2014 Inaugural Postgraduate Research Symposium

Where the marginal matters: Strengthening trans-disciplinary connections inpostgraduate health research on sex, drugs and risk

29th August 2014

UNSW - The Kirby Institute
Wallace Wurth Building, Level 6
Corner of Botany Street and High Street, Randwick
University of New South Wales

Program and Abstracts
Programme

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Program

8.30 **Registration opens**

9.00 - 9.03 **Welcome -** Jason Grebely, The Kirby Institute

9.03 - 9.05 ***Keynote Speaker Introduction*** - Professor David Cooper, The Kirby Institute

9:05 - 9.35 **Keynote - Golden rules for postgraduate research: Lessons learned to inform the future**
Professor Michael Kidd AM, Faculty of Medicine, Nursing and Health Sciences, Flinders University

9.35 - 10.15 ***Basic and Translational Research***
Chairs: *Stuart Turville and Chansavath Phetsouphanh*

9.35 - 9.50 **Oral Abstract 1 - Patterns of hepatitis C virus RNA levels during acute infection: the InC3 study**
Behzad Hajarizadeh, Viral Hepatitis Clinical Research Program, The Kirby Institute

9.50 - 10.05 **Oral Abstract 2 - Phylogenetic clustering of acute hepatitis C virus infection in Australia is associated with HIV co-Infection and genotype 1a infection**
Sofia Bartlett, Viral Hepatitis Clinical Research Program, The Kirby Institute

10.05 - 10.10 **Oral Poster Abstract 3 - Molecular epidemiology of hepatitis C virus infection among people who inject drugs in Vancouver, Canada**
Brendan Jacka, Viral Hepatitis Clinical Research Program, The Kirby Institute

10.10 - 10.15 **Oral Poster Abstract 4 - Immuno-Histological correlates of protection from HIV transmission by male circumcision and other forms of penile cuttings**
Ivy Shih, Immunovirology and Pathogenesis Program, The Kirby Institute

10.15 - 10.45 Coffee Break

10.45 - 12.30 ***Epidemiology and Public Health***
Chairs: *Louisa Degenhardt and Stephen Wright*

10.45 - 11.00 **Oral Abstract 5 - Loss to Follow-up in the Australian HIV Observational Database**
Hamish McManus, Biostatistics and Databases Program, The Kirby Institute

11.00 - 11.15 **Oral Abstract 6 - The Association between substance use and housing amongst people who inject drugs**
Elizabeth Whittaker, National Drug & Alcohol Research Centre

11.15 - 11.20 **Oral Poster Abstract 7 - Prenatal alcohol exposure, parental IQ and infant cognitive development: findings from an Australian longitudinal study**
Clare McCormack, National Drug & Alcohol Research Centre

11.20 - 11.25 **Oral Poster Abstract 8 - Predictors of Mother-Child Bonding Postnatal: The role of antenatal bonding, maternal substance use and mental health.**
Larissa Rossen, National Drug & Alcohol Research Centre

11.25 - 11.30 **Oral Poster Abstract 9 - The StraightUp study: A cluster randomised controlled trial of a combined parent and student Internet-based substance use prevention program for adolescents** Zoe Tonks, National Drug & Alcohol Research Centre

11.30 - 11.35 **Oral Poster Abstract 10 - Does sexual content in new media affect young people's sexual attitudes and behaviours? A systematic review and meta-analysis**
Lucy Watchirs Smith, Sexual Health Program, The Kirby Institute

11.35 - 11.50 Break

11.50 - 11.55 **Oral Poster Abstract 11 - Exploring the temporal sequencing and bidirectional relationships between alcohol use, mood and anxiety disorders**
Louise Birrell, National Drug & Alcohol Research Centre

11.55 - 12.00 **Oral Poster Abstract 12 - The prevalence & correlates of major depression & social anxiety disorder among people with substance use disorders: A national perspective**
Katrina Prior, National Drug & Alcohol Research Centre

12.00 - 12.05 **Oral Poster Abstract 13 - The longitudinal relationship between problematic substance use and depression: an 11 year study**
Sonja Memedovic, National Drug & Alcohol Research Centre

12.05 - 12.10 **Oral Poster Abstract 14 - Hospital-related morbidity in two community-cohorts of HIV positive and negative gay men**
Cecilia Moore, Biostatistics and Databases Program, The Kirby Institute

12.10 - 12.15 **Oral Poster Abstract 15 - Chronic pain and suicide in Australia: prevalence, correlates and associations**
Gabrielle Campbell, National Drug & Alcohol Research Centre

12.15 - 12.20 **Oral Poster Abstract 16 - The changing nature of opioid overdose deaths in Australia**
Amanda Roxburgh, National Drug & Alcohol Research Centre

12.20 - 12.25 **Oral Poster Abstract 17 - Know your targets: How optimal resource allocations vary with differing objectives**
Andrew Shattock, Surveillance and Evaluation Program for Public Health, The Kirby Institute

12.25 - 12.30 **Oral Poster Abstract 18 - Returns on investments of HIV prevention programmes in Vietnam, 2006-2010: A mathematical modelling study**
Quang Duy Pham, Surveillance and Evaluation Program for Public Health, The Kirby Institute

12.30 -1.30 Lunch

1.30 - 3.15 ***Clinical Research***
Chairs: *Rebecca Guy and Amanda Roxburgh*

1.30 - 1.45 **Oral Abstract 19 - Delivering Internet-based prevention for alcohol and cannabis: results from a cluster randomised controlled trial**
Katrina Champion, National Drug & Alcohol Research Centre

1.45 - 2.00 **Oral Abstract 20 - Sexual health service clients prefer home-based retesting for chlamydia**
Kirsty Smith, Sexual Health Program, The Kirby Institute

2.00 - 2.05 **Oral Poster Abstract 21 - Barriers to HIV testing and other client characteristics associated with never previously testing for HIV among gay and bisexual men participating in the Sydney Rapid HIV Test Study**
Damian Conway, Sexual Health Program, The Kirby Institute

2.05 - 2.10 **Oral Poster Abstract 22 - Differences in delayed HIV diagnoses between gay and bisexual men in Australia: implications for HIV surveillance, prevention and testing**
Philip Keen, Sexual Health Program, The Kirby Institute

2.10 - 2.15 **Oral Poster Abstract 23 - Agreements and communication about viral load within gay male serodiscordant couples: Implications for 'treatment as prevention'**
Ben Bavington, HIV Epidemiology and Prevention Program, The Kirby Institute

2.15 - 2.20 **Oral Poster Abstract 24 - What can data on post-exposure prophylaxis from the Seroconversion Study tell us about the potential use of pre-exposure prophylaxis among gay men in Australia?**
Ian Down, HIV Epidemiology and Prevention Program, The Kirby Institute

2.20 - 2.30 Break

2.30 - 2.35 **Oral Poster Abstract 25 - Substance use among adolescent bullies, victims and bully-victims**
Erin Kelly, National Drug & Alcohol Research Centre

2.35 - 2.40 **Oral Poster Abstract 26 - Prison based treatment for alcohol and related other drug use among Aboriginals and non-Aboriginals**
Michael Doyle, Justice Health Research Program, The Kirby Institute

2.40 - 2.45 **Oral Poster Abstract 27 - Evaluating the DEAL Project – A Brief, Web-based Intervention for Co-occurring Depression and Problematic Alcohol Use in Young People: A Randomised Controlled Trial**
Mark Deady, National Drug & Alcohol Research Centre

2.45 - 2.50 **Oral Poster Abstract 28 - The use of paracetamol above recommended maximum daily doses among people with chronic non-cancer pain**
Bianca Hoban, National Drug & Alcohol Research Centre

2.50 - 2.55 **Oral Poster Abstract 29 - Rates of Antiretroviral Treatment Initiation from Date of HIV Diagnosis – The Pendulum Swings in Australia**
Stephen Wright, Biostatistics and Databases Program, The Kirby Institute

2.55 - 3.00 **Oral Poster Abstract 30 - HIV Multi-Drug Resistance at First-line Antiretroviral Failure and Subsequent Virological Response in Asia**
Awachana Jiamsakul, Biostatistics and Databases Program, The Kirby Institute

3.00 - 3.05 **Oral Poster Abstract 31 - Outcomes of first-line antiretroviral therapy in HBV/HIV co-infection: Results from the TREAT Asia HIV Observational Database**
David Boettiger, Biostatistics and Databases Program, The Kirby Institute

3.05 - 3.10 **Oral Poster Abstract 32 - Effect of treatment willingness on specialist assessment and treatment uptake for hepatitis C virus infection among people who use drugs: the ETHOS study**
Maryam Alavi, Viral Hepatitis Clinical Research Program, The Kirby Institute

3.10 - 3.30 Coffee Break

3.30 - 4.10 ***Community and Social Research***
Chairs: *Carla Treloar and Kenneth Yates*

3.30 - 3.45 **Oral Abstract 33 - A cultural double standard: Public responses to female sex tourism**
Hilary Caldwell, Centre for Social Research in Health

3.45 - 4.00 **Oral Abstract 34 - Social construction and the evidence-based drug policy endeavour**
Kari Lancaster, Drug Policy Modelling Program, National Drug & Alcohol Research Centre

4.00 - 4.05 **Oral Poster Abstract 35 - Trans people's Injecting practices in Australia: freedom and resistance**
Nyah Harwood, Centre for Social Research in Health

4.05 - 4.10 **Oral Poster Abstract 36 - NSP clients and service provision in Western Sydney**
Kenneth Yates, Centre for Social Research in Health

4.10 - 4.15 **3 Minute Thesis 2014 UNSW Medicine People's Choice Winner - Finding the super spreaders on the path to eradicate hepatitis C virus**
Sofia Bartlett, The Kirby Institute

4.15 - 4.20	**3 Minute Thesis 2014 USyd Open Heat Finalist - Fighting fire with fire: A unique way to battle HIV** Samantha McAllery, The Kirby Institute
4.20 - 5.10	***A glimpse into the past: Stories from successful PhD graduates*** ***Chairs: Jason Grebely, Tim Slade and Christy Newman***
4.20 - 4.30	**Filling in the gaps: Overcoming the limits of finance and academia during postgraduate study** Denton Callander, The Kirby Institute (PhD Graduate from the Centre for Social Research in Health)
4.30 - 4.40	**From clinical to implementation research: my journey through PhD to early post-doc** Amit Achhra, Biostatistics and Databases Program, The Kirby Institute
4.40 - 4.50	**Making the transition from PhD student to Early Career Researcher: Preparing for the afterlife** Briony Larance, National Drug & Alcohol Research Centre
4.50 - 5.10	**Moderated Panel discussion** *(Jason Grebely, Tim Slade, Christy Newman, PhD graduates)*
5.10	***Closing words - Anthony Shakeshaft, National Drug & Alcohol Research Centre*** ***End of Scientific***
5.10 - 7.00	*Please join us for drinks*

Committees

Organising Committee

Jason Grebely, The Kirby Institute, UNSW Australia
Tim Slade, National Drug & Alcohol Research Centre, UNSW Australia
Christy Newman, Centre for Social Research in Health, UNSW Australia
Stephen Wright, The Kirby Institute, UNSW Australia
Amanda Roxburgh, National Drug & Alcohol Research Centre, UNSW Australia
Kenneth Yates, Centre for Social Research in Health, UNSW Australia
Amie Lucas, The Kirby Institute, UNSW Australia

Abstract Reviewers

Bianca Hoban, National Drug & Alcohol Research Centre, UNSW Australia
Maryam Alavi, The Kirby Institute, UNSW Australia
Sofia Bartlett, The Kirby Institute, UNSW Australia
Mark Deady, National Drug & Alcohol Research Centre, UNSW Australia
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Hammad Ali, The Kirby Institute, UNSW Australia
Simon Graham, The Kirby Institute, UNSW Australia
Jenny Iverson, The Kirby Institute, UNSW Australia
Tarana Lucky, The Kirby Institute, UNSW Australia
Dorothy Machalek, The Kirby Institute, UNSW Australia
Skye McGregor, The Kirby Institute, UNSW Australia
Lise, Lafferty, The Kirby Institute, UNSW Australia

Session Chairs

Stuart Turville, The Kirby Institute, UNSW Australia
Chansavath Phetsouphanh, The Kirby Institute, UNSW Australia
Louisa Degenhardt, National Drug & Alcohol Research Centre, UNSW Australia
Stephen Wright, The Kirby Institute, UNSW Australia
Rebecca Guy, The Kirby Institute, UNSW Australia
Amanda Roxburgh, National Drug & Alcohol Research Centre, UNSW Australia
Carla Treloar, Centre for Social Research in Health, UNSW Australia
Kenneth Yates, Centre for Social Research in Health, UNSW Australia

Golden rules for postgraduate research: Lessons learned to inform the future

Professor Michael Kidd, Faculty of Medicine, Nursing and Health Sciences, Flinders University

Biography

Professor Michael Kidd AM is a general practitioner, medical researcher and health educator. He is the executive dean of the Faculty of Medicine, Nursing and Health Sciences at Flinders University. He is a past president of the Royal Australian College of General Practitioners and the current president of the World Organization of Family Doctors. He has worked for 28 years as a general practitioner with a special interest in the care of people with HIV. He is the chair of the Australian Government's Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmissible Infections, which has responsibility for the development of Australia's strategies for the prevention and treatment of HIV, hepatitis B, hepatitis C and sexually transmissible infections. He has served as a medical consultant to UNAIDS, the World Health Organization and the governments of several countries.

Oral Abstracts

Oral Abstract 1

PATTERNS OF HEPATITIS C VIRUS RNA LEVELS DURING ACUTE INFECTION: THE INC3 STUDY

Behzad Hajari[1], Bart Grady[2], Kimberly Page[3], Arthur Y. Kim[5], Barbara H. McGovern[6,7], Andrea L. Cox[8], Thomas M. Rice[3], Rachel Sacks-Davis[9,10], Julie Bruneau[11], Meghan Morris[3], Janaki Amin[1], Janke Schinkel[4], Tanya Applegate[1], Lisa Maher[1], Margaret Hellard[9,10], Andrew R. Lloyd[12], Maria Prins[2,4], Gregory J. Dore[1] and Jason Grebely[1], on behalf of the InC[3] Study Group

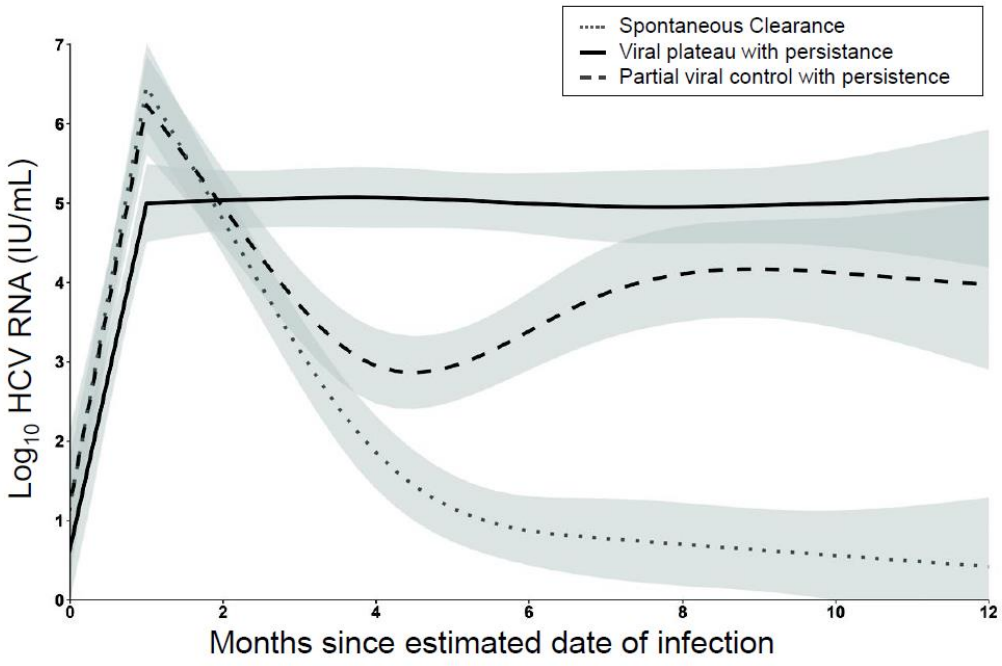
[1]The Kirby Institute, UNSW Australia (University of New South Wales), Sydney, NSW, Australia; [2]Cluster Infectious Diseases, GGD Public Health Service of Amsterdam, Amsterdam, The Netherlands; [3]Department of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, CA, USA; [4]Academic Medical Center, Amsterdam, The Netherlands; [5]Harvard Medical School, Boston, MA, USA; [6]Tufts Medical School, Boston, MA, USA; [7]Abbvie, Chicago, IL, USA; [8]Department of Medicine, Johns Hopkins Medical Institutions, Baltimore, MD, USA; [9]Burnet Institute, Melbourne, VIC, Australia; [10]Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia; [11]CRCHUM, Université de Montréal, Montreal, QC, Canada; [12]Inflammation and Infection Research Centre, School of Medical Sciences, UNSW Australia, Sydney, NSW, Australia.

Background: Understanding the patterns of HCV-RNA levels during acute HCV infection provides insights into immunopathogenesis and is important for vaccine design. This study evaluated patterns of HCV-RNA levels and associated factors during acute HCV infection.

Methods: Data were drawn from the International Collaboration of Incident HIV and Hepatitis C in Injecting Cohorts (InC^3 Study) including nine prospective cohorts of people who inject drugs. Individuals with well-characterized acute HCV infection (detected within three months post-infection and interval between the peak and subsequent HCV-RNA levels≤120 days) were categorised based on *a priori*-defined patterns of HCV-RNA levels: i) spontaneous clearance, ii) partial viral control with persistence (≥1 log IU/mL decline in HCV-RNA levels following peak) and iii) viral plateau with persistence (increase or <1 log IU/mL decline in HCV-RNA levels following peak). Factors associated with HCV-RNA patterns were assessed using multinominal logistic regression.

Results: Among 643 individuals with acute HCV infection, 162 with well-characterized acute HCV were identified. Spontaneous clearance, partial viral control with persistence, and viral plateau with persistence were observed in 52 (32%), 44 (27%), and 66 (41%) individuals, respectively (Figure). HCV-RNA levels reached a high viraemic phase one month following infection, with higher levels in the spontaneous clearance and partial viral control with persistence groups, compared to the viral plateau with persistence group (median: 6.0, 6.2, 5.3 log IU/mL, respectively; *P*=0.018). In the two groups with persistence, *interferon lambda 3 (IFNL3)* CC genotype was independently associated with partial viral control compared to viral plateau (adjusted odds ratio [AOR]: 2.75; 95%CI: 1.08, 7.02). In the two groups with viral control, female sex was independently associated with spontaneous clearance compared to partial viral control with persistence (AOR: 2.86; 95%CI: 1.04, 7.83). Lastly, female sex (AOR: 3.10; 95%CI: 1.18, 8.17), *IFNL3* CC genotype (AOR: 5.00; 95%CI: 1.85, 13.51), HCV genotype 1 (AOR: 3.50; 95%CI: 1.24, 9.87), and peak HCV-RNA level≥5.6 log IU/mL (AOR: 3.77; 95%CI: 1.38, 10.28) were all independently associated with spontaneous clearance compared to viral plateau with persistence.

Conclusion: Among individuals with acute HCV infection, a spectrum of HCV-RNA patterns is evident. *IFNL3* CC genotype is associated with initial viral control, while female sex is associated with ultimate spontaneous clearance.



Disclosure of Interest
The InC[3] Study is supported by the National Institute on Drug Abuse Award Number R01DA031056. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health. The Kirby Institute is funded by the Australian Government Department of Health and Ageing. The views expressed in this publication do not necessarily represent the position of the Australian Government. No pharmaceutical grants were received in the development of this study.

Oral Abstract 2

PHYLOGENETIC CLUSTERING OF ACUTE HEPATITIS C VIRUS INFECTION IN AUSTRALIA IS ASSICIATED WITH HIV CO-INFECTION AND GENOTYPE 1A INFECTION

AUTHORS: Bartlett S[1], Jacka B[1], Bull R[2], Luciani F[2], Matthews GV[1], Lamoury F[1], Hellard M[3], Teutsch S[2], White B[1], Maher L[1], Dore GJ[1], Lloyd A[2], Grebely J*[1], Applegate T*[1]
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*Contributed equally

Background: Strategies to reduce hepatitis C virus (HCV) transmission are needed. Research has identified factors associated with HCV acquisition but little is known about factors associated with HCV transmission. The aim of this study was to investigate transmission dynamics and identify factors associated with phylogenetic clustering among people with acute HCV infection in Australia.

Methods: Participants with acute HCV and an available sample at time of HCV detection were selected from the Australian Trial in Acute Hepatitis C (ATAHC), the Hepatitis C Incidence and Transmission Study in prison (HITS-p) and the Hepatitis C Incidence and Transmission Study in the community (HITS-c). Viral RNA was extracted and the Core–E2 region of HCV sequenced. Phylogenetic trees were inferred using maximum likelihood analysis and 1000 bootstrap replicates, and clusters identified using ClusterPicker (90% bootstrap threshold, 5% genetic distance threshold).

Results: Among 234 participants (ATAHC, n=123; HITS-p, n=91; and HITS-c, n=20), HCV genotype prevalence was: G1a: 40% (n=94), G1b: 4% (n=10), G2a: 2% (n=4), G2b: 5% (n=11), G3a: 47% (n=110), G6a: 1% (n=2) and G6k 1% (n=3). Among participants with HCV G1a/G3a, 20% were in a pair/cluster (G1a-32%, 29/88, mean maximum genetic distance =0.034); G3a-18%, 19/108, mean maximum genetic distance=0.028). Overall, in G1a/G3a, 50% (14/28) of HCV/HIV co-infected participants were in a pair/cluster as compared to 20% (34/168) with HCV alone. In those with G1a/3a, factors independently associated with phylogenetic clustering included HIV co-infection [adjusted odds ratio (AOR) 3.21; 95%CI 1.35, 7.62], and HCV G1a infection (AOR 2.13, 95%CI 0.22, 0.97).

Conclusion: In cohorts of acute HCV in Australia, 20% demonstrated phylogenetic clustering. HIV co-infection and G1a were independently associated with phylogenetic clustering. Strategies should be explored for the delivery of prevention and treatment interventions to reduce HCV transmission among groups with high transmission potential, such as those with HIV co-infection.

Oral Poster Abstract 3

MOLECULAR EPIDEMIOLOGY OF HEPATITIS C VIRUS INFECTION AMONG PEOPLE WHO INJECT DRUGS IN VANCOUVER, CANADA

Jacka B[1], Applegate T[1], Krajden M[2], Olmstead A[2], Harrigan PR[3,4], Marshall BDL[5], DeBeck K[3,6,] Milloy M-J[3,7], Lamoury F[1], Pybus O[8], Lima V[3,4], Magiorkinis G[8], Montoya V[2], Montaner J[3,4], Joy J[3], Woods C[3], Dobrer S[3], Dore GJ[1], Poon AF[3,4]* and Grebely J[1]* (joint senior)
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Background: Factors associated with an increased risk of hepatitis C virus (HCV) acquisition among people who inject drugs (PWID) have been described, but little is known about factors associated with HCV transmission. We characterized phylogenetic clustering of HCV genotype 1a and 3a infection and associated factors among PWID recruited between 1996 and 2012 in Vancouver, Canada.

Methods: Data were derived from the Vancouver Injection Drug User Study. HCV RNA positive samples were sequenced using the Core-E2 region. Phylogenetic trees were inferred using maximum likelihood analysis and clusters were identified using bootstrap and genetic distance thresholds. Factors associated with clustering were assessed using logistic regression.

Results: Among 1,107 HCV RNA positive participants, 657 (65%) had available Core-E2 sequences. The HCV genotype prevalence was: G1a: 1a: 48% (n=316), 3a: 33% (n=219) and other genotypes 19% (n=122). Overall, the mean age was 36 years (SD, 8), 24% were female and 26% were HIV positive. Among participants with suitable sequence, 29% (91 of 311) and 34% (65 of 190) were in a pair or cluster, for G1a and G3a respectively. In a combined analysis of G1a and G3a, factors independently associated with phylogenetic clustering included being aged <40 [vs. ≥40, adjusted odds ratio (AOR) 1.64; 95% CI 1.03-2.63], HCV seroconversion (vs. baseline HCV infection, AOR 3.05; 95% CI1.4-6.66), HIV infection (vs. none, AOR 1.82; 95% CI 1.18-2.81), and recent syringe borrowing (vs. not, AOR 1.59; 95% CI 1.07-2.36).

Conclusion: In this population of PWID in Vancouver, one-third of individuals demonstrated phylogenetic clustering. Factors associated with HCV clustering included younger age, HCV seroconversion, HIV infection, and recent syringe borrowing. Strategies to enhance the delivery of prevention and/or treatment strategies to those with HIV infection and PWID with recent HCV infection should be explored, given an increased likelihood of HCV transmission by these groups.

Oral Poster Abstract 4

IMMUNO-HISTOLOGICAL CORRELATES OF PROTECTION FROM HIV TRANSMISSION BY MALE CIRCUMCISION AND OTHER FORMS OF PENILE CUTTINGS

I. Shih[1], L. Asugeni[2], M. David[3], P. Horwood[3], M. Jayathunge[4], J. Kaldor[1], J. Mc Bride[4], D. Mc Laren[4], M. Sarris[5], R. Tommbe[2], A. Vallely[1], A. Waine[6], S.G. Turville[1, 1]The Kirby Institute, University of New South Wales, Sydney, Australia, [2]Pacfic Adventist University, Port Moresby, Papua New Guinea, [3]Papua New Guinea Institute of Medical Research, Sexual and Reproductive Health Unit, Goroka, Papua New Guinea, [4]School of Medicine and Dentistry, James Cook University, Cairns, Australia, [5]School of Medical Sciences, University of New South Wales, Histology and Microscopy Unit, Sydney, Australia, [6]University of Papua New Guinea, Port Moresby, Papua New Guinea

Background: The hypothesized mechanisms whereby circumcision protects against HIV transmission are controversial. The two common hypotheses are the removal of target cells within the inner foreskin, and establishment of a protective primary barrier on remnant inner foreskin through exposure and subsequent building of primary skin barriers. In Papua New Guinea (PNG), non-medical penile cutting practices, such as the dorsal slit (DS), provided a unique opportunity to study a scenario where the inner foreskin is exposed but not completely removed.

Methods: To assess inner foreskin primary barrier changes that could potentially afford HIV protection, the stratum corneum (SC) thickness, epithelial thickness and epithelial adhesion to the dermis in men with and without DS were observed. Foreskin tissues were obtained from 32 HIV-1 negative men following elective enrollment at a free circumcision service offered by Pacific Adventist University, PNG. For histological evaluation, frozen and paraffin embedded foreskin sections were studied to assess primary barrier parameters: through standard hematoxylin and eosin staining, utilizing in addition alkaline expansion to representatively observe SC architecture after high resolution microscopy.

Results: Men presenting with DS had significantly thicker SC of their inner foreskin than men without: 12.09um±2.92 versus 9.87um±2.54 respectively ($p< 0.001$). There was no significant difference in epithelial surface area (0.029mm^2±0.008 and 0.035mm^2±0.012 respectively; (n=16; 160 total measurements)) or degree of epithelium-dermis adhesion. Preliminary observations in parallel HIV transmission studies suggest that these histological changes in dorsal slit men relevant in *in vivo* protection.

Conclusions: Through the study of existing cultural foreskin cutting practices in young men in PNG, we observed that exposure of the inner foreskin leads to thickening of the protective SC layer. Whilst HIV transmission studies in men with DS are on-going, we hypothesize the establishment of this increased primary barrier on the inner foreskin is sufficient for increased protection against HIV transmission.

Oral Abstract 5

LOSS TO FOLLOW0UP IN THE AUTRALIAN HIV OBSERVATIONAL DATABASE

Hamish McManus[1], Kathy Petoumenos[1], Katherine Brown[2], David Baker[3], Darren Russell[4,5,6,] Tim Read[7], Don Smith[8,9], Lynne Wray[10], Michelle Giles[11,12], Jennifer Hoy[12], Andrew Carr[13], Matthew Law[1], on behalf of the Australian HIV Observational Database
[1]The Kirby Institute, UNSW Australia, Sydney, Australia; [2]Illawarra Sexual Health Service, Warrawong, Australia; [3]East Sydney Doctors, Sydney, NSW, Australia; [4]Cairns Sexual Health Service, Cairns, QLD, Australia; [5]James Cook University, Cairns, Australia; [6]The University of Melbourne, Melbourne, Australia; [7]Melbourne Sexual Health Centre, Alfred Health, Melbourne, Australia; [8]The Albion Centre, Sydney, Australia; [9]School of Public Health and Community Medicine, University of New South Wales, Sydney, Australia; [10]Sydney Sexual Health Centre, Sydney, Australia; [11]Infectious Diseases, Monash Medical Centre, Melbourne, Australia; [12]Department of Infectious Diseases, The Alfred Hospital and Monash University, Melbourne, Australia; [13]HIV, Immunology and Infectious Diseases Unit, St Vincent's Hospital, Sydney, NSW, Australia

Background: Loss to follow-up (LTFU) in HIV-positive cohorts is an important surrogate for interrupted clinical care which can potentially influence the assessment of true HIV disease status and outcome. The aim of this study was to investigate rates and determinants of LTFU, along with survival in HIV-positive patients LTFU in a high resource setting.

Methods: Rates of LTFU were measured in the Australian HIV Observational Database. Multivariate repeated measures regression methods were used to identify determinants of LTFU and of return to care (RTC). Mortality in LTFU was ascertained using linkage to the National Deaths Index. Survival following cART initiation investigated using Cox proportional hazards models.

Results: Of 3,413 patients included, 1,632 (47.8%) had at least one episode of LTFU after enrolment. Multivariate predictors of LTFU included viral load (VL)>10,000 copies/ml (1.63 (1.45-1.84) (ref ≤400)), time under follow-up (per year) (1.03 (1.02-1.04)) and prior LTFU (per episode) (1.15 (1.06-1.24)). Of 2,349 episodes of LTFU, 1,283 (54.62%) were associated with RTC. Multivariate predictors of RTC included VL 1,001-10,000 copies/ml (1.49 (1.04-2.13) (ref ≤400)), time under follow-up (per year) (1.07 (1.03-1.11)) and prior LTFU (per episode) (1.60 (1.34-1.92)). LTFU status was not associated with survival (p=0.836).

Conclusions: Increased risk of LTFU was identified amongst patients with potentially higher infectiousness. We did not find significant mortality risk associated with LTFU. This is consistent with timely re-engagement with treatment, possibly via high levels of unreported linkage to other health care providers.

Oral Abstract 6

THE ASSOCIATION BETWEEN SUBSTANCE USE AND HOUSEING AMONGST PEOPLE WHO INJECT DRUGS (PWID)

Whittaker E[1], Swift W[2], Roxburgh A[1], Dietze P[3], Cogger S[3], Bruno R[1,4], Sindicich N[1] and Burns L[1]
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Background: Homelessness status is strongly correlated with higher rates of substance use and mental health disorders. Few studies, however, examine the complex relationship between housing status and substance use in people who inject drugs (PWID), particularly exploring specificities in physical and mental health and service utilisation. This study provides an extension to previous research by comparing the physical and mental health status and service utilisation rates between PWID who are homeless and PWID in stable housing.

Methods: A cross-sectional sample of 923 PWID were recruited for the 2012 Illicit Drug Reporting System (IDRS). Multivariate models were generated addressing associations between homelessness and the domains of demographics; substance use; and health status, service utilisation and criminal justice system contact, with significant correlates entered into a final multivariate model.

Results: Almost one-quarter (23%) reported that they were homeless. Homeless PWID were significantly more likely to be unemployed, inject in public and report schizophrenia in the past six months. Poorer mental health and higher rates of imprisonment were also meaningful trends.

Conclusions: Findings highlight the challenge of mental health for homeless PWID. Our results demonstrate that further research that evaluates outcomes of housing programs accommodating PWID, particularly those targeted to people with comorbid mental health disorders, is warranted. Results also emphasise the need to better utilise integrated models of outreach care that cater to co-managing housing and mental health needs.

Oral Poster Abstract 7

PRENATAL ALCOHOL EXPOSURE, PARENTAL IQ AND INFANT COGNITIVE DEVELOPMENT: FINDINGS FROM AN AUSTRALIAN LONGITUDINAL STUDY

Clare McCormack[1], Delyse Hutchinson[1], Richard Mattick[1], Lucy Burns[1], Judy Wilson[1], Steve Allsop[2], Jake Najman[3], Elizabeth Elliott[4], Sue Jacobs[5], Craig Olssen[6], Anne Bartu[7]
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***Introduction*:** There is evidence of detrimental effects of heavy prenatal alcohol exposure on intellectual ability in childhood. However, less is known about the effects of low to moderate exposure. Studying the isolated effect of alcohol exposure on cognitive development is challenging, due to confounding factors such as parental IQ, socio-economic status, and health. This study aims to examine the effect of low, moderate and heavy prenatal alcohol consumption on infant cognitive development, taking into account the effect of confounds.

***Methods*:** Data from a sample (n=437) of families participating in a longitudinal study, of whom approximately 68% consumed alcohol during pregnancy, will be presented. Participants were recruited from three different hospital antenatal clinics in Sydney, Australia. Detailed information regarding women's alcohol use was recorded at trimester one, two and three of pregnancy. Infants were assessed in their home at one year of age by skilled researchers using the Bayley Scales of Infant Development III - the gold standard assessment tool for infant development. An estimate of maternal verbal IQ was obtained using the Test of Premorbid Functioning.

***Results*:** Results of statistical analyses investigating whether alcohol consumption across low, moderate and heavy levels predicts scores on the Bayley Scales of Infant Development at age one, taking into account the effect of maternal IQ, will be presented.

***Conclusion*:** A significant number of women continue to consume alcohol during pregnancy, despite public health guidelines advising abstinence. This research has provided valuable information about the potential effects of this consumption. This study is unique in incorporating a measure of maternal IQ, and considering this as a factor when assessing infant cognitive development. Continued follow up of a larger sample from this population will further clarify these effects.

The authors do not have any relationships to declare that could be considered a potential conflict of interest.

Oral Poster Abstract 8

THE PROGRESSION AND PREDICTION OF MOTHER-CHILD BONDING THROUGH PREGNANCY AND POST-NATALLY.

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Issue: Pregnancy and the early postnatal period are critical developmental windows with long-term health implications across the lifecourse. To date, most studies have focused on the role of maternal health, nutritional and environmental exposures within these periods; however, psychosocial exposures are also likely to play a role. It is well established that problems in the early postpartum bond between mother and baby create seminal risk for mental disorder across the lifecourse. The purpose of this study is examine prenatal predictors of post natal maternal-infant bonding; specifically, the role of prenatal maternal mental health, substance use and prenatal maternal-fetal bonding. The study will use longitudinal data from a unique Australian birth cohort that has followed over 1604 women across pregnancy and into the first year of life. Results will help identify potentially critical exposures and time points for intervention.

Approach: This study will utilise data (n=373) from a longitudinal birth cohort study of pregnant women being assessed during the prenatal and early postnatal period. Comprehensive data was collected on: demographic information, drug and alcohol use (quantity and frequency of caffeine, alcohol, tobacco and illicit substance use), mental health (Depression, Stress and Anxiety Scale) and fetal/infant bonding security (Maternal Antenatal/Postnatal Attachment Scales). Assessments were conducted in pregnancy (Trimester 1, 2 and 3) and post-natally (8 weeks).

Aims:
This poster aims to

1. Examine whether antenatal bonding predicts postnatal bonding, after controlling for other potential covariates.
2. Investigate whether mental health and drug and alcohol use predicts maternal bonding to the fetus/infant at 8 weeks postnatal.

It is hypothesised that antenatal bonding would predict post natal bonding, i.e. higher levels of antenatal bonding would predict higher post natal bonding levels. Higher levels of maternal drug and alcohol use and depression, anxiety and stress are hypothesised to impact negatively on fetal/infant bonding (pre and post natal).

Oral Poster Abstract 9

DOES ADOLESCENT PERSONALITY TYPE INFLUENCE THE RELATIONSHIP BETWEEN ALCHOL-SPECIFIC PARENTING AND ALCOHOL USE IN ADOLESCENTS?

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Background: Recent evidence suggests that alcohol-related rule-setting by parents is one of the strongest predictors of early and later alcohol use in adolescents. However, little is known about the influence of adolescent characteristics, such as personality, on moderating the effectiveness of this parenting practice.

Aim: The aim of the current study is to explore the mediating effect of alcohol-specific personality traits (sensation seeking, impulsivity, anxiety sensitivity and hopelessness) on the relationship between alcohol-specific rules and adolescent's alcohol use among a sample of Australian adolescents.

Method: Using baseline data from the Climate Schools Combined Study (CSC) we will examine a total of 1,748 students aged 13 to 14-years-old from 20 schools across New South Wales, Western Australia and Queensland, Australia. Self-report measures include the 'Rules about Alcohol' scale to measure perceived rules about alcohol, the 'Substance Use Risk Profile Scale' (SURPS) to measure alcohol-specific personality traits, and the 'Alcohol Use' questionnaire to measure adolescent alcohol use. Using regression techniques we will estimate the direct effect of alcohol-specific rules on alcohol use and determine whether this relationship is mediated by alcohol-specific personality traits.

Implications: The current study will provide insight into how alcohol-specific personality traits of the individual, potentially change the relationship between effective rule-setting by parents and adolescent alcohol use, which in turn, will inform the development of future preventive interventions.

Oral Poster Abstract 10

DOES SEXUAL CONTENT IN NEW MEDIA AFFECT YOUNG PEOPL E'S SEXUAL ATTITUDES AND BEHAVIOURS? A SYSTEMATIC REVIEW AND META-ANALYSIS

Lucy Watchirs Smith [1], Rebecca Guy[1], Louisa Degenhardt [2], Handan Wand [1], Juliet Richters [3], George Patton [4], Donna Cross [5], Jane Hocking [6], Rachel Skinner [7], Spring Cooper [8], Catharine Lumby [8], John Kaldor [1], Bette Liu [10] & [3], [1]. Kirby Institute, UNSW, Sydney, Australia [2]. National Drug and Alcohol Research Centre (NDARC), UNSW, Sydney, Australia [3]. School of Public Health and Community Medicine, UNSW, Sydney, Australia [4]. Professor of Adolescent Health Research, University of Melbourne [5]. Child Health Promotion Research Centre, Edith Cowan University, Perth, Australia [6]. Centre for Women's health, Gender and Society, University of Melbourne, Melbourne, Australia [7]. Sydney University Discipline of Paediatrics and Child Health, Children's Hospital, Sydney, Australia [8]. Westmead Clinical School, University of Sydney, Sydney, Australia. [9]. Department of Media, Music, Communication and Cultural Studies, Macquarie University Sydney, Australia [10]. Sax Institute, Sydney, Australia.

Background: There is considerable public concern that new media (internet and mobile phones) could be exposing young people to high levels of sexual content and thus contributing to increases in risky behaviour and sexually transmissible infections. We conducted a systematic review and meta-analysis on the relationship between exposure to sexual content through new media and *sexual attitudes and behaviours in young people.*

Methods: The review was conducted in accordance with the PRISMA statement. Medline, EMBASE and PsychINFO were searched to the end of May 2014. Papers were included if they described the statistical association between exposure to sexual content in new media (viewing or engaging) and sexual attitudes and behaviours in young people (defined as <25 years).

Results: 12 studies met the inclusion criteria; six studies (10352 participants) examined young people's exposure to SEW/internet pornography and six studies (5480 participants) examined sexting. All studies were cross-sectional. The majority of studies suggested statistically significant positive correlations between SEW or sexting and increased sexual activity and sexual risk behaviours although many could not be combined in meta-analysis. Meta-analysis found SEW exposure was correlated with unprotected sexual intercourse (OR: 1.23, 95% CI: 1.08-1.38, two studies); and sexting was correlated with ever having had sexual intercourse (OR: 5.04, 95% CI: 3.82-6.27, four studies) and using alcohol or other drugs with sexual intercourse (OR: 2.65, 95% 1.98-3.32, 2 studies).

Conclusion: Study size, methodological and inconsistencies in outcome measures limited our ability to draw conclusions regarding associations. There are limited empirical data to support the suggestion that greater sexual content in new media results in increased sexual risk taking.

Oral Poster Abstract 11

EXPLOING THE TEMPORAL SEQUENCING AND BIDIRECTIONAL RELATIONSHIPS BETWEEN ALCOHOL USE, MOOD AND ANXIETY DISORDERS

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Background: Anxiety, depressive and substance use disorders often first emerge during childhood and adolescence. An early age of first drinking has been linked to the development of later substance use disorders and health risk behaviours, which impact on young people's current functioning and also limit their future life options. Of particular interest is the relationship between depression, anxiety and alcohol use, as these problems frequently co-occur have the same risk factors and interact. To date, little research has focused on how anxiety and mood disorders relate to drinking initiation and in particular, the temporal sequencing of these disorders.

The aim of this study is twofold; first, to explore onset of alcohol use, mood and anxiety disorders in a representative sample of young Australians, and second, to examine the bidirectional relationships between alcohol initiation, anxiety and depression. Specifically, this study will explore if pre-existing mood and/or anxiety disorders relate to a decreased age of alcohol initiation, and conversely, if decreasing the age of onset for alcohol use speeds up the development of anxiety and/or mood disorders.

Method: Data will come from the 2007 National Survey of Mental Health and Wellbeing, a nationally representative household survey of 8841 Australians aged 16-85 years old. It assessed participants for the most common DSM-IV mental disorders.

Results: Results are pending and will report on the prevalence and temporal sequencing of mood disorders, anxiety disorders and onset of alcohol use in the Australian general population, with particular focus on those aged 16-24 years old.

Conclusion: A clear understanding of the relationship between mood and anxiety disorders and drinking initiation will help to inform prevention and early intervention efforts by highlighting important target areas and optimal timing for interventions that have the potential to prevent significant impairment later in life.

Oral Poster Abstract 12

THE PREVALENCE AND CORRELATES OF MAJOR DEPRESSION AND SOCIAL ANXIETY DISORDER AMONG PEOPLE WITH SUBSTANCE USE DISORDERS: A NATIONAL PERSPECTIVE

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Background: Epidemiological research has established that more than a third of individuals with a substance use disorder (SUD) have at least one co-occurring affective or anxiety disorder. Despite high prevalence rates of both Major Depression and Social Anxiety Disorder in individuals with SUDs, there is paucity of research exploring the comorbidity of these three disorders.

This study seeks to answer two main research questions: (1) What is the Australian prevalence of comorbid Major Depression and Social Anxiety Disorder in individuals with SUDs? (2) What are the demographic, physical health, and mental health correlates of comorbid SUDs, Major Depression and Social Anxiety Disorder?

Methods: The current study will use data from the 2007 National Survey of Mental Health and Well-Being (NSMHWB), which was a large epidemiological survey conducted by the Australian Bureau of Statistics. The survey recruited 8,841 participants aged 16 to 85 from private dwellings in all States and Territories of Australia.

Results: Final results are pending

Conclusion: The provision of national data on the on the prevalence of co-occurring Depression, Social Anxiety Disorder and SUDs, and a better understanding of the clinical profile of individuals with these co-occurring disorders, will assist in the development and provision of interventions targeting comorbidity in substance users.

Oral Poster Absrtact 13

THE LONGITUDINAL RELATIONSHIP BETWEEN PROBLEMATIC SUBSTANCE USE AND DEPRESSION : AN 11 YEAR STUDY

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Background: Although the comorbidity between problematic substance use and depression is well-established, the way that these two conditions interact and impact on each other over time is not well-understood. The existing longitudinal studies that have examined this relationship have rarely extended beyond five years and have typically not assessed both disorders at every time point. As such, it is unclear whether substance use is a predictor of future depression or vice versa, or, whether the relationship between these two conditions is bi-directional in nature. This paper will examine the direction of the association between problematic substance use and depression over a period of 11 years, in a sample of Australian heroin users.

Method: The Australian Treatment Outcome Study (ATOS) cohort includes 615 heroin users recruited between February 2001 and August 2002, and subsequently followed up at 3-months, 12-months, 24-months, 36-months, and 11-years post-baseline. Measures of both substance use and depression were administered at each time point. Cross-lagged panel analyses within the framework of Structural Equation Modelling will be used to examine the direction of the relationship between problematic substance use and depression use across the seven waves.

Results: Currently in the process of being analysed. The question of interest is whether depression at one wave predicts substance use at the subsequent wave, and vice versa, and whether the direction of these relationships remains stable across time.

Conclusion: The findings of this study will allow for a better understanding of the influence that problematic substance use and depression have on one another, which has important implications for the treatment of these disorders.

Oral Poster Abstract 14

HOSPITAL-RELATED MORBIDITY IN TWO COMMUNITY-COHORTS OF HIV POSITIVE AND NEDATIVE GAY MEN

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Background: The objective was to describe hospitalization rates and types of diagnoses in a cohort of HIV negative and positive gay men living in Sydney. We hypothesized that rates would be significantly higher in the positive than the negative groups and that rates in the cohort would be higher than those in the NSW male population. The primary causes of hospitalisation were expected to differ between the positive and negative groups.

Methods: Participants included those enrolled in the Health in Men (HIM) study of HIV negative gay men and the Positive Health (pH) study of HIV-positive gay men recruited in Sydney, Australia. For participants who consented, hospitalisation data were obtained by data linkage (available for July 2000 to June 2012). Hospitalization rates by person-years of observation were calculated and compared with expected rates for the NSW male population.

Results: Among 13521 and 5695 person-years of observation, there were 2320 and 2307 hospital admissions in the HIM and pH cohorts respectively. Leading to a crude rate per 100 person-years (95% CI) of 17.2 (16.5-17.9) in HIM and 40.5 (38.9-42.2) in pH. Hospitalization rates were 40% higher than expected overall in the pH cohort. The greatest excess was in hospitalizations for infectious diseases (SHR(95%CI)=10.7 (7.3-15.7), respiratory diseases (SHR(95%CI)=2.1 (1.3-3.2), digestive system diseases (SHR(95%CI)=1.5 (1.1-1.9) and symptoms and abnormal findings (SHR(95%CI)=1.9 (1.1-3.1). Hospitalization rates were 30% lower than expected overall in the HIM cohort, the greatest discrepancy being in hospitalisations for mental disorders (SHR (95%CI)=0.5 (0.3-0.9), and musculoskeletal diseases (SHR (95%CI)=0.6 (0.4 to 0.8).

Conclusion: Hospitalization rates were significantly higher in gay men with HIV than the general population. Our findings indicate a potential protective factor in being an HIV negative gay man living in Sydney compared to the general male population.

Oral Poster Abstract 15

CHRONIC PAIN AND SUICIDE IN AUSTRALIA: PREVALENCE, CORRELATES AND ASSOCIATIONS

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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. To date, there have been only three population-based studies that have examined the relationship between chronic pain and suicide, and no studies that estimated the contribution of chronic pain to suicidal thoughts and behaviours in a nationally representative sample.

Method: Data from the 2007 National Survey of Mental Health and Wellbeing, a nationally representative household survey on 8841 people, aged 16-85 years, was analysed.

Results: Approximately 40% of the sample reported ever experiencing chronic pain. 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. Chronic pain was associated with lifetime suicidal thoughts and behaviours after controlling for demographic, mental health and substance use disorders. This was more marked in the chronic back/neck problem group compared those with arthritis and migraines.

Conclusion: This is the first Australian study to examine the relationship between suicidality and chronic pain in a nationally representative sample. Importantly, approximately 50-65 % of people who experience suicidal thoughts and behaviours have a history of chronic pain. Furthermore, chronic pain was associated with lifetime suicidal thoughts and behaviours after controlling for demographic, mental health and substance use disorders. This finding is of timely importance, in the backdrop of an ageing population, and has significant clinical implications in terms of treatment and identification of people with chronic pain and their risk of experiencing suicidal thoughts and behaviours.

Oral Poster Abstract 16

THE CHANGING NATURE OF OPIOID OVERDOSE DEATHS IN AUSTRALIA

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Background: Opioid-related mortality peaked in Australia in 1999, with 1,116 Australians dying from an accidental opioid overdose. Deaths subsequently declined in 2001 to 386, following changes in heroin availability. Surveys of people who inject drugs show this group increasingly using prescription opioids. At the same time, Australia's population is ageing, and more Australians are being prescribed opioid analgesics for chronic non-malignant pain. This paper will look at the changing nature of opioid overdose deaths in Australia, and what this might mean for harm reduction strategies that target opioid mortality.

Methods: Analysis of the Australian Bureau of Statistics Causes of Death data as well as the National Coronial Information System (NCIS) investigating deaths where opioid overdose was implicated.

Results: Heroin overdose deaths dropped dramatically from 421 in 1999 to 116 in 2001. In 2010 this figure retuned to 203. Opioid overdose deaths overall have started to increase again. Estimates of deaths among Australians aged 45 to 54 in 2010 show the number of deaths exceeding those seen among this age group prior to the reduction in heroin availability. Other analyses show that oxycodone deaths have increased over time, and are occurring predominantly among people without a history of injecting drug use, and who have been prescribed oxycodone. Fentanyl deaths have also increased (although much smaller in number overall than oxycodone deaths), although a larger proportion of these deaths are occurring among people who inject drugs, and who have not been prescribed fentanyl.

Conclusion: The increasing availability of opioid analgesics in Australia, along with an ageing population, and changing trends in drug use among people who inject drugs, is reflected in the changing nature of opioid overdose deaths in Australia, with increasing number of deaths being attributed to opioids other than heroin. More nuanced harm reduction strategies are required to reflect these changes.

Oral Poster Abstract 17

KNOW YOUR TARGETS: HOW OPTIMAL RESOURCES ALLOCATIONS VARY WITH DIFFERING OPJECTIVES

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Background: Allocation of resources is complex. There is often tension between sets of influences which results in conflicting decision-making. This often leads to non-optimal use of resources. Here, we investigate how resources can be used most efficiently. However, the specific choice of desired outcomes can heavily affect the optimal distribution of resources. Here we investigate how different epidemiological and economic objectives yield contrasting messages for funding distribution.

Methods: By identifying associations between outcomes and program spending, the expected result associated with scale-up/down of investments across combinations of prevention and treatment programs can be estimated. A formal mathematical optimisation procedure was conducted around an epidemiological transmission model specific for the HIV epidemic in Indonesia to identify the most efficient re-allocation of current resources to minimise different epidemic indicators.

Results: By optimally reallocating the national budget to minimise AIDS-related deaths, an estimated 36,000 lives could be saved over a ten-year period compared to the current distribution of resources. However, such a distribution of funding is estimated to result in an extra 40,000 new infections, and generate an additional $1.07b of fiscal liability over 80 years. By instead optimising resources to minimise cumulative incidence over a ten-year period, 100% of the treatment budget was reallocated to the most cost-effective prevention programs. Comparing these two optimal allocations, the latter is estimated to result in 350,000 fewer new infections over a ten-year period, but will cause a further 32,000 AIDS-related deaths. By combining a series of desired epidemiological outcomes, such as reducing incidence and deaths to 50% of current levels, it was found that Indonesia's optimised allocation of resources would require a 6-fold increase in magnitude.

Conclusions: Outcomes can be substantially improved by reallocating resources more effectively. However, the most efficient distribution of these resources is very highly dependent on the choice of desired objectives.

Oral Poster Abstract 18

RETURNS ON INVESTMENTS OF HIV PREVENTION PROGRAMMES IN VIETNAM, 2006-2010: A MATHEMATICAL MODELLING STUDY

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Background: To investigate the epidemiological and economic impacts of HIV prevention programmes implemented between 2006 and 2010 and establish evidence for optimal allocations of future HIV funding in Vietnam.

Design/methods: A cost-utility analysis was conducted for Vietnam's HIV prevention programmes by using a mathematical model calibrated to reflect the HIV epidemic in Vietnam. The costs for averting an infection, HIV-related death and disability adjusted life-year (DALY) and returns on investments for various HIV programmes were estimated. We also used a new tool, Optima, to identify optimal resource allocations for future HIV programmes in Vietnam.

Results: Modelling suggests that these programmes have averted an estimate 69,700 (45,500–93,200) new infections and 46,200 (39,000–58,400) deaths, resulting in 483,300 (354,600–591,200) less DALYs. The programmes have been highly cost-effective and cost US$1,429 (1,069–2,190), US$2,159 (1,708–2,562) and US$206 (169–282) for each infection, death and DALY averted, respectively. For every US$1 invested to the programmes during 2006-2010, the estimated return was $0.70 in healthcare cost savings. Long-term benefits add an additional US$3.14 for every US$1 already invested. Optimal resource allocation analysis indicated a shift of funding towards most-at-risk populations (MARPs). If the same amount of resources will continue to be funded and are optimally allocated over 2013-2020, the expected number of new HIV infections are reduced by ~16% (26,000 cases) compared to current allocations.

Concussions: Vietnam's prevention programmes have been effective in reducing the HIV disease burden and future healthcare spending. Future resource allocation should prioritise HIV interventions among MARPs for the greatest epidemiological impacts.

Oral abstract 19

DELIVERING INTERNET-BASED PREVENTION FOR ALCOHOL AND CANNABIS: RESULTS FROM A CLUSTER RANDOMISED CONTROLLED TRIAL

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Background: The use of alcohol and other drugs by young people is a serious public health concern and is associated with significant social costs and harms. As such, there is a clear need to intervene early and deliver prevention before initiation to alcohol and other drug use occurs. The present study aims to conduct a cross-validation trial to evaluate the effectiveness of the *Climate Schools: Alcohol and Cannabis* course, an online school-based program designed to prevent alcohol and cannabis use among Australian adolescents.

Methods: A cluster randomised controlled trial was conducted among Year 8 students from 13 secondary schools in Sydney and Melbourne as part of a larger NHMRC-funded trial, known as the CAP Study. Six schools (n=576) received the *Climate Schools: Alcohol and Cannabi*s course and seven schools (n=527) were randomised to a control group (health education as usual). All students completed a self-report survey at baseline and immediately post-intervention. Outcomes assessed included patterns of alcohol and cannabis use, knowledge, attitudes, harms and intentions.

Results: A total of 1103 students completed the survey at baseline (mean age 13.25 years, 65% female) and 880 (79.8%) responses were received immediately post-intervention. Preliminary analyses, accounting for clustering at the school level, have revealed promising intervention effects, particularly in relation to alcohol- and cannabis-related knowledge.

Conclusion: Preliminary results from this study support the *Climate Schools* course as an effective means of delivering alcohol and cannabis education for adolescents. If positive program effects can be replicated, this will strengthen the feasibility and generalizability of the course and position it well for more widespread dissemination among schools. Furthermore, the present study will help to fill an important gap in the prevention science field in which there is a current dearth of replication occurring.

Oral Abstract 20

SEXUAL HEALTH SERVICE CLIENTS PREFER HOME-BASED RETESTING FOR CHLAMYDIA

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Background: Chlamydia retesting at 3 months after treatment is important to detect reinfections and persistent infections, but retesting rates are typically low. In the REACT trial, sexual health clinic clients diagnosed with chlamydia were randomised to either home-based retesting (postal home-collection kit) or standard clinic-based retesting. We evaluated the acceptability of the home-based strategy.

Methods: REACT participants were reminded by SMS to undertake a quantitative survey online 4.5 months after enrolment. Those randomised to home-based testing were asked about home-testing acceptability (ease of use and confidence in collection), and preferred methods of retesting (home or clinic). We used a chi-square test to assess if there were any differences in demographics and home-test acceptability according to the preferred method of retesting.

Results: Overall 236/302 (78%) participants randomised to home-testing completed the survey. Of these, 74 (31%) were heterosexual men, 83 (35%) men who have sex with men, and 79 (34%) women. The majority (68%) were aged <30 years. Overall 162/236 (69%) had retested at 1-4 months. The majority were very comfortable/comfortable having the kit posted to their home (86%); found it easy to follow the instructions and collect the specimens (96%); were confident they had collected the specimens correctly (90%); and reported no problems collecting the specimen (70%). Most (65%) preferred home testing, 14% preferred clinic retesting, and 21% were neutral. Preference for home testing was associated with feeling comfortable having the kit sent to their home (p=0.045); not being diagnosed with chlamydia previously (p=0.030); and living with friends rather than their partner, parents or alone (p=0.034).

Conclusion: Home-based retesting was found to be acceptable and preferred by most participants. However some clients prefer clinic-based testing, often due to confidentiality concerns in their home environment. Both options should be provided to maximise retesting rates.

Disclosure of interest statement
No conflict of interest

Oral poster Abstract 21

BARRIERS TO HIV TESTING AND OTHER CLIENT CHARACTERISTICS ASSOCIATED WITH NEVER PREVIOUSLY TESTING FOR HIV AMONG GAY AND BISEXUAL MEN PARTICIPATING IN THE SYDNEY RAPID HIV TEST STUDY

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Background: HIV notifications among gay and bisexual men (GBM) have been increasing in recent years in Australia. Guidelines recommend at least annual HIV testing by sexually active GBM, with more frequent testing for high risk men. While research on barriers to testing and characteristics associated with never previously testing for HIV (never testing) has been conducted using community-based samples, data on men attending clinics are lacking.

Methods: GBM undergoing rapid HIV testing and venipuncture for conventional testing in the same visit at four Sydney sexual health clinics self-completed questionnaires assessing testing history and psychological and structural barriers to HIV testing during 2011-2012. Bivariate and multivariate logistic regression was used to assess associations between client characteristics and never testing.

Results: Of 1093 participants, 981 (89.9%) reported ever testing for HIV and 110 (10.1%) never testing. The most commonly reported barriers to HIV testing among all men were: finding it annoying to return for results (30.2%); not having done anything risky (29.6%); stress in waiting for results (28.4%); being afraid of testing positive (27.5%); and difficulty in finding time to test (20.6%). Never testing was associated with: being non-gay-identified (adjusted odds ratio [AOR] 2.10; 95% confidence interval[CI]: 1.20-3.68); being 18-29 years old (AOR 2.19; 95%CI:1.37-3.50); not knowing where to test (AOR 3.14; 95%CI:1.08-9.10); disliking venipuncture (AOR 2.14; 95%CI:1.02-4.47); reporting one or no sexual partners in the last six months (AOR 3.14; 95%CI:1.35-7.31); and finding finger-prick specimen collection more comfortable than venipuncture (AOR 1.63; 95%CI:1.05-2.52).

Conclusion: Barriers to HIV testing are commonly reported among clinic-based GBM. Never testing was more likely to be reported by younger, non-gay-identifying men who report fewer sexual partners and prefer finger-prick specimen collection to venipuncture. These findings suggest specific health promotion strategies regarding alternatives to venipuncture, availability of rapid testing and location of testing services may encourage HIV testing among these men.

Disclosure of Interest Statement: The Kirby Institute and Centre for Social Research in Health receive funding from the Australian Government Department of Health and the New South Wales Ministry of Health. This analysis in the Sydney Rapid HIV Test study was supported by a National Health & Medical Research Council Program Grant. DPC was supported by a scholarship from Australian Rotary Health/Sydney CBD Rotary Club and The Kirby Institute. Alere provided the Determine HIV Combo rapid test kits used free of charge, but did not influence the study design, analysis of data or reporting of results.

Oral Poster Abstract 22

DIFFERENCES IN DELAYED HIV DIAGNOSES BETWEEN GAY AND BISEXUAL MEN IN AUSTRALIA: IMPLICATIONS FOR HIV SURVEILLANCE, PREVENTION AND TESTING.

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Background: Reporting of HIV diagnoses in the Australian HIV surveillance system combines notifications among men who only report homosexual contact (MHC) and men who report bisexual contact (MBC) within a single category of 'men who have sex with men' (MSM). We compared CD4 count at diagnosis among MHC and MBC.

Method: National surveillance data on new HIV diagnoses among MSM in the years 2003-12 were analysed. The number and proportion of diagnoses defined as late (CD4+ cell count 200-349 cells/µl at diagnosis), and advanced (<200 CD4+ cells/µl) are reported.

Results: A total of 7,010 HIV diagnoses in MSM were notified in the 10-year period 2003-13. Among MHC, 703 (10.9%) were defined as advanced, and 631 (9.8%) as late, compared with 133 (22.9%) advanced, and 72 (12.4%) late diagnoses among MBC ($p<0.001$). The median CD4 count at diagnosis was 469 cells/µl among MHC compared with 380 cells/µl among MBC ($p<0.001$).

Conclusion: Considerable differences between MBC and MHC in Australia may be inadvertently obscured by the combined 'MSM' category used in the surveillance reporting system. Combining these categories is sensible for surveillance purposes as it highlights that sex between men is the more likely exposure route in the Australian epidemic. Nonetheless, the social contexts within which HIV infections occur may be very different in these two groups. Access to and motivations for testing are likely to vary substantially between gay and bisexual men and so differing strategies may be required to improve HIV testing rates within each of these groups

Disclosure of Interest Statement: The Kirby Institute, and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, UNSW, Australia. ARCSHS is affiliated with La Trobe University.

Oral Poster Abstract 23

AGREEMENTS AND COMMUNICATION ABOUT VIRAL LOAD WITHIN GAY MALE SERODISCORDANT COUPLES: IMPLICATIONS FOR 'TREATMENT AS PREVENTION'

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Background: Within serodiscordant couples (SDCs), HIV transmission can be reduced by practicing unprotected anal intercourse (UAI) only when the HIV-positive partner's (HPP's) viral load (VL) is undetectable. However, there is little research on communication and agreements about VL within homosexual male SDCs.

Methods: *Opposites Attract* is an ongoing international cohort study of homosexual SDCs. At baseline, HIV-negative partners (HNPs) self-reported on sexual behaviour, relationship agreements, communication, and perception of partner's VL.

Results: At June 2014, 147 couples were enrolled. Mean age of HNPs was 39.2 years; 95.9% self-identified as 'gay'. 88.4% knew his partner's last VL test result and 72.6% perceived it to be undetectable. Most (85.0%) were told the result by their partner, and 10.2% saw the actual result. Very few (2.0%) simply assumed or believed it based on previous results. More HNPs knew the last result in couples with explicit agreements for VL results to be communicated (93.9% vs 77.1%, p=0.003). Overall, 67.4% had such an agreement. Only half 'took VL into account' when making agreements. 54.6% had agreements allowing UAI when the HPP's VL was undetectable, compared to 22.0% when detectable. In the last 3 months, 62.5% of couples had UAI. UAI was more likely among couples: where the HPP's VL was perceived undetectable (72.8% vs 37.5%, p<0.001); and with agreements allowing UAI when VL was undetectable (84.3% vs 2.0%, p<0.001). 87.8% found it easy to discuss VL results with partners; communication was easier in couples with perceived undetectable VL (93.4% vs 72.5%, p<0.001).

Conclusion: Reducing risk in SDCs relies on decisions about UAI in relation to VL; in turn, accurate knowledge of partners' recent VL relies on clear communication within couples. We found a strong relationship between perceived VL and UAI. Relationship agreements largely reflected practice, and HNPs typically discovered VL results in an explicit way.

Disclosure of interest statement: The Kirby Institute (formerly the National Centre in HIV Epidemiology and Clinical Research) receives funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

Oral Poster Abstract 24

WHAT CAN DATA ON POST-EXPOSURE PROPHYLAXIS FROM THE SEROCONVERSION STUDY TELL US ABOUT THE POTENTIAL USE OF PRE-EXPOSURE PROPHYLAXIS AMONG GAY MEN IN AUSTRALIA?

Authors:
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Background: Post-exposure prophylaxis (PEP) has been available to gay men in Australia for more than ten years, while debate continues around the question of the use of pre-exposure prophylaxis (PrEP). What can information from the HIV Seroconversion Study tell us about how gay men in Australia might use PrEP?

Methods: The Seroconversion Study collects both quantitative and qualitative data from people in Australia recently diagnosed with HIV. 447 men completed an online survey, while 76 men were interviewed. Respondents were asked about their knowledge and beliefs around, and their prior use of both and PEP and PrEP.

Results: Just over half (51.4%) the men in the Seroconversion Study had heard of PEP. Of those who had heard of PEP, almost a third (32.7%) had accessed it previously. When asked why they did not access PEP following the event they believe resulted in their infection, many men reported not perceiving the particular event as being risky enough at the time to warrant the difficulty involved in obtaining PEP. A number of men who had accessed PEP previously did not want to repeat the feeling of embarrassment that they experienced when they accessed PEP previously and, as one man put it: “as I had regular bareback sex with people, it wasn’t worth going to the doctor’s weekly to get this treatment”.

Conclusion: The ability to access pre-exposure prophylaxis will remove some obstacles for men who may be unlikely to access PEP after engaging in risk behaviour, enabling men to prepare for anticipated risky behavior and protect themselves against HIV infection.

Oral Poster Abstract 25

SUBSTANCE USE AMONG ADOLESCENT BULLIES,VICTIMS AND BULLY-VICTIMS

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Background: Bullying is common among school students and has been associated with a wide range of problems, such as poor social adjustment, emotional problems, and academic difficulties. An area receiving limited research focus is the association between bullying and substance use. The current study aims to examine substance use among the main subtypes involved in bullying: bullies, victims and bully-victims.

Methods: This study will examine baseline data collected as part of the school-based Climate and Prevention study [Year 7-9 students; n=2268]. Bullying was measured using an adapted version of the Olweus Bully Victim Questionnaire. Recent and problematic substance use will be examined (alcohol, tobacco and cannabis). Multivariate regression will be used to compare substance use among the bullying subtypes and uninvolved students.

Results: Pending

Conclusion: It is anticipated that there will be an increased risk of substance use among students involved in bullying compared to uninvolved students, and that substance use will differ across the bullying subtypes. These findings will have implications for both bullying prevention and substance use prevention.

Oral Poster abstract 26

PRISON BASED TREATMENT FOR ALCOHOL AND RELATED OTHER DRUGS USE AMONG ABORIGINAL AND NON-ABORIGINAL

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Background: This PhD investigates alcohol and other drug (AoD) use among Aboriginal and non-Aboriginal men entering prison and behavioural treatment for AoD while in prison, with the view to enhancing existing or possibly developing new prison based AoD treatment programs. The project consists of three studies: 1) Systematic review of prison based AoD treatment literature from Australia and comparable countries with Indigenous populations (Canada, the United States and New Zealand); 2) Analysis of AoD use trends prior to prison by inmates in NSW; and 3) Study of a prisons based AoD treatment program in a NSW prison.

Methods: Different methods are used in the three studies. The systemic review is being conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method. The analysis of AoD use trends has used quantitative methods including logistic regression and chi-square tests and the study of a treatment program is using a qualitative phenomenological method.

Results: Study one and three are in progress however study two has been completed. Over half of men entering prison had previously drank alcohol and almost half had used illicit drugs at levels possibly requiring an intervention, there was significant crossover between these groups, but the odds of illicit drug use by the alcohol use group were reduced (OR= 0.48, p=0.01).

There was no significant difference between Aboriginal and non-Aboriginal alcohol use (p=0.76). Aboriginal inmates were however less likely to have used amphetamine but more likely to have used cannabis than non-Aboriginal inmates (p=0.05 and p=0.03 respectively).

Conclusion: Both Aboriginal and non-Aboriginal inmates have significant AoD use problems, with there being as much need for alcohol as there is illicit drug behavioural treatment programs.

Oral Poster Abstract 27

EVALUATING THE *DEAL PROJECT* – A BRIEF, WEB-BASED INTERVENTION FOR CO-OCCURRING DEPRESSION AND PROBLEMATIC ALCOHOL USE IN YOUNG PEOPLE: A RANDOMISED CONTROLLED TRIAL

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Background: Depression and alcohol misuse 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 risks 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, particularly in young people. The increased availability of web-based programs to complement health care presents a unique opportunity in the treatment of these conditions.

Objective: To evaluate whether a brief, web-based self-help intervention (the *DEAL Project*) can be effective in treating co-occurring depression and problematic alcohol use in young people (aged 18 – 25 years).

Methods: A randomised controlled trial (RCT) compared the *DEAL Project* with an attention-control condition (*HealthWatch*). This trial consisted of a four-week intervention phase and a 24-week follow-up, conducted entirely online and Australia-wide. Primary outcomes included change in depression symptoms and alcohol use at 5, 12, and 24 weeks post-baseline. Secondary outcomes included change in general functioning and quality of life, anxiety/stress symptomatology, and a number of other depression/alcohol-related outcomes.

Results: A total of 108 participants completed the baseline assessment and were randomised (mean age = 22; 60% female). Data are currently being analysed and intervention effects will be reported at the Inaugural Postgraduate Research Symposium.

Conclusions: This study is the first RCT of a web-based treatment for comorbid depression and problematic alcohol use in any age group and represents a novel and innovative approach to addressing the significant harms associated with these conditions. Full conclusions will be drawn after data analysis.

Oral Poster Abstract 28

THE USE OF PARACETAMOL ABOVE RECOMMENDED MAXIMUM DAILY DOSES AMONG PEOPLE WITH CHRONIC NON-CANCER PAIN.

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Background: Despite the common use of opioids for chronic non-cancer pain (CNCP), reviews of report that opioids may reduce pain by 30%. Paracetamol is often used in conjunction with strong opioids to enhance analgesia however; when paracetamol is used above the recommended maximum daily dose it can cause serious adverse events. The aims of the study are to assess (i) the prevalence of paracetamol use above recommended maximum daily doses, and (ii) associations with age, gender, education, pain severity, total opioid dose, depression, anxiety, pain self-efficacy or comorbid substance use, among people prescribed opioids for CNCP.

Methods: This study draws on data collected for the Pain and Opioids In Treatment (POINT) study and utilises data from 962 interviews. Participants were recruited from randomly selected pharmacies across Australia. Daily doses in the past week for all medications were documented.

Results: The prevalence of paracetamol use above recommended maximum daily doses (*i.e.*>4000 mg/day) was 4.8% (95%CI=3.6-6.3). At bivariate level, participants who used paracetamol above recommended maximum daily doses in the last week were significantly more likely to have an income greater than $399/week (OR=0.73, 95%CI=0.33-1.00), greater pain severity (t(52)=-2.30, p=0.03) and interference (t(53)=-2.91, p=0.01), taken a higher dose of opioids (U=9667, p=0.02), to meet criteria for moderate to severe depression (OR=0.44, 95%CI=0.25-0.79) and have lower pain self-efficacy beliefs (t(551)=2.93, p=0.00). Following multivariate analyses, higher income (Adjusted OR=2.14, 95%CI=1.13-4.05) and opioid dose (Adjusted OR=1.00, 95%CI=1.00-1.01) remained significant predictors of paracetamol use above recommended maximum daily doses (χ^2=21.69, df=7, p<0.003).

Conclusion: The prevalence of paracetamol use above recommended maximum daily doses among people with CNCP and is consistent with two previous patient self-report studies. This study highlights the need for health professionals to actively question paracetamol use in people with CNCP on strong opioids, particularly if they perceive their analgesic regime as inadequate.

Oral Poster Abstract 29

RATE OF ANTIRETROVIRAL TREATMENT INITIATION FROM DATE OF HIV DIAGNOSIS – THE PENDULUM SWINGS IN AUSTRALIA

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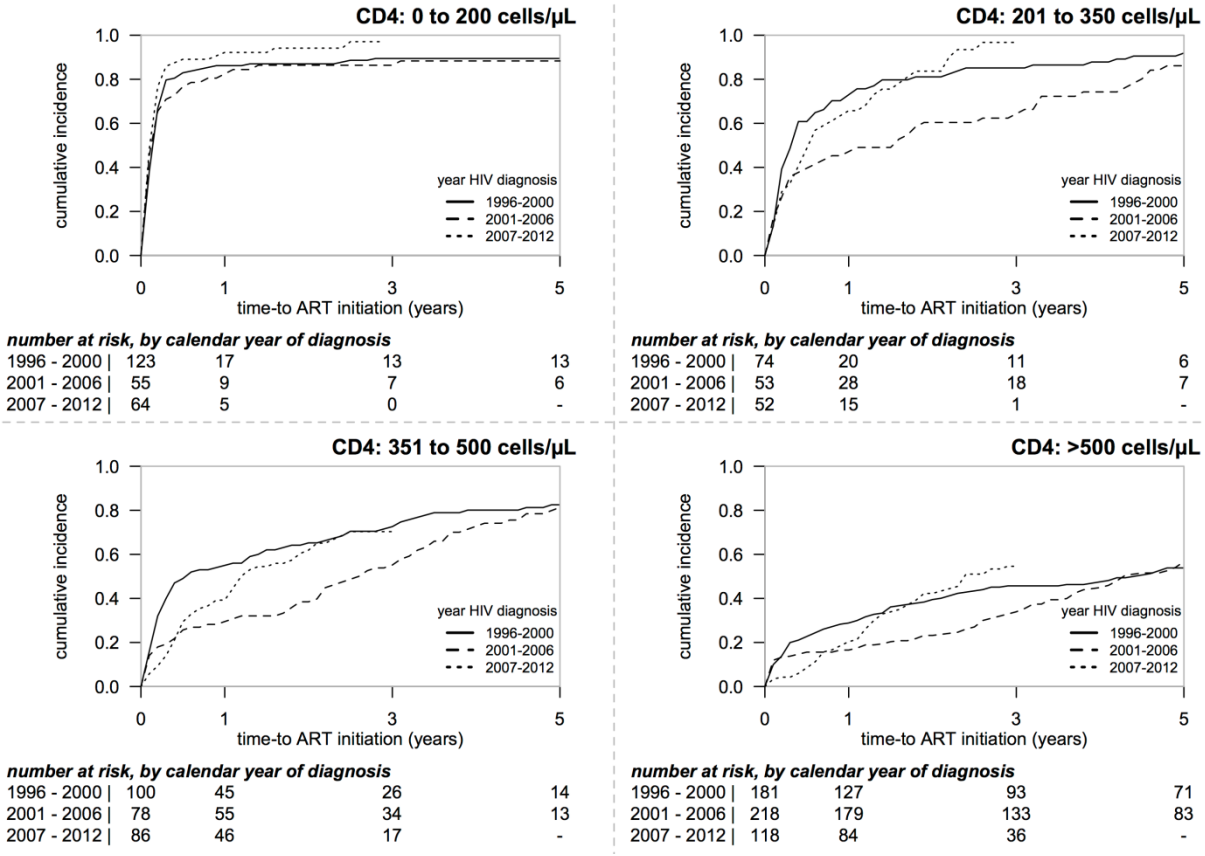
Background: In Australia about 1,200 new HIV diagnoses are reported each year. Approximately 38% of these are in persons who present to care with a CD4 count <350 cells/µL. The objective of this analysis is to describe the population diagnosed with lower CD4 cell counts and determine rates of ART initiation by CD4 cell count group.

Method: To obtain HIV diagnosis information, a patient identifier (State/Territory, sex, name code, date of birth) was used to deterministically link records from the Australian HIV Observational Database (AHOD) to the Australian National HIV Registry (NHR). Participants whose HIV infection was newly diagnosed after 1996 with a reported CD4 count were included in analyses. Multivariable logistic regression was used to identify factors associated with advanced HIV diagnosis, defined by CD4 cell count at diagnosis <200 cells/µL. Using survival methods we evaluated rates of ART initiation over time (1996-2000; 2001-2006; 2007-2012) and by CD4 cell count at diagnosis (0-200, 201-350, 351-500, >500 cells/µL).

Results: 2982(83%) out of 3608 AHOD unique patient identifiers were matched to the NHR. Of those matched, 1202(40%) were diagnosed in the period 1996-2012 and recorded a CD4 count. Factors associated (p-value<0.05) with increased odds of advanced HIV diagnosis were older age, mode of HIV exposure other than MSM, born in high HIV prevalence country (Africa, South-East Asia), and non-capital city clinical care setting. Earlier initiation of ART occurred at higher rates in later periods (2007-2012) in all CD4 count strata compared to patients diagnosed in the middle period (2001-2006). Rates of ART initiation in later periods are similar to rates in the “hit hard, hit early” treatment era (1996-2000).

Conclusion: The majority of persons who present to care with a low CD4 cell count typically initiate ART within a few years after diagnosis. Furthermore, our data indicate that the time-to ART initiation within this group has decreased in later periods.



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Oral Poster Abstract 30

HIV MULTI-DRUG RESISTANCE AT FIRST-LINE ANTIRETROVIRAL FAILURE AND SUBSEQUENT VIROLOGICAL RESPONSE IN ASIA

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Background: First-line antiretroviral therapy (ART) failure often results from the development of resistance associated mutations (RAMs). Three patterns, including thymidine analogue mutations (TAMs), 69 Insertion (69Ins) and the Q151M complex, are associated with resistance to multiple-nucleoside reverse transcriptase inhibitors (NRTIs) and may compromise treatment options for second-line.

Methods: We investigated patterns and factors associated with multi-NRTI RAMs at first-line failure in patients from The TREAT Asia Studies to Evaluate Resistance – Monitoring study (TASER-M), and evaluated their impact on virological responses at 12 months after switching to second-line ART. We defined multi-NRTI RAMs as the presence of either Q151M; 69Ins; ≥2 TAMs; or M184V + ≥1 TAM. Virological suppression was defined as viral load (VL) <400 copies/ml at 12 months from switch to second-line. Logistic regression was used to analyse (i) factors associated with multi-NRTI RAMs at first-line failure; and (ii) factors associated with virological suppression after 12 months on second-line.

Results: A total of 105 patients were included. There were 97/105 (92%) patients harbouring ≥1 RAMs at first-line failure, 39/105 with multi-NRTI RAMs: 6 with Q151M; 24 with ≥2 TAMs; and 32 with M184V + ≥1 TAM. Factors associated with multi-NRTI RAMs were CD4 ≤200 cells/μL at genotyping (odds ratio (OR)=4.43, 95% confidence interval (CI)(1.59-12.37), p=0.004) and ART duration >2 years (OR=6.25, 95%CI(2.39-16.36), p<0.001). Among 87/105 patients with available VL at 12 months after switch to second-line ART, virological suppression was achieved in 85%. Patients with ART adherence ≥95% were more likely to be virologically suppressed (OR=9.33, 95%CI(2.43-35.81), p=0.001).

Conclusions: Multi-NRTI RAMs at first-line failure were associated with low CD4 level and longer duration of ART. With many patients switching to highly susceptible regimens, good adherence was still crucial in achieving virological response. This emphasises the importance of continued adherence counselling well into second-line therapy.

Funding: The TREAT Asia Studies to Evaluate Resistance (TASER) is an initiative of TREAT Asia, a program of amfAR, The Foundation for AIDS Research, with major support provided by the Dutch Ministry of Foreign Affairs through a partnership with Stichting Aids Fonds, and with additional support from amfAR and the National Institute of Allergy and Infectious Diseases (NIAID) of the U.S. National Institutes of Health (NIH) and the National Cancer Institute (NCI) as part of the International Epidemiologic Databases to Evaluate AIDS (IeDEA) (grant no. U01AI069907). Queen Elizabeth Hospital and the Integrated Treatment Centre are supported by the Hong Kong Council for AIDS Trust Fund. The Kirby Institute is funded by the Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, UNSW Australia (The University of New South Wales). The content of this publication is solely the responsibility of the authors and does not necessarily represent the official views of any of the governments or institutions mentioned above.

Oral Poster Abstract 31

OUTCOMES OF FIRST-LINE ANTIRETROVIRAL IN HBV/HIV CO-INFECTION: RESULTS FRO THE *TREAT* ASIA HIV OBSERVATIONAL DATABASE

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Background: The World Health Organisation recommends HIV/hepatitis B (HBV) co-infected individuals needing HBV treatment start antiretroviral therapy (ART) containing tenofovir and lamivudine or emtricitabine. This population should also avoid hepatotoxic drugs, such as nevirapine. This analysis aimed to describe first-line ART use and outcomes in HBV co-infected patients in Asia.

Methodology: HBV surface antigen positive patients enrolled in the TREAT Asia HIV Observational Database and using first-line ART were included. HBV-targeted treatment was defined as a regimen containing tenofovir and lamivudine or emtricitabine. Logistic regression was used to determine predictors of HBV treatment. Generalised estimating equations were used to evaluate predictors of ALT change. Cox models were used to analyse time to ART failure.

Results: There were 486 eligible patients (79.6% male, median age 35.3 years). Median ALT at treatment initiation was 33.9IU/L. HBV-targeted ART was used by 3.7%, 35.9% and 37.9% of patients initiating therapy before 2006, 2007-2009, and after 2009, respectively. Patients with baseline ALT>1*ULN (OR 2.35 vs. normal, 95%CI 1.02 to 5.40, p=0.044) and those exposed to HIV via homosexual contact (OR 4.01 vs. heterosexual, 95%CI 1.16 to 13.88, p=0.028) were more likely to be started on HBV-targeted treatment. Patients with nevirapine in their regimen (OR 0.06 vs. no nevirapine, 95%CI 0.02 to 0.17, p<0.001) were less likely to be using HBV-targeted ART. ALT decreased faster on HBV-targeted treatment, particularly if nevirapine was avoided (mean difference non-HBV-targeted/nevirapine vs HBV-targeted/no nevirapine 17.53IU/L, 95%CI 5.02 to 30.03, p=0.006).HBV-targeted treatment was not associated with a longer time to first-line ART failure, regardless of nevirapine use.

Conclusions: Use of HBV-targeted first-line ART in co-infected patients has increased overtime, although regimens without tenofovir remain common. HBV-targeted therapy, especially when concomitant nevirapine is avoided, may reduce the risk of liver damage but does not appear to affect short term HIV-outcomes.

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Oral Poster Abstract 32

EFFECT OF TREATMENT WILLINGNESS ON SPECIALIST ASSESSMENT AND TREATMENT UPTAKE FOR HEPATITIS C VIRUS INFECTION AMONG PEOPLE WHO USE DRUGS: THE ETHOS STUDY

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Background: Among people who inject drugs (PWID) with chronic HCV, the association between HCV treatment willingness and intent and HCV specialist assessment and treatment were evaluated.

Methods: Enhancing Treatment for Hepatitis C in Opioid Substitution Settings (ETHOS) is a prospective observational cohort. Recruitment was through six opioid substitution treatment clinics, two community health centres and one Aboriginal community controlled health organisation in NSW, Australia. Analyses were performed using logistic regression.

Results: Among 387 participants (mean age 41 years, 71% male), 70% were 'definitely willing' to receive HCV treatment and 73% reported plans to initiate therapy 12 months post-enrolment. Those definitely willing to receive HCV treatment were more likely to undergo specialist assessment (56% vs. 34%, $P<0.001$) and initiate therapy (28% vs. 8%, $P<0.001$), compared to those with lower treatment willingness. Those with early HCV treatment plans were more likely undergo specialist assessment (57% vs. 28%, $P<0.001$) and initiate therapy (28% vs. 4%, $P<0.001$), compared to those without early plans. In adjusted analyses, HCV treatment willingness independently predicted specialist assessment (AOR 2.17, 95% CI 1.35, 3.51) and treatment uptake (AOR 3.50, 95% CI 1.61, 7.59). In adjusted analysis, having early HCV treatment plans independently predicted specialist assessment (AOR 2.95, 95% CI 1.76, 4.94) and treatment uptake (AOR 6.75, 95% CI 2.34, 19.48).

Conclusion: HCV treatment willingness was high, and predicted specialist assessment and treatment uptake. Strategies for enhanced HCV care should be developed with an initial focus on people willing to receive treatment and to increase treatment willingness among those less willing.

Oral Abstract 33

A CULTURAL DOUBLE STANDARD: PUBLIC RESPONSES TO FEMALE SEX TOURISM

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Background: The idea of women buying sex challenges discourse about the sex industry based on notions of gendered power. Fictional television drama and documentaries typically portray women buying sex as empowered and sexually liberated. There is limited empirical research about women buying sex overseas, which mostly constructs conflicting discourses that position women as sex or romance tourists, or as victims of male sex workers. This paper examines contemporary Australian discourse about the idea of female sex tourism (FST).

Methods: An Australian online news article about FST by Bowen (22 January 2013) generated 364 comments. Using each comment as a unit of analysis, a textual analysis was undertaken to examine how messages about women buying sex are interpreted in Australian society and to find dominant discourses.

Results: The commentary compared male and female clients, finding FST as a phenomenon different from male sex tourism (MST), due to romantic motivations and subtle means of remuneration. Some participants denied that women buy sex, reflecting notions of gendered biology or behaviour. In general, a discourse of 'female sex workers are victims' maintained that only males perpetrate violence when they buy sex. In addition, a discourse of 'sex work is work' considered sex tourism as fair trade or economic aid, regardless of gender. The implications of FST were debated as an increasing phenomenon signalling healthy female sexuality or a problem in terms of unequal racial and economic power.

Conclusion: Despite a polarisation of opinion regarding sex work being work or exploitation, female sex tourists were mainly encouraged and occasionally victimised, whilst male sex tourists were mainly condemned. FST was mainly assessed as empowering to women whilst, MST was most often appraised as violent due to perceived effects on female sex workers. The analysis demonstrates a double standard in gendered constructions of people who buy sex overseas.

Oral Abstract 34

SOCIAL CONTRUCTION AND THE EVIDENCE-BASED DRUG POLICY ENDEAVOUR

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Background: 'Evidence-based drug policy' (EBDP) has become the catch-cry of the field. A growing literature has been dedicated to better realising the goal of EBDP: to maximise the use of research to help answer the question of 'what works'. Alternative accounts conceptualise policy activity as an ambiguous and contested process, and the role of evidence as only marginally influential. Multiple participants jostle for influence and seek to define what may be regarded as a policy problem, how it may be addressed, who may speak, and what knowledge(s) may be brought to bear.

Methods: This paper will present an overview of the conceptual framework and design for my PhD. The question posited is whether the conceptual shift offered by thinking about policy activity as a process of social construction may be valuable for beginning to explore different perspectives of the EBDP endeavour. An empirical, multiple-case study design (comparing three drug policy issues) will be utilised.

Results: Within a constructionist account of policy, what counts as valid 'evidence' will always be a constructed notion within a dynamic system, based on the privileging and silencing of participants and discourse, and the contestation of those many positions and perspectives.

Conclusion: The social construction account shifts our focus from the inherent value of 'evidence' for addressing 'problems' to the ways in which policy knowledge is made valid, by whom, and in what contexts. Social construction provides a framework for critically analysing the ways in which 'policy-relevant knowledge' may not be a stable concept but rather one which is constructed through the policy process, and, through a process of validation, is rendered useful. By unpicking the assumptions which underlie how problems are constructed, and how different knowledge(s) come to bear on policy, we may see avenues for reform which may not at present seem obvious.

Oral Poster Abstract 35

TRANS PEOPLE'S INJECTING PRACTICES IN AUSTRALIA: FREEDOM AND RESISTANCE

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In Australia, trans people comprise one of the most marginalised social categories. Injecting drug use among Australian trans populations is higher than among cisgender (non-trans) populations. Furthermore, many trans people inject hormones. There is thus an urgent imperative for harm reduction initiatives to respond to and accommodate trans people who inject drugs (PWID).

In recent years, in Australia and elsewhere, research has been emerging that interrogates the ways in which subjects are constituted in harm reduction (HR) policy and interventions. Despite this, little is known about trans people in HR settings in Australia.

Working at the intersection of critical trans and drug user politics, my PhD research explores the ways in which trans identities are constituted within, as well as negotiate, HR and the practice of injecting drugs.

Here, I present a preliminary review of the literature in relation to this topic, as well as a discussion of the methodological and theoretical underpinnings of my research.

There are a number of tensions that emerge from the literature: While some HR initiatives challenge societal views about drug users as out of control, hopeless, criminals, instead making way for an empowered self-regulating subject, on the other hand this occurs in a neoliberal context which obscures structural issues of subjection while also reinforcing disciplinary norms.

As a way of thinking through these tensions I use Foucault's concept of technologies of the self. Central to this is the concept of pleasure as it offers a radical departure from narrow critiques of 'addiction' and drug use as pathological to instead frame practices of injecting as an expression of freedom and resistance, not just to dominant discourses of drugs, but also broader social dimensions of race, class, (trans)gender/sex, sexuality, and ability in ways which form new power relations, and a re-claiming of the body.

Oral Poster Abstract 36

NSP CLIENTS AND SERVICE PROVISION IN WESTERN SYDNEY

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Background: This research emerged from a larger project evaluating NSP service provision across two local health districts in Western Sydney.

Methods: NSP clients (n=31) and NSP staff (n=12) participated in semi-structured in-depth interviews investigating aspects of service provision, practices of obtaining equipment, interaction between staff and clients, and organisational factors affecting service provision. Data were analysed using thematic analysis techniques informed by assemblage theory and related insights from the discipline of Science and Technology Studies (STS). Interview data were managed using NVivo.

Results: NSP client accounts of service access were structured into three broad themes: assemblages of service access; assemblages of harm and harm reduction; and assemblages of identity. Interactions between staff and clients emerged as events that were characterised as processes of demarginalisation. Staff accounts of service provision suggested that 'courtesy stigma' from other health workers was a key factor affecting day-to-day service provision.

Conclusion: These findings suggest that NSP access and NSP service provision might better be characterised as complex events wherein multiple social and material factors assemble together to enact equipment distribution and harm reduction. Importantly, the findings support the idea that NSP service provision, in practice, goes beyond equipment distribution. NSPs are thus positioned as sites of demarginalisation: not only are the material circumstances of drug consumption altered through the provision of sterile equipment, but other services outside the strict boundaries of equipment distribution, such as informal referrals, social support, and wound care, necessarily take place. Serving a highly stigmatised population, NSP workers themselves experience discrimination from other health workers, and this discrimination is characterised as a force that structures the assemblage of NSP service provision.

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