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EMERGING PROBLEMS IN DRUG AND ALCOHOL USE:

Current Issues & Future Solutions

TUESDAY 15 SEPTEMBER 2015

VENUE: JOHN NILAND SCIENTIA BUILDING, UNIVERSITY OF NEW SOUTH WALES

Time	Session
8:30-9:00am	Registration
9:00-9:05am	Welcome to Country *Aunty Ali Golding, Elder in Residence in the Faculty of Medicine, University of New South Wales*
9:05-9:10am	Welcome *Professor Michael Farrell*
9:10-10.00am	Keynote Address: Opportunities for intervention for methamphetamine *Associate Professor Angela Hawken, School of Public Policy, Pepperdine University, United States*
SESSION ONE	**Shaping new interventions to evolving problems of ice use** Chair: Chris Killick-Moran, Acting Assistant Secretary, Drug Strategy Branch, Population Health Division, Australian Government Department of Health *(Note: all presentations include five minutes for questions)*
10:00-10:15am	Current trends in methamphetamine use *Professor Michael Farrell*
10:15-10:30am	Addressing the treatment gap: Lessons from an inner-city stimulant treatment program *Dr Nadine Ezard*
10.30-10.45am	Missed opportunities for early intervention in first episode psychosis in methamphetamine users *Dr Julia Lappin*
10:45-11:15am	MORNING TEA
SESSION TWO	**Alcohol use from pregnancy to adolescence: patterns and harms** Chair: Conjoint Associate Professor Adrian Dunlop, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle *(Note: all presentations include five minutes for questions)*
11:15-11:30am	The Triple B Pregnancy Cohort Study: Alcohol use during pregnancy and developmental outcomes in infants at 12-months of age *Dr Delyse Hutchinson*
11:30-11:45am	Social networks and the spread of alcohol use attitudes and behaviours among adolescents? *Associate Professor Tim Slade*
11:45-12:00pm	Healthier Drinking Choices: A randomised controlled trial of a GP-facilitated web-based intervention for reducing risky alcohol consumption *Professor Maree Teesson*
12:00-12:30pm	Five minute poster presentations*
12:30-1:30pm	LUNCH
1:30-2:00pm	Poster viewing. *New this year: Your chance to vote for the People's Choice Prize*
SESSION THREE	**Economic evaluation of heroin treatments** Chair: Professor Steve Allsop, Director, National Drug Research Institute (NDRI), Curtin University, Perth *(Note: all presentations include five minutes for questions)*
2.00pm-2:15pm	Treatment for heroin users: Lifetime costs and benefits of treatment *Dr Marian Shanahan*
2:15-2:30pm	Economic evaluation comparing centre-based compulsory drug rehabilitation with community-based methadone treatment in Hai Phong City, Vietnam *Thu Vuong*

BREAKOUT SESSIONS	
2:30-3:30pm	
BREAKOUT ONE	**Pharmaceutical opioids: Use, dependence and treatment** Increasing prescribing of pharmaceutical opioids in Australia has led to concerns about harms and treatment effectiveness. This session will examine findings from Australia's first and largest prospective cohort study of nearly 2,000 people prescribed opioids for non-cancer pain. The presentations will look at patterns of use and harms; medication control and treatment. *Panel: Gabrielle Campbell, Dr Briony Larance, Dr Suzanne Nielsen* *Facilitator: Professor Louisa Degenhardt*
BREAKOUT TWO	**Mental health, substance use and young people** This session will look at the evidence for effective prevention of both mental health problems and substance use in young people. It will also explore young people's reasons for drinking and how that impacts prevention, and examine the mental health outcomes for young adult cannabis users and past users. *Panel: Dr Nicola Newton, Dr Edmund Silins, Dr Emily Stockings, Dr Lexine Stapinski* *Facilitator: Louise Birrell*
BREAKOUT THREE	**The 'dark web' and new psychoactive substances** Increasing use of new psychoactive substances (NPS) and the use of the internet to purchase these and other drugs is an increasing concern in Australia and overseas. This session will look at the 'dark web' and present a new online prevention program specially targeted at users of ecstasy and NPS. *Panel: Joe Van Buskirk, Rachel Sutherland, Dr Monica Barratt, Katrina Champion* *Facilitator: Robyn Davies (Acting Director, Illicit Drugs, International and Research Policy, Drug Strategy Branch, Population Health Division, Australian Government Department of Health)*
BREAKOUT FOUR	**Suicide risk assessment and management in D&A services** Suicide risk is elevated among substance users and poses a major clinical challenge for staff working in drug and alcohol treatment services. The Suicide Assessment Kit (SAK) is an evidence-based resource developed by NDARC and the Network of Alcohol and other Drug Agencies (NADA). This workshop will provide an overview of the SAK resources and demonstrate how policies and procedures can be integrated around the kit. *Facilitators: Professor Shane Darke, Dr Joanne Ross, Sarah Green (Mission Australia Triple Care Farm)*
BREAKOUT FIVE	***Skills-based workshop: Very brief interventions for cannabis use*** This workshop will look at Very Brief Interventions (VBIs) for clients who are indirectly experiencing problems as a result of their cannabis use and are at risk of developing long-term cannabis dependence. VBIs typically include a brief assessment/screen, feedback, psycho-education, self-help material and assessment of motivation for change. This VBI is designed to be delivered opportunistically and is appropriate for people who have not specifically sought help for their cannabis use but whose use is detected as being risky. *Facilitator: Etty Matalon (National Cannabis Prevention and Information Centre)*
3:30-4:00pm	AFTERNOON TEA (and poster viewing)
4:00-4:10pm	Poster prize and People's Choice winners announced
4:10-4:55pm	PANEL DISCUSSION **Methamphetamine: Problems and Solutions** *Chair: Professor Michael Farrell (National Drug and Alcohol Research Centre)* *Panel: Associate Professor Angela Hawken (Pepperdine University)* *Her Honour Judge Elizabeth Corbett (Drug Court of New South Wales)* *Dr Nadine Ezard (Alcohol and Drug Service, St Vincent's Hospital)*
4:55-5:00pm	Closing Remarks *Professor Michael Farrell*

*Five minute poster presentations	
Alice Knight	Preliminary findings from an evaluation of a community-based intervention for young people with multiple and complex needs
Elizabeth Whittaker	Stable housing, stable substance use? Evaluation of two 'Housing First' programs for homeless individuals
Dr Ryan Courtney	Smoking cessation among low-socioeconomic status and disadvantaged population groups: A systematic review of research output
Dr Sarah Larney	Reasons for seeking and ceasing opioid substitution therapy in prison and prior to release
Mieke Snijder	Systematic development of community-based interventions to reduce alcohol related harms among Aboriginal people in three rural towns in Australia

NDARC Annual Research Symposium 2015 - Posters

Cannabis Use, Attentional Inhibition, and Schizotypy

Lucy Albertella, Mike Le Pelley & Jan Copeland

Trajectories of anxiety, depression and alcohol use in early adolescence: a longitudinal study

Louise Birrell, Tim Slade, Nicola Newton, Katrina Champion, Emma Barrett, Erin Kelly, Natasha Nair, Patricia Conrod & Maree Teesson

Hospital admissions for alcohol use disorders (AUD) during pregnancy

Courtney Breen, Fenglian Xu & Lucinda Burns

Hepatitis C and associated risks behaviours in people who inject drugs

Kerryn Butler & Lucinda Burns

Chronic pain and suicide: prevalence, correlates and associations

Gabrielle Campbell, Shane Darke, Raimondo Bruno & Louisa Degenhardt

Cannabidiol (CBD) for the management of cannabis withdrawal: a phase II proof of concept study

Jan Copeland, Nicole Clement, Izabella Pokorski, Nghi Phung & Martin Weltman

Smoking cessation among low-socioeconomic status and disadvantaged population groups: A systematic review of research output

Ryan Courtney, Sundresan Naicker, Anthony Shakeshaft, Philip Clare, Kristy Martire & Richard Mattick

A randomised controlled trial of an online intervention for co-occurring depression and problematic alcohol use in young people

Mark Deady, Katherine Mills, Maree Teesson & Frances Kay-Lambkin

Feasibility of a Managed Alcohol Program for Sydney's Homeless

Kate Dolan, Nadine Ezard, Lucinda Burns, Carolyn Day, Eileen Baldry, Sianne Hodge & Tim Cubitt

Efficacy testing of the first evidenced-based smartphone app for the self-management of cannabis use

Lisa Gibson, Sally Rooke & Jan Copeland

A cost-effectiveness analysis of opioid substitution therapy upon release in reducing mortality among prisoners with a history of opioid dependence

Natasa Gisev, Marian Shanahan, Don Weatherburn, Richard Mattick, Sarah Larney, Lucinda Burns & Louisa Degenhardt

Investigating correlates of sedative load among people with chronic non-cancer pain and the association with drowsiness and ambulance use

Bianca Hoban, Natasa Gisev, Suzanne Nielsen, Briony Larance, Raimondo Bruno & Louisa Degenhardt

An examination of the prevalence and correlates of crime in a cohort of individuals who tamper with pharmaceutical opioids: A 12-month follow up

Janelle Holden, Briony Larance, Sarah Larney & Louisa Degenhardt

Preliminary findings from an evaluation of a community-based intervention for young people with multiple and complex needs

Alice Knight, Anthony Shakeshaft, Alys Havard, Myf Maple, Bernie Shakeshaft & Chiara Stone

Reasons for seeking and ceasing opioid substitution therapy in prison and prior to release

Sarah Larney, Deborah Zador, Natasha Sindicich & Kate Dolan

Examining the relationship between Post-Traumatic Stress Disorder (PTSD) and substance use in people who use pharmaceutical opioids compared with those who use heroin

Gina Lattas, Briony Larance & Suzanne Nielsen

Prenatal alcohol consumption prior to pregnancy recognition

Clare McCormack, Delyse Hutchinson, Lucinda Burns, Judy Wilson, Elizabeth Elliott, Steve Allsop, Jake Najman, Craig Olsson, Sue Jacobs & Richard Mattick

What can the data teach us? Profiling police incidents in two remote NSW communities to understand the impacts of the Breaking the Cycle initiative

Alice Munro, Anthony Shakeshaft, Chiara Stone, Timothy Dobbins, Courtney Breen & Julaine Allan

Internalising/externalising symptoms and alcohol misuse: 36-month follow-up data from an Australian adolescent population

Natasha Nair, Nicola Newton, Maree Teesson, Timothy Slade, Emma Barrett, Katrina Champion & Patricia Conrod

Depressed Substance Users in treatment: How common and concerning is social anxiety?

Katrina Prior, Joanne Ross, Carl Lejuez, Katherine Mills, Sharlene Kaye, Kathleen Brady, Glenys Dore, Francis Kay-Lambkin, Ivana Kihas, Joanne Cassar, Philippa Ewer, Xanthe Larkin & Maree Teesson

Behavioural Activation Treatment for Co-occurring Depression and Substance Use Disorder: Baseline characteristics of the Activate Study Cohort

Ivana Kihas, Katrina Prior, Joanne Ross, Carl Lejuez, Katherine Mills, Sharlene Kaye, Joanne Cassar, Sarah Masters, Xanthe Larkin, Philippa Ewer, Glenys Dore, Kathleen Brady & Maree Teesson

Baseline characteristics of The CSC Study: An innovative internet-based universal prevention trial for alcohol, cannabis and mental health problems in adolescents

Brad Shaw, Nicola Newton, Tim Slade, Cath Chapman, Gavin Andrews, Louise Birrell, Zoe Tonks, Steve Allsop, Leanne Hides, Nyanda McBride, Louise Mewton, Nina Te Pas, Simone Firmin-Sarra, Nina Pocuca & Maree Teesson

Adolescent substance use and specificity of association with educational outcomes in young adulthood

Edmund Silins, David Fergusson, George Patton, John Horwood, Craig Olsson, Delyse Hutchinson, Louisa Degenhardt, Robert Tait, Rohan Borschmann, Carolyn Coffey, John Toumbourou, Jake Najman & Richard Mattick, for the Cannabis Cohort Research Consortium

Systematic development of community-based interventions to reduce alcohol related harms among Aboriginal people in three rural towns in Australia

Mieke Snijder, Anthony Shakeshaft, Bianca Calabria & Chiara Stone

Brief screening scales for detecting depression in young people: A systematic review and meta-analysis of reliability, validity and diagnostic utility

Emily Stockings, Louisa Degenhardt, Yong Yi Lee, Cathrine Mihalopoulos, Angus Liu & George Patton

Efficiently measuring liability to externalising behaviours: development of the Externalizing Spectrum Inventory-Computerised Adaptive test (ESI-CAT)

Matthew Sunderland & Tim Slade

The developmental role of alcohol-specific rule-setting and peer influences on alcohol use during early to mid-adolescence

Zoe Tonks, Tim Slade, Nicola Newton, Cath Chapman, Gavin Andrews, Louise Birrell, Brad Shaw, Beth Turner, Steve Allsop, Leanne Hides, Nyanda McBride, Louise Mewton, Nina Te Pas, Simone Firmin-Sarra, Nina Pocuca & Maree Teesson

Examining the relationship between pain and mental health in pharmaceutical opioid users in treatment

Michael Vanderhaven, Sarah Larney & Suzanne Nielsen

Stable housing, stable substance use? Evaluation of two 'Housing First' programs for homeless individuals

Elizabeth Whittaker, Wendy Swift, Timothy Dobbins & Lucinda Burns

Travellers in the Territory: A comparison of Darwin residents and travellers from the Ecstasy and Related Drugs Reporting System

Elizabeth Whittaker & Lucinda Burns

Abstracts

Keynote

Associate Professor Angela Hawken

Pepperdine University, Malibu, California, United States

Angela Hawken is an Associate Professor of economics and policy analysis at the School of Public Policy at Pepperdine University. Hawken's research team focuses on drugs, crime, and corruption. She is the principal investigator of several studies that test swift, certain, and fair (SCF) strategies to reduce recidivism and incarceration. She led the randomized controlled trials of HOPE probation in Hawaii and the SCF pilot in Seattle (called WISP). She works with 11 states and an Indian nation on implementation of SCF probation and parole, on behalf of the U.S. Department of Justice.

Hawken is the director of BetaGov, a centre for practitioner-led trials that provides tools to conduct experimental tests of operations and policies; the goal is to dramatically increase the pace of learning which innovations are promising – and which are not – in criminal-justice and other policy areas. She has conducted research and advised policymakers in South Africa, Afghanistan, Syria, the country of Georgia, and the United Nations. She has co-authored two chapters in the United Nations Human Development Report, and is a co-author of Drugs and Drug Policy: What Everyone Needs to Know and Marijuana Legalization: What Everyone Needs to Know (both Oxford University Press).

Presentations

Current trends in methamphetamine use

Louisa Degenhardt[1], Grant Sara[2], Amanda Roxburgh[1], Timothy Dobbins[1], **Michael Farrell**[1], Lucinda Burns[1] & Wayne Hall[3]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Sydney Medical School & Northern Clinical School, University of Sydney, Sydney, New South Wales, Australia
[3] Centre for Youth Substance Abuse Research, Queensland University of Technology, Brisbane, Queensland, Australia

Introduction and aims: Concerns about methamphetamine use and harm have increased in multiple countries in recent years. This presentation will describe methamphetamine availability, use and harm in Australia.

Design and methods: Data on methamphetamine use were obtained from population-level surveys and surveys of drug use among sentinel groups of ecstasy users and people who inject drugs. Data were obtained on: drug seizures, arrests, clandestine laboratory detections, amphetamine-related hospital separations, mental health unit admissions, drug telephone helpline calls, and drug treatment episodes. Segmented linear regression models were fitted to identify changes in these series using log-transformed data where appropriate.

Results: Crystal methamphetamine availability has increased in recent years as evidenced by increased laboratory detections, domestic seizures, and seizure purity. Population surveys suggested no increase in the number of people using at least once in the past year, however higher potency forms of methamphetamine have become more popular, and the number of regular methamphetamine users has increased. Amphetamine-related harms increased in ways that closely tracked trends in availability and use. Amphetamine-related help-line calls, drug treatment, and hospital admissions for amphetamine disorders and psychosis all peaked in the mid-2000s, declined for several years, and have increased again since 2010.

Discussion and Conclusions: The availability and use of crystal methamphetamine appears to have increased in Australia over the past decade and methamphetamine-related harms have increased among users. Targeted responses are needed for specific subgroups of users; treatment for problematic use must support those experiencing problems in accessing care, while enhancing the capacity of health services to provide care for problem users of this drug.

Addressing the treatment gap: Lessons from an inner-city stimulant treatment program

Nadine Ezard[1]

[1] Alcohol and Drug Service, St Vincent's Hospital, Sydney, New South Wales, Australia

The mainstay of treatment for methamphetamine use disorders is psychosocial intervention, usually cognitive behaviour therapy (CBT), with modest effectiveness. Treatment coverage and retention remain low and treatment seeking late, with poorer outcomes associated with more frequent use. Efforts need to be made to improve coverage and accessibility of expanded harm reduction and early intervention, linked to specialist treatment and a committed program of intervention research.

Future directions include pharmacotherapies (of which agonist therapies are promising); alternatives to CBT (including mindfulness and narrative therapies); and neuroscience based cognitive enhancement. A range of non-binary non-abstinence-based outcome measures needs to be developed to shape these new directions, including change in substance use, risks (including sexual risks) and health and wellbeing measures.

Addressing the treatment gap: Lessons from an inner-city stimulant treatment program

Missed opportunities for early intervention in first episode psychosis in methamphetamine users

Julia Lappin[1] & Grant Sara[2]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] InforMH, New South Wales Department of Health, Mental Health and Drug and Alcohol Office, Sydney, New South Wales, Australia

Multiple sources of information suggest a link between methamphetamine use and psychosis, and so methamphetamine users can be considered a group who are at high-risk for future development of psychosis. Psychosis is a severe mental illness which can be highly distressing and disabling. Early intervention services aim to minimise the disability associated with psychotic illness by reducing the delay between the onset of psychotic symptoms and the delivery of treatment. In order to tailor services to detect psychosis early in methamphetamine users we need to understand how and when these individuals seek help prior to first episode psychosis.

We examined patterns of service use in New South Wales in the 2 years prior to presentation for first episode psychosis between 2005 and 2015, in order to establish whether there are missed opportunities for early intervention. Data will be presented on the prevalence of methamphetamine- related first episode psychosis, and sociodemographic characteristics of use will be described.

The Triple B Pregnancy Cohort Study: Alcohol use during pregnancy and developmental outcomes in infants at 12-months of age

Delyse Hutchinson[1,2,3], Judy Wilson[1], Clare McCormack[1], George Youssef[2,3],
Steve Allsop[4], Jake Najman[5], Elizabeth Elliott[6], Lucinda Burns[1], Craig Olsson[2,3],
Sue Jacobs[7], Anne Bartu[8], Hannah Fiedler[1], Ingrid Honan[1], Larissa Rossen[1],
Chiara Stone[1], Richard P. Mattick[1] & the Triple B Consortium

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Centre for Early Social and Emotional Development, School of Psychology, Deakin University, Melbourne, Victoria, Australia
[3] Murdoch Childrens Research Institute, The Royal Children's Hospital Melbourne, The University of Melbourne (Paediatrics and Psychological Sciences), Melbourne, Victoria, Australia
[4] National Drug Research Institute, Curtin University, Perth, Western Australia, Australia
[5] Queensland Alcohol and Drug Research and Education Centre and Schools of Population Health and Social Science, University of Queensland, Brisbane, Queensland, Australia
[6] Discipline of Paediatrics and Child Health, The University of Sydney, The Children's Hospital at Westmead, Sydney, New South Wales, Australia
[7] Department of Obstetrics, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia
[8] School of Nursing and Midwifery, Curtin University, Perth, Western Australia, Australia

Background: Heavy alcohol use and abuse in pregnancy are linked with developmental problems in offspring. However, less is understood in relation to the impacts of low-level alcohol exposure on infant developmental outcomes. In part, this is due a lack of high quality epidemiological data and in-depth measurement (i.e., clinical and observational data) on early development.

Aims: This presentation will use data from the Triple B Pregnancy Cohort Study to: (a) describe the patterns and prevalence of maternal alcohol use across the three trimesters of pregnancy, and (b) examine the impacts on infant development.

Design and methods: The cohort has data on alcohol exposures at each trimester of pregnancy (trimesters one, two and three) and at three waves across the first year (birth, 8-weeks and 12-months postpartum). Data on infant cognitive, language, motor and socio-emotional development were collected at 12-months using the Bayley Scales of Infant Development (BSID). The sample consists of over 1,600 participants recruited in 2009-13 from antenatal clinics in NSW and WA.

Results: Results will describe the patterns and prevalence of maternal drinking behaviours across the three trimesters of pregnancy. They will address unanswered questions about the differential effects of the timing of exposure (i.e., alcohol exposure harms may vary at different trimesters); and stability of exposure (i.e., regular and single occasion drinking are likely to be associated with different harms) on offspring development. Risk relationships will be examined using multivariate regression methods, controlling for potential confounding factors (e.g., infant gender, parent socio-economic status, other drug use, mental health).

Implications: This research will improve knowledge of the patterns and prevalence of alcohol use among pregnant women and, in particular, how alcohol exposure impacts on offspring development in infancy. This will result in new knowledge relevant to service delivery and policy development in Australia and to parents, families and children directly.

Social networks and the spread of alcohol use attitudes and behaviours in Australian adolescents

Tim Slade[1], Cath Chapman[1], Beth Turner[1], Brad Shaw[1], Nicola Newton[1], Louise Birrell[1], Zoe Tonks[1], Louise Mewton[1] & Maree Teesson[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: Peers play an influential role in the health behaviour choices of adolescents. It has long been known that adolescents whose peers drink alcohol report higher levels of alcohol use themselves compared to adolescents whose peers do not drink. Yet how this relationship originates and how friendship and alcohol use behaviours co-evolve over time is less well understood. Theories based on selection suggest that adolescents choose friends who have a similar alcohol use profile to their own. On the other hand theories based on influence posit that the decision to use alcohol is predicted by the alcohol use behaviour of one's friends. Research carried out to disentangle selection from influence effects has produced mixed results. Selection effects seem to exert a strong influence, however, both selection and influence contribute to the relationship between friendship and risky alcohol use behaviours. Much research is still needed to understand the relative importance of selection and influence effects in the spread of alcohol attitudes and behaviours through peer networks. The current study examines selection and influence explanations for the spread of alcohol use attitudes and behaviours through Australian adolescent friendship networks.

Methods: As part of a larger ongoing combined depression, anxiety and substance use prevention trial, information was collected on friendship networks from 1,034 adolescents (mean age 13.1 at baseline) in 14 schools in Sydney and Perth, Australia. We also collected information on perceptions of peer alcohol use, actual self-reported alcohol use and binge drinking, amongst both egos and alters. We followed up adolescents 6- and 18-months post-baseline. Stochastic actor-based modelling methods will be used to assess the strength of selection and influence processes in the evolution of alcohol use attitudes and behaviours.

Results: Adolescents tend to reciprocate friendship nominations and to become friends with friends of friends (transitivity). Controlling for these endogenous network effects there is a weak influence effect such that becoming friends with someone who drinks increases the likelihood of an adolescent's own drinking. There is no evidence for selection effects in these data.

Discussion: Uncovering the mechanisms by which the onset of drinking behaviours diffuse through peer networks holds great promise for not only understanding the etiology/causality of peer impacts on alcohol use but also for identifying individuals strategically positioned in a friendship network who hold greater sway over their peers' behaviour. These key players could form the basis of targeted prevention programs that capitalise on the social influence model to alter alcohol use attitudes/behaviours at a population level.

Healthier Drinking Choices: A randomised controlled trial of a GP-facilitated web-based intervention for reducing risky alcohol consumption

Maree Teesson[1], Nicola Newton[1], Anthony Shakeshaft[1], Natasha Nair[1], Ann Roche[2], Alice McEntee[2] & Paul Wallace[3]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] National Centre for Education and Training on Addiction, Flinders University, Adelaide, South Australia, Australia
[3] NIHR Clinical Research Unit, University College London, London, United Kingdom

In Australia, one in five adults consume alcohol at levels that put them at increased risk of harm from alcohol-related disease or injury over their lifetime, yet less than one in five problem drinkers will ever seek help. Interventions based on behavioural change principles have been found to be effective in reducing risky drinking in primary care settings, particularly for those who have decided to change their drinking. However, less than 10% of the population of risky drinkers are identified, and less than 5% of those who could benefit are offered brief interventions. The most significant barriers are that they are time consuming in the busy general practice setting and that individuals do not seek help for risky alcohol drinking. The need for effective and sustainable interventions is clear. Internet-delivered interventions facilitated by the GP and based on behavioural change and social learning principles provide a potentially innovative solution. Our trial, due to begin in 2016, is the first Australian trial of a GP facilitated Internet-based intervention for risky drinkers in primary care.

In this trial, all participating general practices will be given five computer tablets on which patients can complete the screener (AUDIT-C) questions whilst in the waiting room. Patients identified as risky drinkers will fill in the baseline questionnaire (AUDIT, EQ-5D) on the tablet, before being randomly allocated to: 1) the online condition, or 2) treatment-as-usual. Patients will then be prompted to hand their tablet to their GP when called in to the consultation room. GPs will view the patient screener and randomisation results. Patients assigned to the online condition will referred by their GP to the online intervention program, *Healthier Drinking Choices*, which they can access from home.

Early pilot data collected in South Australia has demonstrated the acceptability of the online intervention in Australia. In this pilot to date, 47 people have been approached, 17/47 have been assessed and 4/17 were identified as positive for risky drinking on the AUDIT-C and randomised to treatment or control. The pilot has indicated consumer acceptability of the *Healthier Drinking Choices* program.

This presentation will present findings from the pilot studies across South Australia and New South Wales and detail the large-scale RCT due to begin in 2016.

Treatment for heroin users: Life time costs and benefits of treatment

Alison Ritter[1], **Marian Shanahan**[1], Pascal Perez[1], Nagesh Shukla[1], Phuong Hoang[1], Vu Lam Cao[1] & Michael Farrell[2]

[1] Drug Policy Modelling Program (DPMP), National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: Illicit drug use creates a significant burden to society, to the family and to the individual. Every year substantial resources are allocated for treatments and the consequences of illicit drug use in Australia and around the world. Heroin use and associated harms can be reduced through effective treatment. Past research has demonstrated that some treatments for heroin dependence are relatively cost-effective, but not whether heroin treatment overall is a good investment. This novel study has estimated the net social benefit of heroin treatment (OTP, residential, counselling, and withdrawal) taking into account health, crime, and social and family consequences.

Methods: A model is built to represent the careers of people who use heroin. The individual sampling model can accommodate not only the complexity of individuals going into and out of multiple types of treatments and prison, their corresponding costs and benefits, but also the life-course of heroin users. The context for this model is the population of heroin users in New South Wales.

Results: This paper will describe the components of the model and report on the initial findings regarding net social benefit and the costs of treatment, crime, and the impact on families.

Implications: Through the inclusion of a range of costs and burdens, this study goes beyond cost effectiveness analyses and cost of illness studies in providing improved information on the costs and benefits for the mix and type of treatments in which governments invest. The strength of the model is that it enables policy simulations: 'what if' experiments where policy changes, such as increases in treatment rates, can be measured over the long term.

Economic Evaluation comparing Centre-based Compulsory Drug Rehabilitation with Community-based Methadone Treatment in Hai Phong City, Vietnam

Thu H. Vuong[1], Nhu Nguyen[2], Giang Le[3], Alison Ritter[1], Marian Shanahan[1], Robert Ali[4], Khue Pham[5], Thu A. Vuong[2] & Thuy Dinh[3]

[1] Drug Policy Modelling Program (DPMP), National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] FHI360 Vietnam, Hanoi, Vietnam
[3] Hanoi Medical University, Hanoi, Vietnam
[4] Adelaide University, Adelaide, South Australia, Australia
[5] Hai Phong Medical University, Hai Phong, Vietnam

Background: Vietnam has made significant achievements in implementing harm reduction programs including MMT. Yet, scientific evidence of the effectiveness of centre-based compulsory rehabilitation approach, the most dominant drug dependence treatment approach, is not available either in Vietnam or elsewhere in Asia even though this approach has been widely adopted in the continent for more than three decades.

Methods: A 3-year time horizon cohort study was conducted to compare the cost-effectiveness of centre-based compulsory rehabilitation (CCT) and community-based voluntary methadone treatment (MMT) in Hai Phong city, Vietnam. Mixed effects regression modelling was used to analyse longitudinal outcome data. The economic component measured the costs of the two treatment modalities to assess cost-effectiveness outcomes.

Results: Not only is MMT less costly but it is also more effective than CCT in 5 outcome measures (heroin use, all illicit drug use, number of drug-free days, drug use related BBV risk behaviours, and monthly drug spending) and equally effective in reducing drug-use related illegal behaviours. Over three years, the average total costs of CCT rehabilitation is 123.04 mil VND (AU$7,690), which comprise 39.34 mil VND (AU$2,450) as costs to the government and 83.70 mil VND (AU$5,230) as costs incurred by the participant. The three-year average total costs for MMT treatment is 40.05 mil VND (AU$2,500), which comprise 23.64 mil VND (AU$1,470) as costs to the government and 16.41 mil VND (AU$1,025) as costs incurred by the participant. The average total costs of rehabilitation are 3 times higher than the average total costs of MMT treatment.

If the government of Vietnam invests in MMT instead of CCT, it will result in 318.73 MORE drug-free days per average dependent heroin user and it will cost the government 15.26 mil VND (AU$950) less per average dependent heroin user. In addition, it will cost the average dependent heroin user VND67.73 mil (~AU$4,230) less to achieve these additional 318.73 drug-free days.

Conclusion: This study finds conclusive evidence that MMT is more cost-effective than CCT in achieving a range of outcomes. The findings of this study will be used for policy advocacy in Vietnam. Evidence can make a difference, particularly in countries that take pragmatic approaches to health problems like Vietnam.

Breakout sessions

Breakout One: Pharmaceutical opioids: Use, dependence and treatment

Gabrielle Campbell[1], Dr Briony Larance[1] & Dr Suzanne Nielsen[1]

Facilitator: Louisa Degenhardt[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Increasing prescribing of pharmaceutical opioids in Australia has led to concerns about harms and treatment effectiveness. This session will examine findings from Australia's first and largest prospective cohort study of nearly 2,000 people prescribed opioids for non-cancer pain. The presentations will look at patterns of use and harms; medication control and treatment.

Pharmaceutical opioid use and dependence among people living with chronic pain: Associations observed within the Pain and Opioids IN Treatment (POINT) cohort

Gabrielle Campbell[2], Suzanne Nielsen[2], Briony Larance[2], Raimondo Bruno[3], Richard Mattick[2], Wayne Hall[4], Nicholas Lintzeris[1], Milton Cohen[2], Kimberley Smith[2] & Louisa Degenhardt[2]

[1] The Langton Centre, South East Sydney Local Health District (SESLHD) Drug and Alcohol Services, Sydney, New South Wales, Australia
[2] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[3] School of Psychology, University of Tasmania, Hobart, Tasmania, Australia
[4] University of Queensland, Brisbane, Queensland, Australia

Background: There is increasing concern about the appropriateness of prescribing pharmaceutical opioids for chronic non-cancer pain (CNCP), given the risks of problematic use and dependence. The current paper examines pharmaceutical opioid dose and dependence and examines the correlates of both opioid consumption, and opioid dependence.

Aims: The current paper examines pharmaceutical opioid dose and dependence and examines the correlates of both opioid consumption, and opioid dependence

Method: Baseline data from a national sample of 1,424 people across Australia (median 58 years, 55% female and in pain for a median of 10 years), being prescribed opioids for CNCP. Current opioid dose was estimated in oral morphine equivalent (OME) mg, and ICD-10 pharmaceutical opioid dependence was assessed using the Composite International Diagnostic Interview.

Results: Current opioid dose varied widely: 8.8% were taking <20mg OME per day, 52.1% were taking 21-90mg OME, 24.3% were taking 91-199mg OME and 14.8% were taking >=200mg OME. Higher daily OME dose was associated with higher odds of multiple physical and mental health issues, non-adherent opioid use, problems associated with opioid medication and opioid dependence. A significant minority, 8.5% met criteria for lifetime ICD-10 pharmaceutical opioid dependence and 4.7% reported past year symptoms. Multivariable analysis found past-year dependence was independently associated with being younger, a greater number of non-adherence behaviours and a history of benzodiazepine dependence.

Conclusion: Consumption of higher opioid doses is associated with increased risk of problematic behaviours, and is more likely among people with a complex profile of physical and mental health problems.

Medication control and help-seeking for opioid-related problems among a cohort of chronic non-cancer pain patients prescribed strong opioids

Briony Larance[1], Gabrielle Campbell[1], Suzanne Nielsen[1], Raimondo Bruno[2], Nicholas Lintzeris[3a,b], Milton Cohen[4a,b] & Louisa Degenhardt[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] School of Psychology, University of Tasmania, Hobart, Tasmania, Australia
[3] (a) The Langton Centre, South East Sydney Local Health District (SESLHD) Drug and Alcohol Services, Sydney, New South Wales, Australia; (b) Discipline of Addiction Medicine, University of Sydney, Sydney, New South Wales, Australia
[4] (a) St Vincent's Hospital, Sydney, New South Wales, Australia; (b) National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: There is a huge and growing chronic non-cancer pain (CNCP) burden in Australia and globally, and long-term opioid therapy is increasingly being utilised. CNCP patients report a range of opioid-related problems, including side effects, patient concerns about addiction, non-adherent (or "aberrant") behaviour and pharmaceutical opioid dependence. This study aims to examine the prevalence and correlates of (a) medication control strategies (such as staged supply), (b) help-seeking, and (c) knowledge, attitudes and barriers to treatments for opioid dependence among a sample of CNCP patients.

Methods: The Pain and Opioids IN Treatment (POINT) study is a large national prospective cohort study of 1,514 persons prescribed strong opioids for CNCP. This study draws on cross-sectional data collected at the 12 month follow-up interviews. This analysis is based on data from the first n=746 follow-ups.

Results: Seventy percent of POINT participants reported their doctor had discussed addiction as a risk of long-term opioid use; 30% reported an opioid treatment agreement (49% lifetime), 19% staged supply of their medication (24% lifetime) and 3% received opioids under supervised dosing conditions in the past 12 months (5% lifetime). Thirty percent were concerned about their opioid use (77% of whom had told their doctor). One in five reported seeking help with their use of opioids, most commonly from their GP (70%) and family/partner (53%) and pain clinic (48%). Reasons for help-seeking were due to others expressing concern (31%), health issues (26%), relationship (19%) and work difficulties (17%). Lifetime use of opioid substitution therapy was low (< 5%).

Conclusions: In the context of dramatic increases in long-term opioid prescribing for CNCP, it is important to understand patient knowledge, preferences and decisions regarding seeking help for opioid-related problems.

A systematic review of opioid agonist treatment for pharmaceutical opioid dependent people

Suzanne Nielsen[1,2], Briony Larance[1], Linda Gowing[3], Louisa Degenhardt[1] & Nicholas Lintzeris[2,4]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] The Langton Centre, South East Sydney Local Health District (SESLHD) Drug and Alcohol Services, Sydney, New South Wales, Australia
[3] Discipline of Pharmacology, University of Adelaide, Adelaide, South Australia, Australia
[4] Discipline of Addiction Medicine, University of Sydney, Sydney, New South Wales, Australia

Introduction and Aims: Dependence on pharmaceutical opioids is a major health problem. Opioid agonist treatment is commonly initiated as a first-line treatment for individuals with pharmaceutical opioid dependence, even though much of the evidence base for the use of pharmacotherapy treatments in opioid dependence has been derived from studies conducted with primarily or exclusively heroin-dependent samples. The aim of this work is to assess the effects of maintenance agonist pharmacotherapy treatments for the treatment of pharmaceutical opioid dependence.

Methods: We are conducting a systematic review of randomised controlled trials of maintenance opioid treatment with full or partial opioid agonist treatments. We will examine the primary outcomes of: days of unsanctioned opioid use at the end of the intervention period, percent abstinent at treatment completion and treatment retention. Databases will include *Pubmed*, *PsycINFO*, *CENTRAL*, *Web of Science*, *Embase* and *Cinahl*.

Results: We identified 8866 studies through the electronic and other searches. Of these, we discarded 2513 studies as they were identified as duplicates. We eliminated a further 6303 studies after reviewing titles and abstracts. We requested additional information from authors and examined the full text of 50 studies, excluding a further 44 studies, leaving 6 studies that met eligibility criteria.

Discussion: The findings of the meta-analysis will lead to a better understanding of treatments for pharmaceutical opioid dependence, and will for the first time enable a systematic comparison treatment effects for different opioid agonist treatments for pharmaceutical opioid dependence, and identify areas for future work.

Breakout Two: Mental health, substance use and young people

Dr Nicola Newton[1], Dr Edmund Silins[2], Dr Emily Stockings[2] & Dr Lexine Stapinski[1]

Facilitator: Louise Birrell[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

This session will look at the evidence for effective prevention of both mental health problems and substance use in young people. It will also explore young people's reasons for drinking and how that impacts prevention, and examine the mental health outcomes for young adult cannabis users and past users.

Three-year outcomes of a selective, personality-targeted prevention program: Reducing alcohol use, alcohol related-harms, internalising and externalising problems among adolescents

Nicola Newton[1], Maree Teesson[1], Tim Slade[1], Lexine Stapinski[1], Natacha Carragher [1], Katrina Champion[1], Emma Barrett[1], Erin Kelly[1], Natasha Nair[1] & Patricia Conrod[2]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Department of Psychiatry, University of Montreal, Montreal, Quebec, Canada

Objective: To examine the 3-year impact of brief, personality-targeted interventions for substance use prevention on alcohol use, alcohol harms, internalising and externalising symptoms among Australian adolescents.

Method: A total of 438 high-risk adolescents (mean age: 13.4 years, SD=0.47) from 14 Australian schools were assessed at five time points over a three-year period; at baseline, immediately post-intervention, and at 12, 24 and 36 months post baseline. Schools were randomized to either the intervention condition, where students screening as high-risk on one of four personality profiles (anxiety sensitivity, hopelessness, impulsivity and sensation seeking) were invited to participate in the brief personality-targeted *Preventure* interventions, or to the control condition (health and drug education as usual). All students were measured on self-reported alcohol use, alcohol-related harms, symptoms of depression, anxiety, psychological distress, conduct problems and hyperactivity. Two-part latent growth models were used to assess alcohol outcomes and mixed models assessed mental health outcomes. School clustering was taken into account in all analyses.

Results: Relative to high-risk control students, high-risk *Preventure* students displayed significantly lower growth in their likelihood to consume alcohol (b = -0.225 [0.061], $p < 0.01$), binge drink (b = -0.305 [0.096], $p < 0.01$), or experience alcohol-related harms (b = -0.255 [0.096], $p < 0.05$) over the 36 month period. Receiving *Preventure* also reduced growth in conduct problems (b = -0.301 [0.093], $p < 0.001$), hyperactivity (b = -0.320 [0.096], $p < 0.001$), symptoms of depression (b = -0.682 [0.274], $p < 0.05$), anxiety (b = -0.525 [0.181], $p < 0.01$), and overall psychological distress (b = -0.831 [0.224], $p < 0.001$) over the 36 months.

Conclusions: Findings from this study support the use of selective personality-targeted preventive interventions in reducing alcohol use, alcohol-related harms and internalising and externalising problems among Australian adolescents. This trial is the first to demonstrate effects of a selective alcohol prevention program over a 3-year period.

Ceasing cannabis use during the peak period of experimentation: A prospective study of the substance use and mental health outcomes of young adult cannabis users and former users

Edmund Silins[1], Wendy Swift[1], Tim Slade[1], Barbara Toson[1], Bryan Rodgers[2] & Delyse Hutchinson[1,3,4,5]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Australian Demographic and Social Research Institute, Australian National University, Canberra, Australian Capital Territory, Australia
[3] Centre for Social and Early Emotional Development, School of Psychology, Deakin University, Geelong, Victoria, Australia
[4] Centre for Adolescent Health, Murdoch Childrens Research Institute, Royal Children's Hospital, Melbourne, Victoria, Australia
[5] Department of Paediatrics, University of Melbourne, Melbourne, Victoria, Australia

Background: Little is known about the impact of ceasing cannabis use during the peak period of experimentation. We investigated the association between cannabis use status (former, occasional, and regular use) at age 23 years and substance use and mental health outcomes at age 27 years.

Methods: Data were reported from the 20+ year cohort of the PATH Through Life Study, an Australian longitudinal study of young adults. Lifetime cannabis users (N=1410) at age 23 years were classified as former/occasional/regular users. Multivariable logistic regression was used to estimate the association between cannabis use status at age 23 years and six outcomes assessed at age 27 years.

Results: Compared to occasional cannabis users: (i) former users had odds of subsequent tobacco use (OR=0.67, 95%CI:0.52-0.85), illicit drug use (cannabis, OR=0.22, 95%CI:0.17-0.28; other illicit drugs, OR=0.29, 95%CI:0.22-0.39) and mental health impairment (OR=0.71, 95%CI:0.55-0.92) that were 29-78% lower; and, (ii) regular users had odds of subsequent frequent alcohol use (OR=2.34, 95%CI:0.67-1.34), tobacco use (OR=3.67, 95%CI:2.54-5.30), cannabis use (OR=11.73, 95%CI: 6.81-20.21) and dependence symptoms (OR=12.60, 95%CI: 8.38-18.94), and other illicit drug use (OR=2.95, 95%CI: 2.07-4.21) that were 2-13 times greater. Associations attenuated after adjustment but most remained significant.

Conclusions: Ceasing cannabis use during the peak period of experimentation is associated with reductions in substance use and mental health impairment even when compared to infrequent use. Whereas regular cannabis use in young adulthood is associated with subsequent increases in licit and illicit drug use. Findings support interventions that actively target young adult cannabis users during this period.

Prevention of depression and anxiety in children and adolescents: A review of the efficacy of universal, selective and indicated prevention

Emily Stockings[1], Louisa Degenhardt[1,2], Timothy Dobbins[1,3], Yong Yi Lee[4,5], Holly Erskine[2,4,5], Harvey Whiteford[2,4,5] & George Patton[6,7]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Institute for Health Metrics and Evaluation, University of Washington, Seattle, Washington, United States
[3] National Centre for Epidemiology & Population Health, Research School of Population Health, Australian National University, Canberra, Australian Capital Territory, Australia
[4] Queensland Centre for Mental Health Research, The Park Centre for Mental Health, Brisbane, Queensland, Australia
[5] School of Public Health, University of Queensland, Brisbane, Queensland, Australia
[6] Centre for Adolescent Health, Murdoch Children's Research Institute, Royal Children's Hospital, Melbourne, Victoria, Australia
[7] Department of Paediatrics, University of Melbourne, Melbourne, Victoria, Australia

Background: Depression and anxiety (internalising disorders) are the largest contributors to non-fatal health burden among young people.

Aim: To determine the efficacy of universal, selective and indicated interventions in preventing the onset of depression, anxiety and both internalising disorders combined, among young people.

Methods: We conducted a systematic meta-review and meta-analysis of randomised-controlled trials of universal, selective and indicated prevention interventions targeting depression or anxiety among children and adolescents (5-18yrs) without disorder at baseline, from 1980-July 2014. Multivariate meta-analysis examined the efficacy of preventive intervention on depression, anxiety, and internalising disorders combined. Meta-regressions examined heterogeneity of effect according to a range of study variables. Outcomes were relative risks (RR) for disorder, and standardised mean differences (Cohen's d) for symptoms.

Results: 146 randomised controlled trials (46,072 participants) evaluated universal (n=54) selective (n=45) and indicated prevention (n=47), mostly using psychological-only strategies (n=105). Reductions in internalising disorder occurred up to 9 months post-intervention, whether universal (RR 0.47, 95% confidence interval (CI): 0.37 to 0.60), selective (RR 0.61, 95%CI: 0.43 to 0.85) or indicated (RR 0.48, 95%CI: 0.29 to 0.78). Reductions in internalising symptoms occurred up to 12 months post-intervention for universal prevention (d= -0.13, 95% CI: -0.25 to -0.01), however only occurred in the shorter term for selective (post-intervention: d= -0.20, 95% CI: -0.35 to -0.05) and indicated prevention (6-9 months: d=-0.23, 95% CI: -0.36 to -0.11). Psychological-based interventions had greater reductions in disorder onset and symptoms immediately post-completion than other intervention types for universal and selective samples, and interventions delivered by teachers achieved greater reductions in disorder onset at 12 months for universal samples.

Conclusion: Universal and targeted prevention interventions are efficacious in reducing internalising symptoms and disorders short-term. They might be considered as repeated exposures across childhood and adolescence; school implementation may be a feasible and equally effective setting.

Pathways to drinking: A developmental examination of internalising and externalising symptoms and motives for drinking in adolescence

Lexine Stapinski[1], Nicola Newton[1], Tim Slade[1], Katrina Champion[1], Erin Kelly[1], Emma Barrett[1], Natasha Nair[1], Natacha Carragher[1], Patricia Conrod[2] & Maree Teesson[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Department of Psychiatry, University of Montreal, Montreal, Canada

Background: Alcohol consumption during adolescence is common, although there is considerable variation in patterns of use. Drinking motives capture the reasons for alcohol use, with previous work suggesting a range of motivations including to enhance positive mood states, conform, be sociable, or cope with emotional symptoms (Cooper, 1994). While externalising symptoms have been found to predict enhancement motives for drinking, coping-motivated drinking may reflect an alternative "self-medication" pathway from internalising symptoms to alcohol use.

Aim: To examine the association between emerging internalising and externalising symptoms and motives for drinking in adolescence.

Method: Motives for drinking were assessed in a longitudinal cohort of secondary school students (n = 432; 71% female) in Sydney. This sample represents a subset of participants (the control group) participating in the *Climate* and *Preventure* (CAP) study (Newton et al., 2012). Motives for alcohol use were assessed across five domains (social, coping with anxiety or depression, enhancement, and conformity motives) using the Drinking Motives Questionnaire-Revised. Latent growth analysis was used to examine growth in internalising and externalising symptoms between ages 13 and 16, and the association between symptoms and motives for drinking at age 16.

Results: At age 16, social reasons were the most commonly reported motives for drinking, and conformity motives were least common. Use of alcohol for coping-anxiety motives or enhancement motives was associated with increased risk of experiencing alcohol-related harms. Growth in internalising symptoms from ages 13 to 16 was associated with increased likelihood of coping-anxiety, coping-depression and conformity motives for drinking. However, these relationships were driven by covariance with growth in externalising symptoms, which was associated with enhancement, conformity and coping-motives.

Conclusions: This study suggests the externalising pathway to drinking is dominant at this age, with growth in externalising symptoms between ages 13 and 16 increasing risk of drinking for enhancement, conformity, and to cope with anxiety and depression. Coping-anxiety and enhancement motives were most risky, and associated with a three- and four-fold increased risk respectively of alcohol-related harms at age 16.

Breakout Three: The 'dark web' and new psychoactive substances

Joe van Buskirk[1], Rachel Sutherland[1], Dr Monica Barratt[2,3,4] & Katrina Champion[5]

Facilitator: Robyn Davies[6]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Drug Policy Modelling Centre, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[3] National Drug Research Institute, Faculty of Health Sciences, Curtin University, Perth, Western Australia, Australia
[4] Centre of Population Health, Burnet Institute, Melbourne, Victoria, Australia
[5] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[6] Acting Director, Illicit Drugs, International and Research Policy, Drug Strategy Branch, Population Health Division, Australian Government Department of Health

Increasing use of new psychoactive substances (NPS) and the use of the internet to purchase these and other drugs is an increasing concern in Australia and overseas. This session will look at the 'dark web' and present a new online prevention program specially targeted at users of ecstasy and NPS.

Who Sells What? Country Specific Differences in Substance Availability on the Agora Dark Net Marketplace

Joe Van Buskirk[1], Sundresan Naicker[1], Amanda Roxburgh[1], Raimondo Bruno[2] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] School of Medicine, University of Tasmania, Hobart, Tasmania, Australia

Background: To date dark net marketplace monitoring has largely focused on market size and substance availability. Less is known of country specific differences in these indicators and how they may corroborate population prevalence estimates for substance use in different countries.

Methods: All substance listings from the dark net marketplace Agora were recorded over seven time points throughout February and March 2015. Agora was chosen due to its size as the second largest dark net marketplace operating and the level of detail of information provided in individual substance listings. Data were collated and the number of unique retailers selling each substance by country of origin was analysed.

Results: An average of 14456.7 substance listings was identified at each time point across 868.7 unique retailers. The top five countries by number of listings were the USA, United Kingdom, Australia, the Netherlands and China, collectively accounting for 61.8% of all identified listings and 68% of all unique retailers. Australia was over represented in terms of retailers per capita, while China was over represented in new psychoactive substance (NPS) listings. When examined by number of listings per retailer, the Netherlands and China stood out as particularly large, indicating a smaller, more organised network of retailers operating in these countries.

Conclusions: Numbers of retailers by country of origin appear to be influenced by several factors. Australia's overrepresentation in retailers per capita may indicate its relative geographical isolation and the potential for profit margins from selling online, while China's overrepresentation in NPS listings may reflect domestic production of these substances. Continued monitoring will provide enhanced understanding of the increasingly complex and globalised nature of illicit drug markets.

New Psychoactive Substances (NPS) among Regular Psychostimulant Users in Australia, 2010-2014

Rachel Sutherland[1] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Introduction and Aims: Over the past decade, Australia has witnessed the rapid emergence of an alternative drug market which contains substances collectively referred to as 'new psychoactive substances' (NPS). Although the prevalence of NPS use remains low amongst the general Australian population, rates of use have been found to be particularly high amongst sub-samples of illicit drug users. This paper aims to examine the rates and patterns of NPS use amongst a sample of regular psychostimulant users (RPU), from 2010-2014.

Methods: This paper uses data from the Ecstasy & related Drugs Reporting System (EDRS); a national monitoring study which is aimed at detecting emerging trends in illicit drug markets. Participants were recruited through street-press advertisements, online forums and peer referral and were selected on the basis of at least monthly use of psychostimulants in the six months preceding interview. Across 2010-2014, 3,360 participant surveys were completed.

Results: The recent use of 'any' NPS increased from 33% in 2010 to 41% in 2014 ($p=0.004$; 95% CI -0.13, -0.02). Looking at the different classes of NPS, recent use of synthetic cathinones ($p<0.001$; 95% CI 0.08, 0.15) and piperazines ($p<0.001$; 95% CI 0.03, 0.07) declined from 2010-2014, whilst recent use of phenethylamines ($p<0.001$; 95% CI -0.18, -0.10), tryptamines ($p<0.001$; 95% CI -0.11, -0.04) and plant-based NPS ($p=0.018$; 95% CI -0.04, -0.01) increased. There was no change in the recent use of synthetic cannabinoids from 2010-2014. The correlates associated with NPS use varied considerably across NPS classes, with 'poly' NPS consumers a particularly high risk group. More specifically, participants who had used more than one NPS class in the past six months were significantly more likely to: be under 25 years of age (AOR 1.47; 95% CI 1.11, 1.95); be male (AOR 1.75 95% CI 1.34, 2.29); have used cannabis daily in the past six months (AOR 1.67; 95% CI 1.27, 2.20); have recently used LSD (AOR 2.17; 95% CI 1.67, 2.82); have higher levels of poly drug use (AOR 1.36; 95% CI 1.28, 1.44); have recently binged on a stimulant drug (AOR 1.42; 95% CI 1.10, 1.82); and to have overdosed on any drug in the past year (AOR 1.34; 95% CI 1.06, 1.69).

Conclusions: The NPS market has established itself as an ongoing and significant part of Australia's recreational drug scene. However it remains a highly dynamic marketplace, with the popularity of NPS classes changing considerably over time. NPS users appear to be a heterogeneous group, with the correlates of use varying considerably across NPS classes.

'What if you live on top of a bakery and you like cakes?' – Exploring the drug use and harm trajectories before, during and after the emergence of Silk Road

Monica Barratt[1,2,3], Simon Lenton[2], Alexia Maddox[2] & Matthew Allen[4]

[1] Drug Policy Modelling Program (DPMP), National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug Research Institute, Faculty of Health Sciences, Curtin University, Perth, Western Australia, Australia.
[3] Centre of Population Health, Burnet Institute, Melbourne, Victoria, Australia
[4] School of Communication and Creative Arts, Deakin University, Melbourne, Victoria, Australia

Background: Cryptomarkets are digital platforms that use anonymising software (e.g. Tor) and cryptocurrencies (e.g. Bitcoin) to facilitate peer-to-peer (P2P) trade of goods and services. Their emergence has facilitated access to a wide range of high-quality psychoactive substances, according to surveys of users. In this paper, we ask the question 'How does changing access to drugs through cryptomarkets affect the drug use and harm trajectories of their users?'

Method: We conducted a digital ethnography spanning 2012–2014, a period that included the seizure of the original Silk Road marketplace and forum by law enforcement. Using encrypted online chat, we interviewed 17 people who reported using Silk Road to purchase illicit drugs. The interviews were in-depth and unstructured, and also involved the use of life timelines to trace trajectories. Transcripts were analysed thematically using NVivo.

Results: For some, Silk Road facilitated initiation into drug use or a return to drug use after cessation. Typically, participants reported experiencing a glut of drug consumption in their first months using Silk Road, described by one participant as akin to 'kids in a candy store'. The capacity to more easily satiate desires for drugs necessitated new practices of self-control, with some participants noting that very high availability reduced the need for drug hoarding which helped them to moderate use, and that they felt more in control of purchases made online. Most participants described using other cryptomarkets after the closure of Silk Road, albeit with less confidence.

Discussion: In the context of high levels of drug access, supply and diversity occurring within a community regulated environment online, the impacts of cryptomarkets upon drug use trajectories are complex, often posing new challenges for self-control, yet not always leading to harmful outcomes. A major policy challenge is how to provide support for harm reduction in these highly volatile settings.

A cluster randomised controlled trial of an Internet-based prevention program for ecstasy and new psychoactive substances: 1 year outcomes of the CSI Study

Katrina Champion[1], Nicola Newton[1], Lexine Stapinski[1] & Maree Teesson[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia

Introduction: Ecstasy use is concerning and is associated with significant harms. Recently, there has been concern about the risks of New Psychoactive Substances (NPS) that are designed to mimic the effects of illicit drugs, including ecstasy. To date, no prevention program exists that specifically targets these substances. This study aims to evaluate the effectiveness of an online prevention program, known as the *Climate Schools: Ecstasy and Emerging Drugs Module.*

Methods: A cluster RCT was conducted in 11 secondary schools. Schools were randomised to the *Climate Schools* intervention (n=5) or a control group (n=6). Students completed a self-report survey at baseline, post-test and 6- and 12-months post-baseline. Primary outcomes were ecstasy and NPS knowledge, intentions to use and lifetime use of ecstasy and NPS.

Results: At baseline, few students had used ecstasy (2%) or NPS (3%) and the proportion intending to use ecstasy (5%) and NPS (4%) was also low. From baseline to post-test, the control group reported significantly less ecstasy ($p=.01$) and NPS knowledge ($p<.001$) than the intervention group. At the 6-month follow-up, the controls were more likely to intend on using synthetic cannabis ($p=.01$). By the 12-month follow-up, the control group were more likely to intend on using synthetic cannabis ($p=.02$) and *any* NPS ($p=.03$). There was no evidence of group differences in lifetime use of NPS or ecstasy.

Conclusion: The *Climate Schools* intervention was effective in increasing knowledge about ecstasy and NPS and reducing intentions to use synthetic cannabis and *any* NPS. These findings suggest it is feasible to deliver online prevention for ecstasy and NPS however longer-term follow-up is needed to monitor changes in uptake as exposure to these substances increases.

Implications: The *Climate Schools: Ecstasy and Emerging Drugs Module* has the potential to provide schools with an interactive program that can be readily implemented. By delivering prevention for ecstasy and NPS simultaneously, teachers can educate students in a time-effective manner, whilst maximising prevention messages.

Breakout Four: Suicide risk assessment and management in D&A services

Facilitators: Shane Darke[1], Joanne Ross[1] & Sarah Green[2]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia
[2] Mission Australia Triple Care Farm, Knights Hill, New South Wales, Australia

Suicide risk is elevated among substance users and poses a major clinical challenge for staff working in drug and alcohol treatment services. The Suicide Assessment Kit (SAK) is an evidence-based resource developed by NDARC and the Network of Alcohol and other Drug Agencies (NADA).

The kit consists of a Suicide Risk Screener, a Suicide Risk Formulation Template as well as supporting documents to manage suicide risk. It also contains a Suicide Policies and Procedures Pro-forma to ensure that appropriate policies are in place to support staff using the SAK tools.

This workshop will provide an overview of the SAK resources and demonstrate how policies and procedures can be integrated around the kit.

Breakout Five: Skills-based workshop: Very brief interventions for cannabis use

Facilitator: Etty Matalon[1]

[1] National Cannabis Prevention and Information Centre, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

This workshop will look at Very Brief Interventions (VBIs) for clients who are indirectly experiencing problems as a result of their cannabis use and are at risk of developing long-term cannabis dependence. VBIs typically include a brief assessment/screen, feedback, psycho-education, self-help material and assessment of motivation for change.

This VBI is designed to be delivered opportunistically and is appropriate for people who have not specifically sought help for their cannabis use but whose use is detected as being risky.

Posters

These have been grouped by general topic area. Please note that many cross more than one topic.

Posters: Smoking

Efficacy testing of the first evidenced-based smartphone app for the self-management of cannabis use

Lisa Gibson[1], Sally Rooke[1] & Jan Copeland[1]

[1] National Cannabis Prevention and Information Centre, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Introduction: Cannabis is the most frequently used illicit drug in Australia, with almost 20% of ever users meeting criteria for a cannabis use disorder; however, less than one-third of those will receive treatment. To address this treatment gap, we developed a smartphone application for managing cannabis use, which has the potential to provide a private, readily accessible, and low-cost evidenced-based treatment alternative for cannabis users who want to quit or reduce their use.

Method: One hundred and seven individuals (≥16 years) participated in a trial of the app which employed principles of MET and CBT – therapies that have been shown to effectively reduce cannabis use and related problems. Participants completed assessments of cannabis use, related problems, dependence, distress, and self-efficacy at baseline, after 4 weeks use of the app, and again at one-month following loss of access to the app.

Results: The key findings of the study show significant declines in participants' cannabis use ($p < .001$), severity of dependence ($p = .001$), and distress ($p = .002$) following use of the app. Participants also reported significantly fewer cannabis-related problems ($p < .001$) and higher levels of self-efficacy in their ability to resist using cannabis ($p < .001$).

Discussion: Apps are a promising platform for the delivery of substance abuse interventions; however, they urgently require evidenced-based development and appropriate evaluation to ensure they are effective and have meaningful outcomes for users. This study demonstrates support for the efficacy of the first evidenced-based smartphone application intervention targeting the self-management of cannabis use.

Cannabis Use, Attentional Inhibition, and Schizotypy

Lucy Albertella[1], Mike Le Pelley[2] & Jan Copeland[1]

[1] National Cannabis Prevention and Information Centre, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] School of Psychology, University of New South Wales, Sydney, New South Wales, Australia

The present study examined the effects of frequency of cannabis use, schizotypy, and age on attentional inhibition, as measured using a location-based negative priming task. The sample included 124 Australians aged 15-24 who had ever used cannabis.

The schizotypy dimension of Impulsive Nonconformity was found to have a significant effect on negative priming such that participants with higher scores on this dimension showed reduced negative priming.

Further, there was a significant age by cannabis use interaction indicating that younger, frequent users of cannabis may be more susceptible to its effects on attentional inhibition and perhaps at greater risk of developing a disorder on the psychosis dimension.

Cannabidiol (CBD) for the management of cannabis withdrawal: a phase II proof of concept study

Jan Copeland[1], Nicole Clement[1], Izabella Pokorski[1], Nghi Phung[2] & Martin Weltman[2]

[1] National Cannabis Prevention and Information Centre, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] New South Wales Department of Health, Sydney, New South Wales, Australia

Project Description: There is no approved medication for the management of cannabis withdrawal. While other cannabinoids show promise, CBD has the added advantages of being non-intoxicating, safe for driving and potentially suitable for those with co-occurring mental health disorders. This feasibility study aimed to test the safety, feasibility and acceptability of CBD for alleviating cannabis withdrawal symptoms in a 6 night inpatient detoxification program, examining the impact of CBD on withdrawal severity, detoxification completion and adverse events.

Design and Method: This was a single subject repeated measures design, whereby one subject was assessed at baseline/time 1, given the intervention (CBD) and assessed again at time 2 (Day 3 of detox) and time 3 (day 7 of detox) and time 4 (28 days post admission follow-up) in addition to daily monitoring of cannabis withdrawal and adverse events. Urine and blood sampling were completed on days 1, 3, 7 and 28. This process was then repeated on 7 additional participants in order to replicate the findings. The intervention consisted of dosing 5 participants 300mg of CBD twice daily for 5 days. An additional 3 participants received the same schedule at double the dose of CBD. Participants all met DSM V criteria for cannabis dependence.

Results: Participants tolerated the CBD well with no adverse events reported. Overall withdrawal scale scores decreased and in the key symptoms of craving, sleep difficulties and irritability in addition to symptoms of anxiety and depression. The higher dose group reported larger decreases in stress and anxiety. Treatment completion rates were higher among participants receiving the higher dose (2/5 vs 3/3); as were follow-up completion (4/5 vs 3/3) and abstinence rates (2/5 vs 2/3) at 28 day follow-up.

Conclusions: Recruiting for the study was slow but feasible. CBD was acceptable to participants and staff and is a very promising treatment for cannabis withdrawal. Pharmacokinetics data is still to follow. There appears to be a possible dose-response effect with higher dose improving treatment retention, follow-up engagement and abstinence at one month following treatment. This study provides a rationale for full double blind RCT to test the effects of this medication on withdrawal symptoms.

Smoking cessation among low-socioeconomic status and disadvantaged population groups: A systematic review of research output

Ryan Courtney[1], Sundresan Naicker[1], Anthony Shakeshaft[1], Philip Clare[1], Kristy Martire[1,2] & Richard Mattick[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] School of Psychology, University of New South Wales, Sydney, New South Wales, Australia

Background: Smoking cessation research output should move beyond descriptive research of the health problem to testing interventions that can provide causal data and effective evidence-based solutions. This review examined the number and type of published smoking cessation studies conducted in low-socioeconomic status (low-SES) and disadvantaged population groups.

Methods: A systematic database search was conducted for two time periods: 2000-2004 (TP1) and 2008-2012 (TP2). Publications that examined smoking cessation in a low-SES or disadvantaged population were coded by: population of interest; study type (reviews, non-data based publications, data-based publications [descriptive, measurement and intervention research]); and country. Intervention studies were coded in accordance with the Cochrane Effective Practice and Organisation of Care data collection checklist and use of biochemical verification of self-reported abstinence was assessed.

Results: 278 citations were included. Research output (i.e. all study types) had increased from TP1 (27% - 75/278) to TP2 (73% - 203/278) (χ^2 = 73.13, p < .001), however, the proportion of data-based research had not significantly increased from TP1 and TP2: descriptive (TP1 = 23% vs. TP2 = 33%) or intervention (TP1 = 77% vs. TP2 = 67%). The proportion of intervention studies adopting biochemical verification of self-reported abstinence had significantly decreased from TP1 to TP2 with an increased reliance on self-reported abstinence (TP1 = 12% vs. TP2 = 36%).

Implications of the research: The current research output is not ideal. The current pattern of research output with little intervention research output is not optimal to decrease smoking rates. Research institutions, scholars and funding organisations should take heed to review findings when developing future research and policy.

Posters: Vulnerable populations

An examination of the prevalence and correlates of crime in a cohort of individuals who tamper with pharmaceutical opioids: A 12-month follow up

Janelle Holden[1], Briony Larance[2], Sarah Larney[2] & Louisa Degenhardt[2]

[1] School of Psychology, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: There is growing concern about the extra-medical use of pharmaceutical opioids worldwide and this is partly related to the consequences of extra-medical use, including the increased risk of engaging in risk-taking behaviours such as crime. Most of the literature examining the association between crime and the extra-medical use of pharmaceutical opioids has been limited to samples from the United States or samples of offenders. This study aims to examine the prevalence and correlates of crime (i.e. drug dealing, theft, fraud, violent crime) in a cohort of individuals who tamper with pharmaceutical opioids, and changes at 12-month follow up.

Methods: The National Opioid Medication Abuse Deterrence (NOMAD) study is a prospective study of 606 individuals who tamper with pharmaceutical opioids. This study will utilise the cross-sectional data collected at baseline interviews and the 12-month follow up data, which is currently being collected.

Implications: The proposed research offers a more accurate and comprehensive observation of the association between tampering with pharmaceutical opioids and offending behaviour. Given that limited research assessing this relationship has been conducted in Australia, in a large sample or in a cohort of individuals who report tampering with pharmaceutical opioids, the proposed study will provide a unique contribution to the literature. In addition, understanding the crime correlates and risk factors specific to this cohort may have important implications for targeted interventions in this subgroup as well as informing drug and alcohol policies aimed at reducing the extra-medical use of pharmaceutical opioids.

A cost-effectiveness analysis of opioid substitution therapy upon release in reducing mortality among prisoners with a history of opioid dependence

Natasa Gisev[1], Marian Shanahan[1], Don Weatherburn[2], Richard Mattick[1], Sarah Larney[1,3], Lucinda Burns[1] & Louisa Degenhardt[1,4]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Bureau of Crime Statistics and Research, Sydney, New South Wales, Australia
[3] Alpert Medical School, Brown University, Rhode Island, United States
[4] School of Population and Global Health, University of Melbourne, Melbourne, Victoria, Australia

Background: Although opioid substitution therapy (OST) in the immediate period after prison release has been shown to reduce mortality, the cost-effectiveness has not yet been examined.

Objective: To undertake a cost-effectiveness analysis of the immediate treatment with OST at the time of prison release and prevention of death in the first six months post-release.

Methods: Population-based, retrospective data linkage study using records of all OST entrants in New South Wales, Australia (1985-2010), court appearances (1993-2011) and prison episodes (2000-2012). The cohort included 16,073 people who were released from prison for the first time between 1 January 2000 and 30 June 2011. At the point of prison release, 7,892 people received OST treatment and 8,181 did not receive OST treatment. Propensity scores were used to match individuals in the two groups, and mortality and the total costs (treatment, prison, court, penalties and crime) incurred in each group were evaluated at six months post-release.

Results: A total of 13,468 individuals were matched (6,734 in each group). Twenty (0.3%) people released onto OST died, compared to 46 people (0.7%) not released onto OST. The final average costs were lower for the group that received OST post-release ($7,206 vs. $14,356). The incremental cost-effectiveness ratio showed that OST post-release was dominant, incurring lower costs and saving more lives. The probability that OST post-release is cost-effective per life-year saved is 96.7 % at a willingness to pay of $500.

Conclusion: Compared to no treatment on release, OST is cost-effective in reducing mortality among prisoners with a history of opioid dependence in the first six months of prison release.

Reasons for seeking and ceasing opioid substitution therapy in prison and prior to release

Sarah Larney[1], Deborah Zador[2], Natasha Sindicich[1] & Kate Dolan[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Drug and Alcohol Services, Justice Health and Forensic Mental Health Network, Sydney, New South Wales, Australia

Background and aims: Clinicians providing care to opioid dependent prisoners report that some patients wish to cease opioid substitution therapy (OST) prior to release, despite advice to remain in treatment to mitigate extremely high post-release mortality risk. This study aimed to examine patient perspectives of OST in prison, particularly reasons for seeking OST, and reasons for treatment cessation prior to release.

Methods: We undertook qualitative interviews with 47 people in NSW correctional centres with a history of opioid use and/or dependence. Interviews focused on reasons for seeking (or not seeking) OST while in custody, and preferences with regards to remaining in treatment throughout incarceration and following release. Interview data were synthesised using NVIVO 10 to identify recurrent themes.

Results: Participants framed their reasons for entering OST in terms of negative outcomes avoided (e.g. avoiding withdrawal symptoms, the illicit drug trade in prison, and high-risk injecting drug use), rather than direct benefits of treatment *per se*. A third of those currently in OST intended to cease treatment prior to release. Reasons for wishing to cease treatment centred on aspects of OST that they perceived as restrictive; preference to be 'drug free'; concerns about potential for relapse through exposure to drug-using associates at OST clinics; and the stigma associated with methadone, in particular. Patients perceived clinicians' reluctance to assist with treatment withdrawal prior to release as uncaring and poor treatment planning.

Implications: These findings highlight the ambivalence that many opioid dependent prisoners feel towards OST. Balancing patient preferences with patient safety and good clinical practice is a major challenge for those providing care to opioid dependent prisoners. Further work is needed to determine how clinicians communicate information about post-release mortality risks and treatment options to patients, and how to address patient ambivalence towards post-release OST.

Stable housing, stable substance use? Evaluation of two 'Housing First' programs for homeless individuals

Elizabeth Whittaker[1], Wendy Swift[1], Timothy Dobbins[1] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background and aims: Australian and international evidence highlights the heightened prevalence of substance use disorders in homeless populations. In recent years, adaptations of the Housing First initiative, whereby chronically homeless individuals are provided long-term housing with support, have been implemented across Australia. Two such adaptions include scatter-site (private rental apartments; SS) and congregate site (apartments in the one building; CS) models. There is currently limited Australian evidence on the effect that these variations of Housing First programs have on client outcomes. The primary aim of this study is to undertake a longitudinal evaluation of two adaptations of the Housing First model (one SS and one CS) in relation to clients' housing and health outcomes, specifically substance use patterns and service utilisation.

Methods: This paper draws upon the quantitative component of the longitudinal, mixed-methods design. Health and service utilisation outcome measures at baseline and 12 months post-baseline will be compared between SS and CS.

Results: A recruitment rate of 66% was achieved at baseline for both programs, of which 79% were successfully followed-up at 12 months post-baseline. Clients in both models did not differ significantly on demographics, homelessness history or proportion with a substance use disorder. However, at baseline a significantly higher proportion of clients in the CS model had an anxiety disorder (67% vs. 34%) and had recently injected (42% vs. 19%) than the SS model. Findings showed SS and CS participants had similar changes over time for use of specific substances and most health services. A greater increase in weekly injecting behaviour was found for CS participants, and criminal justice system contact decreased for SS but increased for CS.

Conclusions: While both models showed similar improvements in health outcomes, the variation between models observed for injecting behaviours and criminal justice system contact warrants further investigation to determine if the configuration of housing and support has a greater impact on the outcomes of particular individuals, such as people who inject drugs.

Implications of the research: While both programs house clients with complex needs, the analysis of client outcomes may hold important considerations for future housing policy decisions, as it will identify the health outcomes and government costs incurred by the housed individuals.

Feasibility of a Managed Alcohol Program for Sydney's Homeless

Kate Dolan[1], Nadine Ezard[2], Lucinda Burns[1], Carolyn Day[3], Eileen Baldry[4], Sianne Hodge[2] & Tim Cubitt[2]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Alcohol and Drug Service, St Vincent's Hospital, Sydney, New South Wales, Australia
[3] Central Clinical School, university of Sydney, Sydney, New South Wales, Australia
[4] School of Social Sciences, University of New South Wales, Sydney, New South Wales, Australia

Alcohol dependence affects almost half of Sydney's homeless who experience higher rates of chronic illness, injuries, longer hospital stays, increased mortality and higher levels of contact with the criminal justice system. Many suffer from mental illness and alcohol-related brain injury. Managed Alcohol Programs (MAPs) are a novel approach for delivering health and social services to this population. MAPs operate in homeless shelters and dispense a regulated amount of alcohol at set times to those with severe and intractable alcohol dependence. MAPs operate in Canada, the USA, Norway and the UK, but not in Sydney, mainly due to a lack of evidence.

We surveyed potential MAP service users in 2014, and estimated the cost and service utilisation savings if a MAP was established in Sydney. Of the 51 participants (94% male, median age 45 years), many slept rough (45%), scored high on the AUDIT (96%) and drank on the street (94%). Many indicated a strong interest in a MAP with a preference for the residential model, with the option of bring your own alcohol (76%) and be provided with it (69%). Ninety percent were willing to pay (25% of their income) for a residential facility where alcohol was provided.

A 15-bed residential facility was estimated conservatively to reduce service utilisation costs of $480,000 per year (range $390,000-$580,000).

Establishment of a rigorously evaluated MAP may herald an important policy shift in meeting the housing, social, health and welfare needs of homeless people with severe alcohol dependence. We recommend a pilot implementation of a MAP commencing with stakeholder analysis and engagement.

Posters: Alcohol

Systematic development of community-based interventions to reduce alcohol related harms among Aboriginal people in three rural towns in Australia

Mieke Snijder[1], Anthony Shakeshaft[1], Bianca Calabria[1] & Chiara Stone[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Introduction*:* Community-based interventions are likely to reduce alcohol related harms among Australian Indigenous people, especially when they are developed in close collaboration with the community. This paper will showcase how a systematic approach was used in partnership with three local communities to develop multi-component interventions aiming to reduce alcohol related harms.

Method*:* Two types of data were collected: routinely collected hospital admission, emergency department and police data and literary analysis of intervention research. Outcomes of the data collection were discussed in an Implementation Committee which consisted of local service providers, Aboriginal community members and researchers.

Results*:* The needs assessment showed that young people (17 to 25 years old) were most involved in alcohol related harms, but a lack of appropriate services or opportunities for work, education or alternative entertainment for this group existed in each community. Implementation committees decided the interventions should primarily aim to reduce alcohol related crimes and emergency department presentations and improve community's feelings of safety and empowerment, by focusing on providing at risk young people and their families with better service delivery, alternatives to alcohol use and opportunities for empowerment. Literature searches identified multi-component interventions to be most appropriate to target the identified issues.

The Implementation Committees decided on the implementation of multi-component interventions within three core components: 1) Improved service delivery; 2) Community activities and 3) Improved empowerment. Within each component, the Implementation Committees chose their own programs, appropriate to their community. To promote sustainability, the majority of the interventions were developed within existing services, in collaboration with CBOs.

Conclusion: These results show how researchers can work together with Aboriginal communities in the systematic development of interventions, while using data and evidence based literature.

What can the data teach us? Profiling police incidents in two remote NSW communities to understand the impacts of the Breaking the Cycle initiative

Alice Munro[1], Anthony Shakeshaft[1], Chiara Stone[1], Timothy Dobbins[1], Courtney Breen[1] & Julaine Allan[3]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia.
[2] The Lyndon Community, Orange, New South Wales, Australia

Background: Bourke (pop 2465, 32% Aboriginal) and Brewarrina (pop 1254, 61% Aboriginal) are two distinct communities in Far West NSW. Bourke LGA is consistently identified as having the highest rates of alcohol-related assault in NSW (Senserrick et al., 2012). In 2012, the communities received Breaking the Cycle (BTC) funding to implement programs to reduce substance-related harms. NDARC were invited to retrospectively evaluate BTC and help develop further initiatives from 2014-16.

Aims:
1. Identify the types and characteristics of alcohol-related incidents recorded by police in Bourke and Brewarrina from 2002-2012 (prior to BTC programs);
2. Describe the demographics of the persons of interest (POI) and victims of crime from 2002-2012;
3. Examine rates of alcohol-related crime over time.

Methods: Crime data were obtained from routinely collected, de-identified, unit record police data from 2002-2014 (BOCSAR, 2015) and analysed to obtain a crime baseline (pre-BTC). To examine trends over time, the proportion of alcohol-related crimes was graphed for changes in total crime.

Results:
- The most common types of crime are: Driving offences, against justice procedures, assault, theft, liquor offences and malicious damage to property.
- Alcohol is involved in 25% of crime in Bourke and over 40% of crime in Brewarrina.
- A total of 30% of offenders are involved with 80% of all incidents of crime for both communities.
- Young people (17-31 years) tend to be both the POI and the victim of crime, with young Indigenous males being involved in more crime compared to other demographics.
- There appears to be a broad downward trend of crime over time for both communities.

Conclusions: The baseline results strongly support the need to continue to find effective ways to reduce alcohol-related harms in Bourke and Brewarrina. The demographic analysis suggests that implementing interventions to target young people is supported by this data. Future directions will be to strengthen the community-researcher partnership to ensure ongoing initiatives targets the key areas identified in this paper. Further analyses will be conducted to estimate the nature and magnitude of these trends more formally as well as obtain insight into the overall impact of the BTC interventions in reducing crime in Bourke and Brewarrina.

Hospital admissions for alcohol use disorders (AUD) during pregnancy

Courtney Breen[1], Fenglian Xu[1] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Aim: To examine hospital admissions for alcohol use disorders (AUD) during pregnancy over a decade in NSW, Australia.

Methods: Population based cohort study using linked routinely collected population data from the NSW Perinatal Data Collection (PDC) and the NSW Admitted Patients Data Collection (APDC). All women who gave birth in NSW between 1 January 2001 and 31 December 2010 were included. All hospital admissions for AUD in pregnancy were identified. Descriptive statistics and logistic regression were used to calculate the hospital admission rate, difference over time and to analyse risk factors associated with hospital admissions for AUDs.

Results: In the ten year study period, there were 509 women with a total of 759 hospital admissions for any AUD diagnosis in pregnancy. The majority of the women and over half of admissions did not have a principal diagnosis of AUD. Admission rates for AUD remain low with no significant change over time for principal diagnosis of AUD. There was a decreasing but variable trend for all diagnosis of AUD in pregnancy. Readmission for AUD during pregnancy is high and admissions are accounted for by minority of women: approximately 10% of women had three or more admissions, accounting for 42% and 30% of admissions for principal and all diagnoses respectively. Factors associated with AUD in pregnancy include previous psychiatric disorder (including substance use), smoking, being unmarried, being over 30 and living in remote or regional locations.

Conclusion: Despite a reported increase in the proportions of women abstaining from alcohol consumption during pregnancy in the past decade, this data suggests little change among those most at risk. The rate of admission to hospital for a principal diagnosis of AUD during pregnancy has remained stable and the readmission rate is high. Improvements in the detection and treatment of women with AUD are required to reduce the impacts of alcohol exposed pregnancies.

The developmental role of alcohol-specific rule-setting and peer influences on alcohol use during early to mid-adolescence

Zoe Tonks[1], Tim Slade[1], Nicola Newton[1], Cath Chapman[1], Gavin Andrews[2], Louise Birrell[1], Brad Shaw[1], Beth Turner[1], Steve Allsop[3], Leanne Hides[4], Nyanda McBride[3], Louise Mewton[1], Nina Te Pas[3], Simone Firmin-Sarra[4], Nina Pocuca[4] & Maree Teesson[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
2 Clinical Research Unit for Anxiety and Depression, University of New South Wales, Sydney, New South Wales, Australia
[3] National Drug Research Institute, Curtin University, Perth, Western Australia, Australia
[4] Centre for Youth Substance Abuse Research, Queensland University of Technology, Brisbane, Queensland, Australia

Background: Recent evidence suggests that parents can play a key role in curbing adolescent alcohol use, particularly through alcohol-specific rule-setting. However, little is known about the extent to which this parenting practice remains effective when considering the impact of peer influences, which is a major risk factor for adolescent alcohol use. It is therefore essential to further examine the nature of this parenting practice and its effects on trajectories of alcohol use.

Methods: Longitudinal data were from The Climate Schools Combined (CSC) Study, which includes a total of 6,667 students from 71 schools across Australia. Participants completed a questionnaire at three separate time points across a twelve-month period, which assessed their alcohol use, rules about alcohol, peer alcohol use and efficacy to resist peer pressure. Regression analyses will be carried out to estimate the direct effect of alcohol-specific rules and peer influences on alcohol use over time.

Results: We expect to find that strict alcohol-specific rule-setting will be independently and significantly associated with decreased odds of drinking a full serve of alcohol and binge-dinking over time, when controlling for peer influences and gender. We also expect to find that a high level of peer alcohol use will be associated with increased odds of drinking and a high level of efficacy to resist peer pressure will be associated with lower odds of drinking

Conclusion: This study will be the first of its kind to demonstrate the long-term impact of alcohol-specific rule-setting on alcohol use among Australian adolescents, when considering peer influences. This study will therefore provide important implications regarding parenting practices, which may be targeted in integrative parent and student interventions.

Prenatal alcohol consumption prior to pregnancy recognition

Clare McCormack[1,2], Delyse Hutchinson[1,2,3], Lucinda Burns[1], Judy Wilson[1], Elizabeth Elliott[4], Steve Allsop[5], Jake Najman[6], Craig Olsson[7], Sue Jacobs[8] & Richard Mattick[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Australian Centre for Perinatal Science, University of New South Wales, Sydney, New South Wales, Australia
[3] Murdoch Children's Research Institute, The Royal Children's Hospital Melbourne, The University of Melbourne, Melbourne, Victoria, Australia
[4] Discipline of Paediatrics and Child Health, The University of Sydney, The Children's Hospital at Westmead, Sydney, New South Wales, Australia
[5] National Drug Research Institute, Curtin University, Perth, Western Australia, Australia
[6] Queensland Alcohol and Drug Research and Education Centre and Schools of Population Health and Social Science, University of Queensland, Brisbane, Queensland, Australia
[7] Centre for Early Social and Emotional Development, School of Psychology, Deakin University, Melbourne, Victoria, Australia
[8] Department of Obstetrics, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia

Many women consume alcohol during pregnancy, despite public health guidelines advising abstinence. Contributing to this is the high rate of pregnancies that are unplanned, and high levels of alcohol consumption amongst women of childbearing age. As a result, many women consume alcohol in the early stages of trimester one before becoming aware of their pregnancy.

The purpose of this study was to examine prevalence and predictors of alcohol consumption by women prior to awareness of their pregnancy.

A sample of 1,487 women were recruited from general antenatal clinics of public hospitals in Sydney and Perth. Women and their partners completed detailed interviews about alcohol and drug use in each trimester. Alcohol consumption before and after recognition of pregnancy was recorded separately.

Alcohol consumption prior to recognition of pregnancy was common. Binge and heavy drinking was more prevalent than low-level drinking during this time. However, most women reduce or cease alcohol consumption once becoming aware of their pregnancy. Public health strategies aimed at reducing drinking in early stages of pregnancy, and promoting contraceptive use and early detection of pregnancy among women of childbearing age may be helpful in preventing the risk of alcohol exposed pregnancies. Demographic and social factors are related to alcohol use during this period.

Internalising/externalising symptoms and alcohol misuse: 36-month follow-up data from an Australian adolescent population

Natasha Nair[1], Nicola Newton[1], Maree Teesson[1], Timothy Slade[1], Emma Barrett[1], Katrina Champion[1] & Patricia Conrod[2]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia
[2] Department of Psychiatry, University of Montreal, Montreal, Canada

Introduction: Externalising personality traits, such as impulsivity and sensation seeking, have been linked with early onset drinking and alcohol misuse in adolescence. However the link between internalising personality traits, such as anxiety sensitivity and negative thinking, and alcohol use remains unclear. Some research suggests these traits are risk factors for early onset alcohol use and abuse. Other research suggests those with anxiety sensitivity may avoid alcohol use in adolescence for fear of losing control of their actions.

Objective: The present study will examine whether impulsivity, sensation seeking, anxiety sensitivity or negative thinking traits predict early alcohol use or misuse in an Australian adolescent sample over the course of 36 months.

Method: Data was collected as part of a larger randomised controlled trial of a high school-based intervention, designed to reduce alcohol and substance use. The present study analysed data from the control group of this trial. In total, 605 students across seven schools in New South Wales and one school in Victoria completed the study. Personality traits were measured using subscales (Impulsivity, Sensation Seeking, Anxiety Sensitivity, Hopelessness) of the Substance User Risk Profile Scale. In order to obtain data on patterns of alcohol use, participants were asked what age they consumed their first full alcoholic beverage and about their drinking habits in the past six months. These measures were assessed at baseline when participants were in Year 8 (mean age was 13 years), at 12-month, 24-month and 36-month follow-up.

Results: Data for baseline, 12-month and 24-month follow-up have been collected. Data for 36-month follow–up is currently in the collection phase and will be available for analysis by June 2015.

Conclusions: Results are expected to show impulsivity and sensation seeking are associated with early alcohol use and alcohol misuse in adolescents. Results concerning anxiety sensitivity and negative thinking will help ascertain whether these traits should be considered risk or protective factors for alcohol misuse in adolescence. This information can be used to inform future early intervention programs.

Posters: Adolescents

Adolescent substance use and specificity of association with educational outcomes in young adulthood

Edmund Silins[1], David Fergusson[2], George Patton[3], John Horwood[2], Craig Olsson[4], Delyse Hutchinson[1], Louisa Degenhardt[1], Robert Tait[5], Rohan Borschmann[6], Carolyn Coffey[3], John Toumbourou[7], Jake Najman[8] & Richard Mattick[1], for the Cannabis Cohort Research Consortium

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Christchurch School of Medicine and Health Sciences, University of Otago, Christchurch, New Zealand;
[3] Centre for Adolescent Health, Royal Children's Hospital, Melbourne, Australia;
[4] Department of Paediatrics, and School of Psychology, Deakin University, Melbourne, Australia;
[5] National Drug Research Institute, Curtin University, Perth, Western Australia, Australia;
[6] School of Population Health, University of Melbourne, Melbourne, Australia;
[7] Centre for Social and Early Development, School of Psychology, Deakin University, Geelong, Australia;
[8] School of Public Health and School of Social Science, The University of Queensland, Brisbane, Australia
(Only primary affiliation shown)

Background: The relative contributions of cannabis and alcohol use to educational outcomes are unclear. We examined the extent to which adolescent cannabis or alcohol use predicts educational attainment in emerging adulthood.

Methods: Participant-level data were integrated from three longitudinal studies from Australia and New Zealand (Australian Temperament Project, Christchurch Health and Development Study, and Victorian Adolescent Health Cohort Study). The number of participants varied by analysis (N=2179-3678) and were assessed on multiple occasions between ages 13-25. We described the association between frequency of cannabis or alcohol use prior to age 17 and high school non-completion, university non-enrolment, and degree non-attainment by age 25. Two other measures of alcohol use in adolescence were also examined.

Results: After covariate adjustment using a propensity score approach, adolescent cannabis use (weekly+) was associated with 1½ to 2-fold increases in the odds of high school non-completion (OR=1.60, 95%CI=1.09-2.35), university non-enrolment (OR=1.51, 95%CI=1.06-2.13), and degree non-attainment (OR=1.96, 95%CI=1.36-2.81). In contrast, adjusted associations for all measures of adolescent alcohol use were inconsistent and weaker. Attributable risk estimates indicated adolescent cannabis use accounted for a greater proportion of the overall rate of non-progression with formal education than adolescent alcohol use.

Conclusions: Findings are important to the debate about the relative harms of cannabis and alcohol use. Adolescent cannabis use is a better marker of lower educational attainment than adolescent alcohol use and identifies an important target population for preventive intervention.

Brief screening scales for detecting depression in young people: A systematic review and meta-analysis of reliability, validity and diagnostic utility

Emily Stockings[1], Louisa Degenhardt[1], Yong Yi Lee[2], Cathrine Mihalopoulos[3], Angus Liu[1] & George Patton[4]

[1]National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2]Queensland Centre for Mental Health Research, School of Public Health, University of Queensland
[3]Health Economics Unit, Deakin University
[4]Centre for Adolescent Health, Murdoch Children's Research Institute (MCRI), Royal Children's Hospital, Melbourne.

Background: Depression symptom screening scales are often used to determine a clinical diagnosis of major depressive disorder (MDD) in prevention research. The aim of this review is to systematically examine the reliability, validity and diagnostic utility of commonly used screening scales in depression prevention research among children and adolescents.

Methods: We conducted a systematic review of the electronic databases PsycINFO, PsycEXTRA and Medline examining the reliability, validity and diagnostic utility of four commonly used depression symptom rating scales among children and adolescents: the Children's Depression Inventory (CDI), Beck Depression Inventory (BDI), Center for Epidemiologic Studies - Depression Scale (CES-D) and the Reynolds Adolescent Depression Scale (RADS). We used univariate and bivariate random effects models to pool data and conducted metaregression to identify and explain causes of heterogeneity.

Results: We identified 54 studies (66 data points, 34,542 participants). Across the four scales, internal reliability was 'good' (pooled estimate: 0.89, 95% Confidence Interval (CI): 0.86 to 0.92). Sensitivity and specificity were 'moderate' (sensitivity: 0.80, 95% CI: 0.76 to 0.84; specificity: 0.78, 95% CI: 0.74 to 0.83). For studies that used a diagnostic interview to determine a diagnosis of MDD, positive predictive power for identifying true cases was mostly poor. Psychometric properties did not differ on the basis of study quality, sample type (clinical vs. nonclinical) or sample age (child vs. adolescent).

Conclusions: Commonly used depression symptom rating scales are reliable measures of depressive symptoms among adolescents; however, using cutoff scores to indicate clinical levels of depression may result in many false positives.

Baseline characteristics of The CSC Study: An innovative internet-based universal prevention trial for alcohol, cannabis and mental health problems in adolescents

Brad Shaw[1], Nicola Newton[1], Tim Slade[1], Cath Chapman[1], Gavin Andrews[3], Louise Birrell[1], Zoe Tonks[1], Steve Allsop[2], Leanne Hides[4], Nyanda McBride[2], Louise Mewton[1], Nina Te Pas[2], Simone Firmin-Sarra[4], Nina Pocuca[4] & Maree Teesson[1]

[1] Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug Research Institute, Curtin University, Perth, Western Australia, Australia
[3] Clinical Research Unit for Anxiety and Depression, St Vincent's Hospital, University of New South Wales, Sydney, New South Wales, Australia
[4] Centre for Youth Substance Abuse Research, Queensland University of Technology, Brisbane, Queensland, Australia

Introduction: Programs for the prevention and reduction of symptoms associated with alcohol use and mental health disorders exist however research is yet to determine if a combined approach is more effective. The Climate Schools Combined (CSC) project evaluates an innovative online preventative intervention targeting alcohol, cannabis, anxiety and depression in adolescents.

Method: A cluster RCT is being conducted in 71 Australian schools, involving 6,409 students, to determine the efficacy of the CSC intervention. Participating schools were randomised to one of the following conditions; 1) the 'Control' condition, 2) the 'Climate Schools - Substance Use' condition, 3) the 'Climate Schools – Mental Health' condition, or 3) the 'Climate Schools Combined' condition. Students were/will be assessed via a self-report questionnaire at; baseline, immediately pre- and post- each Climate Schools program (i.e., Substance Use and Mental Health programs) and 18, 24 and 30 months after baseline. The primary outcomes of the trial are; the uptake and harmful use of alcohol and other drugs, mental health symptomatology, as well as anxiety, depression, alcohol and other drug use knowledge.

Results: In total 6,409 participants have completed the baseline survey and students in the intervention groups are currently receiving the programs. In this poster, sample characteristics of the participants will be reported including patterns of alcohol use and mental health symptoms. Comparisons based on gender will also be reported.

Implications and Discussion: The CSC study is a cutting edge trial testing an integrative online prevention program for alcohol, other drug and mental health problems in adolescents. The study design and baseline data will be informative to researchers, educators and clinicians working with adolescents.

A randomised controlled trial of an online intervention for co-occurring depression and problematic alcohol use in young people

Mark Deady[1], Katherine Mills[1], Maree Teesson[1] & Frances Kay-Lambkin[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia

Introduction: Depression and problematic alcohol use represent two of the major causes of disease burden in young adults. These conditions frequently co-occur and this co-occurrence is associated with increased harms and poorer outcomes than either disorder in isolation. Integrated treatments have been shown to be effective, however, there remains a significant gap between those in need of treatment and those receiving it. The increased availability of eHealth programs presents a unique opportunity to treat these conditions. This study aims to evaluate whether a web-based self-help intervention (DEAL Project) can be effective in treating co-occurring depression and problematic alcohol use in young people (aged 18 to 25 years).

Methods: A randomised controlled trial was conducted, comparing the DEAL Project with a web-based attention-control condition (HealthWatch). The trial consisted of a 4-week intervention phase, with follow-up assessment occurring post-treatment, 3-, and 6-months post-baseline. The primary outcomes were change in PHQ-9 depression severity, and change in quantity and frequency of alcohol use.

Results: The DEAL Project was associated with significant improvement in depression severity (d = 0.71) and alcohol use quantity (d = 0.99) and frequency (d = 0.76) in the short-term, compared to control. At 6-month follow-up the improvements in the intervention group were maintained, however, the differences between intervention and control group disappeared, such that between group effects were in the small to moderate levels.

Conclusion: Overall, the DEAL Project was associated with more rapid and stable improvement in both depression and alcohol use outcomes in young people with these co-occurring conditions relative to an attention-control condition. Further work is required to increase program adherence.

Implications: The DEAL Project has the potential to be widely disseminated at low cost. It represents a novel and innovative approach to addressing the significant harms associated with these conditions, which might otherwise go untreated.

Preliminary findings from an evaluation of a community-based intervention for young people with multiple and complex needs

Alice Knight[1], Anthony Shakeshaft[1], Alys Havard[2], Myf Maple[3], Bernie Shakeshaft[4] & Chiara Stone[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Centre for Big Data Research in Health, University of New South Wales, Sydney, New South Wales, Australia
3 University of New England, Armidale, New South Wales, Australia
[4] BackTrack, Armidale, New South Wales, Australia

Aims: This paper aims to: i) describe the evaluation of a community-based intervention for young people with multiple and complex needs (YPMCN); and ii) report preliminary results from the evaluation.

Methods: In order to evaluate a community-based intervention for YPMCN, a series of steps were undertaken: i) researchers and intervention staff worked together to define the program and develop a program logic; ii) a survey instrument was developed to capture baseline data from participants covering the domains of mental health and wellbeing, education and employment, criminal activity, substance use, and demographic information; iii) the intervention was implemented utilising a multiple baseline design (MBD) in 3 rural communities in NSW; and iv) post-test survey data was collected to determine intervention impact at an individual-level, whilst routinely collected crime data was analysed to determine intervention impact at a community-level.

Results: Baseline survey data and preliminary outcome data, which are currently being analysed (but will be ready by the date of NDARC's Annual Symposium), will be presented. Initial analyses show a reduction in criminal incidents from pre- to post-intervention at a community-level, as well as improvements in the mental health and wellbeing status of the young people attending the intervention.

Conclusion: YPMCN experience multiple harms simultaneously which makes effective intervention problematic. Preliminary results from an evaluation of a community-based intervention for YPMCN show benefit at both the community-, and individual-level.

Implications of the research: This is the most methodologically rigorous evaluation of an intervention for YPMCN that has been undertaken anywhere in the world to date. It addresses a number of important problems: first, for YPMCN, it improves their outcomes; second, for communities, it reduces social disruption and economic costs; and third, for governments and policy makers, it assists them to invest in relevant and effective interventions for YPMCN.

Trajectories of anxiety, depression and alcohol use in early adolescence: a longitudinal study

Louise Birrell[1], Tim Slade[1], Nicola Newton[1], Katrina Champion[1], Emma Barrett[1], Erin Kelly[1], Natasha Nair[1], Patricia Conrod[2] & Maree Teesson[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Department of Psychiatry, University of Montreal, Montreal, Quebec, Canada

Introduction: Alcohol use disorders are highly comorbid with anxiety and depressive disorders. All three cause significant disability and public health burden. Effective intervention and prevention relies on a clear understanding of their development. Previous studies focusing on the emergence of these symptoms tend to assume a single growth trajectory can adequately represent the whole population for each domain of interest. However, it is likely there is considerable variability in the natural trajectory of these symptoms and their development needs to be considered simultaneously.

Aim: This study presents the natural trajectories of anxiety symptoms, depression symptoms and alcohol use in early adolescence, specifically looking at how these trajectories evolve in relation to each other. This study will take a developmental approach and focus on individual differences to better capture variability in the general population.

Method: As part of a larger ongoing substance use prevention trial, data was collected on 527 adolescents (mean age 13.4 years at baseline) from 7 schools in Sydney, Australia. Anxiety and depression symptoms were measured through administration of the BSI, SURPS, SDQ, and K6. Information was also collected on the frequency, quantity and age of students' alcohol use. Adolescents were followed up at 6-months, 12-months, 24-months and 36-months post-baseline.

Results: Results showed that nearly half of the sample had consumed a full drink by 24-months and over 20% had engaged in binge drinking. In those with elevated mental health scores these rates were higher. Results will also present the trajectories of anxiety, depression and alcohol using growth curve modelling.

Implications: Uncovering the natural trajectories of anxiety, depression and alcohol use during early adolescence has important implications for identifying adolescents at high risk of developing comorbid conditions. Importantly this knowledge has the potential to inform effective intervention and prevention efforts at a population level.

Posters: Mental health

Efficiently measuring liability to externalising behaviours: development of the Externalizing Spectrum Inventory-Computerised Adaptive test (ESI-CAT)

Matthew Sunderland[1] & Tim Slade[1]

[1] NHMRC Centre of Research Excellence in Mental Health and Substance Use**,** National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Introduction: Drug and alcohol use fits into a broader set of behaviours which has typically been described as externalising behaviour. The Externalising Spectrum Inventory (ESI) was developed to measure several distinct but related facets of externalising behaviour. Scores on the ESI represent overall externalizing liability as well as specific substance abuse and callous-aggression sub-factors. A limitation of the ESI is its length, at 415 items. The current study aimed to utilise a novel method, known as multi-dimensional computerised adaptive testing (CAT), in order to develop a highly efficient version of the ESI that maintains an acceptable level of precision.

Methods: The current study utilised data collected as part of the original development study of the ESI. A series of multi-dimensional adaptive algorithms, which tailor specific items to each individual depending on responses given to previous items, were examined using a combination of Monte Carlo and post-hoc simulations. Scores generated from the different algorithms were compared to scores derived from the full item set.

Results: Each CAT algorithm resulted in a substantial saving in items administered, e.g. >90% reduction in items from the full set. Precision was maintained at an acceptable level (<0.3 standard error) when estimating externalising scores using the majority of CAT algorithms. Correlations between scores generated using the CAT algorithms and the full item set were very high (r's>0.9).

Discussion: Results of the current study reveal that it is indeed feasible to accurately and efficiently measure the structure of the ESI using a computerised adaptive algorithm (ESI-CAT). The use of psychometric instruments and self-report symptom data provide an essential link between the identification of novel biomarkers and the varying manifestations of externalising problems. The current study provides researchers and clinicians with a psychometrically valid tool to measure externalising behaviour in an efficient and highly precise manner.

Behavioural Activation Treatment for Co-occurring Depression and Substance Use Disorder: Baseline characteristics of the Activate Study Cohort

Ivana Kihas[1], Katrina Prior[1], Joanne Ross[1], Carl Lejuez[2], Katherine Mills[1], Sharlene Kaye[1], Joanne Cassar[1], Sarah Masters[1], Xanthe Larkin[1], Philippa Ewer[1], Glenys Dore[4], Kathleen Brady[3] & Maree Teesson[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Department of Psychology, University of Maryland, Maryland, United States
[3] Department of Psychiatry, Medical University of South Carolina, Columbia, South Carolina, United States
[4] Northern Sydney Drug and Alcohol Service, Royal North Shore Hospital, Sydney, New South Wales, Australia

Background: Depression among individuals with substance use disorder (SUD) is common and problematic, being associated with a more severe and protracted illness course and poorer treatment outcomes. Behavioural Activation Treatment for Depression (BATD-R) shows promise in treating depression among those with SUD.

Aims: This study seeks to determine the efficacy of a modified version of BATD-R (Activate) in reducing symptoms of depression and SUD among individuals in opioid replacement therapy or residential rehabilitation treatment. This poster presents the baseline findings of the Activate study.

Methods: A single blind, randomised control trial was conducted, with participants assigned to one of two groups: Activate therapy (10 individual therapy sessions) in conjunction with standard care, or standard care alone. Baseline data was collected from 132 participants, with follow-up interviews conducted at three and twelve months post-baseline.

Results: Mental health was poor amongst the cohort with 84% meeting DSM-IV criteria for Major Depression, 73% meeting criteria for Social Phobia (73%), 69% screening positive for Post-Traumatic Stress Disorder (PTSD) and 58% for Borderline Personality Disorder (BPD). The primary drugs of concern on entry to treatment were: alcohol (32%), methamphetamine (29%) and heroin (16%), and high levels of past month polydrug use were reported (mean no. of drug classes used= 4.15, range 1 – 8). Almost one quarter of the sample (24%) had overdosed at least once in their lifetime and one-third had attempted suicide. Two-thirds of participants (67%) had been told by a health professional that they have a chronic physical health condition and poor quality sleep was commonly reported (83%).

Discussion: The Activate cohort reported high levels of psychopathology and polydrug use. It will be interesting to see how these factors relate to Activate treatment outcomes for depression and SUD. The present study will contribute significantly to understanding the types of programs that are effective in treating this comorbidity.

Depressed Substance Users in treatment: How common and concerning is social anxiety?

Katrina Prior[1], Joanne Ross[1], Carl Lejuez[2], Katherine Mills[1], Sharlene Kaye[1], Kathleen Brady[3], Glenys Dore[4], Francis Kay-Lambkin[1], Ivana Kihas[1], Joanne Cassar[1], Philippa Ewer[1], Xanthe Larkin[1] & Maree Teesson[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] Department of Psychology, University of Maryland, Maryland, United States of America.
[3] Department of Psychiatry, Medical University of South Carolina, Columbia, South Carolina, United States
[4] Northern Sydney Drug and Alcohol Service, Royal North Shore Hospital, Sydney, New South Wales, Australia

Background: Substance use disorders (SUDs) are strongly related to depression and social anxiety disorder (SAD). It is well established that depression among individuals with SUDs is associated with poorer physical and mental health, poorer treatment outcomes, and higher rates of attempted and completed suicide. What is less well known is the impact of SAD on individuals with comorbid depression and SUDs.

Methods: This study will use data from the Activate project, which is a parallel, single blind, randomised controlled trial that seeks to evaluate the efficacy of Behavioural Activation Treatment for Depression in individuals in treatment for substance dependence.

Using the Activate data, alongside measures of SAD added to the baseline Activate questionnaire, this study aims to:

- Provide new information on the prevalence of co-occurring SAD in a clinical sample of depressed, substance dependent individuals
- Compare baseline characteristics of people with and without SAD in terms of their demographics, mental health and wellbeing.

Results: Of the 132 participants recruited, 72.7% ($n = 94$) met DSM-IV criteria for SAD. No differences in socio-demographic characteristics between those with and without SAD were identified. Compared to those without SAD, those with comorbid SAD were more likely to have problematic levels of drinking, to have a history of self-harming behaviours, and to have higher levels of rumination. They were also less able to tolerate or withstand distress and had lower levels of behavioural activation for depression symptoms (all p-values were <.05).

Conclusion: The high rates of co-occurring SAD amongst depressed individuals presenting to alcohol and other drug treatment services, and the associations this comorbidity has with ruminative thinking, distress tolerance and suicide attempts, is concerning. These findings are required to guide the development and implementation of appropriate treatments to this underserved population.

Examining the relationship between Post-Traumatic Stress Disorder (PTSD) and substance use in people who use pharmaceutical opioids compared with those who use heroin

Gina Lattas[1], Briony Larance[1] & Suzanne Nielsen[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: Post-Traumatic Stress Disorder (PTSD) is frequently co-morbid with substance use disorder and consequently, is over-represented in drug rehabilitation settings. Much of the existing research examining this comorbidity with respect to opioid abuse is founded on heroin-dependent samples. Although recent research indicates that pharmaceutical opioid (PO) dependence is a significant growing problem in Australia, no Australian research has examined this comorbidity in PO users.

This study will compare data collected from two unique cohorts of opioid users, people who are in treatment for PO dependence and people who regularly inject heroin. The overall sample will comprise of 222 people across the two opioid use cohorts in New South Wales.

Aims:
1. to examine the prevalence of exposure to trauma and PTSD among two prospective cohorts of regular opioid users:
   a) people in treatment for pharmaceutical opioid dependence (PIPOT)
   b) people who regularly inject heroin (PWIH)
2. to identify demographic, psychological wellbeing, physical wellbeing, substance use and trauma correlates of PTSD within both cohorts of opioid users
3. to examine the similarities and differences in PTSD correlates between these two cohorts
4. to determine whether substance use patterns are associated with by trauma histories or PTSD across both cohorts of opioid users.

Implications: The results of the proposed study will be the first in Australia to provide an indication of the proportion of people seeking treatment for PO dependence who suffer from PTSD. Further, the research will identify similarities and differences in the correlates for PTSD in people who use PO regularly and those who use heroin regularly. These findings will be valuable to determine whether factors influencing the comorbidity are unique to those distinct populations, or whether they are found more generally within opioid-using populations. Findings may inform whether tailored treatment interventions are warranted for these different populations that use opioids.

Posters: Pain/opioids

Chronic pain and suicide: prevalence, correlates and associations

Gabrielle Campbell[1], Shane Darke[1], Raimondo Bruno[2] & Louisa Degenhardt[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] School of Medicine, University of Tasmania, Hobart, Tasmania, Australia

Background: Chronic pain is a common worldwide complaint and is associated with poorer physical health, lower quality of life and a greater risk of developing depression. A growing body of research suggests that people suffering from chronic pain have higher rates of suicidal ideation, suicide attempts and completed suicides. As the population ages, the incidence and prevalence of in chronic pain will increase so research on the relationship between chronic pain and suicidality is timely

Method: The presentation will focus on data from two sources. Population data from the 2007 Australian National Survey of Mental Health and Wellbeing, a nationally representative household survey on 8841 people, aged 16-85 years will be presented and baseline data of from the Pain and Opioids IN Treatment (POINT) study with a cohort of 1,514 community-based people prescribed pharmaceutical opioids for chronic non-cancer pain across Australia

Results: The odds of lifetime and past 12-month suicidal thoughts and behaviours were 2-3 times greater in the people that reported a history of pain. Furthermore, of those that experienced lifetime suicidal thoughts and behaviours, between 50-65% had a history of chronic pain. In a sample of chronic non-cancer patients the factor which predicted the transition from past 12 month suicidal ideation to attempt was a low pain self-efficacy score. Pain-specific factors were independently associated with 12 month suicide attempt over and above general-suicide risk factors.

Conclusion: A substantial proportion of people who attempt suicide have a history of chronic pain and pain-specific factors were found to be independently associated with suicidality. Identification of these risk factors are important in our understanding and prevention of suicide in a group of people that have generally been neglected in suicide prevention research.

Examining the relationship between pain and mental health in pharmaceutical opioid users in treatment

Michael Vanderhaven[1], Sarah Larney[2] & Suzanne Nielsen[2,3]

[1] School of Psychology, University of New South Wales, Sydney, New South Wales, Australia
[2] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[3] The Langton Centre, South East Sydney Local Health District Drug and Alcohol Services, Sydney, New South Wales, Australia

Introductions and Aims: Pharmaceutical opioid dependence is a growing health concern. Those seeking treatment for pharmaceutical opioid use have been shown to be more likely to have concurrent pain conditions and psychiatric comorbidity compared with heroin users. The complexity in which these comorbidities interact with treatment over time is currently not understood. Therefore, the current study aims to explore the relationship between changes in self-reported pain and changes in self-reported mental health issues (depression, anxiety) and quality of life within a treatment population for pharmaceutical opioid use.

Method: The current study utilises data collected from a prospective cohort study through interviews at baseline, 3 and 12 months. The interviews contain questionnaires that cover demographic information, physical and mental health, drug use patterns and behaviours, social support, psychological functioning and quality of life. At baseline 108 people were interviewed with a 94% follow up rate for the 3 month round. The 12 month data are expected to be collected by the end of April and preliminary results will be addressed during presentation.

Discussion: Although there is substantive research connecting pain and mental health, there are few studies that assess how these comorbidities interact over time, particularly in a unique population of pharmaceutical opioid users. The results may have implications that relate to pain or mental health associated treatment needs for individuals using pharmaceutical opioids.

Investigating correlates of sedative load among people with chronic non-cancer pain and the association with drowsiness and ambulance use

Bianca Hoban[1], Natasa Gisev[1], Suzanne Nielsen[1,2], Briony Larance[1], Raimondo Bruno[1,3] & Louisa Degenhardt[1,4,5,6]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia
[2] The Langton Centre, South East Sydney Local Health District Drug and Alcohol Services, Sydney, New South Wales, Australia
[3] School of Psychology, University of Tasmania, Hobart, Tasmania, Australia
[4] School of Population and Global Health, University of Melbourne, Melbourne, Victoria, Australia
[5] Murdoch Children's Research Institute, The Royal Children's Hospital, Melbourne, Victoria, Australia
[6] Department of Global Health, School of Public Health, University of Washington, Seattle, Washington, United States

Aims: Polypharmacy is extensive in people with chronic non-cancer pain (CNCP) and many of these medications are associated with adverse effects, including sedation. The aims of this study were to: i) describe sedative load (SL) in a cohort of people with CNCP prescribed opioids, ii) assess whether SL is associated with self-reported drowsiness/fatigue iii) assess correlates of SL and; iv) assess the association of SL and ambulance use.

Methods: A total of 1,166 CNCP patients prescribed opioids were recruited from community pharmacies across Australia and completed a diary of their medication use in the past week. SL was calculated using a previously published index. Associations with SL were examined using multivariate regression, controlling for demographic characteristics, physical and mental health, substance use and total oral morphine equivalent dose.

Results: The mean SL for the group was 3.76 (S.D. 2.22) and ranged from 0-13. The most common sedative medications (in addition to opioids) were antidepressants (55%), benzodiazepines (28%) and antipsychotics (7%). SL was associated with self-reported drowsiness/fatigue. Being female, younger, unemployed, having more severe pain, anxiety/depression and a higher total oral morphine equivalent dose were associated with a higher SL. After controlling for demographic characteristics and physical and mental health comorbidities, SL was not associated with past month ambulance use.

Conclusion: People who use multiple sedative medications represent a group with complicated demographic and health profiles. They are more likely to be younger unemployed, have more severe pain and more mental health comorbidity. The SL index is just one approach to assessing adverse outcomes related to polypharmacy. While polypharmacy or multimodal medication use may be an appropriate approach to treatment, further research is required to assess if this approach is associated with adverse outcomes

Hepatitis C and associated risks behaviours in people who inject drugs

Kerryn Butler[1] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Introduction: The primary objectives of this study were to (1) determine the extent of Hepatitis C (HCV) testing among a group of people who inject drugs (PWID) regularly, (2) to compare the drug use and risk behaviours of PWID who reported screening positive for Hepatitis C antibodies (HCVAb) and those who tested negative for HCVAb.

Method: The Illicit Drug Reporting System (IDRS) is an annual sentinel surveillance system involving survey interviews with ~900 PWID in all capital cities of Australia. The survey consists of demographics, drug use, price, purity and availability of illicit drugs, mental health, blood borne viruses and crime. In 2013, a module was included to determine the extent of knowledge about HCV testing and treatment.

Results: The majority (90%) of participants had undergone Hepatitis C antibody (HCVAb) testing and of those who had been tested, two-thirds (69%) had returned a positive result. Participants who returned a positive antibody result were older, had longer injecting histories, and were more likely to be in current opioid substitution treatment therapy compared to the antibody-negative group. They were also more likely to nominate heroin as their drug of choice and the drug they injected most often in the last month.

Those who were positive for HCVAb were significantly more likely to use a needle after someone else than those who were HCVAb negative. However there was no significant difference between those who are HCVAb positive and those who are HCVAb negative among people who lent a needle to someone else after using it themselves.

Discussion: The majority of participants were actively engaged in their health care and most had undergone antibody screening for Hepatitis C. While previous studies, Kwiatkowski, Fortuin Corsi et al. (2002) suggest that knowledge of one's serostatus prompts individuals to modify their behaviour to avoid infecting others; results shown here suggest that rather than prompting protective behaviours (lending used needles to others), individuals with a positive result for HCVAb are more likely to use a needle after someone else. Other findings from this data (not presented here) have uncovered an ambivalent attitude towards treatment efficacy among this group which may explain, in part, a lack of concern regarding additional exposure post-diagnosis.

Posters: Stimulants

Australian border supply trends of meth/amphetamines 2002-2014: end-product and precursors

Matthew O'Reilly[1], Caitlin Hughes[1] & Jenny Chalmers[1]

[1] Drug Policy Modelling Program (DPMP), National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background: Since 2013 there has been significant increase in attention by media, policy makers, government and the AOD sector to the issue of methamphetamine. This follows evidence that while the overall prevalence of methamphetamine has remained stable, the number of methamphetamine users who use "ice" or crystal methamphetamine over other types of methamphetamine (e.g. base and powder) has risen, and that there have been concurrent increases in methamphetamine related harms and treatment seeking. Publicly available data also points to a marked increase in both the weight of "all form" methamphetamine end-product and precursor border seizures. However, questions such as how much "ice" or crystal methamphetamine is being seized at the border relative to other forms (e.g. powder or liquid), or whether there have been shifts in supply routes or modes of transport by which crystal methamphetamine end-product and/or precursors are entering Australia remains unanswered.

Aims: The present research aims to analyse trends in the weight and nature of Australian border supply of methamphetamine from 2002 to 2014, distinguishing between end-product and precursor and the different forms (e.g. "ice").

Method: This study replicates the approach taken in two recent studies of trends in cocaine and ecstasy supply respectively (Hughes et al., 2012; O'Reilly et al., forthcoming). Non-publicly available data have been sourced from the Department of Immigration and Border Protection to include: 1) the weight and number of end-product and precursor border seizures; 2) end-product form (e.g. crystals or powder) and precursor type (e.g. norephedrine or pseudoephedrine; and 3) embarkation points (proxy of supply flows). Trends will be examined over a 13 year period (2002-2014).

Results: Results will be presented at the Symposium.

Implications: This research will provide a detailed and comprehensive examination of Australian methamphetamine border supply trends.

Travellers in the Territory: A comparison of Darwin residents and travellers from the Ecstasy and Related Drugs Reporting System

Elizabeth Whittaker[1] & Lucinda Burns[1]

[1] National Drug and Alcohol Research Centre, University of New South Wales, Sydney, New South Wales, Australia

Background and aims: Young people's substance use patterns typically increase when they travel away from their usual residence, which can lead to increased risk-taking behaviours and negative health outcomes. As such, travellers who are engaging in these behaviours within an unfamiliar setting may be vulnerable, as they often have a limited knowledge of local health services and smaller social networks to assist them if they experience trouble. Using self-report data from regular psychostimulant users (RPU), this study aims to identify the differences and similarities between travellers and Darwin residents in relation to their drug use, mental health, sexual activity and other risk behaviours.

Methods: Cross-sectional data from the 2013 to 2015 Northern Territory Ecstasy and Related Drugs Reporting System (EDRS) will be used, which is an annual monitoring system that has been conducted in every capital city across Australia and funded by the Australian Government Department of Health. Eligibility criteria were that RPU had used psychostimulants at least monthly in the past six months within Australia, with psychostimulants including ecstasy, methamphetamine, cocaine, GHB, ketamine and LSD.

Results: RPU who travel to Darwin are significantly more likely to be single females who have used ketamine and nitrous oxide in the past six months than resident RPU. Travellers are also more likely to drink at hazardous levels. Conversely, travellers are significantly less likely to have recently used ice and report a mental health problem than RPU who reside in Darwin.

Conclusion: RPU who travel to Darwin demonstrate different drug use patterns than RPU who reside in Darwin. Travellers are more likely to use ketamine and nitrous oxide, more likely to report hazardous drinking patterns, and less likely to use crystal (ice). Although residents were more likely to report a mental health problem, there was no significant difference between the groups' Kessler 10 psychological distress scores. Future research will examine whether differences exist between genders and domestic and international travellers.

Implications of the research: This much needed research will assist to identify the health and other risk-related issues that are unique to travellers in Darwin. This information may inform specific harm reduction messages that are targeted to this sub-group and assist to increase the knowledge base of health professionals and law enforcement personnel who engage with travellers in Australia.