

NATIONAL DRUG AND ALCOHOL RESEARCH CENTRE

---

# Annual Report

---

2000

---





---

**PUBLISHED BY:**

**NATIONAL DRUG AND ALCOHOL RESEARCH CENTRE**

**UNSW Sydney NSW 2052**

**Cnr Avoca and Barker Streets,**

**Randwick, New South Wales**

**Telephone (02) 9398 9333 Fax (02) 9399 7143**

**[www.med.unsw.edu.au/ndarc](http://www.med.unsw.edu.au/ndarc)**

**Design & layout by Superkern Design P/L SK1418**

---

# About the Centre

The National Drug and Alcohol Research Centre (NDARC) was established at the University of New South Wales in May, 1986 and officially opened in November, 1987. It is funded by the Commonwealth Government as part of the National Drug Strategy (formerly, the National Campaign Against Drug Abuse). NDARC is situated in the grounds of the Prince of Wales Hospital in the eastern suburbs of Sydney.

The centre is multidisciplinary and collaborates with medical, psychology, social science and other schools of the University, and with other institutions and individuals in Australia and overseas. Facilities at the Centre include a computer network, a Document Archive with an extensive bibliographic database, seminar and conference facilities.

NDARC's basic aim is to increase the effectiveness of treatment for drug and alcohol problems in Australia. Ways in which this aim is being met will be described in this report. 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 this field. NDARC also has links with researchers overseas.

Other activities include an Annual Symposium, special conferences, workshops and research seminars, which are open to workers in the field. 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 in Perth, it also produces a free quarterly newsletter, *CentreLines*, to increase communication between the national research centres, other researchers and workers in the drug and alcohol field in Australia.

The overall mission of NDARC is: by research and related activities to contribute to the minimisation of the harmful consequences of alcohol and other drug use in Australia by increasing the effectiveness of the Australian treatment response to drug-related problems.

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.

More formally, these key goals are:

- (5) improving our understanding of the nature and extent of drug-related harms to which treatment should be directed;
- (6) increasing the range of treatment and intervention methods that are effective in reducing identified forms of drug related harm;
- (7) increasing knowledge among treatment providers about which treatment programs are effective and which patients are most suited to them;
- (8) increasing the community's knowledge of appropriate and effective treatment programs for drug and alcohol problems.

**For further information about NDARC please contact:**

**National Drug and Alcohol Research Centre  
University of New South Wales  
SYDNEY NSW 2052**

**Tel: (02) 9398-9333; Fax: (02) 9399-7143**

## **The overall mission of NDARC.**

By research and related activities to contribute to the minimisation of the harmful consequences of alcohol and other drug use in Australia by increasing the effectiveness of the Australian treatment response to drug-related problems.



---

# Board of Management

The Hon K Rozzoli, Dip Law, MP (Chair)  
Member for Hawkesbury

Prof S B Dowton, MB, BS, MD, FRCMG, FRACP  
Dean, Faculty of Medicine, University of New South Wales

Mr K R Evans, BA, SRN, RMN, ANZIM  
Director, Alcohol Tobacco & Other Drugs, Queensland Health

Dr J Gray, BA(Hons), PhD  
Director, NSW Drug Programs Bureau, NSW Department of Health

Ms S Kerr, BCom  
Assistant Secretary, Drug Strategy and Population Health Social Marketing Branch,  
Commonwealth Department of Health and Aged Care

A/Prof A Mant, MBBS, MD, MA, FRACG  
Area Health Advisor, Quality Use of Medicine, South East Health

Prof R Milbourne, BCom, MCom(Hons), PhD, FASSA  
Pro Vice-Chancellor, Research Office, University of New South Wales

Dr N Swan, MBChB, MRCP, DCH(RCP & Eng)  
Australian Broadcasting Corporation (ABC)

Prof W Hall, BSc, PhD, AM  
Executive Director, National Drug and Alcohol Research Centre

A/Prof R P Mattick, BSc, PhD  
Research Director, National Drug and Alcohol Research Centre



---

# Contents

<b>About the Centre</b> .....	<b>iii</b>
<b>Board of Management</b> .....	<b>iv</b>
<b>Foreword</b> .....	<b>3</b>
<b>THE YEAR IN REVIEW</b> .....	<b>4</b>
Academic Reports .....	<b>6</b>
Key Projects .....	<b>14</b>
<b>APPENDICES</b> .....	<b>20</b>
Glossary .....	<b>20</b>
A. List of current NDARC staff .....	<b>21</b>
B. Grants from external sources .....	<b>22</b>
C. Publications .....	<b>25</b>
D. Conference Presentations .....	<b>29</b>
E. Seminars .....	<b>33</b>





# Foreword

The drug debate has moved on significantly in New South Wales following the Drug Summit. There has been a softening of the previous resistance to try new measures. The commitment of the New South Wales Government to trial a safe injecting room for heroin addicts at Kings Cross over an 18 month period is the most controversial of a raft of recommendations of the Drug Summit now being implemented. Increased funding is being made available by the State Government to supplement efforts at the Federal level under the National Drug Strategic Framework.



Overseas there are also encouraging reports of a more balanced attitude towards drug treatment and rehabilitation.

NDARC continues to be well to the fore in providing research of the highest quality to guide our legislators and practitioners on the path they take. There has been strong involvement at both Federal and State levels of Government and a wealth of collaborative work with other centres and organisations linked to our work. The number and range indicate the pervasive effect of substance addiction in our society.

Collaboration includes dedicated centres for drug and alcohol research within Australia, peak bodies in the drug and alcohol field, most Australian universities, non-government organisations, law and order units, and a wide range of government departments. Internationally we have collaborative ventures with a number of medical centres and universities in the United States of America, the World Health Organisation in Geneva, centres in London and the World Bank – Committee on Macro-economics.

In addition we contribute to a range of international journals including *Lancet*, *International Journal of Drug Policy* and *Drug and Alcohol Review*.

There can be little doubt that NDARC continues as a highly successful Centre of Excellence providing valid, balanced and accurate research to a high standard of medical, scientific and social integrity. The objective contribution of the Centre is vital to efficacious outcomes on the ground.

During the past twelve months there has been ongoing

negotiations for the relocation of the Centre. We have clearly outgrown the accommodation at our present address and redevelopment proposals for the Prince of Wales site compound the problem. The University of New South Wales has been very supportive of our needs and has been giving consideration to interim accommodation while plans for a new medical faculty building within the University are developed. We have received an assurance that we will eventually be located within that building. It is hoped that a final decision on interim accommodation will be made soon. It

is important that we have enough space to house our staff in circumstances appropriate to the work they undertake and that the cost does not materially impact on our research program. These are standards on which there can be no compromise.

The report clearly sets out the continuing productivity of the Centre, the wide range of programs and our involvement in many areas of related activity. It is a measure of the high esteem in which the Centre is held that our input is sought by such a wide range of agencies.

As always the Board of Management is indebted to the high quality of leadership shown by our Director, Professor Wayne Hall and our Research Director Associate Professor Richard Mattick. Associate Professor Mattick has carried much of the burden of the accommodation negotiations and for this we are particularly grateful. I cannot praise too highly the continued dedication of our team to the production of research of the highest standard. It is their work which makes the Centre what it is. We are proud of them and thank them most sincerely.

I would also like to thank the members of the Board who continue to show such strong support for the Centre. Each member is beset with an almost impossible schedule of commitments, however, always make themselves available as required to give expert input and critical advice.

**The Hon Kevin Rozzoli, MP**  
**Member for Hawkesbury**  
**Chairman, NDARC Board of Management**

# Year in Review



Professor Wayne Hall

## EXECUTIVE DIRECTOR'S REPORT

THE YEAR 2000 was a busy and productive one as the following summary of key achievements shows. This year we have changed the format of our Annual Report. Instead of exhaustively reviewing all research undertaken by the Centre during 2000, this year's report highlights a number of major projects.

### Understanding drug-related harms

In 2000 the Illicit Drug Reporting System (IDRS) collected data on illicit drug trends in all Australian states and territories. With extra funding from the National Drug Law Enforcement Research Fund (NDLERF) the full IDRS was implemented in all states and territories for the first time. The 'full' IDRS (comprising a survey of injecting drug users, key informant interviews and collection of key indicator data) had previously been run for 5 years in Sydney and 3 years in Melbourne and Adelaide. NDLERF also funded a survey of dance party drug users in Sydney and Brisbane as part of the IDRS.

Dr Michael Lynskey and colleagues continued to keep the Commonwealth Government, and the community, well informed about trends in illicit drug use and drug-related harms in Australia. In the past year he contributed to reports on: the number of heroin overdose deaths in Australia in 1997 and 1998; birth cohort trends in opioid overdose deaths in Australia; a review of the relationship between adolescent cannabis use and educational outcomes; an analysis of trends in the age of initiation to illicit drug use using data from the 1998 NDS household survey; and an analysis of data on the relationship between adolescent substance use and mental health from a prospective study of adolescents in a collaboration with



the Centre for Adolescent Health at the University of Melbourne.

Dr Maree Teesson and colleagues continued to research the issue of comorbidity between addictive disorders and mental disorders. Their focus has been on patterns of comorbidity between substance use and other mental disorders and their relationships to disability, and use of mental health and addiction treatment services. Dr Teesson organised a National Workshop on Comorbidity which was jointly hosted by the Mental Health Branch and Illicit Drug Sections of the Commonwealth Department of Health and Aged Care. She has also been involved in work with the World Health Organization on the burden of disease caused by mental illness and substance use disorders.

### **Increasing the effectiveness and efficiency of existing treatments**

The National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD) is a three year project that commenced in July 1998. The National Drug and Alcohol Research Centre (NDARC) is coordinating a national collaboration between researchers and clinicians who are conducting state-funded or NHMRC-funded studies in New South Wales, Victoria, South Australia, Queensland, the ACT, and Western Australia. The project includes fourteen clinical outcome studies, 11 of which are randomised, and 12 other observational studies. At the end of 2000, approximately 1600 patients had been recruited.

NEPOD is a national effort that aims to develop and implement a range of effective, evidence-based, best practice treatment options for people who are opioid dependent. By the end of 2000, data collection and data entry had been completed for most trials and it is anticipated that a draft report on the NEPOD project, including recommendations, will be presented to State and Federal governments in the second quarter of 2001.

Just as NEPOD is concluding another large multicentre collaborative study is commencing, the Australian Treatment Outcome Study: Heroin (ATOS) which is being coordinated by Drs Teesson, Lynskey, Shane Darke and Joanne Ross. ATOS involves interviewing 1000 heroin dependent persons who are entering treatment in three states: NSW, South Australia and Victoria. The treatments that will be included are: detoxification, methadone, and residential treatment (including TCs). Patients who enter these will be followed for a year and re-interviewed at 3 months and 12 months after treatment entry to see how they fared. A further 150 heroin users who are not in treatment will also be recruited and followed up.

ATOS is being conducted by NDARC in collaboration with the Drug and Alcohol Services Council (DASC) of South

Australia and Turning Point Drug and Alcohol Centre, Victoria. The NSW component of the study is funded by NHMRC. The Commonwealth Department of Health and Aged Care will fund the South Australian component and the Victorian Department of Human Services will fund the Victorian component.

Another major project that was funded in 2000 to begin in 2001 is an Adolescent Cannabis Check-up and Intervention Trial (ACCIT). This project is being conducted by Drs Jan Copeland and Wendy Swift from NDARC in collaboration with Prof Roger Roffman and A/Prof Robert Stephens in the USA and Dr John Howard from the Ted Noffs Foundation. It addresses problems caused by cannabis dependence among adolescents. Many young cannabis users do not view their use as problematic or wish to change. This project specifically targets adolescents who may be problematic cannabis users, but are neither self-initiating efforts to stop use nor seeking support from others to this end.

The proposed intervention has two components. One is to mobilise one or more members of the young person's family to effectively communicate their concern. The other is to encourage the adolescent to enrol in the assessment phase of the study, a brief two-session intervention termed the 'Cannabis Check-up'. This provides a guided review of the young person's cannabis use, its positive and negative consequences, their attitudes towards, and barriers to making changes in their cannabis use. If the young person meets DSM-IV criteria for cannabis abuse/dependence and he or she and their guardian are willing, they will participate in a randomised-controlled trial of a one session cognitive-behavioural intervention aimed at moderating cannabis use. This will be compared with a delayed treatment control group. Participants will be interviewed 3 months after the check-up, at which time the delayed treatment participants will be offered treatment. The study will enrol three hundred young people between the ages of 14 to 19 years and one or more carers for each participating adolescent.

### **Increasing knowledge of treatment providers**

NDARC continues to give a high priority to disseminating its research findings to practitioners by regular updates on its research findings in *CentreLines* and by presentations at conferences and workshops. Over 300 presentations and media briefings were made through the national and regional media in 2000. Last year NDARC and CEIDA again conducted workshops on "hot topics" in the alcohol and drug field, including alternative pharmacotherapies for opioid dependence, new street drugs, and cannabis dependence. They attracted a good audience, as did the Annual Symposium held in November this year.

### Increasing the awareness of the public and policy makers

In 2000 our Information Manager, Mr Paul Dillon, continued to disseminate our research findings to the general public and policy makers and to inform public debates about drug policy. I continued to serve on the Australian National Council on Drugs and the National Expert Advisory Committee on Illicit Drugs. I also accepted an appointment to the NSW Premier's Expert Advisory Group on Drugs. These roles provide a very direct way of bringing research findings to the attention of politicians and senior policymakers. In addition I also made a presentation to the House of Representatives Committee on Drug Abuse and chaired the NSW Working Party on Medical Uses of Cannabis.

The year ahead promises to be every bit as busy as the last. It will be marked by: the completion of the IDRS and a decision on its future funding, the conclusion of NEPOD and the reporting of its results to Inter Governmental Committee on Drugs (IGCD) and the Ministerial Council on Drug Strategy (MCDS); and the first year of recruitment of cohorts of opioid dependent treatment entrants and adolescent participants in interventions for cannabis dependence.

## ACADEMIC REPORTS

### Dr Jan Copeland

Our activities remain focused on two main areas: interventions for cannabis use disorder and their dissemination and the development of monitoring and outcome systems for alcohol and other drug treatment services.

One of the major projects for this year was securing funding and commencing the adolescent cannabis check-up and intervention trial. Dr Swift, who is a co-investigator on the trial, commenced work as the trial co-ordinator this year and many of the materials have been developed with our international collaborators. A complementary study involving an adolescent criminal justice population has also been developed and funding secured to commence next year. We have also been involved in a national dissemination of a brief intervention for cannabis use disorder for primary health care practitioners this year. This was based on the one session intervention in our randomized controlled trial of brief interventions for cannabis use disorder that we completed in 1999.



**Dr Jan Copeland**

It involved clinical training workshops in each State and Territory to train in the use of the clinician's manual and client booklet that we developed as part of the project. The NSW Department of Health funded us to conduct an additional seventeen workshops in that state. The Australian College of Nursing secured funding for us to provide two practitioner guidelines for nurses in the rationale and delivery of brief interventions for cannabis use disorders.

A related cannabis project was for the NSW Department of Education and Training that required us to interview 100 current cannabis users attending government schools on their views of cannabis drug education in school. Ms Amanada Reid

holds a doctoral scholarship at the Centre and is working in risk taking and psychological comorbidity among adolescent cannabis users. Dr Copeland and Dr Swift are also co-supervisors for Ms Jan Bashford who is conducting doctoral studies at Massey University in New Zealand on the development of a screening instrument for cannabis use disorders. This year Dr Copeland supervised Ms Sharon Klammer in a Masters of Forensic Psychology thesis in cannabis use and crime in a juvenile justice population.

The other major area of interest is the Monitoring and Outcomes project for the NSW Department of Health. This is a three year business partnership that involved us developing the NSW Minimum Data Set for Clients of Alcohol and Other Drug Treatment Agencies. This incorporates the National Data Set and commenced collection in July 2000. We have recently developed the Brief Treatment Outcome Module (BTOM). This was based on a review of the existing outcome measurement tool, published as an NDARC Technical Report, and a review of outcome monitoring systems, published as an NDARC Monograph in collaboration with Dr Brian Rush from the Addiction Research Foundation in Canada. The BTOM commenced clinical trials in a number of public and private methadone maintenance clinics in NSW both urban and rural. Mr Peter Lawrinson is managing the project and is undertaking a doctorate based on this work. NDARC continues to advise the Inter-Governmental Committee on Drugs Working Party on the national project and also sits on the NSW Government Committee on Information Systems.

Other projects we have been involved in this year include

a consortium headed by the Australian Institute of Family Studies to write the treatment section of a literature review on drugs and the family. NDARC is also a member of a consortium on a project developing and trialling shared care for illicit drug users with Profs Mark Harris and Ian Webster in South Western Sydney and Central West Area Health Services. Finally, NDARC is also represented in a study of risks for hepatitis C examining initiation of injecting drug use among youth in a range of injecting drug user networks conducted by Prof Sue Kippax and colleagues at the National HIV & Social Research Centre.

### Dr Shane Darke

Our research on heroin overdose continued during 2000. The final report on a comparative study of morphine concentrations in the hair of current heroin users and fatal overdose cases was completed, and the results presented in Australia and London. A major study on suicide and overdose among methadone maintenance patients was designed and conducted in conjunction with Dr Ross. Mr Matthew Warner-Smith worked on an ANCD funded review of the literature on opioid overdose which has now been completed. In addition, a review article focussing on possible mechanisms of overdose and the consequences of non-fatal overdose has been prepared and submitted for publication.

In 2000, for the first time, the Illicit Drug Reporting System (IDRS) was expanded to include all arms of the IDRS in all Australian jurisdictions. In addition, a two-year, three-state trial of the feasibility of monitoring emerging trends in the market for ecstasy and other party drugs was implemented in NSW, Queensland and SA coordinated by Dr Libby Topp. In the first year of this trial, it was shown that although the market for ecstasy is different to the markets for other illicit drugs, the IDRS can successfully monitor this market. The results of the 2000 IDRS were presented to the Annual Drug Trends Conference, which once again proved to be highly successful with over 120 people attending.

The IDRS has also produced the *Drug Trends Bulletin*, which each quarter focuses on some aspect of the results of the IDRS in detail, in order to provide more timely and concise data on emerging trends in illicit drug markets. Some of the issues covered during 2000 included findings from

the Australian Needle and Syringe Program (NSP) Survey, 1995-1999, estimating the number of dependent opioid users in Australia and recent trends in fatal overdose. The *Drug Trends Bulletin* has a current circulation of approximately 700 throughout Australia.

Dr Darke continued his work on the Editorial Boards of *Addiction* and *Drug and Alcohol Dependence*.

Ms Sharlene Kaye continued her PhD studies on cocaine use and dependence. Her study aimed to investigate the cocaine dependence syndrome by examining the prevalence, correlates, symptoms, and diagnosis of dependence among both injectors and non-injectors of cocaine. This study revealed that cocaine is a drug with the potential to cause dependence, as well as a number of physical and psychological problems, among a broad spectrum of users with various patterns and methods of use. Mr Warner-Smith commenced a PhD investigating the role of systemic disease as a risk factor for heroin overdose. In addition his project will identify and quantify the burden of morbidity suffered as a result of non-fatal overdose. This will be the first time this has been attempted.

### Dr Kate Dolan

Two new students started their PhD at NDARC last year. Ms Carolyn Day will study hepatitis C infection and Ms Jo Kimber will study injecting rooms, here in Sydney and in Europe. Several staff at NDARC developed an information kit on Needle and Syringe Programs to inform key stakeholders. The Kit was evaluated and received many favourable comments. A clinical trial assessing the feasibility of encouraging injectors to

adopt non-injecting routes of administration was conducted at NDARC. Over 40 injecting drug users (IDUs) participated in the trial and most have been followed up at least once. Preliminary results indicate some IDUs are prepared to make the shift.

One major project for last year was the development of a discussion paper on monitoring and preventing hepatitis C infection in Australian prisons. Work has begun on following up our 400 subjects in the prison methadone study. Those who left prison are being tracked through methadone records, while those who remained in prison are being revisited. This group of prisoners and ex-prisoners are proving rather easy to track down. Preliminary results indicate that those who stayed



Dr Shane Darke

on methadone are doing very well. Some have commented that this is the first time they will have spent Christmas outside of prison in years.

A major piece of work for the next three years will be a randomised controlled trial of naltrexone, methadone, and counselling in NSW prisons. Ethics approval has been obtained and the study will start in 2001.

NDARC and researchers from Prince of Wales Hospital are investigating hepatitis C transmission in prison. The aims of the study are:

- to prospectively identify the incidence of, and risk factors for, primary HCV infection in a cohort of prisoners
- to analyse prospectively the natural history of primary HCV infection by determining its clinical, biochemical and virological features
- to examine the association between host anti-HCV immune responses and clearance of HCV infection.

NDARC collaborated with the National Centre in HIV Epidemiology and Clinical Research to study cocaine use in three Sydney suburbs. NDARC also collaborated with the NSW Department of Corrective Services to develop a comic for prisoners about hepatitis C, non-injecting routes of administration, tattooing and syringe cleaning.

Ms Day is co-ordinating the Sydney arm of a study that will attempt to estimate demand for new pharmacotherapies among heroin users. NDARC was commissioned to review prison based syringe exchange programs. There are now 17 different prisons operating these programs in Europe. NDARC was also commissioned to review different methods of drug detection for the NSW Department of Health.

### Dr Michael Lynskey

Currently we are working with the World Health Organisation on the Global Burden of Disease 2000 project. The aim of this project is to estimate the global burden of disease attributable to selected risks factors including alcohol consumption, malnutrition and air pollution. Our input is to estimate global mortality caused by illicit drug use.

Work continued on methods for estimating the numbers of people who are heroin dependent and a paper describing a series of capture-recapture estimates of this hidden population was prepared and has been accepted for publication. In addition, a review on the associations between childhood attention



Dr Kate Dolan

deficit disorder and the subsequent development of substance use problems was prepared and has been accepted for publication in *Addiction*.

Staff at NDARC continue to work closely with Prof George Patton and his staff at the Centre for Adolescent Health, University of Melbourne. This ongoing project is partially funded by an NHMRC grant and we have been focussing on analyses of cannabis use and associated problems and correlates using data collected from a six year longitudinal study of youth who have been studied to age 21.

Collaboration with Prof Nick Martin from the Queensland Institute of Medical Research and Andrew Heath from Washington University in

St Louis has been established and at the end of last year Dr Lynskey spent six weeks in St Louis learning aspects of the methodology for analysing twin data. Analyses focused on the genetic epidemiology of cannabis dependence using data from a large sample of Australian born twins.

Other collaborative projects with staff from the Centre for Mental Health Research at the Australian National University and Sydney University are continuing.

### A/Prof Richard Mattick

The National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD) continued to be one of NDARC's major projects in 2000. A three-year project which commenced in July 1998, NEPOD involves collaboration between researchers and clinicians who are conducting state-funded or NHMRC-funded studies in New South Wales, Victoria, South Australia, Queensland, the ACT, and Western Australia. The project includes fourteen clinical outcome studies, 11 of which are randomised, and 12 other observational studies. At the end of 2000, approximately 1600 patients had been recruited.

Dr Erol Digiusto has carried out a coordinating role in the project, overseeing many aspects of the data collection and analysis. Dr Digiusto has also had an important role in developing methods for costing the treatments being trialled. Dr Chris Doran and Ms Marian Shanahan have carried out the complex health economic evaluations, with assistance from Ms Mary Ellen Harrod. Ms Kimber and Ms Courtney Breen have also had important roles on the project.

Ms Susannah O'Brien was responsible for coordinating

and conducting the systematic quality assurance process implemented by NEPOD across the trials which involved extensive liaison with the research staff of the trials. This monitoring process was overseen by Mr Phil Marshall of the independent monitoring company, Panacea Research and Evaluation. Ms O'Brien was also responsible for the identification and collection of core data from the trials for the project and all aspects of managing and updating the extensive NEPOD databases. Mr James Shearer and Ms Nicky Henderson assisted with the monitoring of the trials at all levels and supplied data entry support.

A/Prof Mattick is also co-investigator on two randomised controlled trials being conducted at the Langton Centre with Dr James Bell. One of these is a study of buprenorphine withdrawal, while the other is a placebo controlled study of naltrexone. He has worked with Dr Don Weatherburn on a study of methadone maintenance treatment on criminal behaviour.

Ms Breen has been working on the double dummy double blind randomised controlled trial comparing methadone withdrawal with buprenorphine withdrawal which commenced in May. This study is also being conducted in Queensland and WA.

Ms Breen also completed analysis on the methadone funding trial conducted in SA. The trial attempted to examine the proposed capitation fee system for methadone prescribers where they would be allocated money per methadone client instead of using the usual 'fee for service' Medicare system. Five GPs and 68 methadone patients took part in the trial. The frequency and cost of consultations during the trial period was examined. A \$700 fee appears to be adequate remuneration however further consideration of the administration of funds, issues regarding patient transfer and clarity on which services are included in the capitation fee is required.

Ms Pat Ward has been looking at the health care utilisation of methadone maintenance treatment (MMT) in NSW during 1997 and 1998. The study arose from the Commonwealth Government's proposal to remove MMT from the Commonwealth Medicare Benefits Scheme (CMBS) and to instead pay doctors providing MMT a set fee of \$700 per annum per patient. The study seeks to determine current CMBS usage and costs for MMT and to ascertain whether the proposed fee is adequate. In addition, it looks more

broadly at health care utilisation, the impact of being in MMT on health care use and cost and the factors that influence the cost and composition of MMT.

A/Prof Mattick continued his work as the Executive Director of the *Drug and Alcohol Review* through 2000. In addition to this he is also an Editor of the Cochrane Review Group for Drug and Alcohol, as well as Assistant Editor of *Addiction*, Treasurer of the Australian Professional Society of Alcohol and Other Drugs, and a Member of the Board of the Ted Noffs Foundation.

A/Prof Mattick is a member of the Evaluation Committee for the Medically Supervised Injecting Centre in Sydney. Ms Kimber will be funded by the NSW Department of Health to assist in the Evaluation.

### Dr Maree Teesson

A major project, the Australian Treatment Outcome Study: Heroin was started in 2000 and will continue for the next three years. The NDARC investigators are Dr Teesson, Dr Lynskey, Dr Darke and Dr Ross and the project is staffed by Ms Kate Hetherington, Ms Katherine Mills, Ms Nicole Henderson and Ms Evelyn Wilhelm.

The study is being conducted by NDARC, in collaboration with Mr Richard Cooke and Dr Robert Ali from DASC, and Dr Alison Ritter from the Turning Point Drug and Alcohol Centre, Victoria. One thousand heroin users will be interviewed on entry into treatment and again at three and twelve months. A further 150 heroin users who are not in treatment will also be recruited and followed up. The Australian Treatment Outcome Study: Heroin aims to

- describe the characteristics of people seeking treatment for problems associated with heroin use in Australia
- describe the treatment received
- examine treatment outcomes (drug use, health, mental health and criminal behaviour) at 3 and 12 months after commencement of treatment.

This national project is funded by the NHMRC, the Commonwealth Department of Health and Aged Care, and the Victorian Department of Human Services.

The analysis of the National Survey of Mental Health and Well-Being continues to be a focus of a number of staff at the Centre. Mr Barry Manor joined NDARC on an



Associate Professor Richard Mattick

NHMRC grant to examine the prevalence, risk factors and burden of cannabis use in Australia. Drs Teesson, Lynskey and Hall are investigators on the grant.

The National Comorbidity Project, was co-ordinated from NDARC this year. This project is a reflection of the high rates of comorbidity between mental disorders and drug and alcohol use disorders. Also reflecting this need, Ms Lucy Burns continues her PhD in the area of comorbidity between alcohol use disorders, anxiety and depression.

Dr Teesson was rapporteur for WHO and World Bank sponsored meeting at UCLA November 2000. Experts in health economics and psychiatry met to discuss a response to the burden of mental disorders in both developed and developing countries.

Four main questions were addressed:

- what is the evidence regarding the economic consequences of mental illness?
- what are cost effective interventions in psychiatry?
- what are the implications for mental health financing, payment and service provision?
- how do we improve our response to mental disorders?

NDARC and researchers at Royal Prince Alfred Hospital, led by Dr Paul Haber are investigating naltrexone and acamprostate in treatment of alcohol dependence. The study aims to examine the effects of these new pharmacotherapies and to trial an intervention to improve compliance. A pilot study has commenced and the group have been successful in obtaining funding for a further pilot. Ms Heather Proudfoot has commenced her PhD studies on treatment use and alcohol use disorders.

Two major literature reviews were undertaken in 2000 by Dr Teesson and Ms Proudfoot. In collaboration with Dr Linda Gowing from DASC a review of the Effectiveness Supporting Treatment for illicit drugs was undertaken. In addition a review of the alcohol treat-



**Dr Maree Teesson**

ment literature was undertaken for the National Alcohol Research Agenda Working Group.

Research on homelessness, mental illness and substance use disorders continues with the development of a handbook on the principles of intervention for persons who are homeless and have a mental illness (including substance use disorders). This project is funded by the NSW Department of Health and is conducted in collaboration with Dr Neil Buhrich and Ms Tracey Hodder.

A textbook for psychology students on the Addictions was commissioned by a UK publisher and a team at NDARC are completing this work.

## 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. Heroin overdose, performance enhancing drugs and the use of ecstasy and other party drugs are just some of the issues that have continued to make headlines. Some of the issues that have emerged in 2000 include drugs and mental health and the increasing use of ice.

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. As in other years, 2000 saw some NDARC projects generate far more media interest than others. The Illicit Drug Reporting System (IDRS) continues to attract attention as have a number of heroin-related projects.

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

Mr Dillon continues to host a regular spot on the ABC Youth Network, Triple J, where he discusses a range of



**Dr Erol Digiusto**

drug issues. This is extremely popular and as a result Mr Dillon has been asked to write articles for a number of magazines and continues to write a regular column for street newspapers and internet sites.

Apart from general media dissemination it remains vital that research findings are able to 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. *CentreLines* is still a joint newsletter from NDARC and the Perth Centre, NDRI, however, it is now published alternately by each centre. NDARC issues of *CentreLines* have a



**Dr Wendy Swift**

treatment focus, while NDRI issues take a closer look at prevention, reflecting the research direction of each centre. To support this change, the publication frequency of the newsletter has been increased from quarterly to bi-monthly.

NDARC is continuing to maintain a webpage on the Medical server of the University of New South Wales. The webpage lists as main entry points NDARC's mission statement; members of staff with their e-mail address and short curriculum vitae; current research projects and completed projects in the previous year; monograph and technical reports with abstracts or prefaces where they are available; as well as a news section featuring coming events such as seminars and symposia. Press releases are also included here.

Two major projects, the IDRS and NEPOD have their own home page with more detailed information.

Our webpage has been constantly evolving throughout 2000. It has proven particularly effective in delivering information on our publications and research projects. During the year we also used the web to launch the 1999 National Opioid Overdose Figures, delivering the findings to a potentially large audience quickly and effectively. NDARC's web page is located at:

[www.med.unsw.edu.au/ndarc](http://www.med.unsw.edu.au/ndarc).

Once again, our Annual Symposium proved to be extremely popular with workers from within the alcohol and other drug field. With a focus on research conducted by NDARC's PhD students it was titled 'New Research: An Update of Current Projects' and attracted an audience of almost 150 registrants. To maximise attendance the Symposium was again held in conjunction with the

National Trends Conference, where the findings of the Illicit Drug Reporting System (IDRS) are released, and this proved highly successful.

The NDARC Seminar Series continues to include open seminars on a monthly basis alternating with in-house seminars, and has once again attracted a number of overseas speakers. These open seminars are an effective way of disseminating the results of current projects conducted by both NDARC staff and other organizations. The in-house seminars are intended as informal presentations of ongoing research projects with a view to obtaining feedback on progress and also as a means of keeping NDARC staff informed of the activities

of their colleagues. Full details of these seminar series can be found in Appendix E.

As the public interest in drug issues continues to grow there has been great pressure on NDARC staff to speak at a variety of different forums. Mr Dillon has spent much of his time giving presentations to schools, community groups and other interested parties on a variety of drug issues. Youth drug use, cannabis and current drug trends have proved the most popular topics with audiences. Mr Dillon has continued to work with the NSW Department of Education and Training in providing them up-to-the-minute information on current drug trends. He has also developed a relationship with the pharmaceutical company Pfizer, who have sponsored a series of talks around the country given to GPs on party drugs.

One of the most exciting developments in research dissemination has been the production of a series of new resources. Over the years NDARC has developed a series of resources which have proven extremely popular with both workers in the field, as well as drug users. These include booklets called *An Injecting Drug Users Guide to Benzos*, *Steroid Facts*, *Ecstasy: Facts and Fiction* and *A Guide to Quitting Marijuana*. These booklets have arisen from specific projects after interviewees have asked for more information on their drug of choice. During 2000 NDARC developed three resources which have again proved to be very successful. *Heroin, What You Need To Know About Methadone... and Other Treatment Options* and *Club Drugs*.

## STAFFING

As of 31 December, 2000, NDARC staff numbered 54, including support staff, part-time staff, conjoint and honorary appointments. A full list of staff and their sources of funding is given in Appendix A.

2000 saw Dr Teesson promoted to Senior Lecturer at the Centre. Dr Swift and Dr Ross took up Lectureships during the year to work on key NDARC projects.

The year also saw the departure of highly valued members of staff in Mr Conroy, Dr McKetin, Mr Simon, Mr Marsh and Ms Clement.

## MANAGEMENT STRUCTURE

NDARC's Board of Management met 4 times during the year, in March, May, August and November. Mr Kevin Rozzoli continued as Chairman and the membership of the Board remained unchanged from last year.

The Research Committee, the main administrative body of the Centre, was enlarged by the addition of two new Lecturers. It now comprises: Prof Hall (Chair); A/Prof Mattick; Dr Darke; Dr Copeland; Dr Dolan; Dr Digiusto; Dr Lynskey; Dr Teesson; Dr Swift; Dr Ross; Mr Dillon; Ms Wolk and Ms Reid. The Research Committee meets monthly, immediately before 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.

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, and regularly-meeting steering committees for all major projects) remain as before.

## FUNDING

Allocation for base-line core funding from the Commonwealth Department of Health and Aged Care for the financial year 1999/00 was \$1,059,053. This was expended as follows:

	1998-99	1999-00
	\$	\$
Salaries	799,514	827,015
Operational	198,927	212,923
Equipment and Furniture	16,487	19,115
<b>Total</b>	<b>1,014,928</b>	<b>1,059,053</b>

Expenditure during 2000 of funds from external grants awarded to NDARC was \$2,184,326. Details of these grants, and of awards in which NDARC collaborated with other institutions may be found in Appendix B.

## NDARC PHD STUDENTS

Studying for a postgraduate degree is strongly encouraged at NDARC. Congratulations to Catherine Spooner, who was awarded her PhD during 2000. Several new PhDs, both full and part-time students, began work this year. We welcome Carolyn Day, Matthew Warner-Smith, Jo Kimber and Peter Lawrinson. The students have a representative on the Research Committee, and meet quarterly with the Director to discuss progress, and any issues of concern. In 2000 the students met 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. During 2000, Neil Donnelly, an off-site NDARC PhD student, presented a lecture on data analysis. Many of the PhD students also presented their work at the 2000 NDARC Annual Symposium.

## RESEARCH SUPERVISION

The following undergraduate and postgraduate research supervision was undertaken by Centre staff during 2000.

**Burns, L** (1998–present). *Patterns of comorbidity in problem drinkers*. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by Dr Teesson and Dr Lynskey. Expected date of submission April 2002.

**Day, C** (2000–present). *Hepatitis C infection among injecting drug users*. Full-time PhD in School of Community Medicine, UNSW. Joint supervision by Dr Dolan and Dr Ross. Expected date of submission May 2003.



Dr Joanne Ross





**Degenhardt, L** (1998–present) *Substance use and mental health: What are the links between alcohol, cannabis and tobacco use and psychopathology?* Part-time PhD in School of Community Medicine, UNSW. Joint supervision by Dr Bird and Prof Hall. Expected date of submission December 2001.

**Donnelly, N** (1995–present). *Statistical methods in pharmacoepidemiology.* Part-time PhD in School of Community Medicine, UNSW. Supervised by Prof Hall and A/Prof Mant. Expected date of submission December 2002.

**Kaye, S** (1999–present). *The use of cocaine among injecting drug users.* Part-time PhD in School of Community Medicine, UNSW. Supervised by Dr Darke and Prof Hall. Expected date of submission 2002.

**Kimber, J** (2000–present) *Health Service Evaluation: The regulation of injecting behaviour in Kings Cross.* Full-time PhD in the School of Community Medicine, UNSW. Supervised by Dr Dolan.

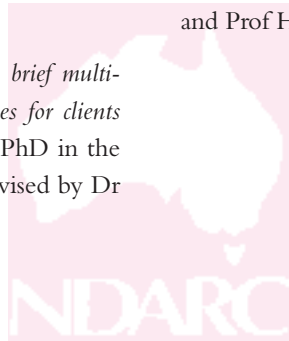
**Lawrinson, P** (2000–present) *Development of a brief multi-dimensional instrument designed to measure outcomes for clients receiving alcohol and other drug treatment.* Full-time PhD in the School of Community Medicine, UNSW. Supervised by Dr Copeland. Expected date of submission 2003.

**Proudfoot, H** (2000–present) *Best use of health care services to treat alcohol problems in the community: Maximizing value for the treatment dollar.* Part-time PhD in School of Community Medicine, UNSW. Supervised by Dr Teesson and Prof Hall. Expected date of submission December 2005.

**Reid, A** (1999–present). *Adolescent cannabis use disorders, correlates and diagnostic issues.* Full-time PhD in School of Community Medicine, UNSW. Supervised by Dr Copeland and Dr Lynskey. Expected date of submission 2003.

**Sunjic, S** (1996–present). *Pathways to and aspects of opioid dependence in chronic pain.* Part-time PhD in School of Community Medicine, UNSW. Supervised by Prof Hall and Prof Webster. Expected date of submission May 2001.

**Warner-Smith, M** (2000–present). *Risk factors for, and morbidity from, heroin overdose.* Part-time PhD in School of Community Medicine, UNSW. Supervised by Dr Darke and Prof Hall. Expected date of submission 2004.



# Key Projects 2000

---

## **ADOLESCENT CANNABIS CHECK-UP AND INTERVENTION TRIAL**

NDARC: Dr Copeland (Chief Investigator), Dr Swift (Trial Coordinator)

OTHER INVESTIGATORS: Dr J Howard (Ted Noffs Foundation); Prof R Roffman (University of Washington), A/Prof R Stephens (Virginia Polytechnic & State University)

AIMS: The aim of this innovative psychological intervention for adolescent cannabis users and their families is to evaluate the effectiveness of a 'Cannabis Check-up' model as a brief intervention to enhance motivation to reduce/cease cannabis use among young people and to test the effectiveness of a one session cognitive behavioural intervention for cannabis abuse/dependence compared to a three month wait-list control among adolescents, in reducing levels of cannabis use and associated problems such as psycho-social functioning and criminal involvement.

DESIGN AND METHOD: The study will enrol three hundred young people between the ages of 14 to 19 years and one or more carers for each participating adolescent. A range of eligibility criteria will apply. Participants will receive 3 individual sessions. Session 1 will explain the purposes of this study and will provide accurate information on cannabis, clarify the nature of the carer's specific concerns, enhance the carer's skills in effectively communicating concerns to the young person, and help the carer consider and practice ways of encouraging the adolescent to participate jointly with the carer in the checkup's two sessions.

The second session will include the individual and family assessment and administration of the Cannabis Check-up. The final session is about one week later and includes discussion of the written Personal Feedback Report.

The design includes a randomised-controlled trial arm where if the young person meets DSM-IV criteria for cannabis abuse/dependence and he/she and their guardian is willing to participate they will be offered participation in a one session cognitive-behavioural intervention aimed at assisting abstinence from cannabis use. The wait-list control participants will be followed-up and offered treatment 12 weeks later.

Three months following the final session, or following randomisation to the treatment arm of the project, both the carer and the adolescent will be asked to return for the purpose of a followup assessment interview by a "blind" research assistant. This would gather outcome data on all

---

the relevant aspects of the study including urinary cannabinoid levels. We hope to seek additional funding to conduct a six month follow-up interview as a measure of outcome stability.

**PROGRESS:** Dr Swift has commenced work on the project and the assessment and educational materials are almost complete. Three booklets have been prepared with the following interim titles: *Cannabis Facts for Young People*, *Cannabis Facts for Parents*, and *How To Talk to a Young Person About Cannabis*. Two treatment agencies specializing in adolescents with substance use problems, The Ted Noffs Foundation and Manly Drug Education and Counselling Centre, have allowed us to conduct some of interventions at their premises to include the geographical accessibility for the participants. The intervention manuals are almost complete and are being prepared with our international collaborators including Dr Michael Dennis. The primary clinician for the trial, Mr Greg Martin, has been recruited from New Zealand and will commence in January 2001. Two experienced cognitive behaviorally trained community clinicians, Ms Etty Matalon and Mr Matthew Noone, have agreed to provide some of the interventions for the study. Participant recruitment will begin in February 2001.

**BENEFITS:** Cannabis is the most commonly used illicit drug, particularly among adolescents. The 1996 Australian School Students' Alcohol and Drugs Survey found that 36.4% of those aged 12-17 years reported having used cannabis on at least one occasion and four percent of males reported using cannabis on at least six occasions in the last week. In addition, adolescents are significantly more likely to develop cannabis dependence for a given dose than are adults. A study of adolescents in treatment for drug use disorders reported that 78.6% met adult criteria for cannabis dependence. A New Zealand study reported a population rate of cannabis dependence among 18 year old males of 8.6%.

It is hoped that this study will provide an innovative, brief intervention for adolescents who may not be seeking assistance for their cannabis problems. The involvement of their carers should enhance its effectiveness as it improves the participant's knowledge about cannabis, their ability to communicate about drugs and their concerns about cannabis in particular, and provide personalized information on its effects.

**FUNDING:** The Commonwealth Department of Health and Aged Care's National Illicit Drug Strategy (NIDS)

## THE ILLICIT DRUG REPORTING SYSTEM (IDRS)

NDARC: Prof Hall, Dr Darke, Dr Topp, Ms Kaye

**PARTICIPATING INSTITUTIONS:** Australian Institute of Criminology (ACT), Drug and Alcohol Services Council (SA), National Drug Research Institute (WA), Northern Territory University (NT), Queensland Alcohol and Drug Research and Education Centre (QLD), Turning Point Alcohol and Drug Centre Inc (VIC), University of Tasmania (TAS)

**AIMS:** The Illicit Drug Reporting System (IDRS) is a study conducted on an annual basis that is designed to monitor emerging trends in illicit drug markets, in order to provide timely information relevant to a number of sectors including health, law enforcement and research.

**DESIGN AND METHOD:** In 2000, for the first time, the full IDRS was conducted in every state and territory. The full IDRS consists of the collection and analysis of three different sources of data: (1) interviews with injecting drug users; (2) interviews with key informants or people who work with injecting drug users, such as treatment workers, needle and syringe program workers, law enforcement officers and researchers; and (3) existing indicator data sources, such as hospital accident and emergency department data, overdose data and customs data. These three sources of data are triangulated against each other in order to provide a comprehensive overview of emerging trends in illicit drug markers in every jurisdiction in the country. In particular, the IDRS aims to monitor changes in the demographic characteristics of drug users; changes in the price, purity and availability of illicit drugs, and particularly heroin, cannabis, amphetamine and cocaine; the effects of law enforcement activity on illicit drug markets; and changes in health problems related to drug use such as heroin overdose.

In 2000, a two-year, three-state trial of the feasibility of monitoring emerging trends in the market for ecstasy and other party drugs using the extant IDRS methodology was implemented in NSW, Queensland and SA. In the first year of this trial, it was shown that although the market for ecstasy is different to the markets for other illicit drugs, the IDRS can successfully monitor this market. In 2001, with slight methodological refinement, the trial will be completed and the output will be two years of comparable data concerning party drugs.

**OUTPUT:** Every year, the IDRS produces a Drug Trends report from each state and territory, along with a National Drug Trends Report which ties all the information together

to provide a national overview of the illicit drug situation in Australia. The 2000 IDRS will also produce four extra reports related to the party drugs component; one state report from each of the three participating states (NSW, Queensland and SA), and a national report comparing and contrasting this state data. This state and national data was presented at the annual Drug Trends Conference, held in Sydney each year in November, which in 2000 was attended by approximately 120 delegates.

Since September 1998, the IDRS has also produced a quarterly *Drug Trends Bulletin*, which each quarter focuses on some aspect of the results of the IDRS in detail, in order to provide more timely and concise data on emerging trends in illicit drug markets. The *Drug Trends Bulletin* has a current circulation of approximately 700 throughout Australia.

#### PUBLICATIONS:

**Bruno, R., & McLean, S.** (2000) *Tasmanian Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 84. Sydney: National Drug and Alcohol Research Centre.

**Darke, S. & Hall, W.** (2000) *Drug Trends Bulletin July 2000*. Sydney: National Drug and Alcohol Research Centre.

**Darke, S. Hall, W. & Topp, L.** (2000) *The Illicit Drug Reporting System (IDRS) 1996-2000*. Technical Report No 101. Sydney: National Drug and Alcohol Research Centre.

**Darke, S. & Kaye, S.** (2000) *Drug Trends Bulletin December 2000*. Sydney: National Drug and Alcohol Research Centre.

**Dwyer, R., & Rumbold, G.** (2000) *Victorian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 89. Sydney: National Drug and Alcohol Research Centre.

**Fleming, J., Cooke, B., & Williams, P.** (2000) *Australian Capital Territory Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 82. Sydney: National Drug and Alcohol Research Centre.

**Hargreaves, K., & Lenton, S.** (2000) *West Australian Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 85. Sydney: National Drug and Alcohol Research Centre.

**Humeniuk, R.** (2000) *South Australian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 88. Sydney: National Drug and Alcohol Research Centre.

**Kinner, S., & Roach, A.** (2000) *Queensland Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 87. Sydney: National Drug and Alcohol Research Centre.

**MacDonald, M. & Topp, L.** (2000) *Drug Trends Bulletin*

*October 2000*. Sydney: National Drug and Alcohol Research Centre.

**McKetin, R. & Darke, S.** (2000) *Drug Trends Bulletin April 2000*. Sydney: National Drug and Alcohol Research Centre.

**McKetin, R., Darke, S., Humeniuk, R., Dwyer, R., Bruno, R., Fleming, J., Kinner, S., Hargreaves, K., & Rysavy, P.** (2000) *Australian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Monograph No 43. Sydney: National Drug and Alcohol Research Centre.

**McKetin, R., Darke, S., & Kaye, S.** (2000) *NSW Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 86. Sydney: National Drug and Alcohol Research Centre.

**Rysavy, P., O'Reilly, B., & Moon, C.** (2000) *Northern Territory Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Technical Report No 81. Sydney: National Drug and Alcohol Research Centre.

#### CONFERENCE PRESENTATIONS:

**Darke, S.** *Drug trends in NSW*. Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.

**Topp, L.** *National drug trends*. Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.

**Topp, L.** *Designer drug trends in NSW*. Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.

**BENEFITS:** The IDRS is an effective, standardised monitoring system that provides timely and comparable data from each state and territory that can be examined both across jurisdictions and across time. It is an effective study that is useful to many consumers, in particular the health and law enforcement sectors. The IDRS is considered internationally to be one of the best drug monitoring systems in the world.

**FUNDING:** Commonwealth Department of Health and Aged Care and the National Drug Law Enforcement Research Fund

#### EVALUATION OF THE NSW PRISON METHADONE PROGRAM: A RANDOMISED CONTROLLED TRIAL

NDARC: Dr Dolan, Prof Hall, A/Prof Mattick, Dr A Wodak

**AIMS:** The aims of the study were to examine the impact the prison methadone program had on:

- the prevalence and frequency of injecting and sharing as measured by self report
- the incidence of HIV as measured by repeat dried blood spot tests

- the incidence of hepatitis C as measured by repeat dried blood spot tests
- the prevalence and frequency of heroin use as detected by hair analysis.

**DESIGN AND METHOD:** This was an open, two-group, pre-post randomised controlled trial. Three hundred and eighty two NSW prison inmates applying for the NSW prison methadone program were recruited between August 1997 and October 1998. Inmates accepted into the study were randomly allocated to treatment or control. Control group inmates were placed on a four-month wait list. Finger prick blood samples were collected with a single use lancet and were tested for antibodies to HIV and hepatitis C. Hair samples were collected and tested for the presence of morphine (heroin).

**OUTPUT:** The study has been presented at a number of national and international conferences. Another two studies have been developed from the current one. One study will follow up all 384 subjects to examine their rates of reincarceration, mortality, HCV incidence and retention in treatment. The other study will examine the cost effectiveness of the prison methadone program.

#### CONFERENCE PRESENTATIONS:

**Dolan, K.** *A randomised controlled trial of the NSW Prison Methadone Program.* Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9-13 April.

**Dolan, K.** *A randomised controlled trial of the NSW Prison Methadone Program.* Paper presented at Injecting Drugs: the Prevention of Blood Borne Viruses and Overdose, The National Drug Research Institute, Perth, 4 August.

**Dolan K.** *A randomised control trial of the New South Wales Prison Methadone Program* at Encouraging Health Conference, Hamburg, Germany, 22-25 November.

**BENEFITS:** This is the first scientific examination of a prison methadone program in the world. If the NSW Prison Methadone Program is found to be effective in the prevention of HIV or HCV, it will have implications for other Australian states and other countries.

**FUNDING:** Commonwealth Department of Health and Aged Care. Additional funding also provided by the NSW Department of Health, Glaxo-Wellcome and the National Drug and Alcohol Research Centre

## NATIONAL EVALUATION OF PHARMACOTHERAPIES FOR OPIOID DEPENDENCE (NEPOD)

**NDARC:** A/Prof Mattick, Dr Digiusto, Dr Doran, Ms Kimber, Ms O'Brien, Ms Henderson, Mr Shearer, Ms Breen, Ms Harrod

**ASSOCIATED PRINCIPAL INVESTIGATORS:** Dr R Ali, Dr G Bammer, Dr J Bell, A/Prof N Glasgow, Dr L Hawken, Dr N Lintzeris, Dr A Quigley, Dr A Ritter, Prof J Saunders, Prof J White

**CONSULTANTS:** Mr P Marshall (Panacea Research & Evaluation), Ms M Shanahan (Centre for Health Economics Research & Evaluation, University of Sydney), Mr A Harris & Ms E Gospodarevskaya (Centre for Health Program Evaluation, Monash University), Mr A Shiell (Dept of Public Health & Community Medicine, University of Sydney)

**BACKGROUND:** The National Evaluation of Pharmacotherapies for Opioid Dependence is a three-year project which commenced in July 1998 and is being coordinated by the National Drug and Alcohol Research Centre (NDARC). NEPOD involves collaboration between researchers and clinicians who are conducting state-funded or NHMRC-funded studies in New South Wales, Victoria, South Australia, Queensland, the ACT, and Western Australia. The project includes fourteen clinical outcome studies, 11 of which are randomised, and 12 other observational studies. At the end of 2000, approximately 1600 patients had been recruited.

**AIMS:** The NEPOD project aims to contribute to a national effort to develop and implement a range of effective, evidence-based, best practice treatment options for people who are opioid dependent. This goal is being achieved by:

- facilitating communication and collaboration between the researchers who are conducting the trials;
- providing research methodological support to the trials, including access to the NHMRC's central randomisation service;
- implementing an independent trial monitoring and quality assurance process, which verifies patients' existence, conformity to trial inclusion & exclusion criteria, the type of treatment provided, and data collection;
- analysing a core data set that is being collected in the participating outcome trials on entry to the trial, and at 1, 3 and 6-month follow-ups. The outcome core data set includes measures of patients' drug use, employment status, criminal behaviour, use of health services, and quality of life;

- measuring the delivery costs and cost-effectiveness of the trial treatments, with a view to informing governments about the funding implications of the pharmacotherapies;
- collecting and interpreting international research literature, integrating it with the results of the Australian trials, and contributing to the development of evidence-based national clinical guidelines;
- assisting to disseminate the trial results, clinical best practice guidelines and accurate information about the pharmacotherapies to policy makers, treatment providers, opioid-dependent persons, and the community.

**PROGRESS:** By the end of 2000, data collection and data entry had been completed for most trials. It is anticipated that a draft report on the NEPOD project, including recommendations, will be presented to governments in the second quarter of 2001.

#### CONFERENCE PRESENTATIONS:

**Digiusto, E.** *Australian National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD)*. Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9-13 April.

**Digiusto, E.** *Australian National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD)*. Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.

**FUNDING:** Commonwealth Department of Health and Aged Care

### NATIONAL SURVEY OF MENTAL HEALTH AND WELL-BEING: SUBSTANCE USE DISORDERS

**NDARC:** Dr Teesson, Prof Hall, Dr Lynskey, Ms Burns, Ms Degenhardt, Mr Manor, Ms Proudfoot, Dr Swift

**OTHER INVESTIGATORS:** World Health Organisation Collaborating Centre in Mental Health/Substance Abuse, Sydney and NHMRC Psychiatric Epidemiology Research Centre, Australian National University.

**BACKGROUND:** The National Survey of Mental Health and Well-Being is a large nationally representative household survey of 10,641 Australian adults. It is the first nationally representative survey to assess symptoms of the most prevalent mental disorders, including alcohol and drug use disorders. The National Drug and Alcohol Research Centre was one of three research units responsible for its development and conduct. The survey itself was completed by the

Australian Bureau of Statistics on behalf of the Mental Health Branch of the Commonwealth Department of Health and Aged Care.

**AIMS:** NDARC has a program of research answering three main questions from the survey:

- how many Australians have which alcohol and drug use disorders?
- how disabled are they by these disorders?
- what services have they used for these disorders?

**MAIN FINDINGS:** One in thirteen Australian adults aged 18 years and older (7.7%) had an alcohol or drug use disorder in the past 12 months. Males were about twice as likely as females to have an alcohol or drug use disorder. This comprised 1,041,000 Australian adults, 734,000 men and 307,000 women.

Alcohol use disorders were about three times as common as drug use disorders. Cannabis accounted for more drug use disorders than any other illicit drug. An NHMRC grant to Drs Teesson and Lynskey is currently examining cannabis use dependence in the general population. Dr Swift and Mr Manor have been responsible for undertaking this work.

There were high rates of comorbidity between alcohol and other drug use disorders and mental disorders. This comorbidity has been the focus of the PhD research of Ms Burns and Ms Degenhardt. The low rates of treatment seeking is the focus of the PhD research of Ms Proudfoot.

**BENEFITS:** The National Survey highlights that alcohol use disorders are a major mental health and public health issue in Australia. Drug use disorders are less common than alcohol use disorders but still affect a substantial minority of Australian adults.

**OUTPUT:** This study is one of the most ambitious pieces of social research conducted in Australia. It excited interest both within the field and outside. Media stories were covered by nearly all major Australian radio stations, print media and television, and the story even made it to the BBC. In 2000 it influenced policy by forming the basis for a national workshop on the comorbidity between alcohol and mental health.

#### PUBLICATIONS:

**Degenhardt, L., & Hall, W.** (2000) *The association between psychosis and problematic drug use among Australian adults: Findings from the National Survey of Mental Health and Well-Being*. Technical Report No 93. Sydney: National Drug and Alcohol Research Centre.

**Degenhardt, L., Hall, W., Teesson, M., & Lynskey, M.** (2000) *Alcohol use disorders in Australia: Findings from the*

*National Survey of Mental Health and Well-Being*. Technical Report No 97. Sydney: National Drug and Alcohol Research Centre.

**Degenhardt, L., Hall, W., & Lynskey, M.** (2000) *Cannabis use and mental health among Australian adults: Findings from the National Survey of Mental Health and Well-Being*. Technical Report No 98. Sydney: National Drug and Alcohol Research Centre.

**Henderson, S., Andrews, G., & Hall, W.** (2000) Australia's mental health: an overview of the general population survey. *Australian and New Zealand Journal of Psychiatry*, 34, 197-205.

**Teesson, M., Hall, W., Lynskey, M., & Degenhardt, L.** (2000) The epidemiology of drug dependence in Australia: findings from the National Survey of Mental Health and Well-Being. In **Harris, L.S. (ed)** *Problems of Drug Dependence, 1999: Proceedings of the 61<sup>st</sup> Annual Scientific Meeting, The College on Problems of Drug Dependence, Inc.* NIDA Research Monograph 180, US Department of Health and Human Services.

**Teesson, M., Hall, W., Lynskey, M., & Degenhardt, L.** (2000) Alcohol and drug-use disorders in Australia: implications of the National Survey of Mental Health and Well-Being. *Australian and New Zealand Journal of Psychiatry*, 34, 206-213.

FUNDING: NHMRC



# Appendices

---

## GLOSSARY

<b>ACT CS</b>	ACT Corrective Services
<b>AIVL</b>	Australian Intravenous League
<b>ANCD</b>	Australian National Council on Drugs
<b>CDHAC</b>	Commonwealth Department of Health and Aged Care
<b>CEIDA</b>	Centre for Education and Information on Drugs and Alcohol
<b>CGPIS</b>	Centre for General Practice Integration Studies
<b>CHERE</b>	Centre for Health Economics Research and Evaluation
<b>CSAHS</b>	Central Sydney Area Health Service
<b>DASC</b>	Drug and Alcohol Services Council, SA
<b>DETYA</b>	Department of Education, Training and Youth Affairs
<b>DH</b>	Department of Health, NSW
<b>DHUK</b>	Department of Health, UK
<b>HOI</b>	Health Outcomes International Pty Ltd
<b>NCHIVECR</b>	National Centre in HIV Epidemiology and Clinical Research
<b>NDLERF</b>	National Drug Law Enforcement Research Fund
<b>NDRI</b>	National Drug Research Institute (Perth)
<b>NEPOD</b>	National Evaluation of Pharmacotherapies for Opioid Dependence
<b>NHMRC</b>	National Health and Medical Research Council
<b>NSW CO</b>	NSW Cabinet Office
<b>NSW DEAT</b>	NSW Department of Education and Training
<b>NUAA</b>	NSW Users and AIDS Association
<b>PSY</b>	School of Psychiatry, UNSW
<b>RPA</b>	Royal Prince Alfred Hospital
<b>SP</b>	School of Pathology, UNSW
<b>SWSAHS</b>	South Western Sydney Area Health Service
<b>TNF</b>	Ted Noffs Foundation

---



## APPENDIX A

### LIST OF NDARC STAFF

Staff Member	Position	Source of Funding
Prof W.D. Hall	Executive Director	Core
A/Prof R.P. Mattick	Research Director	“
Dr S. Darke	Senior Lecturer	“
Dr J. Copeland	Senior Lecturer	“
Dr M. Teesson	Senior Lecturer	“
Dr K. Dolan	Senior Lecturer	Project
Dr E. Digiusto	Lecturer	“
Dr M. Lynskey	Lecturer	“
Dr J. Ross	Lecturer	“
Dr W. Swift	Lecturer	“
Dr C. Doran	Health Economist	“
Mr P. Adamson	Research Officer	Core
Ms E.L. Congreve	Part-time Archivist	“
Mr P. Dillon	Information Officer	“
Ms H.P. Wolk	Professional Officer	“
Mr P. Lawrinson	Senior Research Assistant	Project
Ms S. O'Brien	Senior Research Assistant	“
Dr E. Topp	Senior Research Assistant	“
Ms P. Ward	Senior Research Fellow	“
Ms C. Breen	Research Assistant	“
Ms N. Clement	Research Assistant	“
Ms L. Degenhardt	Research Assistant	Core
Ms M. Harrod	Research Assistant	Project
Ms N. Henderson	Research Assistant	“
Ms J. Kimber	Research Assistant	“
Ms F. Rea	Research Assistant	“
Mr J. Shearer	Research Assistant	“
Mr M. Warner-Smith	Research Assistant	“
Ms S. Kaye	Part-time Research Assistant	“
Ms H. Proudfoot	Part-time Research Assistant	“
Ms L. Burns	Postgraduate Student	“
Ms C. Day	Postgraduate Student	“
Ms A. Reid	Postgraduate Student	“
Ms G. Pickering	Secretary	Core
Ms J. Hodge	Receptionist	“
<b>Conjoint Appointments</b>		
A/Prof A. Mant	Associate Professor (conjoint appointment with South Eastern Sydney Area Health Service)	—
Dr A. Wodak	Senior Lecturer (conjoint appointment with St. Vincent's Hospital)	—
Dr J. Bell	Senior Lecturer (conjoint appointment with South Eastern Sydney Area Health Service)	—
<b>Visiting Fellows</b>		
Dr R. Ali	Visiting Fellow	Prof J. Rankin Visiting Professor
Dr G.B. Chesher	Visiting Fellow	Dr N. Solowij Visiting Fellow
Dr S. Dawe	Visiting Fellow	Dr C. Spooner Visiting Fellow
Dr S. de Burgh	Visiting Fellow	Dr I. van Beek Visiting Fellow
Dr L. Gowing	Visiting Fellow	Dr D. Zador Visiting Fellow
Dr J. Howard	Visiting Fellow	<b>Visiting Student</b>
Prof E. Hunter	Visiting Professor	Mr N. Simon Visiting student

## APPENDIX B

### GRANTS FROM EXTERNAL SOURCES

Projects	Funding Source	Total Award(\$)	Expenditure 1999	Expenditure 2000
Review of methadone related deaths in the UK	DHUK	13,245	8,186	5,059
Treatment monitoring	DH	270,000 (3 years)	80,580	128,841
Successful withdrawal from opioid replacement therapy	DH	159,427 (2 years)	25,016	31,383
Evaluation of methadone trials	CDHAC	150,000	22,212	88,447
Illicit Drug Reporting System	CDHAC	864,027 (3 years)	217,440	285,512
Evaluation of alternate pharmacotherapies	CDHAC	1,300,000 (3 years)	415,869	438,147
Illicit drug statistical analysis	CDHAC	450,000 (3 years)	138,052	154,939
Non-injecting routes of administration among IDUs	NHMRC	60,000	14,895	45,105
Developing performance indicators for a national action plan on illicit drugs	CDHAC	16,733	0	16,733
Research support	DETYA	286,057 (2 years)	0	111,929
Hepatitis C infection in Australian prisons	CDHAC	3,000	1,121	1,879
A randomised trial of different dose levels of naltrexone as maintenance treatment for opioid dependence	NHMRC	196,218 (2 years)	120,892	51,251
Pilot randomised controlled trial of dexamphetamine therapy for cocaine dependence	NHMRC	68,044	0	22,654
Estimating the demand for new pharmacotherapies within the heroin dependent population in Australia	CDHAC	39,561	0	3,665
Follow up study of subjects in a randomised controlled trial of methadone treatment in prison	NHMRC	121,246 (3 years)	0	3,747
A cost-effectiveness analysis of prison methadone programs in Australia	NHMRC	61,157	0	0
Literature review into current practice regarding needle provision services in correctional facilities	ACT CS	17,097	0	5,090
Structural determinants of youth drug use	ANCD	36,628	0	30,905
Extension of Addiction Treatment Outcome Study	CDHAC	615,587 (3 years)	0	32,133
Addiction Treatment Outcome Study	NHMRC	430,264 (3 years)	0	29,659

Prevalence, risk factors and burden of cannabis use in Australia	NHMRC	69,018	0	26,292
Heroin overdose: Prevalence, correlates, consequences and interventions	ANCD	39,407	0	39,407
Adolescents' attitudes and beliefs about cannabis and school drug education	NSW DEAT	27,437	0	6,929
Adolescent cannabis check up	CDHAC	330,257 (3 years)	0	36,350
Brief cannabis intervention for primary health care providers	CDHAC	102,093	0	93,506
Feasibility of long-term follow up of NEPOD cohort	NHMRC	60,000	0	0
National comorbidity project	CDHAC	28,000	0	28,000
Use of cannabis for medicinal purposes	NSW CO	16,753	0	16,753
Substance abuse in Australian communities	CDHAC	12,153	0	12,153
Evaluation framework for the council of Australian governments initiatives	HOI	35,000	0	35,000
Expansion of the illicit drug user survey component of the Illicit Drug Reporting System	NDLERF	130,906	0	57,891
Designer drugs component of the Illicit Drug Reporting System	NDLERF	85,886 (2 years)	0	18,499
<b>SUB-TOTALS FOR PROJECTS (OVER 1 TO 3 YEARS)</b>		<b>6,095,201</b>	<b>1,044,263</b>	<b>1,857,858</b>

<b>Information Dissemination</b>	<b>Funding Source</b>	<b>Total Award(\$)</b>	<b>Expenditure 1999</b>	<b>Expenditure 2000</b>
Community education	CDHAC	18,403	1,202	9,380
Information kit on needle and syringe exchange programs	CDHAC	87,927 (2 years)	36,298	51,629
International resource series on demand reduction	CDHAC	16,700	0	16,700
The health and psychological consequences of cannabis use (update)	CDHAC	47,942	0	0
<b>SUBTOTALS FOR INFORMATION DISSEMINATION</b>		<b>170,972</b>	<b>37,500</b>	<b>77,709</b>

<b>Workshops</b>	<b>Funding Source</b>	<b>Total Award(\$)</b>	<b>Expenditure 1999</b>	<b>Expenditure 2000</b>
Workshops for primary health care practitioners on a one session intervention for cannabis use disorders	CEIDA (NSW Health)	24,000	0	0

<b>Infrastructure</b>	<b>Funding Source</b>	<b>Total Award(\$)</b>	<b>Expenditure 1999</b>	<b>Expenditure 2000</b>
Support for Research Infrastructure	RIBG	351,152	131,840	179,823
<b>Scholarships</b>	<b>Funding Source</b>	<b>Total Award(\$)</b>	<b>Expenditure 1999</b>	<b>Expenditure 2000</b>
Postgraduate scholarship	DH	131,700 (3 years)	23,078	30,624
Postgraduate scholarships (2)	CDHAC	212,600 (5 years)	25,507	38,312
<b>SUB-TOTALS FOR SCHOLARSHIPS (OVER 3 TO 5 YEARS)</b>		<b>344,300</b>	<b>48,585</b>	<b>68,936</b>
<b>GRAND TOTALS OF AWARDS TO NDARC (OVER 1 TO 5 YEARS)</b>		<b>6,985,625</b>	<b>1,262,188</b>	<b>2,184,326</b>



## APPENDIX C PUBLICATIONS

### MONOGRAPHS

43. **McKetin, R., Darke, S., Humeniuk, R., Dwyer, R., Bruno, R., Fleming, J., Kinner, S., Hargreaves, K., & Rysavy, P.** (2000) *Australian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
44. **Hall, W., Ross, J., Lynskey, M., Law, M. & Degenhardt, L.** (2000) *How many dependent opioid users are there in Australia?* Sydney: National Drug and Alcohol Research Centre.
46. **Warner-Smith, M., Lynskey, M., Darke, S., & Hall, W.** (2000) *Heroin overdose: prevalence, correlates, consequences and interventions*. Sydney: National Drug and Alcohol Research Centre.

### TECHNICAL REPORTS

81. **Rysavy, P., O'Reilly, B., & Moon, C.** (2000) *Northern Territory Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
82. **Fleming, J., Cooke, B., & Williams, P.** (2000) *Australian Capital Territory Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
83. **Degenhardt, L., Lynskey, M., & Hall, W.** (2000) *Cohort trends in the age of initiation of drug use in Australia*. Sydney: National Drug and Alcohol Research Centre.
84. **Bruno, R. & McLean, S.** (2000) *Tasmanian Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
85. **Hargreaves, K. & Lenton, S.** (2000) *West Australian Drug Trends 1999: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
86. **McKetin, R., Darke, S., & Kaye, S.** (2000) *NSW Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
87. **Kinner, S. & Roach, A.** (2000) *Queensland Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
88. **Humeniuk, R.** (2000) *South Australian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
89. **Dwyer, R. & Rumbold, G.** (2000) *Victorian Drug Trends 1999. Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre.
90. **Darke, S., Hall, W., Kaye, S., Ross, J., & DuFlou, J.** (2000) *Hair morphine concentrations of fatal heroin overdose cases and living heroin users*. Sydney: National Drug and Alcohol Research Centre.
91. **Proudfoot, H. & Teesson, M.** (2000) *Investing in Drug and Alcohol Treatment*. Sydney: National Drug and Alcohol Research Centre.
92. **Teesson, M., Clement, N., Copeland, J., Conroy, A., & Reid, A.** (2000) *The measurement of outcome in alcohol and other drug treatment: a review of available instruments*. Sydney: National Drug and Alcohol Research Centre.
93. **Degenhardt, L. & Hall, W.** (2000) *The association between psychosis and problematic drug use among Australian adults: Findings from the National Survey of Mental Health and Well-Being*. Sydney: National Drug and Alcohol Research Centre.
94. **Degenhardt, L., Hall, W., & Adelstein, B.A.** (2000) *Ambulance calls to suspected drug overdoses: Analysis of New South Wales patterns - July 1997 to June 1999*. Sydney: National Drug and Alcohol Research Centre.
95. **Dolan, K.** (2000) *Surveillance and prevention of hepatitis C infection in Australian prisons: A discussion paper*. Sydney: National Drug and Alcohol Research Centre.
96. **Spooner, C., Hall, W., & Mattick, R.P.** (2000) *A strategic overview of the diversion of drug-related offenders in NSW*. Sydney: National Drug and Alcohol Research Centre.
97. **Degenhardt, L., Hall, W., & Lynskey, M.** (2000) *Alcohol use disorders in Australia: Findings from the National Survey of Mental Health and Well-Being*. Sydney: National Drug and Alcohol Research Centre.
98. **Degenhardt, L., Hall, W., & Lynskey, M.** (2000) *Cannabis use and mental health among Australian adults: Findings from the National Survey of Mental Health and Well-Being*. Sydney: National Drug and Alcohol Research Centre.
99. **Kaye, S., Darke, S., & McKetin, R.** (2000) *The prevalence, patterns and harms of cocaine use among injecting and non-injecting drug users in Sydney*. Sydney: National Drug and Alcohol Research Centre.
100. **Darke, S. & Ross, J.** (2000) *The relationship between suicide and overdose among methadone maintenance patients*. Sydney: National Drug and Alcohol Research Centre.

**101. Darke, S. Hall, W., & Topp, L.** (2000) *The Illicit Drug Reporting System (IDRS) 1996-2000*. Sydney: National Drug and Alcohol Research Centre.

#### PUBLISHED ARTICLES, CHAPTERS & BOOKS

**834. Boot, B., McGregor, I.S., & Hall, W.** (2000)

MDMA (Ecstasy) neurotoxicity: assessing and communicating the risks. *Lancet*, 355, 1818-1821.

**835. Buck, D.J., Richmond, R.L., & Mendelsohn,**

**C.P.** (2000) Cost-effectiveness analysis of a family physician delivered smoking cessation program. *Preventive Medicine*, 31, 641-648.

**836. Buhrich, N., Hodder, T., & Teesson, M.** (2000)

Prevalence of cognitive impairment among homeless people in inner Sydney. *Psychiatric Services*, 51, 520-521.

**837. Buhrich, N., Hodder, T., & Teesson, M.** (2000)

Lifetime prevalence of trauma among homeless people in Sydney. *Australian and New Zealand Journal of Psychiatry*, 34, 963-966.

**838. Coffey, C., Lynskey, M., Wolfe, R., & Patton,**

**G.C.** (2000) Initiation and progression of cannabis use in a population-based Australian adolescent longitudinal study. *Addiction*, 95, 1679-1690.

**839. Conroy, A. & Copeland, J. (Eds)** (2000) *Data*

*Dictionary for Alcohol and Other Drug Treatment Services in New South Wales: Data guidebook for the NSW Minimum Data Set*.

NSW Department of Health/National Drug and Alcohol Research Centre: Sydney.

**840. Conroy, A., Copeland, J., & Reid, A.** (2000)

*AIHW National Survey of Alcohol and Other Drug Treatment Services: Report on NSW Findings*. National Drug and Alcohol Research Centre Report to NSW Department of Health.

**841. Copeland, J., Swift, W., & Ress, V.** (2000) Brief

interventions for cannabis dependence. *DrugWise*, February, 51-52.

**842. Copeland, J., Peters, R., & Dillon, P.** (2000)

Anabolic-androgenic steroid use disorders among a sample of Australian competitive and recreational users. *Drug and Alcohol Dependence*, 60, 91-96.

**843. Darke, S. & Hall, W.** (2000) *Drug Trends Bulletin July*

*2000*. Sydney: National Drug and Alcohol Research Centre.

**844. Darke, S. & Kaye, S.** (2000) *Drug Trends Bulletin*

*December 2000*. Sydney: National Drug and Alcohol Research Centre.

**844. Darke, S. & Ross, J.** (2000) The use of antidepressants among injecting drug users in Sydney, Australia. *Addiction*, 95, 407-417.

**845. Darke, S. & Ross, J.** (2000) Fatal heroin overdoses

resulting from non-injecting routes of administration, NSW, Australia, 1992-1996. *Addiction*, 95, 569-573.

**846. Darke, S. & Ross, J.** (2000) Heroin-related deaths

in regional New South Wales. 1992-96. *Drug and Alcohol Review*, 19, 35-40.

**847. Darke, S., Ross, J., Zador, D., & Sunjic, S.** (2000)

Heroin-related deaths in New South Wales. 1992-96. *Drug and Alcohol Dependence*, 60, 141-150.

**848. Darke, S., Sims, J., McDonald, S., & Wickes, W.**

(2000) Cognitive impairment among methadone maintenance patients. *Addiction*, 95, 687-696.

**849. Degenhardt, L.** (2000) Interventions for people

with alcohol use disorders and an intellectual disability: A review of the literature. *Journal of Intellectual & Developmental Disability*, 25, 135-146.

**850. Degenhardt, L., Hall, W., & Lynskey, M.** (2000)

Cohort trends in the age of initiation of drug use in Australia. *Australian and New Zealand Journal of Public Health*, 24, 421-426.

**851. Dillon, P. & Dolan, K.** (2000) *Needle and syringe*

*programs: your questions answered*. National Drug and Alcohol Research Centre, Sydney.

**852. Dolan, K., Topp, L., & MacDonald, M.** (2000)

*Needle and syringe programs: a review of the evidence*. National Drug and Alcohol Research Centre, Sydney.

**853. Donnelly, N., McManus, P., Dudley, J., & Hall,**

**W.** (2000) Impact of increasing the re-supply interval on the seasonality of subscribed prescription use in Australia. *Australian and New Zealand Journal of Public Health*, 24, 503-506.

**854. Gallagher, J. & Teesson, M.** (2000) Measuring dis-

ability, need and outcome in Australian community mental health services. *Australian and New Zealand Journal of Psychiatry*, 34, 850-855.

**855. Hall, W.** (2000) Transcending methadone. *Lancet*,

355, 585.

**856. Hall, W.** (2000) Rolleston revisited. *Addiction*, 95,

1273-1274.

**857. Hall, W.** (2000) UROD: an Antipodean therapeutic

enthusiasm. *Addiction*, 95, 1765-1766.

- 858. Hall, W. (Chair)** (2000) *Report of the Working Party on the Use of Cannabis for Medical Purposes*. Volume 1: Executive Summary; Volume 2: Full Report. NSW Government, Sydney, 2000.
- 859. Hall, W. & Babor, T.** (2000) Cannabis and public health: assessing the burden. *Addiction*, 95, 485-490.
- 860. Hall, W. & Degenhardt, L.** (2000) Cannabis and psychosis. *Australian and New Zealand Journal of Psychiatry*, 34, 26-34.
- 861. Hall, W., Lynskey, M., & Degenhardt, L.** (2000) Trends in opiate-related deaths in the United Kingdom and Australia, 1985-1995. *Drug and Alcohol Dependence*, 57, 247-254.
- 862. Hall, W. & Mattick, R.P.** (2000) Is ultra-rapid opioid detoxification a viable option in the treatment of opioid dependence? *CNS Drugs*, 14, 251-255.
- 863. Hall, W., Ross, J., Lynskey, M., Law, M., & Degenhardt, L.** (2000) How many dependent heroin users are there in Australia? *Medical Journal of Australia*, 528-531.
- 864. Hall, W. & Swift, W.** (2000) The THC content of cannabis in Australia: evidence and implications. *Australian and New Zealand Journal of Public Health*, 24, 503-508.
- 865. Hall, W. & Teesson, M.** (2000) Alcohol-use disorders: who should be treated and how? In: **Andrews, G. & Henderson, S. (eds)** *Unmet Need in Psychiatry. Problems, Resources, Responses*. (pp 290-301). Cambridge University Press, Cambridge.
- 866. Hall, W. & Zador, D.** (2000) Challenge of reducing drug-related deaths. *The Lancet*, 356, 7.
- 867. Henderson, S., Andrews, G., & Hall, W.** (2000) Australia's mental health: an overview of the general population survey. *Australian and New Zealand Journal of Psychiatry*, 34, 197-205.
- 868. Hunter, E.M., Brady, M., & Hall, W.** (2000) *National Recommendations for the Clinical Management of Alcohol-related Problems of Indigenous Primary Health Care Settings*. Commonwealth Department of Health and Aged Care, Canberra.
- 869. Issakidis, C. & Teesson, M.** (2000) Measurement of need for care: a trial of the Camberwell Assessment of Need and the Health of the Nation Outcome Scales. *Australian and New Zealand Journal of Psychiatry*, 33, 754-759.
- 870. Kaye, S. & Darke, S.** (2000) Comparison of the harms associated with the injection of heroin and amphetamines. *Drug and Alcohol Dependence*, 58, 189-195.
- 871. Lynskey, M. & Hall, W.** (2000) The effects of adolescent cannabis use on educational attainment: a review. *Addiction*, 95, 1621-1630.
- 872. MacDonald, M. & Topp, L.** (2000) *Drug Trends Bulletin October 2000*. Sydney: National Drug and Alcohol Research Centre.
- 873. MacDonald, M.A., Wodak, A.D., Dolan, K.A., van Beek, I., Cunningham, P.H., & Kaldor, J.M.** (2000) Hepatitis C virus antibody prevalence among injecting drug users at selected needle and syringe programs in Australia, 1995-1997. *Medical Journal of Australia*, 172, 57-61.
- 874. McKetin, R. & Darke, S.** (2000) *Drug Trends Bulletin April 2000*. Sydney: National Drug and Alcohol Research Centre.
- 875. Miller, V., Robertson, S., Kellehear, K., Teesson, M., Farhall, J., Issakidis, C., Peters, J., Swensdon, C., Bland, R., & Epstein, M. (eds)** (2000) *Whose Dreams? Whose Realities? Proceedings of the 9<sup>th</sup> Annual THEMHS Conference, Melbourne, Australia*, Standard Publishing House, Rozelle.
- 876. Penrose-Wall, J., Copeland, J., & Harris, M.** (2000) *Shared care of illicit drug problems by general practitioners and primary health care providers: A literature review*, A report for the National Illicit Drug Strategy. Centre for Integration Studies and National Drug and Alcohol Research Centre, UNSW: Sydney.
- 877. Penrose-Wall, J., Harris, M., & Copeland, J.** (2000) *Program Guide: Sharing Mental Health Care Vol 2 Alcohol and Other Drug Problems. A Guide for Divisions of General Practice*. Integration Studies and National Drug and Alcohol Research Centre, UNSW: Sydney.
- 878. Reid, A., Lynskey, M., & Copeland, J.** (2000) Cannabis use among Australian adolescents: findings of the 1998 National Drug Strategy Household Survey. *Australian and New Zealand Journal of Public Health*, 24, 596-602.
- 879. Ross, J. & Darke, S.** (2000) The nature of benzodiazepine dependence among heroin users in Sydney, Australia. *Addiction*, 95, 1785-1793.
- 880. Strang, J., Witton, J., & Hall, W.** (2000) Improving the quality of the cannabis policy debate: defining the different domains. *British Medical Journal*, 320, 108-110.
- 881. Swift, W., Copeland, J., & Lenton, S.** (2000) Cannabis and harm reduction. *Drug and Alcohol Review*, 19, 101-112.

- 882. Swift, W., Hall, W., & Copeland, J.** (2000) One year follow-up of cannabis dependence among long-term users in Sydney, Australia. *Drug and Alcohol Dependence*, 59, 309-318.
- 883. Taylor, S., Choucair, A., Shaw, J., & Copeland, J.** (2000) Assessment of need for information on illicit drugs in the Arabic, Chinese and Vietnamese languages. *Australian Family Physician*, 29, 725-726.
- 884. Teesson, M.** (2000) Management of Drug Users in the Community: a practical handbook. (Book Review) *Addiction*, 94, 1751.
- 885. Teesson, M., Hall, W., Lynskey, M., & Degenhardt, L.** (2000) The epidemiology of drug dependence in Australia: findings from the National Survey of Mental Health and Wellbeing. In **Harris, L.S. (ed)** *Problems of Drug Dependence, 1999: Proceedings of the 61<sup>st</sup> Annual Scientific Meeting, The College on Problems of Drug Dependence, Inc.* NIDA Research Monograph 180, US Department of Health and Human Services.
- 886. Teesson, M., Hall, W., Lynskey, M., & Degenhardt, L.** (2000) Alcohol and drug-use disorders in Australia: implications of the National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, 34, 206-213.
- 887. Teesson, M., Hodder, T., & Buhrich, N.** (2000) Substance use disorders among homeless people in inner Sydney. *Social Psychiatry and Psychiatric Epidemiology*, 35, 451-456.
- 888. Trauer, T., Rosen, A., Cummins, R., & Teesson, M.** (2000) What's new in outcome measurement. In **Miller, V., et al (eds)** *Whose Dreams? Whose Realities? Proceedings of the 9<sup>th</sup> Annual THEMHS Conference, Melbourne, Australia*, Standard Publishing House, Rozelle, 235-243.
- 889. Wickes, W.A., Darke, S. & Ross, J.** (2000) Clobazam maintenance among methadone maintenance patients with problematic benzodiazepine use: five case studies. *Drug and Alcohol Review*, 19, 401-405.





## APPENDIX D

### CONFERENCE PRESENTATIONS

- Burns, L.** *Comorbidity with alcohol disorders in Australia: epidemiology and policy responses.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Burns, L.** *Problem drinking and mental health.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Clement, N.** *Non-injecting routes of administration of drug use – a clinical trial.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Copeland, J.** *A randomised controlled trial of brief interventions for cannabis dependence.* Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9–13 April.
- Copeland, J.** *Nurses and brief interventions: findings of a randomised controlled trial for cannabis use disorder.* Gave an invited address to the Drug and Alcohol Nurses Association Annual Conference, Sydney, 18 May.
- Copeland, J.** *A brief, multi-dimensional instrument designed to measure outcomes for clients receiving methadone maintenance treatment.* Paper presented at National Methadone Conference, Melbourne, 1 December.
- Copeland, J.** *A brief multi-dimensional instrument designed to measure outcome for clients receiving methadone maintenance treatment.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Copeland, J.** *Alcohol and other drug issues amongst NSW juvenile detainees.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Darke, S.** *History and harm reduction.* Was a discussant at the 10th Anniversary Conference, Centre for Drugs and Health Behaviours, London, 7 April.
- Darke, S.** *Drug trends in NSW.* Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.
- Day, C.** *The experience of Hepatitis C related discrimination within a NSW community sample of people living with hepatitis C.* Paper presented at Hepatitis C Everyday People Conference (working for change), Melbourne, 17 November.
- Degenhardt, L.** *The epidemiology of alcohol dependence in Australia.* Poster presentation at the 10<sup>th</sup> Congress of the International Society for Biomedical Research on Alcoholism, Yokohama, Japan, 2–8 July.
- Degenhardt, L.** *Persons with an intellectual disability and an alcohol use problem: Issues and treatment possibilities.* Paper presented at 2000 Annual Conference of Psychologists in Developmental Disability Services, Sydney, 13 December.
- Degenhardt, L.** *The epidemiology of fatal opioid overdose in Australia.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Degenhardt, L.** *Psychosis and problematic drug use in Australia.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November
- Digiusto, E.** *Australian National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD).* Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9–13 April.
- Digiusto, E.** *Australian National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD).* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Dillon, P.** *Australian street drugs and current trends.* Paper presented at Western Cluster Field Conference, Dubbo, 23 March.
- Dillon, P.** *Ketamine, GHB and the club scene.* Paper presented at Gearing up for the Millenium, Cardiff, Wales, 6 April.
- Dillon, P.** *GHB: a community based-approach to the problem.* Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9–13 April.
- Dillon, P.** *What's going on? Reviewing the research.* Paper presented at the Young and the Rest Of Us, Perth, 31 August.
- Dillon, P.** *Club drugs.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.
- Dolan, K.** *A randomised controlled trial of the NSW Prison Methadone Program.* Paper presented at 11<sup>th</sup> International Conference on the Reduction of Drug Related Harm, Jersey, Channel Islands, 9–13 April.
- Dolan, K.** *A randomised controlled trial of the NSW Prison Methadone Program.* Paper presented at Injecting Drugs: the Prevention of Blood Borne Viruses and Overdose, The National Drug Research Institute, Perth, 4 August.

- Dolan K.** *A Randomised Control Trial of the New South Wales Prison Methadone Program* at Encouraging Health Conference, Hamburg, Germany, 22-25 November.
- Doran, C.** *Buprenorphine vs methadone maintenance: a cost-effectiveness analysis.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Hall, W.** *What is comorbidity?* Paper presented at National Comorbidity Workshop, Canberra, 6 March.
- Hall, W.** *An overview of the research activities of the National Drug and Alcohol Research Centre.* Paper presented at Annual Conference of the Australian and New Zealand Association for Psychiatry, Psychology and the Law, Melbourne, 28 April.
- Hall, W.** *Patterns and trends in illicit drug use.* Paper presented at the Drug and Alcohol Nurses Association Annual Conference, Sydney, 19 May.
- Hall, W.** *The Report of the Working Party on the Medical Use of Cannabis.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Hall, W.** *Estimating the number of heroin dependent users in Australia?* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Hall, W.** *Estimating the number of dependent heroin users in Australia.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Hall, W.** *The rationale for the Illicit Drug Reporting System.* Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.
- Kaye, S.** *The prevalence, patterns and harms of cocaine use among injecting and non-injecting drug users in Sydney.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Kimber, J.** *International survey of supervised injecting centres: preliminary findings.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Kimber, J.** *International survey of supervised injecting centres: preliminary findings.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Mattick, R.** *Treatment approaches in opiate abuse – where do we go from here?* Paper presented at Buprenorphine – Progress in Partnership, London, UK, 23-24 March.
- Mattick, R.** *Buprenorphine – treatment models.* Workshop presented at Buprenorphine – Progress in Partnership, London, UK, 23-24 March.
- Proudfoot, H.** *Who gets treatment for alcohol use disorders in Australia?* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Reid, A.** *The prevalence of adolescent cannabis use and the exploration of dependence, comorbidity and risk perception among heavy users.* Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.
- Shearer, J.** *Monitoring dexamphetamine prescribing: a randomised controlled study.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Spooner, C.** *The role of police in the prevention and management of alcohol problems.* Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20-22 November.
- Swift, W.** *A randomised controlled trial of brief interventions for cannabis use disorder.* Keynote address given to Cutting Edge 2000, Rotorua, New Zealand, 31 August – 2 September.
- Swift, W.** *Putting research into practice: the case of cannabis.* Keynote address given to Cutting Edge 2000, Rotorua, New Zealand, 31 August – 2 September.
- Teesson, M.** *Prevention, promotion and politics.* Paper presented at The Mental Health Services Summer Forum, Sydney, 25 January.
- Teesson, M.** *The political abuse of evidence based medicine: The case of case management.* Keynote address presented at Getting Better Conference, Sydney, 19 February.
- Teesson, M.** *National Comorbidity Project.* Keynote address presented at National Comorbidity Workshop, Canberra, 6 March.
- Teesson, M.** *Case management and evidence based medicine.* Paper presented at The Mental Health Services Conference, Adelaide, 29-31 August.
- Teesson, M.** *Measuring need for care.* Paper presented at The Mental Health Services Conference, Adelaide, 29-31 August.
- Teesson, M.** *Alcohol and other drug use disorders in Australia.* Paper presented at The Mental Health Services Conference, Adelaide, 29-31 August.
- Teesson, M.** *The National Comorbidity Project.* Paper presented at The Mental Health Services Conference, Adelaide, 29-31 August.

**Teesson, M.** *The Australian Treatment Outcome Study*. Paper presented at the Combined APSAD and National Methadone Conference, Melbourne, 20–22 November.

**Topp, L.** *National drug trends*. Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.

**Topp, L.** *Designer drug trends in NSW*. Paper presented at 2000 Illicit Drug Trends Conference, Sydney, 30 November.

**Ward, P.** *Health care utilisation under the Commonwealth Medicare Benefits Scheme by methadone patients*. Paper presented at 2000 NDARC Annual Symposium, Sydney, 29 November.

## EXTERNAL LECTURES, WORKSHOPS, PRESENTATIONS

**Breen, C.** *Opiate treatment – pharmacotherapies: buprenorphine*. Presentation at South Eastern Sydney Area Health Service Drug and Alcohol Clinical Skills Update, Sutherland Hospital, 24 May.

**Burns, L.** *Alcohol and anxiety/depression*. Presentation to Comorbidity, a CEIDA and NDARC Seminar, Sydney, 15 August.

**Copeland, J.** *A randomised controlled trial of brief interventions for cannabis dependence*. Presentation at 10 April: The National Addiction Centre, Institute of Psychiatry, London, 10 April.

**Copeland, J.** *Brief interventions for cannabis use disorder*. The European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal, 12 April.

**Copeland, J.** *The epidemiology and aetiology of substance use disorders*. Presentation to *Masters of Psychological Medicine Seminar Series*, St Vincent's Hospital, 30 May.

**Copeland, J.** *Prevalence and treatment of cannabis use disorders*. Presentation to ACT Community Care Seminar Series for Treatment Works Week, Canberra, 28 June.

**Darke, S.** *Hair morphine concentrations of fatal heroin overdose cases and living heroin users*. National Addiction Centre, London, 6 April.

**Darke, S.** *Heroin overdoses in Australia*. Queensland Department of Health Seminar, Brisbane, 2 May.

**Darke, S.** *Hair morphine concentrations of fatal heroin overdose cases and living heroin users*. Presentation to We Help Ourselves Seminar, Sydney, 2 August.

**Darke, S.** *Hair morphine concentrations of fatal heroin overdose cases and living heroin user*. Presentation to Central Coast Area Health Service Drug and Alcohol Service Seminar, Gosford, 15 August.

**Darke, S.** *Using the Opiate Treatment Index as a clinical tool*. Presentation to Wentworth Area Health Service Drug and Alcohol Service Seminar, Sydney, 29 August.

**Darke, S.** *Hair morphine concentrations of fatal heroin overdose cases and living heroin users*. Presentation to Department of Psychology Seminar, Sydney, 7 September.

**Degenhardt, L.** *Cannabis and psychosis*. Presentation to Comorbidity, a CEIDA and NDARC Seminar, Sydney, 15 August.

**Dillon, P.** *Australian street drugs and current trends*. Presentation at Pfizer Clinical Meeting, Sydney, 22 March.

**Dillon, P.** *Australian street drugs and current trends*. Presentation at Dubbo Medical Society's Post-Graduate Weekend, Dubbo, 26 March.

**Dillon, P.** *Current drug trends*. Presentation to Diocesan Drug Education Adviser Workshop, Catholic Education Commission, 25 May.

**Dillon, P.** *Current trends in party drug use*. Presentation to HIV Prescribers Course, Sydney, 6 August.

**Dillon, P.** *Party drugs*. Presentation to Kirketon Road Seminar, Sydney, 9 August.

**Dillon, P.** *Club drugs*. Presentation to Pfizer GP Seminar, Perth, 30 August.

**Dillon, P.** *Club drugs*. Presentation to Pfizer GP Seminar, Perth, 31 August.

**Hall, W.** *A summary of the Institute of Medicine Report: Marijuana and Medicine*. Presentation at the Meeting of the Working Party on the Use of Cannabis for Medical Purposes, Sydney, 15 February.

**Hall, W.** *Making causal inferences in the health sciences*. Presentation at the Psychology Honours Seminar on Health Statistics, School of Psychology, UNSW, Sydney, 9 March.

**Hall, W.** *Trends in opioid overdose in Australia 1964-1998*. Presentation at the Research Seminar, School of Physiology and Pharmacology, UNSW, Sydney, 14 March.

**Hall, W.** *Estimating the number of dependent heroin users in Australia*. Presentation at the Workshop, Drug and Alcohol Services Council of South Australia, Adelaide, 16 March.

**Hall, W.** Was a discussant at the Launch of National School Drug Education Policy, Sydney, 22 March.

**Hall, W.** *The logic of causal inference*. Presentation at Human Behaviour Course, Second Year Medicine, Sydney, 23 March.

**Hall, W.** *Trends in opioid overdose deaths 1964-1998*. Presentation at School of Psychology and Psychiatry, James Cook University, Townsville, 31 March

**Hall, W.** *Policy analysis in the health sciences; The case of medical uses of cannabis.* Presentation at Seminar, Psychology Honours Seminar on Health Statistics, School of Psychology, UNSW, Sydney, 6 April.

**Hall, W.** Briefing for International Narcotics Control Board Delegation, Canberra, 10 April.

**Hall, W.** *What can be done to reduce heroin overdose deaths?* Presentation at Grand Rounds, St Vincent's Hospital, Sydney, 9 May.

**Hall, W.** *How many opioid dependent people are there in Australia?* Presentation at Meeting of Australian National Council on Drugs, Darwin, 11 May.

**Hall, W.** *Briefing on trends in opioid overdose deaths.* Presentation at Premier's Expert Advisory Group on Drugs, Sydney, 19 May.

**Hall, W.** *Patterns and trends in alcohol and other drug use and drug-related harm in Australia.* Presentation to Briefing to House of Representatives Standing Committee on Family and Community Affairs Committee Inquiry into Drug Abuse: How are we handling it? Canberra, 9 June.

**Hall, W.** *Trends in illicit drug use in Australia.* Presentation to Community Forum, Fairfield, Sydney, 21 June.

**Hall, W.** *Briefing on report of Working Party on the Use of Cannabis for Medical Purposes.* Presentation to Premier's Expert Advisory Group on Drugs, Sydney, 22 June.

**Hall, W.** *Estimating the number of dependent heroin users in Australia.* Presentation to National Addiction Centre, Institute of Psychiatry, London, 12 July.

**Hall, W.** *Estimating the number of dependent heroin users in Australia.* Presentation to the Centre for Drugs and Health Behaviour, London, 13 July.

**Hall, W.** *Performance indicators for drug law enforcement.* Seminar given to NSW Police Centre, Sydney, 27 July.

**Hall, W.** *Reducing the harms of cannabis use; the Australian policy debate.* Presentation to Master of Public Health Course, University of Sydney, Sydney, 2 August.

**Hall, W.** Gave Evidence to House of Representatives Standing Committee on Family and Community Affairs Committee Inquiry into Drug Abuse: How are we handling it?, Canberra, 14 August.

**Hall, W.** *Co-morbidity: why does it matter?* Presentation to Co-morbidity, a CEIDA and NDARC Seminar, Sydney, 15 August.

**Hall, W.** - *Reducing the harms of heroin use: the Australian policy debate.* Presentation to Masters of Public Health Lecture, Sydney, 16 August.

**Hall, W.** *Briefing on findings and recommendations of Working Party on the use of cannabis for medical purposes.* Presentation to NSW Expert Advisory Group on Drugs, Sydney, 17 August.

## APPENDIX E SEMINARS

### OUT-OF-HOUSE

April 13 **Prof Ian Tyrell**, Department of History, University of New South Wales. *The moral and medical arguments against smoking in 20th century Australia and their impact (or lack of).*

May 11 **Mr Geoff Barnden**, Cabinet Office, New South Wales Parliament. *Outcomes from the New South Wales Drug Summit.*

June 8 **Dr Shane Darke**, National Drug and Alcohol Research Centre. *Hair morphine concentrations of fatal heroin overdose cases and living heroin users*

### IN-HOUSE

March 16 **Catherine Spooner**, COAG Diversion Evaluation

March 23 **Wayne Hall**, *Medical marijuana: the policy debate*

April 20 **Amanda Reid**, *Prevalence of cannabis use among young people*

April 27 **Shane Darke**, *Physical injecting sites among IDU*

May 18 **Erol Digiusto**, *NEPOD outline and status*

May 25 **John Marsh**, *The John Marsh Project*

June 15 **Pat Ward**, *Health care utilisation amongst methadone maintenance clients*

June 22 **Jo Kimber**, *Injecting room evaluation*

July 20 **Chris Doran**, *Tobacco taxes*

July 27 **Joanne Ross and Maree Teesson**, *Australian Treatment Outcome Study (ATOS)*

August 17 **Louisa Degenhardt**, *Ambulance calls*

October 19 **James Shearer**, *Dexamphetamine for cocaine dependence*

October 26 **Catherine Spooner**, *Police and alcohol problems*

November 23 **Nicole Clement**, *Non-injecting routes of administration (NIROA)*