessment HIV/AIDS and drug use in Mongolia in 2006
- a report on drug demand reduction strategies in closed settings in China, Indonesia and Vietnam. 'Closed settings' is a term encompassing prisons, work camps and compulsory drug treatment centres. This report will identify the various drug education and treatment programs available to detainees of closed settings in these three countries. This project is funded by the United Nations Office on Drugs and Crime Regional Centre (UNODC) for East Asia
- a report on HIV prevention, treatment and care (PTC) in prisons in India, Indonesia, Thailand and Nepal. This comprehensive report includes an introduction to the issues of HIV PTC in prison; an analysis of HIV PTC in prisons in each of the above countries; a regional summary of HIV PTC; and recommendations for improving HIV PTC in prisons. This project was funded by the World Health Organization South-East Asia Regional Office
- production of a training manual on harm reduction, drug use and HIV prevention for the WHO WPRO
- funded by the Drosos Foundation and in collaboration with the Iran Prisons Organization, The Persepolis Centre and the Iran National Centre of Addiction Studies, the implementation and evaluation of a pre-release prison methadone maintenance treatment (MMT) for women prisoners in Iran and the establishment of a primary health care centre and community MMT program for female IDUs in Tehran, Iran in 2007

- development of guidelines for drug detoxification management and drug dependency treatment in closed settings in South-East Asia. This project is funded by WHO WPRO and completion is expected by mid-2007

- working in collaboration with the UNODC Regional Centre for East Asia and the Pacific on an AusAID funded project to introduce MMT in closed settings in Asia. This regional project involves a pilot program and randomized control trial of MMT in compulsory drug treatment centres in China and the training of staff from closed settings in Cambodia, Burma, Lao PDR, Thailand and Vietnam

Training: PIRT is actively involved in providing training to health care workers, law enforcement personnel and researchers. PIRT trainers have conducted courses in Australia, Indonesia, Iran, Taiwan and Cambodia. Broadly, training programs focus on HIV prevention and harm reduction for IDUs. Areas of training expertise include:

- drug treatment, in particular, substitution treatment
- needle and syringe programs
- outreach to IDUs
- HIV prevention and harm reduction in prison
- monitoring and evaluation
- research dissemination

Start Date: March 2003

Expected Completion Date: Ongoing

Funding: Australian Government Department of Health and Ageing

Project funding from various international sources including United Nations Office on Drugs and Crime, World Health Organization, Family Health International and The Drosos Foundation

DRUG POLICY MODELLING PROGRAM

TITLE: DRUG POLICY MODELLING PROGRAM (DPMP)

NDARC Staff: Alison Ritter

Other Investigators: Gabriele Bammer (National Centre for Epidemiology and Population Health, ANU); Lorraine Green Mazerolle (School of Criminology and Criminal Justice, Griffith University); Paul Dietze (Turning Point Alcohol and Drug Centre & Monash Institute of Health Services Research); Pascal Perez (Research School of Pacific & Asian Studies, ANU); and Gerald Midgley and Wendy Gregory (Institute of Environmental Science and Research, New Zealand) Technical advisors: Peter Reuter (School of Public Policy; Professor, Department of Criminology, University of Maryland) and Jonathan P. Caulkins (Carnegie Mellon University, Pittsburgh)

Aims: The goal of DPMP is to create valuable new drug policy insights, ideas and interventions that will allow Australia to respond with alacrity and success to illicit drug use. DPMP focuses on a comprehensive approach to drug policy that explores dynamic interactions between law enforcement, prevention, treatment and harm reduction. The work includes development of the evidence-base for policy; developing and using dynamic models of drug issues to better inform policy decision-making; and ongoing study of the policy-making processes in Australia. The aims of DPMP are to:

- build systems and approaches to enhance evidence-informed illicit drug policy
- develop and adapt new tools and methods for policy-makers
- show the value of these tools by dealing with specific problems raised by policy-makers
- create new ideas and insights for new policy
- conduct rigorous research that provides independent, balanced, non-partisan analysis and improves the quality of the evidence
- evaluate the effectiveness of the tools, methods, policy support and new interventions

Design and Method: DPMP teams are located at the ANU, Griffith University and Turning Point, with the core team located at NDARC. Our team spans Complex Systems Science, Criminology, Economics, Epidemiology, Integration and Implementation Sciences, Public Health and Medicine, Public Policy and Political Science, Sociology and Systems Thinking. We aim to facilitate drug policy research through the integration of multiple disciplines. There are four elements to DPMP:

- Foundational Research – developing and maintaining the policy relevant data, systems and approaches
- Policy Research – undertaking policy analysis, developing new integrated decision support tools and investigating the research-policy nexus
- Policy Practice – engaging with policy-makers and providing them with policy analysis and solutions for the problems they are currently dealing with
- Interventions – testing the new policy responses in the field through demonstration projects

Progress: DPMP Stage Two formally commenced in July 2006. The main activities have included:

1. Launch of Stage Two, held in August 2006. The seminar presented the results from the last two years of work and covered new understanding of policy-making processes in Australia; best practice in law enforcement, harm reduction and prevention; and the use of systems approaches to enhance policy decision-making.

2. Recruitment to the central team at NDARC – position descriptions and advertisements were placed for: statistician, two policy researchers, economist, and personal assistant/research assistant. Over 150 applications were received with at least 10 good candidates for each of the positions. We have some outstanding international candidates, however, they are not likely to be available until mid next year (partly due to the USA academic calendar and recruitment cycle; and also because relocation to Australia requires some months of planning). We will have the full team on board by mid-2007.
3. Project: Introducing Policy-makers to DPMP. State, territory and federal senior policy makers are being interviewed to introduce them to DPMP, discuss their needs and their identified priority areas, and assess their resource needs. Interviews were completed between September and November, and the report will be available in February 2007.
4. Project: Adaptation of the SimDrug, agent-based model to assess four law enforcement scenarios (SimDrugPolicing). Good progress has been made on the first adaptation of SimDrug to four different law enforcement scenarios. This work will be published in a book chapter.
5. Project: Record Linkage Study (Turning Point) – the major design features of the record linkage study have been developed and the ethics application has been submitted.
6. Project: Producing better cost estimates – a significant piece of research commenced during Stage 1, and funded by the Australian Federal Police, has now been completed. The monograph entitled “Estimates of the per gram and per user social costs for amphetamines, cannabis, cocaine and opiates” will be ready for publication in December.
7. Publications and presentations: There have been 30 DPMP conference and seminar presentations during 2006, and 15 peer-reviewed journal articles have been accepted for publication. In addition, articles on DPMP have appeared in a number of newsletters.

Output: In February 2006, at the completion of Stage One of the DPMP, Turning Point published a series of 13 monographs. These are as follows:

1. What is Australia’s ‘drug budget’? The policy mix of illicit drug-related government spending in Australia
2. Drug policy interventions: A comprehensive list and a review of classification schemes
3. Estimating the prevalence of problematic heroin use in Melbourne
4. Australian illicit drugs policy: Mapping structures and processes
5. Drug law enforcement: The evidence
6. A systematic review of harm reduction
7. School based drug prevention: A systematic review of the effectiveness on illicit drug use

8. A review of approaches to studying illicit drug markets
9. Heroin markets in Australia: Current understandings and future possibilities
10. Data sources on illicit drug use and harm in Australia
11. SimDrug: Exploring the complexity of heroin use in Melbourne
12. Popular culture and the prevention of illicit drug use: A pilot study of popular music and the acceptability of drugs
13. Scoping the potential uses of systems thinking in developing policy on illicit drugs

Start Date: July 2006

Expected Completion Date: July 2011

Funding: Colonial Foundation Trust, NHMRC Researcher Support

COMPLETED PROJECTS

TITLE: THE POLICING IMPLICATIONS OF PETROL SNIFFING AND OTHER INHALANT MISUSE IN ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES' COMMUNITIES

NDARC Staff: Catherine Spooner

Other Investigators: Dennis Gray (National Drug Research Institute); Peter d'Abbs (James Cook University); and Anne Mosey and Gill Shaw (independent consultants)

Aims: To conduct a project that will enhance the understanding of the law enforcement sector concerning the extent and nature of petrol sniffing and other inhalant misuse by Aboriginal and Torres Strait Islander Peoples, predominantly in rural and remote, but also urban communities and to define best practice in addressing those issues.

Design and Method: Literature review and key informant consultations in urban, rural and remote locations around Australia.

Benefits: This project will enhance the understanding of the law enforcement sector of the extent and nature of petrol sniffing and other inhalant misuse by Aboriginal and Torres Strait Islander Peoples predominantly in rural and remote, but also urban communities; and best practice in addressing this issue.

Output: A report has been written and submitted to the funding body.

Start Date: August 2004

Funding: National Drug Law Enforcement Research Fund

TITLE: INCORPORATING HARM REDUCTION MEASURES INTO ABSTINENCE-BASED THERAPEUTIC COMMUNITIES

NDARC Staff: Sarah Larney, Kate Dolan and Kate Corcoran

Other Investigators: Alex Wodak (St Vincent's Hospital)

Aims: To document the process by which the therapeutic community We Help Ourselves integrated harm reduction into its abstinence-based program. To provide a guide for therapeutic communities in the Asia-Pacific region, particularly those in areas of high HIV prevalence, that may be considering their role in HIV prevention.

Design and Method: Key stakeholders were interviewed; WHOS' policies, annual reports and meeting minutes were analysed.

Benefits: This project produced a publication to guide therapeutic communities in the Asia-Pacific region through the process of integrating harm reduction into their abstinence-based programs. This will assist these services to provide HIV prevention services to their clients.

Output: A report was drafted and published by the World Health Organization:

World Health Organization Western Pacific Regional Office (2006). *The Integration of Harm Reduction into Abstinence-Based Therapeutic Communities: A Case Study of We Help Ourselves*. Manila: World Health Organization Western Pacific Regional Office.

Start Date: October 2005

Funding: World Health Organization Western Pacific Regional Office

TITLE: COCAINE USE AMONG HEROIN USERS IN NSW: PREVALENCE AND RELATED HARMS

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

Aims: The aims of this project were:

- to describe the prevalence and correlates of cocaine use among treatment-seeking heroin users in NSW and a sample of heroin users not in treatment
- to examine the impact of cocaine use on treatment outcomes for heroin dependence (i.e. substance use, crime, physical and mental health) three, 12 and 24 months post treatment entry
- to examine the impact of treatment for heroin dependence on cocaine use

Design and Method: The study utilised data collected for the NSW component of the Australian Treatment Outcome Study (ATOS). Five hundred and thirty-five heroin users were recruited on entry to treatment through methadone/buprenorphine maintenance, detoxification and residential rehabilitation services. An additional 80 heroin users not currently in treatment were also recruited. Using a structured questionnaire, participants were interviewed on entry to treatment for heroin dependence and again at three, 12 and 24 months post treatment entry.

Benefits: The ATOS project allowed for a detailed examination of cocaine use among heroin users and its effect on treatment outcome. No Australian studies had examined the relatively recent phenomena of large-scale cocaine use among heroin users. Further, ATOS is the first study to monitor the effects of concomitant heroin and cocaine use on outcomes across a range of treatment modalities. This knowledge is of clinical import and will assist in the planning and implementation of treatment for heroin users who also use cocaine.

Output: The results of the present study have been disseminated in a series of peer-reviewed publications, technical reports and presentations.

Williamson, A., Darke, S., Ross, J. & Teesson, M. (2003). *Cocaine Use among the ATOS NSW sample: Prevalence and related harms*. Technical Report No. 161. Sydney: National Drug and Alcohol Research Centre.

Williamson, A., Darke, S., Ross, J. & Teesson, M. (2004). *The effect of cocaine use on short term outcomes for heroin dependence*. Technical Report No. 190. Sydney: National Drug and Alcohol Research Centre.

Williamson, A., Darke, S., Ross, J. & Teesson, M. (2005). *Cocaine use and treatment outcomes for heroin dependence: 12 month outcomes*. Technical Report No. 208. Sydney: National Drug and Alcohol Research Centre.

Williamson, A., Darke, S., Ross, J. & Teesson, M. (2006.) The effect of persistence of cocaine use on twelve month outcomes for the treatment of heroin dependence. *Drug and Alcohol Dependence 81*, 293-300.

Williamson, A., Darke, S., Ross, J. & Teesson, M. (2006.) The Association between cocaine use and short-term outcomes for the treatment of heroin dependence: Findings from the Australian Treatment Outcome Survey (ATOS). *Drug and Alcohol Review 25*, 139-146.

Presentations include the following:

Williamson, A. (2002). *Cocaine use among the ATOS NSW sample: Prevalence and related harms*. Australasian Professional Society of Alcohol and other Drugs, Adelaide.

Williamson, A. (2003). *Cocaine use: Three month outcomes*. National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Williamson, A. (2003). *The effect of cocaine use on short-term outcomes for heroin dependence*. Australasian Professional Society of Alcohol of Alcohol and other Drugs, Brisbane.

Williamson, A. (2005). *The effect of cocaine use on treatment outcomes for heroin dependence: Twelve month findings from the Australian Treatment Outcome Study*. College of Problems on Drug Dependence, Orlando.

Start Date: January 2003

Funding: National Health and Medical Research Council, Australian Government Department of Health and Ageing

TITLE: POST-TRAUMATIC STRESS DISORDER (PTSD) AMONG AUSTRALIAN HEROIN USERS

NDARC Staff: Maree Teesson, Shane Darke, Joanne Ross, Katherine Mills, Anna Williamson, Alys Havard, and Marian Shanahan

Aims: The aims of this project were:

- to describe the prevalence and correlates of PTSD among treatment seeking heroin users and a sample of heroin users not in treatment
- to examine the impact of PTSD on treatment outcomes for heroin dependence (i.e., substance use, physical and mental health, health service utilization) three, 12 and 24 months post treatment entrance

- to examine the impact of treatment for heroin dependence on PTSD 24 months post treatment entrance

Design and Method: The study utilized data collected for the NSW component of the Australian Treatment Outcome Study (ATOS). Five hundred and thirty-five heroin users were recruited on entry to treatment through methadone/buprenorphine maintenance, detoxification and residential rehabilitation services. An additional 80 heroin users not currently in treatment were also recruited. Using a structured questionnaire, participants were interviewed on entry into treatment for heroin dependence and followed up again at three, 12, 24 and 36 months post treatment entry.

Benefits: ATOS allows for a detailed examination of PTSD among heroin users. Although a number of studies have examined psychopathology among heroin users, few have focused on PTSD. Indeed, ATOS is the first study to examine PTSD among heroin users across a range of treatment modalities, using comprehensive measures of comorbidity. Also, little is known regarding the short and longer term impact of PTSD on treatment outcomes for heroin dependence, or the impact of treatment for heroin dependence on PTSD. This knowledge is of clinical import as it will assist in the planning and implementation of treatment for heroin users with this dual diagnosis.

Output: The results of the present study have been disseminated in a series of peer-reviewed publications, technical reports and presentations.

Mills, K., Teesson, M., Ross, J., Darke, S., & Shanahan, M. (2005). Costs and outcomes of opiate treatment associated with post traumatic stress disorder. *Psychiatric Services* 56, 940-945.

Mills, K., Lynskey, M., Teesson, M., Ross, J., & Darke, S. (2005). Post traumatic stress disorder among people with heroin dependence in the Australian Treatment Outcome Study (ATOS): Prevalence and correlates. *Drug and Alcohol Dependence* 77, 243-249.

Presentations include the following:

Mills, K. (2005). *The impact of post traumatic stress disorder on 2 year treatment outcomes for heroin dependence.* National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Mills, K. (2005). *The impact of post traumatic stress disorder on 2 year treatment outcomes for heroin dependence.* Conference of the College on Problems of Drug Dependence, Orlando, Florida.

Mills, K. (2004). *The impact of post traumatic stress disorder on 12 month treatment outcomes for heroin dependence.* National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Mills, K. (2004). *Post traumatic stress disorder among people with heroin dependence.* Invited seminar to Wentworth Area Health Service Dual Diagnosis Seminar Series. Nepean Hospital, Penrith.

Mills, K. (2003). *The impact of post traumatic stress disorder on short term treatment outcomes for heroin dependence.* Conference of the Australasian Professional Society of Alcohol and other Drugs, Brisbane.

Mills K. (2002). *Post traumatic stress disorder among people with heroin dependence.* Conference of the Australasian Professional Society of Alcohol and other Drugs, Adelaide.

Start Date: January 2001

Funding: National Health and Medical Research Council, Australian Government Department of Health and Ageing, and Department of Human Services Victoria

TITLE: MAGISTRATES' EARLY REFERRAL INTO TREATMENT (MERIT) AFTERCARE PROJECT: PHASE 1

NDARC Staff: Evelyn Harvey, Anthony Shakeshaft, Kate Hetherington, Claudia Sannibale and Richard Mattick

Aims: In broadening the scope of previous studies that have focused on drug courts and updating the literature on aftercare strategies, this methodological review aimed to investigate the current strength of evidence for the efficacy of diversion and aftercare practices for criminal offenders, and identify elements of best practice.

Design and Method: A critical methodological review of existing literature.

Benefits: A total of 20 outcome studies were identified for review; 19 on diversionary schemes and one on aftercare strategies. Although their methodological rigour was generally poor, there is some tentative support for the effectiveness of diversion and aftercare programs. There is a clear need for methodologically rigorous evaluations of diversion and a greater number of aftercare studies.

Output: The full review is published as:

Harvey, E., Shakeshaft, A., Hetherington, K., Sannibale, C., & Mattick, R. (2006). *Methodological review: Outcome studies of diversion and aftercare programs for adult drug-involved offenders.* Technical Report No. 259. Sydney: National Drug and Alcohol Research Centre.

A paper is currently under editorial review for peer-reviewed publication and the following conference presentation was given:

Shakeshaft A. *Methodological review: outcome studies of diversion and aftercare programs for drug-involved offenders.* Presented at the Court Drug Diversion Initiatives Conference, Brisbane.

Start Date: June 2005

Funding: Crime Prevention Division of the NSW Attorney General's Department

TITLE: YOUNG PEOPLE AND ALCOHOL STUDY: TASTE PERCEPTION, ATTITUDES AND EXPERIENCES

NDARC Staff: Jan Copeland, Paul Dillon and Peter Gates

Other Investigators: Richard Stevenson (Macquarie University)

Rationale: Drinking alcohol is considered a normative behaviour in adolescence, with adolescent drinkers the majority of consumers for some beverages. One of the new and increasingly popular beverages are 'ready to drink' (RTD) preparations. An RTD is a spirit or wine and a non-alcoholic drink, served in a pre-mixed format. The most popular of these products are mixtures of non-alcoholic beverages such as milk and soft drinks with alcoholic beverages, typically spirits. These RTDs are becoming increasingly popular, particularly among adolescent drinkers. Despite the level of media and policy attention devoted to the question of the effects of newer alcohol products there is no scientific evidence of their comparative palatability across age groups and gender and the potential impact on age of initiation, and patterns of alcohol use.

Aims: This study aimed to determine the palatability of a range of alcoholic and non-alcoholic beverages to teenagers and young adults. Specifically to determine:

- which beverages are most palatable to the adolescents and young adults
- if this pattern changes with age
- the extent to which packaging affects the palatability ratings

Design and Method: A convenience sample of 350 participants was recruited, 70 in each of five age groups. Participants were grouped according to age into 12–13yrs, 14–15yrs, 16–17yrs, younger adults of 18–23yrs, and older adults of 24–30yrs. The experimental drinks included three sets of RTDs and their components:

- Coke, Jim Beam Bourbon and their mix Bourbon & Coke
- chocolate milk, vodka and their mix Vodka Mudshake
- Raspberry Fanta, Bacardi and their mix Watermelon Bacardi Breezer

Participants also tested popular alcoholic beverages, Tooheys New Beer, Jacobs Creek Chardonnay and a novel beverage Wintermelon Tea.

Benefits: Up to now there has been very little research in the area of RTDs. The study identified that RTDs should not be treated as a homogenous group, as those with different alcoholic and non-alcoholic combinations and their packaging are perceived by adolescents in very different ways. The study suggests that great caution should be exercised when using milk as a base for an RTD, particularly with an alcoholic product that is less readily detected by adolescents, such as vodka. Similarly, caution should be exercised when mixing any soft drink base with vodka in an RTD, and further research is urgently required on these issues.

Output: A Technical Report has been written on the findings of this study and a number of papers have been submitted to academic journals for publication. A press release was issued in April 2006. This received widespread media attention across the country.

Copeland, J., Gates, P., Stevenson, D., & Dillon, P. (2006). *Young people and alcohol: Taste perceptions, attitudes and experiences.* Technical Report No. 241. Sydney: National Drug and Alcohol Research Centre.

Presentations given on the results of the research include the following:

Copeland, J. *Young people and alcohol: Taste perception, attitudes and experiences.* 67th Annual Meeting of the College on Problems of Drug Dependence, Orlando, Florida.

Copeland, J. *Young people and alcohol: Taste perception, attitudes and experiences.* APSAD 2005 National Conference "Drugs: Meeting New Challenges": Melbourne.

Copeland, J. *Young people and alcohol: taste perception – interim findings.* Invited presentation to the Australian Government Department of Health and Ageing, Canberra.

Copeland, J. *Young people and alcohol: taste perception.* Presentation to the New Zealand Assistant Minister for Health, Sydney.

Copeland, J. *Young People and Alcohol Study: First results.* Presentation to the National Drug and Alcohol Research Centre Annual Symposium, Sydney.

Start Date: April 2004

Funding: Australian Government Department of Health and Ageing

TITLE: EVIDENCE-BASED ANSWERS TO CANNABIS QUESTIONS

NDARC Staff: Jan Copeland, Wendy Swift, Paul Dillon and Saul Gerber

Aims: This project reviewed the literature on a range of issues associated with the health and psycho-social aspects of cannabis use. This review was then developed into 'plain English' materials to inform policy-makers, the media and the general community on answers to common questions about cannabis.

Design and Method: The literature on the health and psychosocial effects of cannabis was reviewed according to the standard criteria for causal inference. This evidence was then reviewed by three or more experts in the field and rated against these evidentiary standards. In this way the effects of the socio-political debate concerning the legalisation and harms of cannabis use, where the effects of cannabis use are subjected to significant problem inflation or deflation, are mitigated. As a result, the personal experiences of cannabis users, their

families and treatment providers may not be supported by the scientific literature or may not yet have a sufficient standard of proof to warrant their inclusion in such a brief review.

Output: Two reports have been published by the ANCD based on this work and these are available on its website:

Copeland, J., Gerber, S., Dillon, P., & Swift, W. (2006). *Cannabis: Answers To Your Questions*. Canberra: Australian National Council on Drugs.

Copeland, J., Gerber, S. & Swift, W. (2006). *Evidence-based Answers to Cannabis Questions*. Canberra: Australian National Council on Drugs.

Start Date: July 2003

Funding: Australian National Council On Drugs

TITLE: PROCESS EVALUATION OF GORMAN HOUSE DETOXIFICATION SERVICE

NDARC Staff: Claudia Sannibale, Ed Silins, Sarah Larney and Richard Mattick

Other Investigators: Alex Wodak

Rationale: Gorman House, a non-medicated residential detoxification service attached to St Vincent's Drug and Alcohol Services, has been providing a service to marginalised inner-city alcohol and other substance users since 1982. NDARC was approached by St Vincent's hospital administration to undertake an evaluation of Gorman House, the first since its inception.

Aims: The aim of the evaluation was to determine whether Gorman House met its service goals in terms of its consumers, its clinical services and the network of services in the wider treatment system. Specifically, the evaluation sought to identify: the demographic and clinical characteristics of residents and whether Gorman House serves its intended client group; the route by which residents enter the service; waiting time; the average length of stay; the proportion and characteristics of residents that complete and do not complete detoxification; the experiences of residents during admission; and the extent of referral to the community treatment network. The study also aimed to gauge the views and perceptions of staff and a selected range of key informants in relation to the services delivered at Gorman House.

Design and Method: The evaluation had several components: a prospective study of 80 consecutive admissions consisting of a structured face-to-face interview; interviews with 15 key informants, individuals from services who are part of Gorman House's referral system; an anonymous staff questionnaire; and access to Minimum Data Set information for 12 months of admissions. Each of these components provided valuable information which contributed to developing a comprehensive view of the current functioning of the service, gaps in service provision and possible ways of addressing these.

Benefits: The evaluation will hopefully provide valuable feedback to the service staff, management, and administration of Gorman House, as well as other interested parties. The 'snapshot' of Gorman House provided by the evaluation will hopefully demonstrate the many strengths of the service as well as areas of improvement that could potentially lead to service development.

Output: The evaluation is written as an NDARC Technical Report which will be published and available following feedback from the steering committee and service management. Papers are currently being written and submitted for publication in peer-reviewed journals.

Start Date: September 2005

Funding: St Vincent's Hospital and Mater Health, Sydney

TITLE: THE PFIZER HEALTH REPORT: POLYPHARMACY IN AUSTRALIA

NDARC Staff: Wendy Swift

Other Investigators: Sallie Pearson (UNSW) and Marie Pirotta (University of Melbourne)

Aims: There are real concerns about the effects of mixing different medicines, and medicines with recreational drugs (polypharmacy). This is particularly pertinent with the growth in popularity of complementary and alternative medicines, which have not typically undergone the same level of scientific evaluation as conventional medicines, and among older Australians who may be taking multiple medications. The aim of this study was to obtain population-based data from a representative sample of Australian adults on:

- the prevalence and patterns of use of prescription medicines, over-the-counter medicines and complementary/alternative medicines and recreational drugs
- sources of information on the effects of mixing medicines
- attitudes towards mixing medicines

Design and Method: This research was conducted among a representative sample of approximately 800 Australian adults as part of the Pfizer Health Report Series. The Health Report surveys are conducted about four times a year, with various organizations invited to submit research questions to form an omnibus survey. This study involved self-completion of 24 questions on polypharmacy, in order to better understand the prevalence and patterns of use, knowledge about the effects of mixing, and attitudes towards mixing.

Benefits: These data will allow us to examine the extent of mixing, people's concerns and attitudes, and thus assist in targeting information more effectively on this important issue.

Output: A preliminary report was produced in concert with Pfizer. This report is available at www.healthreport.com.au. A press release issued in April 2006 concerning this report attracted substantial media attention. A paper is currently being drafted for submission to a peer-reviewed journal.

Start Date: August 2005

Funding: Pfizer and National Drug and Alcohol Research Centre in kind funding

TITLE: SEXUAL BEHAVIOUR AND DRUG USE AMONG UK BACKPACKERS

NDARC Staff: Jan Copeland, Paul Dillon and Peter Gates

Other Investigators: Mark Bellis and Karen Hughes (John Moores University)

Rationale: The project has provided data that will substantially improve our understanding of the drug use and sexual behaviour of young tourists visiting Australia. Very little was previously known about the risk-taking behaviour of this group of young people. This data will inform both UK and Australian policy-makers in developing targeted interventions aimed at reducing the negative consequences of drug use and sexual behaviour.

Aims: The aims of this project were:

- to determine the extent of drug use and sexual risk-taking behaviour by young people holidaying in Australia
- to compare types, frequencies and quantities of substances used by young people while holidaying in Australia with their patterns of use in the UK
- to compare sexual behaviour of young people while holidaying in Australia with their behaviour in the UK
- to compare the risk-taking behaviour of UK holidaymakers visiting dance resorts, such as Ibiza, to those who travel to Australia

Design and Method: Participants consisted of 1000 volunteers recruited from backpacker hostels and venues frequented by international visitors. The criteria for entry to the study was that participants must have been 16-35 years old, a UK resident, travelling in Australia and not on a set package deal with a single hotel who have been in the country for at least two weeks. A self-completion questionnaire examined demographics, drug use and sexual behaviour both in their country of residence and in Australia. Similar questions have been used successfully in studies examining young UK holidaymakers in Ibiza.

Progress: The study has been completed and papers are currently being prepared for academic journals.

Start Date: May 2005

Funding: John Moores University, Liverpool, UK

TITLE: DEVELOPMENT OF THE NATIONAL CANNABIS STRATEGY

NDARC Staff: Richard Mattick, Jennifer McLaren and Margaret Eagers

Rationale: On 12 November 2004, the Ministerial Council on Drug Strategy (MCDS) agreed to the development of a National Cannabis Strategy, which will be the first of its kind in Australia. The widespread use of cannabis in Australia means that the National Cannabis Strategy will be a particularly important component of the National Drug Strategy.

Aims: To coordinate the development of a national strategy addressing ways to minimise the harm associated with cannabis use in Australia.

Design and Method: A Project Management Group, chaired by Prof Mattick of NDARC, was established to lead the development of the National Cannabis Strategy (the Strategy). The Group encompassed representatives from the Australian National Council on Drugs (ANCD), health, education and law enforcement sectors. Four Reference Groups have also been established to provide advice to the Project Management Group throughout the development of the Strategy.

Output: At the first Project Management Group meeting, it was agreed that the Strategy would be informed by existing knowledge and research and a comprehensive consultation process. Over 20 consultation forums were held across Australia, with at least two in each state and territory. The strategy document was written with the views from the forums, as well as the existing research evidence in mind. NDARC worked closely with the members of the Intergovernmental Committee on Drugs (IGCD) – the group of senior health, law enforcement and education officers who advise the MCDS – while drafting the strategy. On 15 May 2006, the MCDS met in Perth and endorsed the National Cannabis Strategy. The MCDS has asked the IGCD to develop four or five key areas of national priority from the Strategy for their consideration. The Strategy document has been released and is now available via the National Drug Strategy website.

Start Date: April 2005

Funding: Australian Government Department of Health and Ageing

TITLE: AN EXPLORATION OF DRUG INJECTORS' UNDERSTANDING OF HEPATITIS C INFECTION AND THE IMPLICATIONS FOR TRANSMISSION (UNDERSTANDING HEPATITIS C PROJECT)

NDARC Staff: Carolyn Day, Kate Dolan, Emma Black, Clare Thetford and Susannah O'Brien

Other Investigators: Jo Kimber (Centre for Research on Drugs and Health Behaviour, London) and Susan McGuckin (New South Wales Users and AIDS Association)

Aims: The aims of the study were to measure injecting drug users' (IDUs') knowledge of hepatitis C, in particular their knowledge and understanding of issues such as:

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

Design and Method: This cross-sectional study interviewed over 120 injecting drug users across three sites: inner-city, suburban and regional. A questionnaire was purposefully designed to examine IDUs' knowledge of hepatitis C and their understanding of the virus including that of clinical terms and symptoms. The questionnaire also examined IDUs' knowledge of hygiene practices and assessed their quality of life using the Injecting Drug Users' Quality of Life scale (IDUQOL). In depth qualitative interviews were also conducted with 30 IDUs to gain a greater insight into their understanding of hepatitis C.

Benefits: Greater insight into the understandings and misconceptions regarding hepatitis C was obtained. These may be of use to health professionals and others who work and/or have contact with injecting drug users in tailoring/improving health promotion messages and explanations of test results.

Output: Preliminary results of the study were presented at the following conference:

Black, E. *What injecting drug users don't understand about hepatitis C.* Presentation to Viral Hepatitis- 5th Australasian Conference, Sydney.

The project was written up as a NDARC Technical Report:

O'Brien, S., Day, C., Black, E., Thetford, C., & Dolan, K. (2006) *Injecting drug users' understanding of Hepatitis C.* NDARC Technical Report No. 262. Sydney: National Drug and Alcohol Research Centre.

One paper has been submitted to a scientific journal and another is in preparation.

Start Date: June 2003

Funding: NSW Health

TITLE: THE AUSTRALIAN TREATMENT OUTCOME STUDY (ATOS): HEROIN

NDARC Staff: Maree Teesson, Shane Darke, Joanne Ross, Katherine Mills, Anna Williamson, Alys Havard and Marian Shanahan

Other Investigators: Michael Lynskey (University of Washington, St Louis, USA); Robert Ali, Richard Cooke and Danielle Bament (Drug & Alcohol Services South Australia (DASSA)); and Alison Ritter, Tracey Holt and Amy Swan (Turning Point Alcohol & Drug Centre, Victoria)

Aims: This project aimed:

- to describe the treatment received
- to examine treatment outcomes (drug use, criminal behaviour and mental health) and costs at three and 12 months after the commencement of treatment
- in NSW, longer term outcomes (at 24 and 36 months) will also be examined

Design and Method: Heroin users were recruited on entry to treatment through methadone/buprenorphine maintenance, detoxification and residential rehabilitation services. The study was conducted in Sydney (n=535), Adelaide (n=100) and Melbourne (n=110). In NSW an additional 80 heroin users not currently in treatment were recruited. Using a structured questionnaire, participants were interviewed on entry into treatment for heroin dependence and followed up again at three and 12 months post treatment entry. In NSW follow-up was extended to 24 and 36 months.

A major strength of ATOS is the richness of data collected on participants at baseline and follow-up. The measures used examined drug use, criminality, treatment history, injection related risk-taking behaviour, overdose, general health, health service utilisation, and psychopathology (Major Depression, Post Traumatic Stress Disorder, Anti Social Personality Disorder and Borderline Personality Disorder). Extended follow up of the NSW cohort provided valuable data on the natural histories of heroin users.

Two PhD projects originated from the ATOS project:

- Post traumatic stress disorder (PTSD) among Australian heroin users
- Cocaine use among heroin users in NSW: Prevalence and related harms

Progress: The three, 12, 24, and 36 month follow-up interviews were completed. Follow-up rates were 89%, 80%, 76%, and 70% respectively.

Benefits: ATOS is the first large-scale longitudinal study of treatment outcome for heroin dependence to be conducted in Australia. The longitudinal nature of the study enabled participant characteristics to be determined at baseline, and their progress to be assessed at three and 12 months. The study also provided a description of the treatment being received and a measure of the health costs generated by the cohort, including prescribed medications and the use of medical and other health services. Extended follow up of the NSW cohort has provided the first Australian data on the longer term natural histories of heroin users.

Output: Here are a selection of reports and papers arising from the ATOS project in 2006:

Darke, S., Williamson, A., Ross, J., & Teesson, M. (2006). Residential rehabilitation for the treatment of heroin dependence: Sustained heroin abstinence and drug-related problems 2 years after treatment entrance. *Addictive Disorders & Their Treatment* 5, 9-18.

Darke, S., Williamson, A., Ross, J., & Teesson, M. (2006). Reductions in heroin use are not associated with increases in other drug use: 2-year findings from the Australian Treatment Outcome Study. *Drug and Alcohol Dependence* 84, 201-205.

Havard, A., Teesson, M., Darke, S., & Ross, J. (2006). Depression among heroin users: 12 month outcomes from the Australian Treatment Outcome Study (ATOS). *Journal of Substance Abuse and Treatment* 30, 355-362.

Shanahan, M., Havard, A., Teesson, M., Mills, K., Williamson, A., & Ross, J. (2006). Patterns and costs of treatment for heroin dependence over 12 months: Findings from the Australian Treatment Outcome Study. *Australian and New Zealand Journal of Public Health* 30, 305-311.

Teesson, M., Havard, A., Ross, J., & Darke, S. (2006). Outcomes after detoxification for heroin dependence: Findings from the Australian Treatment Outcome Study (ATOS). *Drug and Alcohol Review* 25, 241-247.

Williamson, A., Darke, S., Ross, J., & Teesson, M. (2006). The effect of persistence of cocaine use on 12-month outcomes for the treatment of heroin dependence. *Drug and Alcohol Dependence* 81, 293-300.

Williamson, A., Darke, S., Ross, J., & Teesson, M. (2006). The association between cocaine use and short-term outcomes for the treatment of heroin dependence: Findings from the Australian Treatment Outcome Study (ATOS). *Drug and Alcohol Review* 25, 141-148.

Start Date: January 2004

Funding: National Health and Medical Research Council, Australian Government Department of Health and Ageing, and Department of Human Services Victoria

TITLE: THE IMPACT OF ALCOHOL USE DISORDERS ON FAMILY FUNCTIONING

NDARC Staff: Delyse Hutchinson and Richard Mattick

Aims: To write a comprehensive literature review detailing the effects of parental alcohol use disorders on family life, including the effects on family functioning and children growing up. The project also aims to overview literature on the role of problematic family functioning in the development of alcohol use in young people.

Design and Method: A comprehensive literature review on the effects of alcohol on family life was provided to the AGDHA in order to inform policy regarding current prevention and management of harms to children and families. The process included database searches to identify the type and extent of impact, interviews and liaison with major family and cohort research groups in Australia, and identification of biological and environmental risk factors.

Benefits: This review demonstrated significant associations between parental alcohol use disorders and a range of problems in family life. These problems include parental separation

and divorce, parental mental health and other substance use problems, family conflict and violence, economic problems, disrupted parenting, parent-child relationship problems and a range of mental health and cognitive disturbances in children. These problems often co-occur in families affected by parental drinking, particularly in families where both parents abuse alcohol. The review identified a number of limitations in the literature, particularly the lack of high quality prospective research conducted in Australia to date. Recommendations were made for national policy and practice relevant to families affected by alcohol use problems.

Output: A literature review has been submitted to the AGDHA.

Start Date: March 2005

Funding: Australian Government Department of Health and Ageing

TITLE: CASE CONTROL COMPARISON OF AUTOPSY PATHOLOGY OF PSYCHOSTIMULANT DEATHS, HEROIN DEATHS, AND A NON-DRUG USING COMPARISON GROUP

NDARC Staff: Shane Darke and Sharlene Kaye

Other Investigators: Johan Duflou

Aims: To compare the types and severity of major organ pathology among deaths due to cocaine toxicity, deaths due to opioid toxicity, and non-drug related deaths.

Design and Method: The study was a comparative analysis of the types and severity of major organ pathology detected among three groups:

- cocaine-related fatalities that occurred between 1993 and 2002 (n=125)
- opioid-related deaths that occurred between 1998 and 2002 in which cocaine was not present (n=669)
- a group of hanging victims from between 1998 and 2002, in which illicit drugs were not detected (n=360)

Information on cause of death, demographic characteristics, drug use history, circumstances of death, toxicological findings and major autopsy findings were retrieved from coronial files. Permission to access such files was received from the NSW State Coroner and the Central Sydney Area Health Service Research Ethics Committee.

Benefits: The study provided the first clear comparative data on the extent of health effects of cocaine upon the heart. Such knowledge can form the basis of interventions to reduce cocaine use by emphasising these serious health effects.

Output: A paper has been written and submitted to a journal for publication.

Start Date: June 2005

Funding: Australian Government Department of Health and Ageing

TITLE: THE ADOLESCENT CANNABIS CHECK-UP: A RANDOMIZED CONTROLLED TRIAL**NDARC Staff:** Jan Copeland and Greg Martin**Other Investigators:** Steve Allsop (NDRI) and Robert Ali (DASSA)

Aims: This study was designed to provide a robust test of the effectiveness of a brief motivational and cognitive-behavioural intervention (The Adolescent Cannabis Check-up) in reducing problematic cannabis use and cannabis-related problems among young people aged 14 to 19 years. It was built on a recently completed feasibility study which returned promising findings. The intervention was designed to be appropriate for both treatment seeking and non-treatment seeking individuals, the initial focus being on motivation and a process of guided self-assessment.

Design and Method: In a randomized controlled trial, 40 young people were recruited and randomly allocated to receive the two session Check-up intervention immediately, or to a three month delayed treatment control group. Follow-up interviews were conducted three months later at which time participants in the delayed treatment group were offered the intervention. The intervention was manualised and therapist adherence was monitored by audio tapes of the sessions.

Benefits: Although cannabis is the most widely used illicit drug among young people, there has been little research into treatment options specifically developed for this population. This study employed a methodologically rigorous design and provides evidence for the effectiveness of the Check-up intervention in this population, and its acceptability to young people.

Output: The findings of the study are currently being written up for publication in academic journals. A clinical treatment manual was prepared for the Check-up studies and has been disseminated to interested clinicians nationally and internationally.

Presentations given on the findings of the study include:

Martin, G. *The Adolescent Cannabis Check-up (ACCU): A brief intervention for young cannabis users.* 5th International Conference on Drugs and Young People, Sydney.

Copeland, J. *Adolescent Cannabis Check-up.* NIDA International Forum: International Trends and Needs in Drug Abuse Research. Scottsdale, Arizona.

Start Date: July 2003**Funding:** National Health and Medical Research Council**TITLE:** A PILOT TRIAL INVESTIGATING THE EFFICACY OF LITHIUM CARBONATE IN THE MANAGEMENT OF CANNABIS WITHDRAWAL**NDARC Staff:** Jan Copeland**Other Investigators:** Adam Winstock (South West Sydney Area Health Service) and Mark Montebello (The Langton Centre, South Eastern Sydney Area Health Service)

Rationale: Cannabis withdrawal in severely dependent individuals can be a barrier to achieving abstinence. There are no pharmacotherapies currently available to assist in the management of cannabis withdrawal. Lithium carbonate has been shown to be promising in rodent models, and in a small open-label trial in humans, in the abolition of cannabis withdrawal symptoms.

Aims: To assess the acceptability and effectiveness of lithium carbonate in the management of cannabis withdrawal among adult, cannabis-dependent treatment seekers in an inpatient setting.

Design and Method: An open-label inpatient trial aimed to investigate the acceptability and effect of higher level and longer dosing of lithium carbonate on the symptomatology and course of cannabis withdrawal in 20 treatment-seeking adults in a controlled setting. Participants were admitted to an inpatient drug detoxification facility in SWSAHS and were administered supervised lithium carbonate 500mg b.d. for seven days. Cannabis withdrawal and a range of physical and psychological parameters were closely monitored. Participants were followed up 14, 28 and 90 days post admission. Urinalysis for cannabinoids was used to confirm self-reported levels of use.

Benefits: This open-label study supported the promising earlier findings on the effectiveness of lithium carbonate in the management of cannabis withdrawal and has provided evidence to strengthen the case for funding a double blind randomized controlled trial of this medication.

Output: A paper has been submitted for consideration in an international peer-reviewed journal. The findings have been reported at a national conference.

Start Date: October 2004**Funding:** NSW Health**TITLE:** TRAINING MODULE ON INITIAL PATIENT ASSESSMENT: DRUG DEPENDENCE AND PSYCHOSOCIAL ASSESSMENT**NDARC Staff:** Etty Matalon and Bradley Mathers

Aims: To develop a training module on how to conduct a drug dependence and psychosocial assessment.

Design and Method: Using best practice models a comprehensive guide to conducting drug dependence and psychosocial assessment was developed to be used in a clinical setting in the Asian region.

Benefits: This module has made a significant contribution to the training of doctors in the Asian region on how to assess patients presenting for HIV treatment.

Output: The training module was completed and disseminated:

Matalon, E. & Mathers, B. (2006). *Training module on initial patient assessment: Drug dependence and psychosocial assessment*. Bangkok: Family Health International.

Start Date: July 2006

Funding: Family Health International, Bangkok

TITLE: RAPID ASSESSMENT AND RESPONSE TO DRUG USE IN AND HIV IN MONGOLIA

NDARC Staff: Bradley Mathers, Effat Merghati Khoei, Sarah Larney, Kate Dolan and Anthony Shakeshaft

Other Investigators: Alex Wodak (St Vincent's Drug and Alcohol Service)

Aims: This project aimed to:

- determine the extent and nature of illicit drug use, including injecting drug use, in Mongolia
- determine the public health aspects and impact upon the community of illicit drug use including the role of injecting drug use in the spread of HIV in Mongolia
- formulate recommendations to assist in the development of a comprehensive nationwide strategy addressing illicit drug use and HIV/AIDS in Mongolia

The rapid assessment and response (RAR) will seek to inform the development of a comprehensive nationwide strategy addressing illicit drug use and HIV/AIDS.

Design and Method: The project was conducted in accordance with the methodology outlined in the WHO Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour, the WHO Response Guide on Injecting Drug Use and the WHO Rapid Assessment and Response Technical Guide.

Output: The following report was prepared for the World Health Organization Regional Office for the Western Pacific and the Mongolian Ministry of Health:

Mathers, B., Shakeshaft, A., Wodak, A., Merghati Khoei, E., Larney, S., & Dolan, K. (2006). *Rapid assessment and response addressing drug use and HIV/AIDS in Mongolia*. Manila: World Health Organization Regional Office for the Western Pacific.

Start Date: August 2006

Funding: World Health Organization, Western Pacific Regional Office

TITLE: SYSTEMIC DISEASE AMONG CASES OF FATAL OPIOID TOXICITY

NDARC Staff: Shane Darke and Sharlene Kaye

Other Investigators: Johan Duflou

Aims: To determine levels of systemic disease among cases of death due to opioid toxicity.

Design and Method: The study was an analysis of the types and severity of major organ pathology detected among opioid toxicity deaths. All 841 cases of opioid toxicity seen in three groups seen at the Department of Forensic Medicine between January 1998 and December 2002 were reviewed. Information on cause of death, demographic characteristics, drug use history, circumstances of death, toxicological findings and major autopsy findings was retrieved from coronial files. Permission to access such files was received from the NSW State Coroner and the Central Sydney Area Health Service Research Ethics Committee.

Benefits: The project provided the first comprehensive study of the contribution of pre-existing disease to explaining opioid overdose deaths. The extent of liver disease, in particular, has implications for responsible maintenance dosing.

Output: The following paper has been published:

Darke, S., Kaye, S., & Duflou, J. (2006) Systemic disease among cases of fatal opioid toxicity. *Addiction* 101, 1299-1305.

Start Date: June 2005

Funding: Australian Government Department of Health and Ageing

TITLE: A REVIEW OF THE LITERATURE ON DRUG-FREE UNITS, DETOXIFICATION AND MAINTENANCE PRESCRIBING IN PRISONS

NDARC Staff: Kate Dolan, Sarah Larney, Effat Merghati and Bradley Mathers

Other Investigators: Benjamin Phillips (St. Vincent's Hospital Alcohol and Drug Service)

Aims: The aims of this project were:

- to prepare a review of the international literature on drug-free units, detoxification services and maintenance prescribing in prisons to inform a revision of the UK Drug Misuse and Dependence Guidelines on Clinical Management
- to provide recommendations for best-practice in drug detoxification and treatment in prisons

Design and Method: An extensive literature review was carried out and a report compiled.

Output: The review has been submitted:

Larney, S., Phillips, B., Merghati, E., Mathers, B. & Dolan, K. (2006). *Drug treatment in prisons: A review of the literature on drug-free units, detoxification and maintenance prescribing*. Sydney: National Drug and Alcohol Research Centre.

Permission will be sought to publish the review as a NDARC Technical Report and/or one or more papers in peer-reviewed journals.

Start Date: July 2006

Funding: National Treatment Agency for Substance Misuse (UK)

TITLE: DESK REVIEW OF HIV PREVENTION, CARE AND TREATMENT SERVICES IN PRISONS IN SOUTH-EAST ASIAN COUNTRIES

NDARC Staff: Sarah Larney, Patricia Morton, Bradley Mathers and Kate Dolan

Aims: To outline the current situation regarding HIV prevention, care and treatment services in prisons in India, Indonesia, Thailand and Nepal.

Design and Method: An extensive literature review was conducted. Relevant websites (e.g. UNODC, UNAIDS, International Centre for Prison Research) were searched for reports and data. Where gaps remained in the information collected, key experts in each country were contacted and specific information requested.

Benefits: This review highlights that HIV prevention, treatment and care in prison has been neglected throughout South-East Asia. However, the review also identified some excellent examples of HIV prevention, treatment and care in prisons, particularly in Indonesia, that can serve as models for the region.

Output: A report was written for the WHO South-East Asia Regional Office and will be available by early 2007:

Larney, S., Morton, P., Mathers, B. & Dolan, K. *HIV Prevention, Treatment and Care in Prisons in South-East Asia*. New Delhi, World Health Organization South-East Asia Regional Office, in press.

Articles for submission to peer-reviewed journals are being prepared. Each article will focus on one of the countries discussed in the report.

Start Date: August 2006

Funding: World Health Organization South East Asia Regional Office

TITLE: A REVIEW OF THE LITERATURE ON THE EFFECT OF METHAMPHETAMINE USE ON VIOLENT BEHAVIOUR

NDARC Staff: Rebecca McKetin, Steven Riddell, Lisa Robins and Jennifer McLaren

Other Investigators: Conducted in collaboration with the NSW Bureau of Crime Statistics and Research (BOCSAR)

Aims: The project assessed whether there was any evidence that rising methamphetamine use had contributed to a rise in assaults in NSW over the past decade. Specifically, this project examined:

- whether there had been an increase in methamphetamine use in NSW and Australia during the past five years
- what evidence, if any, is there that methamphetamine use increases the risk of violent behaviour?
- in what circumstances, if any, are these effects observed?
- what evidence, if any, is there that the growth in methamphetamine use has contributed to the upward trend in assaults in NSW over the last five years?
- what research/monitoring needs to be undertaken to improve our understanding of the impact that methamphetamine use has on (a) individual violent behaviour, and (b) aggregate rates of assault?

Design and Method: The first stage of this research involved reviewing the literature and existing data on methamphetamine use trends in Australia and the relationship between methamphetamine use and violent crime. The second stage of the research involved analysing assault and methamphetamine arrest data from the NSW Bureau of Crime Statistics and Research.

Benefits: This research has given us a better understanding of the relationship between methamphetamine use and violent behaviour, particularly in light of the vast media coverage the methamphetamine issue has received in the past 12 months.

Output: A publication has been completed and is available on the BOCSAR website:

McKetin, R., McLaren, J., Riddell, S. & Robins, L. (2006a). The relationship between methamphetamine use and violent behaviour. *NSW Bureau of Crime Statistics and Research Crime and Justice Bulletin No. 97*. August 2006. NSW Bureau of Crime Statistics and Research, Sydney.

A press release on the results was issued in October 2006 and received wide media coverage.

Start Date: January 2006

Funding: Office of Drug and Alcohol Policy, NSW Health

TITLE: THE DEVELOPMENT OF A BOOKLET ON 'ICE'

NDARC Staff: Paul Dillon and Rebecca McKetin

Aims: The aims of this project were as follows:

- to write, design and produce a brief and factual information resource for users of 'ice'
- to develop an effective dissemination plan, in conjunction with the AGDHA, for the ice resource

- to evaluate the effectiveness of the dissemination plan, i.e. how easy is it for ice users to access the resource across different jurisdictions?

Design and Method: This booklet was written to cover the following topics: what the substance is, how it is used and its effects, perceived positive benefits and harms associated with use, issues around psychosis and overdose, different routes of administration and associated harms, and tips on how to reduce use or quit.

The content was drawn from the literature on methamphetamine and recent research findings on the nature and harms associated with the use of crystalline methamphetamine, or ice. The draft content was pilot-tested with methamphetamine users. The pilot testing process included both non-injecting drug users who smoke ice and methamphetamine injectors.

A distribution plan was developed with the assistance of the AGDHA and all state and territory health departments. Distribution involved the mailing out of the booklet to one location in each state and territory. It was then up to the Health Department in each jurisdiction to distribute the resources as widely as possible.

The evaluation component of this project comprised 30 telephone interviews with a range of stakeholders from across Australia, including NSPs and drug user organizations such as AVIL and NUAA, to investigate whether the resource had reached the target group. Agency staff, both management and frontline workers, were interviewed for this component of the project. These interviews took place four months after the initial distribution and launch of the booklet. A brief report was delivered to the AGDHA.

Progress: The 'ice' booklet was written by NDARC and approved by the AGDHA and distributed across the country in mid-2006. An announcement was made on the ADCA Update that the booklet was available and the first print-run proved so successful that an additional 50,000 copies needed to be printed.

The following recommendations arose from the evaluation of the dissemination/distribution plan:

- the dissemination/distribution process implemented for this project be used for further resources developed by NDARC/AGDHA. It was also suggested that the AGDHA uses its central distribution house to follow up any initial launch of further resources
- two new resources need to be developed, these are as follows:
 - a pocket-sized version of the ice resource – a brief version of *On Thin Ice: A Users' Guide*
 - a pocket-sized version focusing on harm reduction tips. Frontline workers are keen to have a resource that provides information to those users who are not planning to stop, so as to reduce the harm they are experiencing. Those interviewed suggested that this resource should focus on smoking messages

- further research needs to be conducted into how to reach frontline workers in a timely manner. Currently there seem to be barriers in accessing 'coal-face' workers such as NSP workers, counselors and youth workers

Output: The following booklet was developed and distributed:

On Thin Ice: A User's Guide (2006). Sydney: National Drug and Alcohol Research Centre.

Start Date: September 2005

Funding: Australian Government Department of Health and Ageing

TITLE: CHOICE HEALTH READER

NDARC Staff: Wendy Swift

Aims: The aim of the NDARC contribution to CHOICE Health Reader was to increase the dissemination of recent alcohol and other drug research findings to the general public.

Design and Method: NDARC contributed a page to the Health Reader (up to 10 issues per year), highlighting recent findings in the field.

Benefits: This was an easy to read, informative way of disseminating important research findings to the general public and interested health professionals.

Output: NDARC contributed to 23 issues of CHOICE Health Reader between July 2003 and November 2006.

Start Date: March 2003

Funding: National Drug and Alcohol Research Centre

TITLE: YEAR ONE EVALUATION OF THE NEW ZEALAND ILLICIT DRUG MONITORING SYSTEM (IDMS)

NDARC Staff: Louisa Degenhardt, Emma Black and Matthew Dunn

Aims: The aim of the current study was to provide an assessment of the strengths/weaknesses of the IDMS, as it was designed and delivered in 2005. The review was intended to focus largely upon processes and outputs, and where possible, outcomes. Broadly, the review was conducted to investigate such topics as whether the study was designed appropriately, conducted and managed by the appropriate staff, whether the project acted as a strategic early warning system, and whether the NZ IDMS was comparable to the Australian Illicit Drug Reporting System (IDRS) and/or Ecstasy and Related Drugs Reporting System (EDRS).

Design and Method: The review involved reading the IDMS reports and briefings in order to understand how the study was conducted and to become familiar with the results. Key experts in NZ were interviewed; these key experts worked in law enforcement as well as in the health field. Interviews with the IDMS team were also conducted.

COMPLETED PROJECTS

Benefits: This study provided the opportunity to evaluate a project which makes use of methodology that is used on similar projects at NDARC, and as such, allowed the opportunity to reflect upon these projects and their outcomes.

Output: A report entitled “Year One Evaluation of the New Zealand Illicit Drug Monitoring System (IDMS)” was submitted in confidence to the funders (NZ Police).

Start Date: March 2006

Funding: New Zealand Police

GLOSSARY

AGDHA	Australian Government Department of Health and Ageing
AERF	Alcohol Education and Rehabilitation Foundation Ltd
CF	Colonial Foundation
CLIMATE	Clinical Management & Treatment Education
CP NZ	Office of Commissioner of Police, NZ
CUT	Curtin University of Technology
DEST	Department of Education, Science and Training
DH	Department of Health, NSW
DPMP	Drug Policy Modelling Programme
GU	Griffith University
LJMU	Liverpool John Moores University (UK)
MDECC	Manly Drug Education & Counselling Centre
NDLERF	National Drug Law Enforcement Research Fund
NHMRC	National Health and Medical Research Council
NIH	National Institute of Health (USA)
NSW BCSR	NSW Bureau of Crime Statistics and Research
PTSD	Post Traumatic Stress Disorder
RB	Reckitt Benckiser
TP	Turning Point Alcohol & Drug Centre
UN	University of Newcastle
UNAIDS	United Nations Programme on HIV/AIDS
UNILIFE	Unilife Medical Solutions
UNODC	United Nations Office on Drugs and Crime
UNSW	University of New South Wales
WHO	World Health Organisation
WU	Washington University, USA

APPENDIX A SEMINARS

IN-HOUSE SEMINARS

- Feb 16 **Systemic disease among cases of fatal opioid toxicity.**
Shane Darke
- Mar 9 **Street based sex workers, drug use and risk-taking**
Amanda Roxburgh
- Mar 16 **What is the IDRS and PDI, and what can it show us?**
Jenny Stafford, Matthew Dunn and Emma Black
- Apr 13 **The National Cannabis Strategy**
Jen McLaren
- Apr 20 **Alcohol Action in Rural Communities**
Anthony Shakeshaft
- May 11 **Drugs in Pregnancy Study**
Lucy Burns
- May 18 **Cannabis and psychosis: A review of the issues**
Louisa Degenhardt
- Jun 15 **Demographics, toxicology and cardiovascular pathology of methamphetamine-related deaths**
Sharlene Kaye
- Jul 27 **New pharmacotherapies for the treatment of alcohol dependence**
Maree Teesson
- Aug 10 **Methamphetamine drug markets and psychosis**
Rebecca McKetin
- Aug 17 **Treatment options for cannabis dependence**
Jan Copeland
- Sep 12 **Borderline personality and treatment outcome**
Shane Darke
- Sep 19 **Case control study of attempted suicide amongst heroin users**
Elizabeth Moloney
- Sep 28 **Building capacity for drug treatment in closed settings in South-East Asia: Lessons learned from a recent fact-finding mission**
Sarah Larney
- Oct 12 **Cannabis potency and contaminants**
Wendy Swift

INVITED SEMINARS

- Feb 6 **US harm reduction interventions among street-based sex workers**
Prof Jim Inciardi
Director, Center for Drug and Alcohol Studies
University of Delaware, Florida
- Feb 23 **Cannabis and driving**
Craig Jones
NSW Bureau of Crime Statistics and Research

- Mar 23 **National Comorbidity Management Program: Treatment by mail**
A/Prof Sitharthan Thiagarajan
Director, Australian Centre for Addiction Research
- Apr 10 **A geography of substance use in the NT's 'Top End'**
Dr Alan Clough
Menzies School of Health Research,
Charles Darwin University
- Apr 27 **The vulnerable phenotype: Bi-directional interactions between stress and opiate dependence**
Dr Gavan McNally
School of Psychology, UNSW
- May 25 **MDMA ('ecstasy'), methamphetamine and their combination: Evidence of long-term behavioural and neurochemical changes in rats**
Kelly Clemens
School of Psychology, UNSW
- Jun 8 **Booze, breath or bust: How random breath testing was introduced into NSW**
Hon. Kevin Rozzoli
Chair, NDARC Board of Management
- Aug 24 **Recent developments in Post-Traumatic Stress Disorder**
Prof Richard Bryant
School of Psychology, UNSW
- Sep 7 **Psychotherapies and pharmacotherapies for the treatment of comorbid substance use disorders and PTSD**
A/Prof Therese Killeen
School of Psychiatry, Medical University of South Carolina
- Sep 12 **Linking drug abuse epidemiology with neuroscience**
Dr Wilson Compton
National Institute on Drug Abuse
Dimensional approaches to classification of alcohol disorders
Dr Wilson Compton
National Institute on Drug Abuse
Professor Bridget Grant
NIAAA
- Sep 28 **WHO's and the introduction of harm reduction measures into a drug free programme**
Garth Popple
Director, We Help Ourselves
- Oct 26 **Structural determinants of drug use**
Dr Catherine Spooner
Social Policy Research Centre, UNSW
- Nov 23 **The search for modifiable determinants of drinking to intoxication**
Dr Kypros Kypri
University of Newcastle, University of Otago
- Nov 30 **Drug treatment in Durham County**
Dr Tom Carnwath
Clinical Director of Addiction Services, UK

APPENDIX B STAFF LIST

Richard Mattick	Director, Professor
Maree Teesson	Deputy Director, Associate Professor
Shane Darke	Professor
Jan Copeland	Associate Professor
Louisa Degenhardt	Associate Professor
Kate Dolan	Associate Professor
Alison Ritter	Associate Professor
Anthony Shakeshaft	Senior Lecturer
Rebecca McKetin	Senior Research Fellow
Lucy Burns	Lecturer
Joanne Ross	Lecturer
Wendy Swift	Lecturer
Caitlin Hughes	Research Fellow
Delyse Hutchinson	Research Fellow
Sharlene Kaye	Research Fellow
Katherine Mills	Postdoctoral Research Fellow
Claudia Sannibale	Research Fellow
Eva Congreve	Archivist
Paul Dillon	Media Liaison/Information Manager
Shale Preston	Executive Officer (Research)
Marian Shanahan	Health Economist
Robert Stapleton	Statistical Officer
Heli Wolk	Professional Officer
Annie Bleeker	Senior Research Officer
Courtney Breen	Senior Research Officer
Elizabeth Conroy	Senior Research Officer
Cathy Finney Lamb	Senior Research Officer
Peter Gates	Senior Research Officer
Amy Gibson	Senior Research Officer
Briony Larance	Senior Research Officer
Greg Martin	Senior Research Officer
Bradley Mathers	Senior Research Officer
Jen McLaren	Senior Research Officer
Susannah O'Brien	Senior Research Officer
Heather Proudfoot	Senior Research Officer
Amanda Roxburgh	Senior Research Officer
Fiona Shand	Senior Research Officer
James Shearer	Senior Research Officer
Edmund Silins	Senior Research Officer
Jenny Stafford	Senior Research Officer
Devon Indig	Doctoral Candidate
Nickie Newton	Doctoral Candidate
Laura Vogl	Doctoral Candidate
Jamie Dunbar	Research Nurse
Emma Black	Research Officer
David Bosanquet	Research Officer

Gabrielle Campbell	Research Officer
Shelley Cogger	Research Officer
Matthew Dunn	Research Officer
Alys Havard	Research Officer
Kate Hetherington	Research Officer
Erin Kelly	Research Officer
Sarah Larney	Research Officer
Elizabeth Maloney	Research Officer
Caitlin McCue	Research Officer
Steve Riddell	Research Officer
Lisa Robins	Research Officer
Cathie Sammut	Research Officer
Sagari Sarkar	Research Officer
Natasha Sindicich	Research Officer
Bronwyn Steadman	Research Officer
Melanie Simpson	Research Officer
Michelle Torok	Research Officer
Elissa Wood	Research Officer
Louise Salkeld	PA/Research Assistant
Julie Hodge	Administrative Assistant/Receptionist
Carla Santos	Administrative Assistant/Receptionist

CONJOINT APPOINTMENT

Wayne Hall	Visiting Professor
James Bell	Associate Professor
Kate Conigrave	Associate Professor
Johan Duflou	Associate Professor
Paul Haber	Associate Professor
Andrea Mant	Associate Professor
Rob Sanson-Fischer	Associate Professor
Amanda Baker	Senior Lecturer
Ingrid van Beek	Senior Lecturer
Jeff Ward	Senior Lecturer
Adam Winstock	Senior Lecturer

VISITING FELLOWS

Robert Ali	Visiting Fellow
John Howard	Visiting Fellow
John Lewis	Visiting Fellow

APPENDIX C GRANTS FROM EXTERNAL SOURCES

Projects	Funding Source	Total Award (\$)	Expenditure 2005	Expenditure 2006
Illicit Drug Reporting System	AGDHA	\$707,599 (2 years)*	\$334,788	\$369,811
Illicit drug statistical analysis	AGDHA	\$396,055 (2 years)*	\$191,716	\$204,339
Psychostimulant position	AGDHA	\$265,728 (2 years)*	\$143,112	\$122,616
Health economics position	AGDHA	\$163,660 (2 years)*	\$79,209	\$84,451
Extension of IDU survey component of IDRS	AGDHA	\$382,885 (2 years)*	\$183,002	\$198,775
The emergence of potent forms of methamphetamine in Sydney	NDLRF	\$245,781	\$39,604	\$7,779
Monitoring party drug markets in Australia	AGDHA	\$853,747 (2 years)*	\$386,136	\$402,946
Alcohol action in rural communities	NHMRC	\$105,000 (3 years)	\$17,558	\$6,676
A prospective cohort study of mortality, abstinence, criminality and psychiatric comorbidity	NHMRC	\$430,526 (2 years)	\$197,964	\$37,785
A multisite randomized controlled trial of the adolescent cannabis check-up	NHMRC	\$218,305 (2 years)	\$89,457	\$51,070
Opioid dependence: Candidate genes and GxE effects	WU NIH	\$1,293,783 (5 years)	\$409,731	\$403,206
Using population health data to improve health services, policy and planning	NHMRC	\$415,625 (5 years)	\$97,806	\$103,420
Reducing alcohol related harm in rural communities: A randomized control trial	AERF UN	\$1,200,000 (5 years)	\$280,885	\$309,533
Developing an information brochure for people with coexisting mental health and substance use disorders	AGDHA	\$60,081 (2 years)	\$12,165	\$5,708
The policing implications of petrol sniffing and other inhalant misuse in Aboriginal and Torres Strait Islander peoples' communities	NDLRF CUT	\$15,439	–	\$5,044
Rapid assessment of use and side effects of performance-enhancing drugs	AGDHA	\$80,873	\$78,900	\$1,973
Career Advancement Fund	UNSW	\$31,000	\$1,401	\$14,072
Longitudinal treatment outcomes for methamphetamine dependence: A treatment cohort study	NHMRC	\$709,500 (4 years)	\$66,647	\$215,020
The impact of alcohol use disorder on family functioning	AGDHA	\$77,000	\$70,607	\$6,393
Testing of confiscated injecting equipment from prisons	UNILIFE	\$37,936	\$32,368	\$5,568
The development of standardised treatment monitoring tool for use by researchers and clinicians: AATOM	AERF	\$350,000 (2 years)	\$86,436	\$142,197
Research to identify barriers around school-based prevention programmes for ecstasy and related drugs	DEST	\$109,800	\$85,930	\$23,870
Sexual behaviour and drug use among UK backpackers	LJMU	\$47,744	\$24,573	\$8,024
The evaluation of treatment outcomes for methamphetamine users	AGDHA	\$175,000 (3 years)	\$26,315	\$57,886
Psychostimulant mortality, coronary disease and other serious health effects study	AGDHA	\$149,229 (3 years)	\$24,647	\$46,094
Two concurrent randomized placebo controlled trials of modafinil in amphetamine and cocaine dependence	AGDHA	\$262,252 (3 years)	\$62,725	\$95,155
An empirical investigation of psychosis proneness in amphetamine users	NHMRC (GU)	\$160,750	\$21,701	\$19,021
Documenting good practice in harm reduction	WHO	\$9,333	\$4,450	\$4,883
Development of the National Cannabis Strategy	AGDHA	\$155,239	\$108,919	\$46,320
The development of a booklet on ice	AGDHA	\$69,190 (2 years)	\$2,000	\$67,190

APPENDIX C GRANTS FROM EXTERNAL SOURCES

(Continued)

Projects	Funding Source	Total Award (\$)	Expenditure 2005	Expenditure 2006
Needle and syringe program information kit	AGDHA	\$51,284	\$7,915	\$43,369
Malaysian study tour of HIV prevention services in Sydney	UNAIDS	\$39,749	\$14,862	\$24,887
Development of harm reduction training package	WHO	\$17,086	\$8,478	\$8,608
An exploratory study examining the patterns of use and harm associated with inhalant use	AGDHA	\$22,423	-	\$22,423
The feasibility of peer led interventions to educate ecstasy and related drug users across two Australian and one international site	AGDHA	\$290,330 (2 years)	-	\$83,977
The development of materials on ecstasy and related drugs (ERDS) for primary healthcare practitioners	AGDHA	\$153,485 (2 years)	-	\$76,029
The efficacy of an intervention for PTSD among people with heroin dependence	UNSW	\$40,000	-	\$40,000
Development of guidelines: Drug detoxification and drug treatment in areas of high prevalence or risk and closed institution	WHO	\$177,777	-	\$133,906
Year one evaluation of the NZ Illicit Drug Monitoring System (IDMS)	CP NZ	\$18,351	-	\$18,351
DPMP Research Services	TP	\$45,000	-	\$41,419
Executive Officer research	AGDHA	\$121,974 (2 years)	-	\$81,145
Post-marketing surveillance of buprenorphine-naloxone (Suboxone)	RB	\$359,655 (3 years)	-	\$64,445
Development of a brief intervention for ecstasy-related problems – The Ecstasy check up	AGDHA	\$113,739 (2 years)	-	\$39,307
The role of cannabis dependence as a risk factor for methamphetamine psychosis (PhD candidate)	AGDHA	\$175,000 (4 years)	-	\$1,752
An analysis of policy and research on drug demand reduction strategies for prisoners in China, Indonesia and Vietnam	UNODC	\$36,255	-	\$30,515
Cost savings on reduced crime while on methadone treatment	DH	\$26,622	-	\$17,329
Responding to illicit drugs in Australia: Towards evidence-based strategic policy	NHMRC	\$441,250 (5 years)	-	\$66,608
Assessing the hospital costs related to admissions with any indication of illicit drug or alcohol use	AGDHA	\$52,672	-	\$30,843
Drug Policy Modelling Program	CF	\$7,661,973 (5 years)	-	\$119,745
National Drug Strategy monograph on the health and psychological effects of Ecstasy	AGDHA	\$89,738 (2 years)	-	\$4,254
Drinking decisions: Young people and drinking	AGDHA	\$24,000	-	\$11,530
Review on current situation regarding HIV prevention, care and treatment services in prisons	WHO	\$20,145	-	\$20,145
Evaluation of the MDECC parent's prepared program	MDECC	\$34,722 (3 years)	-	\$2,697
CLIMATE Schools: Psychostimulant and cannabis module	AGDHA	\$250,046 (3 years)	-	-
The establishment of a cohort of substance abusing women and their babies	DH	\$18,524	-	\$4,275
Emerging trends in drug use and high risk behaviours among the homeless	DH	\$19,024	-	-
A review of the literature on the effect of methamphetamine use on violent behaviour	NSW BCSR	\$19,928	-	-
The efficacy of an intervention for PTSD among illicit drug users	NHMRC	\$558,125 (3 years)	-	-
Developing & disseminating effective treatments for depression & substance use comorbidity	NHMRC	\$269,000 (4 years)	-	-
SUB-TOTALS FOR PROJECTS (OVER 1 TO 5 YEARS)		\$20,323,937	\$3,192,007	\$4,054,384

APPENDIX C GRANTS FROM EXTERNAL SOURCES

(Continued)

Infrastructure	Funding Source	Total Award (\$)	Expenditure 2005	Expenditure 2006
Support for research infrastructure	DEST	\$831,363 (2 years)*	\$446,175	\$385,188

Scholarships & Fellowships	Funding Source	Total Award (\$)	Expenditure 2005	Expenditure 2006
Postgraduate scholarships (2)	AGDHA	\$148,669 (3 years)*	\$40,477	\$57,102
Research Fellowship	AERF	\$305,130 (3 years)	\$84,195	\$91,276
PhD Scholarship	AERF	\$121,709 (4 years)	\$21,984	\$20,170
Postgraduate scholarship	DH	\$133,653 (3 years)	\$16,724	\$38,850
SUB-TOTALS FOR SCHOLARSHIPS & FELLOWSHIPS (OVER 3 TO 4 YEARS)		\$709,161	\$163,380	\$207,398
GRAND TOTAL OF AWARDS TO NDARC (OVER 1 TO 5 YEARS)		\$21,864,461	\$3,801,562	\$4,646,970

* Continuing Project

APPENDIX D PUBLICATIONS

MONOGRAPHS

59. Stafford, J., Degenhardt, L., Black, E., Bruno, R., Buckingham, K., Fetherston, J., Jenkinson, R., Kinner, S., Newman, J., & Weekley, J. (2005). *Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre.

58. Stafford, J., Degenhardt, L., Dunn, M., Fischer, J., George, J., Johnston, J., Matthews, A., Newman, J., Proudfoot, P., & Weekley, J. (2005). *Australian trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative*. Sydney: National Drug and Alcohol Research Centre.

TECHNICAL REPORTS

241. Copeland, J., Gates, P., Stevenson, D., & Dillon, P. (2006). *Young people and alcohol: Taste perceptions, attitudes and experiences*. Sydney: National Drug and Alcohol Research Centre.

242. Wood, E., Mattick, R.P., Burns, L., & Shakeshaft, A. (2006). *The costs and utility of parental drug-testing in child protection: A review of the available literature and commentary*. Sydney: National Drug and Alcohol Research Centre.

243. Newman, J. & Moon, C. (2006). *Northern Territory Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

244. Newman, J. & Moon, C. (2006). *Northern Territory Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

245. Bruno, R. (2006). *Tasmanian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

246. Johnston, J. & Jenkinson, R. (2006). *Victorian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

247. Proudfoot, P., Ward, J., Staniforth, A., & Buckingham, K. (2006). *ACT Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

248. Black, E., Degenhardt, L. & Stafford, J. (2006). *New South Wales Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

249. Dunn, M., Degenhardt, L. & Stafford, J. (2006). *NSW Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

250. Weekley, J., Simmonds, L. & Ali, R. (2006). *South Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

251. Matthews, A. & Bruno, R. (2006). *Tasmanian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drug Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

252. Fetherston, J. & Lenton, S. (2006). *West Australian Drug Trends 2005: Finding from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

253. George, J. & Lenton, S. (2006). *West Australian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

254. Kinner, S., Fischer, J., et al. (2006). *Queensland Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

255. Weekley, J., Simmonds, L., et al. (2006). *South Australian Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

256. Jenkinson, R. & O'Keefe, B. (2006). *Victorian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

257. Buckingham, K., Ward, J., et al. (2006). *Australian Capital Territory Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.

258. Fischer, J., Cogger, S., et al. (2006). *Queensland Trends in Ecstasy and Related Drug Markets 2005: Findings from the Party Drugs Initiative (PDI)*. Sydney: National Drug and Alcohol Research Centre.

260. Wood, E., Mattick, R.P., Burns, L., & Shakeshaft, A. (2006). *A process evaluation of Gorman House detoxification service*. Sydney: National Drug and Alcohol Research Centre.

261. Roxburgh, A. & Degenhardt, L. (2006). *Hospital stays related to illicit drugs in Australia, 1993-2004*. National Drug and Alcohol Research Centre.

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- Darke, S., Williamson, A., Ross, J., & Teesson, M.** (2006). Reductions in heroin use are not associated with increases in other drug use: 2-year findings from the Australian Treatment Outcome Study. *Drug and Alcohol Dependence* 84, 201-205.
- Day, C., Conroy, E., Lowe, J., Page, J., & Dolan, K.** (2006). Patterns of drug use and associated harms among rural injecting drug users: Comparisons with metropolitan injecting drug users. *Australian Journal of Rural Health* 14, 120-125.
- Day, C., Degenhardt, L. & Hall, W.** (2006). Documenting the heroin shortage in New South Wales. *Drug and Alcohol Review* 25, 297-305.
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APPENDIX E

CONFERENCE PRESENTATIONS

Black, E. *What injecting drug users don't understand about hepatitis C.* Presentation to Viral Hepatitis – 5th Australasian Conference, Sydney, Australia, 20-22 February.

Black, E. *What the IDRS and EDRS can and cannot tell us.* Paper presented at National Drug Trends Conference 2006, Cairns, 5 November.

Black, E. *Cannabis use and harms among regular injecting drug users and regular ecstasy users in New South Wales.* Poster presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Burns, L. *Using population data to examine the prevalence and correlates of neonatal abstinence syndrome.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Campbell, G. *Canberra's changing drug market: Opioids and ice.* Paper presented at National Drug Trends Conference 2006, Cairns, 5 November.

Campbell, G. *Health and drug information-seeking habits of regular ecstasy users.* Poster presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Conroy, E. *The nature and prevalence of child maltreatment in heroin dependent cases and non-heroin dependent controls.* SPHCM Postgraduate Research Student Conference, Sydney, 27 October.

Copeland, J. *Ready to drinks: Alcohol taste perception and young people.* Poster presentation to CPDD 68th Annual Scientific Meeting, Scottsdale, Arizona, USA, 22 June.

Copeland, J. *Adolescent Cannabis Check-up.* Poster presentation to NIDA International Forum: International Trends and Needs in Drug Abuse Research. Scottsdale, Arizona, USA, 18 June.

Copeland, J. *Alcohol and young people: Taste perception of RTDs.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Darke, S. *Systemic disease among cases of fatal opioid toxicity.* Presentation to the College for the Problems of Drug Dependence Annual Conference, Arizona, United States, 22 June.

Degenhardt, L. *Illicit drug and alcohol datasets: Brief overview of data collections held at NDARC.* Presentation given to the National Workshop on the Social Costs of Drug Use in Australia, Sydney, 24 March.

Degenhardt, L. *Current drug issues.* Invited plenary presented at the 2006 NSW Drug Court Practitioners' Conference, Sydney, 26 May.

Degenhardt, L. *Cannabis use and psychosis: A review of the evidence and its implications.* Invited plenary presented at the 2006 Creating Synergy III conference, Wollongong, 15 June.

Degenhardt, L. *Hospital separations for illicit drug related psychotic episodes in Australia, 1993-2004.* Poster presented at the 68th Meeting of the College on Problems of Drug Dependence, Scottsdale, Arizona, 17-22 June.

Degenhardt, L. *Treating nicotine dependence: What is the significance of co-occurring drug use and mental health problems?* Invited plenary presentation at the 2006 World Cancer Congress, Washington DC, 10-18 July.

Degenhardt, L. *Reduced heroin supply in Australia (the Australian 'heroin shortage'): Causes, consequences and policy implications.* Invited plenary presented at the International Council on Alcohol and the Addictions Conference, Edinburgh, 25 September.

Degenhardt, L. *National overview of the EDRS.* Paper presented at National Drug Trends Conference 2006, Cairns, 5 November.

Degenhardt, L. *Are we really the biggest users of ecstasy in the world, and how worried should we be if we are?* Keynote presentation at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Degenhardt, L. *The temporal dynamics of relationships between cannabis, psychosis and depression among young adults with psychotic disorders: Findings from a ten-month prospective study.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Degenhardt, L. *Recent trends in the epidemiology of drug use Australia.* Plenary presented at the 2006 World Congress of Internal Medicine, Taipei, 11-14 November.

Dillon, P. *The medicinal use of illicit cannabis: The Australian experience.* Presentation to 3rd Perspectives on Cannabis Conference, Liverpool, UK, 1 March.

Dillon, P. *Best practice drug education: Research and drug education principles.* Keynote address to AIS Pastoral Care Conference, Burwood, 8 May.

Dillon, P. *Ecstasy: What do teachers need to know?* Presentation to AIS Pastoral Care Conference, Burwood, 8 May.

Dillon, P. *Risk issues for young people.* Keynote address to Engaging Young People, Community Drug Action Team Conference, Port Macquarie, 18 May.

Dillon, P. *Strategies for reducing risks.* Keynote address to Engaging Young People, Community Drug Action Team Conference, Port Macquarie, 18 May.

Dillon, P. *Media: Manipulator or manipulated?* Workshop to Engaging Young People, Community Drug Action Team Conference, Port Macquarie, 18 May.

Dillon, P. *Risk issues for young people.* Keynote address to Engaging Young People, Community Drug Action Team Conference, Bankstown, 8 June.

Dillon, P. *Strategies for reducing risks.* Keynote address to Engaging Young People, Community Drug Action Team Conference, Bankstown, 8 June.

Dillon, P. *Media: Manipulator or manipulated?* Workshop to Engaging Young People, Community Drug Action Team Conference, Bankstown, 8 June.

Dillon, P. *Methamphetamine and club health in Australia: It's impact and the response.* Club Health 2006: 4th International Conference on Substance Use, Nightlife and Related Health Issues, Piran, Slovenia, 21 September.

Dillon, P. *An exploratory study examining factors associated with inhalant cessation amongst non-Aboriginal Australians.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Dunn, M. *Experiences of regular ecstasy users with drug detection dogs.* Paper presented at National Drug Trends Conference 2006, Cairns, 5 November.

Dunn, M. *Substance use and sexual risk behaviours among regular ecstasy users: Findings from the Party Drugs Initiative (PDI).* Poster presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Gates, P. *The Australian Alcohol Treatment Outcome Measure – for Clinicians (AATOM-C).* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Larance, B. *The introduction of buprenorphine-naloxone (Suboxone) in Australia: A comparative study of diversion and injection.* SPHCM Postgraduate Research Student Conference, Sydney, 27 October.

Larance, B. *The introduction of Suboxone®: Monitoring the extent of diversion and related harms.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Larance, B. *Injecting behaviour and associated harms among a sample of Australian men who use performance and image enhancing drugs (PIEDs).* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Larney, S. *Injecting drug use in prisons: Occupational needlestick injuries and the presence of blood borne viral infections, multiple blood types and bleach in prison syringes.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Larney, S. *Demand reduction strategies in prisons and compulsory drug treatment centres in China, Indonesia and Vietnam.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.

Maloney, E. *Prevalence of suicidal behaviour and associated risk factors: A case control study.* Paper presented at SPHCM Postgraduate Research Student Conference, Sydney, 27 October.

- Maloney, E.** *Suicidal behaviour and associated risk factors – a case control study.* Paper presented at Connecting Pathways – Big Country, Big Picture: Suicide Prevention Australia (SPA) Conference 2006, Glenelg, 2 November 2006.
- Maloney, E.** *Prevalence of suicidal behaviour and associated risk factors – a case control study.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Martin, G.** *The Adolescent Cannabis Check-up: A brief intervention for young cannabis users.* Presentation to 5th International Conference on Drugs and Young People, Sydney, 26 May.
- McKetin, R.** *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Invited briefing for the Australian Police Commissioners Conference, Melbourne, 23 May.
- McKetin, R.** *Methamphetamine psychosis.* Presentation to Synergy Conference, Wollongong, Australia, 15 June.
- Mills, K.** *Relationship between childhood trauma, post-traumatic stress disorder, and attention deficit-hyperactivity disorder in drug treatment clients.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Newton, N.** *CLIMATE Schools: The development of an alcohol and cannabis computer-based prevention program for junior high school students.* SPHCM Postgraduate Research Student Conference, Sydney, 27 October.
- O'Brien, S.** *National overview of the IDRS.* Paper presented at National Drug Trends Conference 2006, Cairns, 5 November.
- Ritter, A.** *Policy making on drugs: The relevance and influence of research.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Roxburgh, A.** *Primary reasons for hospital stays where illicit drugs are mentioned.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Roxburgh, A.** *Drug dependence and associated risks among street-based sex workers.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Sannibale, C.** *The impact of anxiety or depression or post-treatment functioning: Further findings from the alcohol pharmacotherapy trial.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Shakeshaft, A.** *Methodological review: Outcome studies of diversion and aftercare programs for drug-involved offenders.* Presentation to the Court Drug Diversion Initiatives Conference, Brisbane, 26 May.
- Shakeshaft, A.** *Alcohol Action in Rural Communities (AARC): Methodology and baseline data.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Shanhan, M.** *Estimating the cost-savings of reduced crime while on methadone treatment.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Shanhan, M.** *The costs of supervised versus unsupervised administration of buprenorphine-naloxone for heroin dependence: Results from a randomized controlled trial.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Silins, E.** *Ecstasy and the concomitant use of pharmaceuticals and supplements: Implications for intervention.* Paper presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Swift, W.** *Alcohol and the use of medicines among Australian adults.* Poster presented at Meeting New Challenges: APSAD Conference 2006, Cairns, 5-8 November.
- Teesson, M.** *Measurement properties of the DSMIV alcohol dependence and abuse criteria.* Presentation to the Alcoholism Clinical and Experimental Research, 29th Annual Meeting of the Research Society on Alcoholism, Baltimore, Maryland, 24 June.
- Vogl, L.** *Climate Schools: The efficacy of a school-based prevention program for problems with alcohol use.* Presentation to 5th International Conference on Drugs and Young People, Sydney, 26 May.

APPENDIX F

EXTERNAL LECTURES, WORKSHOPS, PRESENTATIONS

- Black, E.** *What the IDRS and PDI tell us about Australian drug markets.* Presentation to the NET Training Day, Drug Trends, Sydney, 10 March.
- Black, E.** *Cannabis use and the NSW cannabis market.* Presentation to the NET Training Day, Cannabis: The Truth Behind the Headlines, Sydney, 31 March.
- Copeland, J.** *Cannabis: Clinical and research issues.* Presentation to the Counsellors Forum, Ted Noffs Foundation, Sydney, 20 February.
- Copeland, J.** *Cannabis: Harms and interventions.* Presentation to the NSW Institute of Psychiatry, Parramatta, 25 May.
- Copeland, J.** *Young People and Alcohol Study: Taste perceptions, attitudes and experiences.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.
- Darke, S.** *Systemic disease among cases of fatal opioid toxicity.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.
- Darke, S.** *Suicide among illicit drug users: Rates, risk factors and methods.* Presentation to Langton Clinic, 21 March.
- Darke, S.** *Suicide among illicit drug users: Rates, risk factors and methods.* Presentation to Kirketon Rd Centre, Sydney Hospital, 1 June.
- Darke, S.** *Baseline findings from the Australian Treatment Outcome Study (ATOS).* Presentation to NSW Health NDARC/CDA Series, Sydney, 13 July.
- Darke, S.** *Residential rehabilitation: Heroin abstinence and drug-related problems two years after treatment entrance.* Presentation to NSW Health NDARC/CDA Series, Sydney, 9 November.

Darke, S. *Attempted suicide by heroin users over a three year period: Findings from the Australian Treatment Outcome Study.* Presentation to NSW Health NDARC/CDA Series, Sydney, 9 November.

Degenhardt, L. *Recent trends in drug markets in NSW.* Presentation to the NSW Nursing College, Sydney, 1 February.

Degenhardt, L. *Trends in heroin markets.* Presentation to the NET Training Day, Drug Trends, Sydney, 10 March.

Degenhardt, L. *Illicit drug and alcohol datasets: Brief overview of data collections held at NDARC.* Presentation to the National Workshop on the Social Costs of Drug Use in Australia, Sydney, 24 March.

Degenhardt, L. *Patterns of cannabis use in Australia.* Presentation to the NET Training Day, Cannabis: The Truth Behind the Headlines, Sydney, 31 March.

Degenhardt, L. *The association between cannabis use and mental health.* Presentation to the NET Training Day, Cannabis: The Truth Behind the Headlines, Sydney, 31 March.

Degenhardt, L. *Drug use in Australia: Recent trends and implications for drug policy.* Presentation to the WHO Chinese study tour delegation, Sydney, 3 April.

Degenhardt, L. *Drug use in Australia: Does sexuality matter? And if so, why?* Presentation to the ACON Ins and Out facilitators training course, Sydney, 6 May.

Degenhardt, L. *The heroin market in Australia: Availability, use and harm.* Presentation to the Australian Customs Service, Canberra, 10 May.

Degenhardt, L. *Ecstasy use and harm.* Presentation to the NET Training Day, E, K, G and Charlie: An Introduction to Ecstasy and Related Drugs, Sydney, 12 May.

Degenhardt, L. *GHB use and harm.* Presentation to the NET Training Day, E, K, G and Charlie: An Introduction to Ecstasy and Related Drugs, Sydney, 12 May.

Degenhardt, L. *Current drug issues.* Invited plenary to the 2006 NSW Drug Court Practitioners' Conference, Sydney, 26 May.

Degenhardt, L. *Alcohol use among young people: Patterns, harms and responses.* Presentation to Scots College, Sydney, 29 May.

Degenhardt, L., *What do we know about methamphetamine use in Australia?* Presentation to the Australian Ministerial Council on Drug Strategy's Ice Summit, Sydney, 14 December.

Degenhardt, L., *Indicators for monitoring the impact of, and need for, the treatment of alcohol and illicit drug dependence.* Presentation to the World Health Organization's Technical Consultation on Assessment of Prevention and Treatment Systems for Substance Use Disorders, Geneva, 18 December.

Dillon, P. *Media: Manipulator or manipulated?* Presentation to Geelong City Council, 7 February.

Dillon, P. *Overview of synthetic drug use in Australia.* Presentation to the Australian Customs Service, Melbourne, 8 March.

Dillon, P. *Drugs and driving: Will testing make a difference?* Presentation to the NET Training Day, Drugs and Driving: What Do We Know?, Sydney, 21 April.

Dillon, P. *Overview of synthetic drug use in Australia.* Presentation to the Australian Customs Service, Melbourne, 3 May.

Dillon, P. *Best practice drug education: Research and drug education principles.* Keynote address to NSSW AGQTP Teacher Education Event, Melbourne, 19 May.

Gates, P. *Australian Alcohol Treatment Outcome Measure for Clinicians (AATOM-C).* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Gibson, A. *Naltrexone-related deaths in Australia.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Kaye, S. *Demographics, toxicology and cardiovascular pathology of methamphetamine-related deaths.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Larance, B. *Drug formulation: Reducing diversion and misuse of prescription opioids.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

McKetin, R. *Crystalline methamphetamine and the drug market in Sydney.* Presentation to Queensland Alcohol and Drug Research and Education Centre Seminar Series. University of Queensland, Australia, 21 March.

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Keynote presentation to a community information seminar and Workshop: "Methamphetamines", Byron Bay, Australia, 12 April.

McKetin, R. *The Sydney Methamphetamine Market.* Presentation to Precursor Training Workshop for the Australian Customs Service, Canberra, 27 April.

McKetin, R. *Training workshop for interviewers on the Mid-North Coast methamphetamine survey project, Kempsey, 9 May.*

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Presentation to the Port Macquarie Police Local Area Command, Port Macquarie, 10 May.

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Presentation to the Mid-North Coast Area Health Service, Port Macquarie, 10 May.

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Presentation to the Australian Federal Law Enforcement Agencies (Australian Customs Service, Australian Crime Commission, Australian Federal Police), Canberra, 19 May.

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Presentation to the Australian Government Department of Health and Ageing, Canberra, 19 May.

McKetin, R. *The Sydney Methamphetamine Market: Patterns of supply, use, personal harms and social consequences.* Presentation for the NSW Department of Health, May 22, 2006, North Sydney, 22 May.

McKetin, R. *Methamphetamine use patterns, harms, psychosis and its impact on frontline workers.* Presentation to Canterbury Centacare, Bankstown, May 17.

McKetin, R. *Recent trends in the Australian methamphetamine situation.* Presentation for Judge Peggy Hora, Bureau of Crime Statistics and Research, Sydney, 1 June.

McKetin, R. *Methamphetamine markets in Sydney.* Presentation for NSW Police Headquarters, NSW Police Headquarters, Parramatta, 13 June.

Roxburgh, A. *Mental health issues among street-based sex workers in Sydney.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Shakeshaft, A. *Assessing the evidence of court diversion and aftercare programs for drug-involved offenders: RCTs or bust.* Presentation to the UNSW School of Psychiatry Academic Meeting, Sydney, 23 June.

Shakeshaft, A. *Alcohol Action in Rural Communities: Data and its use as an intervention strategy.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Shakeshaft, A. *Can alcoholic liver disease (& other alcohol-related harm) be prevented?* Presentation to University of Sydney Medical students (Year 2), University of Sydney, 24 July.

Shakeshaft, A. *Alcohol Action in Rural Communities (AARC): A randomized controlled trial.* Presentation to Social Policy Research Centre, 15 August.

Shearer, J. *Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne.* Presentation to the NET Training Day, E, K, G and Charlie: An Introduction to Ecstasy and Related Drugs, Sydney, 12 May.

Shearer, J. *Novel pharmacotherapeutic approaches in psychostimulant dependence.* Presentation to the NET Training Day, Hot Topics in Pharmacotherapies, Sydney, 30 June.

Shearer, J. *Novel pharmacotherapies for psychostimulant dependence.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Silins, E. *Ecstasy, pharmaceutical drugs and serotonin syndrome.* Presentation to the 2006 NDARC Annual Symposium, Sydney, 20 July.

Swift, W. *Cannabis: Latest evidence on cannabis-related harms.* Presentation to the NET Training Day, Cannabis: The Truth Behind the Headlines, Sydney, March 31.

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