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2018 UNSW Postgraduate Research Symposium

Exploring Opportunities

Friday 16th November
Level 6 Seminar Room
Wallace Wurth Building

8:00	**Registration Open**
9:00	**Welcome and introduction of keynote** *Professor Rodney Phillips, Dean of Medicine UNSW*
9:10	**Keynote Presentation** Engaging communities in research: some challenges and opportunities *Professor Komla Tsey, Tropical Leader, James Cook University, Cairns*

Session 1: Prevention and Intervention *Chairs: Jodie Kidd and Mei Lin Lee*	
9:40	Aboriginal Medical Services in a challenging policy environment *David Coombs, Nura Gili Indigenous Studies*
9:45	**Ten Minute Presentation:** "I can't do this, I'm failing." Low-socioeconomic status smokers and ex smokers barriers to cessation: A qualitative study *Veronica Boland, National Drug and Alcohol Research Centre*
9:55	Finding Durable Solutions to Post-Migration Risks of Adiposity: a study of Australian residents of SSA ancestry *Isaac Addo, Centre for Social Research in Health*
10:00	**Ten Minute Presentation:** 'We're here to listen and help them as well': Staff and patient perceptions about participating in research *Sara Farnbach, The George Institute*
10:10	The Illicit Project Pilot Study *Jennifer Debenham, National Drug and Alcohol Research Centre*
10:15	**Ten Minute Presentation:** Comparison of self-reported and biological measures of adherence to HIV pre-exposure prophylaxis (PrEP) in NSW, Australia *Stefanie Vaccher, The Kirby Institute*

10:30	**Morning Tea**

Session 2: Vulnerable Populations

Chairs: Philip Clare and Jodie Kidd

11:00	Advanced HIV diagnoses among gay and bisexual men in Australia 2007-2016: results from an analysis of national HIV surveillance *Phillip Keen, The Kirby Institute*
11:05	**Ten Minute Presentation:** Estimating dementia incidence and prevalence with multiple linked datasets *Heidi Welberry, Centre for Big Data Research in Health*
11:15	Importance of revising the principal diagnosis of mental illness in pregnancy *Lisa Hilder, National Drug and Alcohol Research Centre*
11:20	Untreated Remission from Alcohol Problems *Richard Mellor, National Drug and Alcohol Research Centre*
11:25	**Ten Minute Presentation:** Accessing other minds: Art in and out of the supported studio *Chloe Watfern, Black Dog Institute*
11:35	Balancing the risks and the benefits of using HIV self-testing among gay and bisexual men *Ye Zhang, The Kirby Institute*
11:40	The prevalence of non-fatal overdose among people who inject drugs *Samantha Colledge, National Drug and Alcohol Research Centre*
11:45	Maternal morbidities associated with post-delivery use of smoking cessation pharmacotherapies *Mei Lin Lee, Centre for Big Data Research in Health*
11:50	Defining elimination of genital warts - A Delphi Study *Laila Khawar, The Kirby Institute*

12:00 Lunch

Session 3: Global Health

Chairs: Phillip Keen and Isaac Addo

13:00	A Cross Sectional Study on the Effects of UVB Radiation and Vitamin D Status on Bone Health for the Prevention of Osteoporosis using the UK Biobank Cohort study *Mafruha Mahmud, School of Public Health and Community Medicine*
13:05	Patient engagement with HIV testing services: a qualitative study with men who have sex with men in three Indonesian cities *Elan Lazuardi, The Kirby Institute*
13:10	Social support and access to and use of HIV testing, treatment and care in two fishing communities around Lake Victoria in Uganda *Christopher Tumwine, Centre for Social Research in Health*
13:15	The cost and cost-effectiveness of scaling up of HIV and Syphilis testing in low and middle income countries: a systematic review *Rabiah Adawiyah, The Kirby Institute*
13:20	**Ten Minute Presentation:** Does continuous quality improvement (CQI) improve PMTCT processes in rural South Africa? A stepped wedge cluster RCT *Handurugamage Manisha Namalee Yapa, The Kirby Institute*
13:30	Chinese queer migrants in Oz *Cliff Chen, Social Policy Research Centre*
13:35	Enhancing outbreak early warning surveillance in resource-limited Pacific Island Countries and Territories *Adam Craig, The Kirby Institute*

13:40	More than a virus: a study of hepatitis B related stigma and discrimination among Chinese immigrants living in Australia *Defeng Jin, Centre for Social Research in Health*
13:45	**Ten Minute Presentation:** Perceptions and experience of care around cervical cancer and point of care expert HPV-DNA cervical screening in Papua New Guinea *Hawa Camara, The Kirby Institute*
13:55	Activation Markers and Subsequent BMD Loss in the SECOND-LINE Study *Gwamaka Mwasakifwa, The Kirby Institute*

Session 4: Translational Research

Chairs: Phillip Keen and Isaac Addo

14:00	Closing the Gap? Critical perspectives of health policy and Indigenous self-determination *Madeline News, Nura Gili Indigenous Studies*
14:05	Evaluation of the Hologic Aptima HCV Quant Dx assay for detection of HCV RNA from dried blood spots *Beth Catlett, The Kirby Institute*
14:10	**Ten Minute Presentation:** The new MTV generation: Using Methamphetamine, Truvada, and Viagra to enhance sex and stay safe. *Mohamed Hammoud, The Kirby Institute*
14:20	Exploring opportunities to use indexes for the measurement of laws and other public health policy interventions in drug policy reform *Vivienne Moxham-Hall, National Drug and Alcohol Research Centre*
14:25	“The Quest for Legitimacy” - Power & Performativity of Drug User Representation in High Level Drug Policy Settings *Annie Madden, Centre for Social Research in Health*
14:30	Risk behaviour and reinfection: Longitudinal sexual and drug use behaviours among HIV/HCV co-infected population in Australia *Samira Hosseini Hooshyar, The Kirby Institute*
14:35	Exposure-affected Time-varying Confounding in non-randomised longitudinal research *Philip Clare, National Drug and Alcohol Research Centre*

14:40	**Afternoon Tea**

15:00	**Panel Discussion** Dr Jessica Stewart, Director of Evaluation and Research, Family and Community Services NSW Dr Suzie Hudson, Clinical Director, Network of Alcohol and Other Drugs Agencies Dr Bridget Haire, Post Doctoral Research Fellow, The Kirby Institute, UNSW *Chair: Professor Komla Tsey, Tropical Leader, James Cook University, Cairns*
15:50	**Thank you and close** *Professor Michael Farrell, Director, National Drug and Alcohol Research Centre*

16:00	**Networking Reception** *Concludes 18:00*

Host Centres

NDARC
National Drug &
Alcohol Research Centre
The Difference is Research

Kirby Institute

SPRC
Social Policy Research Centre

CENTRE FOR
BIG DATA RESEARCH
IN HEALTH

Black Dog
Institute

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Dr Alys Havard	Centre for Big Data Research in Health
A/Prof Kathy Petoumenos	The Kirby Institute
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Event Organisers

Ms Jemma Sale	National Drug and Alcohol Research Centre
Ms Morgaine Wallace-Steele	National Drug and Alcohol Research Centre

Keynote Speaker Biography

Professor Komla Tsey, Tropical Leader, James Cook University, Cairns

Komla Tsey is Tropical Leader/Research Professor (Education for Social Sustainability) at the Cairns Institute and College of Arts Society and Education (CASE), James Cook University (JCU) Cairns, Australia. Komla is one of 8 research professors appointed by his university from 2008 to provide leadership and support to academic teams to help improve the university's research output and impact. Komla has a broad research interest in the reasons why some people are healthy and others not, or what has been called the social determinants of health. He is interested in the types of government policies and local community actions, and social and cultural norms and values that can enable individuals, families and communities of people to achieve better health.

Komla was born and educated in Ghana. After earning a BA honours degree in History and Classics from the University of Ghana in 1980, Komla studied for a PhD in Social Science (Economic History) at Glasgow University, Scotland, where his thesis examined the social, economic and health consequences of British colonial railway investments in Ghana. He returned to the University of Ghana where he lectured and developed partnerships with his rural communities as a participant observer, researching long-term development projects aimed at improving the availability and access to facilities such as schools, health services, electricity, and water and sanitation. Since the 1990's, Komla has been living in Australia researching and learning about health and wellbeing, mainly with Aboriginal organizations and communities. He continues to undertake longitudinal studies of rural development in Ghana. Komla has written more than 100 academic journal articles on a wide range of topics. Current research translation activities include a 3- hour Introduction to Research Impact Assessment short course for researchers and a 1-day Trauma-informed Self-Care Workshop for human services managers and workers.

Panellist Biographies

Dr Bridget Haire, Post Doctoral Research Fellow, The Kirby Institute, UNSW

Bridget Haire is an NHMRC early career fellow at the Kirby Institute, and lectures in public health and medical ethics. Bridget is also the President of Australian Federation of AIDS Organisations (AFAO). Prior to academia she worked in HIV and sexual and reproductive health for more than 20 years as a journalist, editor, policy analyst and advocate. Bridget is a member of the Australian Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmissible Diseases, the African-led Global Emerging Pathogens Treatment Consortium, and a former consultant for the Australia-China Human Rights Technical Co-operation Program on sexual and reproductive health rights for the Australian Human Rights Commission. She also served on the Data Safety Monitoring Board for the South African HIV prevention study CAPRISA 008 as a medical ethicist, and is the medical ethicist on the NSW HIV Assessment Panel for People who Put Others at Risk of HIV. Bridget's research interests are ethical issues in infectious disease control with an emphasis on underserved or marginalised populations, gender, and sexual and reproductive health.

Dr Suzie Hudson, Clinical Director, Network of Alcohol and Other Drugs Agencies

Suzie is an accredited mental health Social Worker and has over 20 years' clinical experience in the fields of substance misuse, mental health, forensics, research and evaluation. Suzie has worked, developed and managed community-based and residential alcohol and drug services both in Australia and overseas with a focus on methamphetamines. Currently the Clinical Director at NADA (Network of Alcohol and Drugs Agencies), Suzie has worked on resources to improve AOD treatment for women and their children. In addition, she provides private consultancy, training workshops designed to enhance the capacity of the AOD treatment sector and maintains a private counselling and clinical supervision practice. Suzie has a PhD in public health and community medicine and a passion for engaging with social change.

Dr Jessica Stewart, Executive Director of Insights, Analysis and Research, NSW Department of Family and Community Services (FACS)

Jessica is the Executive Director of Insights, Analysis & Research at the NSW Department of Family and Community Services (FACS), leading a team to deliver evaluation, research, analysis and performance reporting in areas of child protection, homelessness and social housing. She has unique policy expertise with a focus on complex program evaluation and public reporting on the performance of health care organisations using big data. Jessica has degrees in law, politics, public policy, and a PhD in Aboriginal health research. She has 15 years experience working for both federal and state government at FACS, the National Health Performance Authority, the NSW Ministry of Health and in health services research at the Sax Institute. Jessica is passionate about using research evidence, rigorous evaluation and linked routine data to improve the health and wellbeing of people in Australia through more efficient and effective service delivery.

Session 1: Prevention and Intervention

Aboriginal Medical Services in a challenging policy environment

David Coombs - Nura Gili Indigenous Studies

Abstract:

The Aboriginal Medical Services are crucial for the achievement of Aboriginal and Torres Strait Islander health equity. There are currently over 150 Aboriginal Medical Services across Australia, delivering around half of all primary health care to Aboriginal people. The available evidence suggests that AMSs achieve superior health outcomes for Aboriginal clients, compared to mainstream health services. They're also Aboriginal peoples' preferred health providers. My thesis sets out to answer three questions: what is the role of the Aboriginal Medical Services in the health system?; what are the biggest challenges they face?; and how could current policies be reformed to make AMSs more effective? Based on interviews with CEOs and senior managers at AMSs in NSW, I have concluded that AMSs perform a unique role in the health system. They are a practical embodiment of Indigenous self-determination, providing culturally appropriate healthcare to Indigenous clients. They approach health holistically, dealing with families and communities, not individuals or body parts. AMSs rely on government funding but have to compete with non-Indigenous services for that funding. Short-term funding agreements and low award wages make it difficult to attract skilled staff, especially in remote and regional locations. Activity-reporting obligations are becoming more complex and onerous, draining staff's time and energy. Governments rarely recognise AMSs' expertise or consult AMSs about policy changes. AMSs need consistent policy direction and stable funding arrangements, more funding for non-clinical activities, simplified and streamlined reporting and compliance procedures, and inclusion in the decision-making processes that have an impact on Aboriginal health. Above all they need recognition of the integral role they play in the health system for Aboriginal people. The Aboriginal Medical Services are a crucial part of Closing the Gap, but they need more support from government in order to achieve it.

"I can't do this, I'm failing." Low-socioeconomic status smokers and ex-smokers barriers to cessation: A qualitative study

Veronica Boland - NDARC

Author Names: Veronica C. Boland, Ildiko Tombor, Richard P. Mattick, Hayden McRobbie, Mohammad Siahpush, Ryan J. Courtney

Abstract:

Background: This qualitative study explored low-socioeconomic status (SES) smokers' and ex-smokers quitting experiences following participation in a smoking cessation randomised controlled trial (RCT) and further examined factors that influence smoking behaviours, treatment engagement and whether differences emerged between smokers and ex-smokers. Alternative smoking cessation support options were also explored.

Methods: Twenty-four low-SES smokers and ex-smokers previously enrolled in a smoking cessation RCT were invited to participate in either a focus groups or individual telephone interview. Data was obtained and analysed using thematic analysis from October 2015 to June 2016.

Results: Participants expressed feelings of guilt and shame around their smoking behaviour and experienced stigmatisation for their smoking. Guilt, shame, and stigmatisation negatively impacted treatment seeking behaviours with many avoiding current quit services. Current smokers expressed a positive smoker identity and a lack of control over their smoking behaviours while ex-smokers set strict non-smoking rules, felt that they had gained control and formed an overriding ex-smoker identity. Vaporised nicotine products (VNP) were perceived to be unsafe due to uncertainty on their

legal status and regulatory restrictions. Technology-based text-messaging quit support was endorsed as a more favourable alternative compared to current and existing treatments.

Conclusion: Stigmatisation was commonly endorsed and acted as an impediment to current treatment utilisation. VNPs may present a viable harm reduction alternative, but their likely uptake in disadvantaged groups in Australia is limited by smokers' uncertainty about their regulation and legality. Mobile phone-based cessation support may provide an alternative to telephone counselling and overcome the stigmatisation low-SES smokers face while trying to quit. Targeted approaches aimed at modifying positive smoker identity through setting of non-smoking rules in an attempt to normalise ex-smoker identity may be a strategy beneficial to low-SES initiating a quit attempt.

Finding Durable Solutions to Post-Migration Risks of Adiposity: a study of Australian residents of SSA ancestry

Isaac Addo - Centre for Social Research in Health

Abstract:

Understanding the impact of international migration on weight-related behaviours is gaining much attention in recent years, as several studies have hypothesised a health status decline after migration, characterised by significant weight gain and weight-related diseases. A number of studies have attributed post-migration weight gain and associated diseases to the consumption of less healthy diets in host countries, especially in situations where the migration flows from a lower to a higher income country. However, few studies, especially in Australia have explored factors influencing post-migration modifications to food and physical activity behaviours, although changes in these behaviours are crucial for weight gain and weight-related problems. Employing acculturation theory and mixed method design, this study examines factors driving modifications to dietary and physical activity behaviours after migration amongst African-born residents in Australia. Qualitative results from this study indicate significant self-reported modifications to dietary and physical activity behaviours after migration toward risks of weight gain, and mainly driven by issues related to time management, resource accessibility/availability, convenience, and affordability. The qualitative aspect of this study concludes that post-migration modifications to dietary and physical activity behaviours are mainly influenced by economic and environmental adaptation challenges rather than social interactions with host country populations. There is therefore a need for reliable information on where and how to access affordable, healthy, and ethnic-specific diets, as well as physical activity resources after migration. The ongoing quantitative aspect investigates the extent to which individual level factors (demographic and psycho-social characteristics of participants) are related to post-migration changes in dietary and physical activity behaviour.

'We're here to listen and help them as well': Staff and patient perceptions about participating in research

Sara Farnbach - NDARC/TGI

Author Names: Sara Farnbach, Graham Gee, Anne-Marie Eades, John Evans, Jamie Fernando, Belinda Hammond, Matty Simms, Karrina DeMasi, Maree Hackett on behalf of the Getting it Right Investigators

Abstract:

Objective: To explore the perspectives of primary healthcare (PHC) staff and Aboriginal and Torres Strait Islander (hereafter Indigenous) patients about their willingness to and experiences participating in social and emotional wellbeing (SEWB) research.

Methods: Process evaluation using grounded theory approaches of Getting it Right: The validation study, a national Indigenous SEWB research project (N=500). PHC staff (n=35) and community members (n=4) from nine of ten PHC services involved with the research project completed

qualitative semi-structured interviews. Interview data were triangulated with participant feedback (responses to structured questions and free-text feedback collected during Getting it Right), study administrative data (participant screening logs, communication logs, study protocol, deviation logs and ethics correspondence) and interviewer field notes.

Results: Three themes about staff, patient and community perspectives concerning research participation emerged: (1) considering the needs, risk, preferences and impact of participation in research for staff, patients and community; (2) building staff confidence speaking to patients about research and SEWB problems and (3) patients speaking openly about their SEWB. Some staff described pressure to ensure patients had a positive experience with the research, to respond appropriately if patients became upset or SEWB problems were identified during interviews, or due to their dual role as community member and researcher. Staff reported their skills speaking to patients about the research and SEWB improved during the research, which built their confidence. Contrary to staff preconceptions, staff and patients reported that many patients appreciated the opportunity to speak about their SEWB and contributing to research that may eventually enhance SEWB in their community.

Conclusion: Getting it Right was considered acceptable by most staff and patients. The positive outcomes reported by staff and feedback from patients highlights the importance of providing opportunities for people to speak about their SEWB and for research-informed SEWB PHC care.

The Illicit Project Pilot Study

Jennifer Debenham - NDARC

Author Names: Jenni Debenham, Dr Louise Birrell and Associate Professor Nicola Newton

Abstract:

Background: Australians aged 18-24 are one of the biggest consumers of recreational drugs worldwide and have the highest prevalence of depression and anxiety. The leading causes of morbidity and mortality are initiated during adolescence, coinciding with a critical point of brain maturation. However, effective mental illness and substance use prevention programs are lacking in late adolescence (16-19y.o). Evidence suggests that neuroscience, legal knowledge, mental health literacy, harm minimization principles, all of which fall under ‘drug literacy,’ are protective against drug and mental health related risks during older adolescence age.

Aims: To evaluate an integrated mental health and substance use prevention program, The Illicit Project, in terms of (i) acceptance, relevance and memorability for senior High School students to inform a large RCT.

Methods: A pilot study of the three-workshop program will be conducted with health professionals, teachers and students across Sydney (n=110). Participants, will complete an evaluation questionnaire and the results will be used to refine the program’s delivery and content. Student participants will complete a second, self-assessment, knowledge-based questionnaire before and after the program to assess changes in drug literacy knowledge.

Conclusion: This study could have tremendous implication for future prevention and primary intervention programs and support for people impacted by substance use and mental health issues. This research will help develop the concept of ‘drug literacy,’ and a measurement tool for ‘drug literacy’ in young people and support the growing literature around the power of neuroscience education in up skilling people about complex health issues.

Comparison of self-reported and biological measures of adherence to HIV pre-exposure prophylaxis (PrEP) in NSW, Australia

Stefanie Vaccher - The Kirby Institute

Abstract:

Introduction: The efficacy of HIV pre-exposure prophylaxis (PrEP) is contingent upon adherence, which remains a challenge for many PrEP users. Two biological and two self-reported measures of adherence were used to assess daily adherence to PrEP over 12 months in a study of gay and bisexual men (GBM) in NSW, Australia.

Methods: PRELUDE was an open-label study of high-HIV risk individuals taking PrEP in New South Wales, Australia. Liquid chromatography-mass spectrometry was used to determine drug concentrations in plasma and peripheral blood mononuclear cells (PBMC). Participants self-reported the number of tablets taken in the previous week to clinicians, and the last three months via online surveys. Concordance between measures was assessed.

Results: Of the 321 GBM enrolled in the study, 263 (82%) remained on study at month 12. Overall, 91% of blood samples had plasma drug concentrations indicative of taking 7 pills/week, and 99% had protective drug concentrations (≥4 pills/week). Although there was no change in daily adherence between month 1 and month 12 found in plasma samples ($p>0.05$), there was a significant decline in daily adherence evidenced by PBMC drug concentrations (100% vs 90%, $p<0.001$). A similar decline was noted in self-report via the online surveys (96% vs 91%, $p=0.006$), but not in facilitated recall to clinicians. However, facilitated recall to clinicians was found to closely approximate PBMC data (sensitivity 99%).

Conclusions: High levels of daily adherence to PrEP among early adopters were confirmed using four different measures, although there was a decrease in adherence over time. Strong concordance between blood drug concentrations and self-reported data suggests that participant self-report to clinicians may be a suitable measure of adherence in clinical practice. This allows for real-time adherence monitoring, and can facilitate discussions about more nuanced support strategies for individuals struggling to maintain adherence to daily PrEP regimens.

Advanced HIV diagnoses among gay and bisexual men in Australia 2007-2016: results from an analysis of national HIV surveillance

Phillip Keen - The Kirby Institute

Abstract:

Background: Despite high and increasing HIV testing coverage in Australia among gay and bisexual men (GBM), 13% continue to be diagnosed with advanced HIV (indicative of AIDS), defined as a CD4 count <200 at diagnosis. Advanced HIV diagnosis is strongly associated with increased HIV-related mortality and morbidity. In addition, people who are unaware of their HIV-positive status may also be unwittingly transmitting HIV. Considering ambitious targets to eliminate HIV, it is important to understand the characteristics of GBM with advanced HIV diagnosis in Australia, to target testing strategies.

Methods: National HIV surveillance data on new HIV diagnoses between 2007 and 2016 were analysed. Univariate and multivariate logistic regression models were used to identify factors associated with advanced HIV diagnosis among GBM diagnosed with HIV.

Results: Among 6,363 GBM diagnosed with HIV in the study period, 825 (13.0%) were diagnosed with advanced HIV infection. Multivariate model covariates significantly associated with advanced HIV infection were older age (50+) (adjusted odds ratio (AOR): 3.35, 95% confidence interval(CI): 2.70-4.16; p<0.001) (compared to age 30-39), likely mode of HIV exposure (sex with men and women (AOR: 2.43 (95%CI:1.93-3.05;p<0.001), and male-to-male sex and injecting drug use (IDU) (AOR:1.72, 95%CI:1.27-2.34,p<0.001) compared to male-to-male sex only; living in regional Australia compared to a major city (AOR:1.30, 95%CI:1.04-1.62;p=0.021); and being born in South-East Asia (AOR:2.7, 95%CI:2.11-3.43;p<001) compared to being Australian-born. Being born in South and Central-Asia was associated with a reduced risk (AOR: 0.2, 95%CI:0.05-0.85;p<0.001). Indigenous status and year of diagnosis were not associated with advanced HIV infection.

Conclusion: Increased risk of advanced HIV diagnosis among GBM is associated with increasing age, bisexual and IDU exposure risks, being born in South-East Asia and residing in regional Australia. Targeting HIV testing to GBM with these characteristics may be needed to reduce the rate of advanced HIV diagnoses among GBM.

Estimating dementia incidence and prevalence with multiple linked datasets

Heidi Welberry - Centre for Big Data Research in Health, UNSW

Author Names: Welberry H, Brodaty H, Hsu B, Barbieri S, Jorm L

Abstract:

Background: Dementia represents a significant burden on healthcare systems and prevalence is expected to increase rapidly due to population ageing. Australia is lacking up-to-date information on dementia prevalence and incidence, challenging health service planners.

Aim: This study uses multiple-linked administrative datasets to measure dementia in a large cohort of older people.

Methods: The 45 and Up Study collected baseline survey data (2006-2009) for 266,028 participants aged 45 years and over in New South Wales[1]. These data were linked with: deaths, hospitalisations[2], Pharmaceutical Benefits Scheme (PBS) claims[3] and Aged Care data[4] for the period 2006-2014.

Dementia was estimated from diagnosis codes within hospitalisations/ aged care assessments and dementia-specific medication claims. Age-specific incidence and prevalence were calculated.

Results: 9,110 cases of dementia were identified in the cohort. Age-specific incidence rates ranged from 0.3 per 1000 person-years in those 55-59 years old to 72.6 per 1000 person-years in those 90+ years old. Estimated prevalence of dementia was 0.1% and 18.9% in persons aged 55-59 and 90+ years, respectively. Incidence and prevalence were lower than published estimates, for example in people aged 85-89 years, the calculated crude incidence was about 80% of the global estimate[5] Pharmaceutical data were important for detecting younger-onset dementia (under 65 years).

Conclusions: This study demonstrates the feasibility of using linked administrative data to measure dementia across a range of ages. The relative importance of different linked datasets varied by age. Further linkages, for example with GP medical records, could improve estimates particularly in younger age groups.

1. Banks E. Cohort profile: The 45 and up study. Int J Epidemiol. 2008;37(5):941-947.
2. Linked by the Centre for Health Record Linkage (CHeReL)
3. Provided by the Department of Human Services
4. Linked by the Australian Institute of Health and Welfare
5. Prince et al (2015) World Alzheimer Report 2015: The Global Impact of Dementia, Alzheimer's disease International

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Importance of revising the principal diagnosis of mental illness in pregnancy

Lisa Hilder - NDARC

Abstract:

Background: Substance use and mental health disorders are important risk factors for, and outcomes of, pregnancy. The principal diagnosis is the main reason for the hospital admission. ICD10 coding rules require inpatient episodes that involve obstetric care to use the ‘O99.3’ to code mental health disorder and identify the specific condition as an additional code that follows this.

Objective: Determine the condition-specific false negative rate if the original versus the revised primary diagnosis is used during pregnancy or the puerperium (within 6 weeks of birthing).

Methods: Births in NSW 2000-2006 were linked by mother with hospital inpatient episodes that included a substance use or mental health disorder (SU/MH) diagnosis. ‘O99.3’ principal diagnoses were replaced with the first listed specific diagnosis includes as an additional diagnosis. Diagnostic groups were compiled from original and revised principal diagnoses. The false negative rate is the proportion of ‘true’ principal diagnoses for a SU/MH disorder that would have been missed if the original diagnosis was used.

Results: Among the 14,106 episodes with a substance use or mental health disorder, ‘O99.3’ was the primary diagnosis in 2,042 (14.5%) episodes commencing during pregnancy and 147 (9.7%) in the puerperium. For any substance use or mental health disorder, the false negative rate was 56% in pregnancy and 14% in the puerperium. In pregnancy, false negative rates were in excess of 80% for cannabis, opiates and stimulants and 37% for alcohol use disorders. False negative rates for anxiety disorders (62%) and depression (52%) as principal diagnoses in pregnancy.

Conclusion: Failure to revise primary diagnoses grossly under-estimates perinatal admissions for SU/MH disorders, particularly those commencing during pregnancy. Presence of a principal diagnosis of SU/MH disorder in pregnancy and the puerperium is relatively common and provides valuable information about these disorders in pregnancy.

Untreated Remission from Alcohol Problems

Richard Mellor - NDARC

Abstract:

Introduction: In understanding the ways people recover from alcohol problems in the absence of treatment, a mixed methods approach is adopted. My PhD has three overarching research questions: (1) to what extent does untreated remission from alcohol problems exist; (2) are their differences between people in untreated and treated remission; and (3) what narratives and identifies do people in untreated remission form alcohol problems adopt.

Methods: This presentation will focus on my work within the first research question. By conducting a systematic review of the untreated remission literature, I aim to unpack the disparate literature by understanding the ways different definitions and study designs impact on estimates of untreated remission from alcohol problems, as it applies to treatment planning.

Results: Three different methods to estimate untreated remission from alcohol problems were identified in the review. There were 37 ‘unselective rates’ of the percentage of people with alcohol problems who remit without treatment giving a mean untreated remission rate of 20.7%; there were 36 ‘selective rates’ of the percentage of untreated people who enter remission, giving a mean remission rate of 35.4%; and there were 51 ‘retrospective rates’ of the percentage of people in remission who have not received treatment giving a mean untreated remission rate of 55.2%. The definition of an alcohol problem, remission, and treatment, impacted on estimates of untreated remission from alcohol problems, across all three methods.

Conclusion: Unselective and selective rates are the most appropriate for treatment planners, and treatment planners need to consider the definition of an alcohol problem, remission, and treatment. By conducting an online survey on people in alcohol remission, and by conducting in-depth interviews with people in untreated remission, the rest of my PhD will complement the findings presented here by attending to the characteristics and experience of untreated remission from alcohol problems.

Accessing other minds: Art in and out of the supported studio

Chloe Watfern - Black Dog Institute

Abstract:

Intellectual disability (ID) is still poorly understood in contemporary society and people with ID face many barriers to inclusion. Art can operate as a powerful avenue for exploring and communicating the lived experiences of people with ID. The supported studio is a unique context where professional artists with ID are supported to develop ongoing art practices and exhibiting careers. Yet little research has investigated how art might operate as a conduit for lived experience in this context, and what this might mean for both artists and audiences. This paper presents preliminary findings from ethnographic engagements with supported studios in Sydney and the UK.

Balancing the risks and the benefits of using HIV self-testing among gay and bisexual men

Ye Zhang - The Kirby Institute

Abstract:

Introduction: HIV self-testing (HIVST) is a promising approach for expanding HIV testing recommended by the World Health Organisation. There remain some unresolved questions about how to normalise it as a method of HIV testing. We explored gay and bisexual men's perceptions and experiences of HIVST.

Methods: Stratified sampling was used to recruit gay and bisexual men participating in an HIVST randomized controlled trial intervention. A deductive thematic analysis was used to explore men's understandings and experiences of HIVST within in-depth interviews.

Results: Transcripts for 16 interviews were analysed, resulting in three dominant themes. First, men clearly recognised (i) benefits of HIVST, especially the logistical and psychological control it afforded. The interviews also suggested that self-testing could help generate community excitement and a sense of altruism about HIV prevention. These benefits were weighed against men's perceptions of the (ii) imperfect nature of HIVST. Participants were well-versed on window period required by the test, even those who chose to use them as a precursor for condomless sex. Men's awareness of these limits allowed them to excuse inaccuracies - including false negatives -and take responsibility for using the test in a way that ignored the window period. These two themes intersected to form a third: (iii) balanced application of HIVST. Men weighed the pros and cons of HIVST, describing it as an enhancement for conventional testing. Many were also sceptical that they would sustain the frequent testing facilitated by HIVST, especially as the novelty wore off.

Conclusion: Men were enthusiastic about the tests, but recognised their limitations. They easily incorporated HIVST into their daily life but were not convinced that they would sustain frequent testing after the intervention. While HIVST encouraged more frequent testing, these findings suggest that efforts to sustain that impact - including capitalise on enthusiasm and community support - may be required.

The prevalence of non-fatal overdose among people who inject drugs

Samantha Colledge - NDARC

Abstract:

Aim: There has been a recent, dramatic increase in drug-related deaths in several countries, including North America and Australia. Risk of overdose is heightened by injection drug use. Yet, there are interventions (e.g., naloxone distribution) which can reduce risk of fatal overdose amongst people who inject drugs (PWID). This study aims to establish the prevalence of non-fatal overdose among PWID globally.

Methods: A global systematic review on injecting drug use and related harms was conducted in accordance with PRISMA and GATHER guidelines. We included sources from peer-reviewed databases (MEDLINE, Embase, PsycINFO), grey literature, and data requests to international experts and agencies. Overdose history among PWID was extracted. These proportions were pooled via meta-analysis to generate national estimates.

Results: From 55671 sources reviewed, less than one-tenth included data on the proportion of PWID who reported non-fatal overdose. Globally, less than one-quarter of PWID reported past-year non-fatal overdose. The proportion reporting past-year overdose was particularly high for the United States (28.6%; uncertainty interval (UI) 10.0-51.5) and Canada (23.5% UI 14.3-34.1), and somewhat lower for Australia (10.7% UI 8.3-13.3). Higher country-level income was a correlate of higher proportion of PWID reporting non-fatal overdose in a country.

Conclusion: Globally, fewer than one in four PWID have experienced at least one non-fatal overdose in the past year, but there is significant variation, likely related to the types of drugs that are injected and overdose prevention interventions. To reduce risk of fatal overdose, it is necessary to introduce and mainstream services such as naloxone administration training.

Maternal morbidities associated with post-delivery use of smoking cessation pharmacotherapies

Mei Lin Lee - Centre for Big Data Research in Health

Author Names: Mei Lin Lee*, Duong T. Tran*, Alec Welsh**, Alys Havard*

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Abstract:

Background: Cessation pharmacotherapies support smoking mothers to quit and therefore, reduce second-hand smoke exposure to their newborns. The extent to which they are used within 1-year after delivery and by smokers who are most likely to benefit, due to their clinical characteristics, and avoided by those at increased risk of harm, is unknown.

Methods: Routinely collected birth data in NSW and WA (233,651 deliveries between February 2011 and December 2012) were linked to subsidised pharmaceutical dispensing, hospital separation and mortality data. Women who were concessional beneficiaries and smoked at delivery (n=3,868) were included. Separate logistic regression models examined the relationship between the use of nicotine replacement therapy (NRT) and varenicline within 365 days from delivery and history of maternal morbidities, adjusting for socio-demographic characteristics. Women who smoked and were not dispensed any pharmacotherapies were the comparison group.

Results: NRT and varenicline were used by 169 (4.4%) and 446 (11.5%) women, respectively. Pharmacotherapy use was more likely among women with a history of neuropsychiatric disorders (NRT,OR=2.33(95%CI 1.68-3.23); varenicline,OR=1.37(1.08-1.75)). Varenicline use was more likely among women who used nonsteroidal anti-inflammatory medications (OR=1.47(1.02-2.11)) and gastro-oesophageal reflux medications (OR=1.67(1.06-2.63)). Varenicline use was less likely among women with substance use disorders (OR=0.56(0.34-0.94)).

Conclusion: Strategies to increase the use of cessation pharmacotherapies after delivery are needed, especially among women with substance use disorders; because they generally experience greater difficulty with quitting unassisted. Greater NRT use should be encouraged among women with neuropsychiatric disorders, due to increased risk of neuropsychiatric events in varenicline users.

Defining elimination of genital warts - A Delphi Study

Laila Khawar - The Kirby Institute

Author Names: Laila Khawar, Skye McGregor, Dorothy Machalek, David Regan, James Wood, John Kaldor, Basil Donovan, Rebecca Guy

Abstract:

Background: In Australia, high and widespread quadrivalent human papillomavirus (HPV) vaccine uptake has resulted in dramatic declines in genital warts (GW) among young people. There is real potential for elimination of GW in the foreseeable future. However, there are no agreed targets to define elimination of GW; it is unknown when elimination will occur, or even how it should be measured.

Aim: To reach expert consensus on proposed GW elimination targets using a Delphi technique.

Method: We designed a three-phase Delphi study. Phase-1 entailed a literature review and four face-to-face qualitative rounds of discussions with six Australian experts. Phase-1 led to the development

of an 8-item questionnaire containing preliminary elimination targets. In phase-2, we invited 23 national/international experts to participate in a two-round group Delphi workshop using purposive sampling. Experts were asked to score items in terms of agreement on a 9-point Likert scale. Consensus was defined as ≥70% agreement. Plenary discussions were held between rounds to promote peer review. Phase-3 will involve online iterations after incorporating feedback of responses on items that failed to reach consensus at the end of phase 2.

Results: There was a 78% response rate in phase-2 (18/23). Three out of eight items reached consensus (process indicator, measurement of elimination, impact of GW caused by non-vaccine type HPV on the short-term control target). Items regarding elimination definitions and impact indicators failed to reach consensus. Experts feedback on these items was incorporated for phase 3.

Conclusion: For phase 3, we are in a process of incorporating experts' feedback on: a) quantifying GW as a public health problem; b) undertaking modelling work to estimate onward transmission from imported cases; c) assessing impact of GW caused by non-vaccine type HPV on long-term elimination targets. The revised questionnaire will be administered in successive online iterations until consensus is reached.

Session 3: Global Health

A Cross Sectional Study on the Effects of UVB Radiation and Vitamin D Status on Bone Health for the Prevention of Osteoporosis using the UK Biobank Cohort study

Mafruha Mahmud - School of Public Health and Community Medicine

Author Names: Mafruha Mahmud

Abstract:

Vitamin D is a fat soluble compound which is important for maintaining bone health. Main source of Vitamin D is ultraviolet radiation. Major function includes maintenance of normal blood levels of calcium and phosphorus. Deficiency (lowest quartile of 25(OH)D level, <17.8 ng/mL) may lead to osteopenia, osteoporosis, osteomalacia as well as increase risk of fracture. Osteoporosis is a progressive bone disease characterized by low bone density which may result into fall and fracture. It is estimated that 200 million people have osteoporosis worldwide with 8.9 million fractures per year due to this disease. It is now become a key challenge to establish optimum guidelines for the prevention of osteoporosis with decrease the risk of skin cancer.

The aim of the study is to examine the relationship between solar irradiation and vitamin D status on bone health, so that a better public health strategy can be designed. The study will be performed using UK Biobank cohort data; in which over 500,000 participants aged 40–69 years were recruited between 2006-2010.Participants with osteoporosis, bone fracture or low bone density will be the case, and those without will be the control. Collection of information comprised electronic signed consent; a self-completed touch-screen questionnaire; brief computer-assisted interview and physical measures.

We will summarise descriptive statistics to compare the characteristics of cases and controls. Multivariable conditional logistic regression will be used to estimate hazards ratios after adjusting for potential confounders. In this study the novel part will be using satellite derived UV measures and applying them to a population rather than taking multiple blood samples. We included 500,000 people in our study which will make it exceptional in that way that no previous studies had been conducted on such a large population group. Understanding the relationship between solar irradiation and osteoporosis may reduce costly treatment of osteoporosis.

Patient engagement with HIV testing services: a qualitative study with men who have sex with men in three Indonesian cities

Elan Lazuardi - The Kirby Institute

Author Names: Elan Lazuardi, Christy Newman, Nur Aini Kusmayanti, Shelly Iskandar, Emily Rowe, D.N. Wirawan, Rudi Wisaksana, Yanri W. Subronto, John Kaldor, Stephen Bell

Abstract:

Indonesia has adapted ‘treatment as prevention’ approach as one of its national strategies, while key population like men who have sex with men continue to be disproportionately affected by HIV. With an increasingly biomedical and epidemiological response to HIV in Indonesia and internationally, there is a need to understand how engagement with HIV services can be grounded in social practices of the so-called key population.

While evidence is available on the sexual and risk reduction practices of the men who have sex with men in Indonesia, and their vulnerability to HIV, little is known about the role of community practices and the social factors influencing engagement with HIV care in Indonesia among key populations. A qualitative study was conducted between 2015 and 2016 in three Indonesian urban settings. This study aims to understand the lived experiences of accessing HIV services among men who have sex with men; focusing on the social influences affecting people’s engagement with HIV testing. Ten focus

group discussion and 5 interviews were conducted with a total of 53 men who have sex with men between the ages of 16 to 52 years old. Participants included individuals with a range of experiences related to accessing HIV services. Thematic analysis on participants views and experiences of engaging with HIV testing found that involvement with informal peer networks and community-based organisations was important in participants' engagement with HIV testing. In contrast, the role of partners and social dimensions of service access was perceived and experienced differently, particularly due to existing stigma against non-normative sexual identities. This study highlights the importance of recognising the diversity of a group typically put under one category of men who have sex with men. A range of responses are required to reach out and engage all the types of experiences that within this category.

Social support and access to and use of HIV testing, treatment and care in two fishing communities around Lake Victoria in Uganda

Christopher Tumwine - Centre for Social Research in Health, UNSW Sydney

Author Names: Christopher Tumwine, Stephen Bell, Peter Aggleton

Abstract:

Background: Previous research has suggested that the social support available to HIV positive people in fishing communities is limited which may influence access to and use of HIV testing, treatment and care.

Methods: To examine fisherfolk's access to social support and its influence on access to HIV testing, treatment and care, semi-structured in-depth interviews were conducted with 42 HIV positive fisherfolk and 15 health care providers from two HIV clinics located in two fishing communities in Uganda.

Results: All fisherfolk participants reported receiving support at some point, which enabled them to access/utilise HIV testing, treatment and care. Prior to HIV diagnosis, such support was largely in form of advice to fisherfolk who were ill, on what illness they could be dealing with, the remedies to use or which care providers to consult. After HIV diagnosis and disclosure to friends/family, several forms of support were provided including emotional support enabling fisherfolk to come to terms with an HIV diagnosis and informational support providing advice on how best to live with HIV. In addition, instrumental/material support enabled fisherfolk to access/utilise HIV treatment and care. Affiliative support, in the form of new friends acquired from HIV clinic visits, provided fisherfolk with a novel sense of belonging. Factors mitigating against access to social support included HIV status non-disclosure, perceiving available social network members as being either too old or young to help, and seeing oneself as physically OK and therefore not needing material support.

Conclusion: Participants in the study received support at some point which facilitated their involvement in HIV care. But, many participants also reported occasions when the support available to them was inadequate. HIV treatment programmes should further encourage fisherfolk to involve friends/family to support their health care seeking processes.

The cost and cost-effectiveness of scaling up of HIV and Syphilis testing in low and middle income countries: a systematic review

Rabiah Adawiyah - The Kirby Institute

Author Names: Dr. Rabiah Al Adawiyah, Ms. Nelly Saweri, Dr. Tanya Applegate, Dr. Ari Probandari, Prof. Rebecca Guy, Associate Prof. Virginia Wiseman

Abstract:

Background: Scaling up is a deliberate effort to increase the impact of health services so as to benefit more people. The attention paid to scaling up has multiplied, especially due to its central role in achieving universal health coverage, a key target for the Sustainable Development Goals. Currently, many low and middle income countries (LMICs) are developing policies to support the expansion of antenatal testing for HIV and syphilis, the leading causes of disability adjusted life years (DALYs) in women of reproductive age and responsible for substantial productivity losses. This study will be among the first to systemically examine the evaluation of cost and cost-effectiveness of HIV and syphilis testing in LMICs Objectives: (1) Synthesise and appraise the literature on the costs and cost-effectiveness of scaling up antenatal testing for HIV and syphilis (2) identify factors affecting costs and cost-effectiveness as coverage increases and to describe typical cost curves for different kinds of testing programmes.

Methods: A systematic search was conducted using 7 databases: Medline, Econlit, Web of Science, Embase, Emcare, CINAHL and Scopus from January 2001 to July 2018. A total of approximately 18 papers were identified as eligible for inclusion. From these papers, the majority are modelling studies with very few evaluations of HIV/syphilis testing at scale in ‘real world’ settings. Only one study took transitional costs associated with administration and programme planning into consideration, even though they have been shown to be significant especially in the short-run. Few studies measured economies and diseconomies of scale or differentiated between rural and urban unit costs despite the recognised challenges of accessing remote populations. Future research needs to also consider the role of the private sector in the expansion of antenatal screening for HIV and syphilis testing in LMICs, an important source of care in many LMICs.

Does continuous quality improvement (CQI) improve PMTCT processes in rural South Africa? A stepped wedge cluster RCT

Handurugamage Manisha Namalee Yapa - The Kirby Institute

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Abstract:

Background: Health systems imperfections can lead to preventable HIV vertical transmission in many countries. CQI has the potential to improve prevention of mother-to-child transmission of HIV (PMTCT) guidelines implementation in resource-poor settings. We test the effectiveness of CQI in improving antenatal HIV viral load (VL) monitoring and repeat HIV screening in rural South Africa.

Methods: The MONARCH stepped-wedge randomised controlled trial (NCT02626351) of a CQI intervention, compared with usual standard of care, was conducted at 7 nurse-led primary healthcare clinics in a rural community of northern KwaZulu-Natal. All eligible women aged ≥18 years who delivered during the study were enrolled. We performed intent-to-treat (ITT) analyses using modified Poisson mixed effects models, with time fixed effects and clinic random effects. Extracted from routine medical records, our pre-registered primary endpoints were: (i) VL testing among pregnant women who were HIV-positive, and (ii) repeat HIV screening among pregnant women who were HIV-negative.

Results: Between July 2015 and January 2017, 2159 women were eligible for ITT analysis, and 54% were exposed to the intervention. Median age was 25 years (interquartile range [IQR] 21-30); median gestational age at first booking was 19 weeks (IQR 15-24). HIV prevalence was 47% (95% confidence interval [CI] 42-53%). The CQI intervention significantly increased VL testing (risk ratio (RR) 1.39, 95% CI 1.19-1.62, p<0.001), but not repeat HIV screening (RR 1.01, 95% CI 0.89-1.12, p=0.865). However overall only 56% pregnant women who were HIV-positive had a VL performed ever in pregnancy, and 67% pregnant women who were HIV-negative had a repeat HIV screen ever in pregnancy.

Conclusions: CQI holds promise for improving antenatal HIV care quality in resource-poor settings, helping eliminate mother-to-child HIV transmission (eMTCT) and improve maternal health. Concurrent health system improvements are needed to optimise benefits of CQI.

Chinese queer migrants in Oz

Cliff Chen - Social Policy Research Centre

Author Names: Cliff Chen

Abstract:

Queer migration has received relatively less attention in migration studies. My study seeks to explore the life experiences of Chinese gay, lesbian and bisexual migrants in Australia in regards to their cultural and sexual identity development along their life courses. In responding to the transnational turn in queer and migrant study, I examine the life stories of my participants, including their pre and post migration experiences. I specially look at the embodiment of their desire and subjectivity, the ways they organize intimate relationships and construct places and mobility. I inquire how their pre-migration sexual life experiences shed light on their agency and social constraints they encounter that affect their settlement experiences in Australia. I also inquire in the process of settlement, how my participants' migratory, ethnic and sexual selves and subjectivities interact to affect their experiences of integration and perceptions of multiculturalism along their biography project of self-actualization. Through interviewing 49 participants I have identified a range of sexual lifeways that require constant negotiations with Chineseness, Australianness and gayness in their efforts to become a full social person.

Enhancing outbreak early warning surveillance in resource-limited Pacific Island Countries and Territories

Adam Craig - The Kirby Institute

Abstract:

The comprehensive, timely and accurate collection and analysis of health data are essential for the detection of outbreak-prone diseases that, if go unnoticed or are identified late, pose significant risks to the health of a population. In the Pacific island, a rudimentary syndrome-based surveillance strategy is employed for the early detection of outbreaks. This strategy, implemented in 2010, has provided a mechanism by which resource constrained Pacific island governments have been able to implement routine surveillance activities and address many of their national and international health protection needs and obligations. Despite being a cornerstone of national health protection in many Pacific island countries, the early warning surveillance system had not been comprehensively evaluated prior to my research; nor have behavioural, technical or upstream health systems factors inhibiting performance been identified and opportunities explored.

In his Ph.D. thesis, Adam Craig set out to determine if the Pacific early warning surveillance system was meeting its stated objectives, and to produce evidence to augment technical and operational

elements of the system leading to improved function. In this presentation, Adam will provide an overview of his research approach, methods, and high-level findings.

More than a virus: a study of hepatitis B related stigma and discrimination among Chinese immigrants living in Australia

Defeng Jin - Centre for Social Research in Health

Abstract:

It is estimated that Chinese immigrants account for 17% of people who are living with chronic hepatitis B in Australia in 2016. However, the proportion of undertaking anti-virus therapy remains low. Hepatitis B related stigma and discrimination have been identified as barriers to accessing health care services for Hepatitis B in other countries. The proposed study aims to explore how this stigma and discrimination impact on and shape health outcomes of Chinese immigrants in Australia, using semi-structured interviews and a questionnaire-based survey. It will explore lived experiences of Chinese immigrants living with hepatitis B and examine the Chinese community's knowledge about hepatitis B virus (HBV), perceptions and attitudes towards HBV and people living with HBV and compare these perceptions and attitudes between new arrivals and those well settled. The study will contribute to the development of culturally sensitive health care services and promote health outcomes of the Chinese community.

Perceptions and experience of care around cervical cancer and point of care expert HPV-DNA cervical screenig in Papua New Guinea

Hawa Camara - The Kirby Institute

Author Names: Hawa Camara, Somu Nosi, Andrew Vallely, Rebecca Guy, Angela Kelly-Hanku

Abstract:

Background: Although preventable, cervical cancer is the most common female cancer in Papua New Guinea (PNG). In accordance with WHO guidelines to introduce HPV screening, a non-randomized prospective cohort trial using the GeneXpert on self-collected vaginal swabs for high-risk HPV screening followed by same day treatment is being undertaken in four provinces in PNG. As with any public health intervention, ensuring that the technology is acceptable to a range of stakeholders including 'patients' and communities is vital to its success. Acceptability for HPV-DNA screening is dependent on numerous factors, including sociocultural context, knowledge of the disease, as well as women's experience of care. My research will evaluate the acceptability of point-of-care Xpert HPV testing among women and local communities in PNG. This initial phase aims to explore patients' perceptions, and experience of point of care cervical screening. Results from this phase will aim to improve the quality of services provided to the women for a better screening experience in hopes of increasing screening uptake in PNG.

Methods: For this phase, 22 semi-structured interviews were conducted with a random sample of study participants to elicit their perceptions and experience of cervical cancer screening.

Results: Based on the qualitative analysis from the first field trial site, perceptions varied and were largely influenced by the patient's immediate family or the community's perceptions of and experience with cervical cancer as well as the patient's past service provision experience including their interaction with health care workers. Nevertheless, women were satisfied with their point of care cervical screening experience (including cost associated with it).

Conclusion: These valuable preliminary data will help improve service delivery in relation to HPV screening as well as provide a preview of socio-cultural factors that impact the acceptability of a novel point of care GeneXpert HPV-DNA cervical screening technology in the country.

Activation Markers and Subsequent BMD Loss in the SECOND-LINE Study

Gwamaka Mwasakifwa - The Kirby Institute

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Abstract:

Background: The bone substudy of SECOND-LINE demonstrated that patients on 2-3 nucleoside/nucleotide reverse transcriptase inhibitors (N(t)RTIs) plus lopinavir/ritonavir (N(t)RTI arm) had significantly greater bone mineral density (BMD) loss than those on raltegravir + lopinavir/ritonavir (RAL arm). We assessed whether early changes (measured at week 12) in bone turnover and immune activation markers were associated with a clinically important change (≥ 5% loss) in BMD at the hip over 48 weeks.

Methods: T-test was used to compare absolute changes in biomarkers from baseline to week 12 between patients with ≥ 5% versus < 5% BMD loss and linear regression was used to adjust for baseline clinical and demographic covariates.

Results: We included 123 patients with BMD data at baseline and week 48; mean age 38 (SD 7) years, 56.10% females, 47.15% in the N(t)RTI arm. Over 48 weeks, 34 patients [70.59% in N(t)RTI arm versus 29.4% in RAL arm (p = 0.001)] experienced ≥ 5% BMD loss at the hip.
At week 12, the mean change in the following biomarkers were associated with ≥ 5% hip BMD loss: Pro-collagen type 1 N pro-peptide (P1NP) [mean difference 0.33 pg/mL, 95% CI; 0.15 to 0.51; p < 0.01); C-reactive Protein (hs-CRP) [mean difference = -0.5 pg/mL, 95% CI; -0.99 to -0.01; p = 0.046]. These associations remained statistically significant in multivariate analysis (p=0.035, 0.025 respectively). For C-terminal telopeptide of type 1 collagen (CTX), no significant association was detected [mean difference = 0.08 pg/mL, 95% CI; -0.08 to 0.24; p = 0.335].

Conclusion: P1NP, a marker of bone formation and hs-CRP were independently associated with a clinically significant bone loss at the hip early in the initiation of second-line therapy. This finding is critical in elucidating mechanistic pathways and facilitating interventions to reduce fracture risk.

Closing the Gap? Critical perspectives of health policy and Indigenous self-determination

Madeline News - Nura Gili Indigenous Studies

Abstract:
The concept of self-determination, the right to live and act as one chooses free from external pressure, has increasingly appeared in policies concerning human rights internationally since the mid 1970s. Although Australia appeared hesitant to integrate self-determination into policies initially, it has slowly begun to emerge as an important concept for understanding freedom of choice, power imbalances, and the differing needs of Australia's diverse population. Healthcare is one area in which self-determination has begun to be utilised to target consistent issues that previous approaches have failed to address, such as closing the 'gap' that exists between non-Indigenous and Indigenous life expectancy and health outcomes.

Various areas of health and research (particularly areas focusing on substance abuse, mental, and sexual health), have shown an increasing interest in integrating self-determination into practice to better serve the needs of Indigenous communities. However, there is a lack of consensus and clear understanding as what is meant by 'self-determination' in these areas of health, amongst others. Healthcare is complex and varies significantly across fields, in terms of priorities and needs, so how is self-determination defined when used across differing health care contexts, do different settings and perspectives alter how it is conceptualised and therefore utilised in the delivery of healthcare?

If the concept of self-determination could enable further success in achieving health equity between Indigenous and non-Indigenous Australians, it is important to prioritise these questions and explore the diverse issues that need to be considered to ensure that self-determination can be efficiently integrated into policies and successfully utilised to improve health outcomes. While also indicating what the expectations of policies that claim to promote self-determination are, so that the concept is not just included as a word in policies and reports but exists in healthcare to support the pursuit of health equity for Indigenous Australians.

Evaluation of the Hologic Aptima HCV Quant Dx assay for detection of HCV RNA from dried blood spots

Beth Catlett - The Kirby Institute

Abstract:
Introduction: The availability of safe and effective direct acting antiviral therapy for hepatitis C virus (HCV) has led to a need for simplified diagnostic pathways. Barriers to treatment uptake in people who inject drugs, may be overcome by utilizing novel collection methods, such as dried blood spots (DBS). However, there are currently no registered assays for HCV RNA testing from DBS samples. The aim of this study was to evaluate the performance of the Aptima HCV Dx Quant assay for HCV RNA detection with paired venepuncture and DBS (spotted whole blood) samples.

Methods: Paired plasma and DBS samples were prepared from de-identified remnant samples of HCV antibody positive individuals. We compared the sensitivity and specificity of the Aptima HCV Dx Quant assay for HCV RNA detection from DBS with plasma (gold standard).

Results: Among 107 paired samples from HCV antibody positive individuals, 80.3% (n=86) had detectable HCV RNA. Sensitivity of the Aptima HCV Dx Quant assay for HCV RNA detection in DBS was 94.2% (95% CI 86.4-97.8%) and specificity was 100% (95% CI 80.7-100%). Sensitivity for HCV RNA quantification in DBS (≥10 IU/mL in plasma) was 97.1% (95% CI 89.9% to 99.6%) and specificity

was 100% (95% CI 83.9% to 100%). The sensitivity of HCV RNA detection ≥1,000 IU/mL in DBS (based on a clinically relevant threshold obtained from EASL guidelines) was 100% (95% CI 94.0-100%) and specificity was 100% (95% CI 80.7-100%).

Conclusion: The Aptima HCV Dx Quant can detect active infection from a DBS sample with good sensitivity and specificity, particularly when using a threshold of 1000 IU/mL. This novel study demonstrates DBS as a suitable alternative to plasma for HCV RNA analysis on the Aptima assay. Further evaluation is needed to evaluate real world performance with the aim of enabling registration of a kit insert claim.

The new MTV generation: Using Methamphetamine, Truvada, and Viagra to enhance sex and stay safe.

Mohamed Hammoud - The Kirby Institute

Author Names: Hammoud MA[1], Vaccher SJ[1], Bourne A[2], Haire BG[1], Lea T[3], Maher L[1], & Prestage G[1]

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2 Australian Research Centre in Sex, Health & Society, La Trobe University, Melbourne, Australia,

3 Centre for Social Research in Health, University of New South Wales, Sydney, Australia

Abstract:

Introduction and Aims: The use of methamphetamine and Viagra are strongly predictive of incident HIV infection among gay and bisexual men (GBM). Truvada, as pre-exposure prophylaxis, virtually eliminates HIV risk during condomless anal intercourse (CLAI). We describe the prevalence and context of concurrent use of methamphetamine (M), Truvada (T), and Viagra (V); collectively MTV.

Design and Methods: Flux is an online prospective observational study drug use among GBM. 1831 HIV-negative GBM provided details about their use of MTV. Binary logistic multiple regression were used to estimate adjusted odds ratios (aOR) and associated 95% confidence intervals (95%CI).

Results: MTV use was reported by 6.0% of participants; 3.1% used methamphetamine and Viagra ('MV only') and 11.2% used Truvada ('T only'). Compared to use of 'MV only', MTV was independently associated with CLAI with casual partners (aOR=6.78;95%CI=1.42–32.34) and 'fuckbuddies' (aOR=3.47;95%CI=1.41–8.56) in the previous six months. Compared to use of 'T only', MTV was independently associated with being older (aOR=3.95;95%CI=1.55–10.03) and engaging in group sex (aOR=3.31;95%CI=1.82–6.00). Greater social engagement with other gay men (aOR=1.44;95%CI=1.18–1.76) and having more sexual partners (aOR=2.30;95%CI=1.10–4.82) were independently associated with use of MTV compared to use of 'MV only' or 'T only'.

Conclusions: The addition of PrEP mitigates the increased HIV risk associated with party drug regimens, and these data demonstrate that this harm reduction strategy is being utilised by GBM. Interventions that promote harm reduction strategies, including the use of PrEP during chemsex could help reduce HIV transmissions within this at-risk population."

Exploring opportunities to use indexes for the measurement of laws and other public health policy interventions in drug policy reform

Vivienne Moxham-Hall - NDARC

Abstract:

Indexes are multidimensional indicators, combining several different aspects of a complex issue to create a single, summable score. The process of developing and testing an index is complex and involves: selecting appropriate dimensions and indicators of the issue being measured, normalising, often very different measures into the same unit, weighting components of the index in proportion to

their “impact” or “importance” and then conducting sensitivity, and validation analyses. Despite the complexity behind their construction, the popularity of indexes has been increasing. To date, indexes have been developed for and used to measure complex issues such as: human development, environmental footprints and gender inequity. The aim of this paper is to provide an overview of two approaches to index development specific to drug policy; a pre-existing database approach, or a purpose-built index. The benefits and draw-backs of each approach will be discussed. Ultimately condensing indicators into a single summable score misses much of the complexity. However, when constructed carefully, the utility of indexes lies in their ability to enable cross-jurisdictional and historical comparisons of complex issues. There is value in exploring different approaches to index development and understanding the complexities involved in their construction. Such an understanding can facilitate informed approaches to their development and application in drug policy research.

“The Quest for Legitimacy” - Power & Performativity of Drug User Representation in High Level Drug Policy Settings

Annie Madden - Centre for Social Research in Health

Author Names: Annie Madden

Abstract:

This presentation is based on my PhD project and will critically explore notions such as power, identity, agency and legitimacy in relation to drug user representation in ‘high level’ drug policy contexts – that is, drug policy contexts where strategic-level decision making occurs or can occur including parliamentary summits and inquiries, ministerial-level advisory structures and even UN-level commissions and sessions The aim of this study is to make a new, scholarly contribution to our understanding of both the theoretical underpinnings and the practice of drug user representation in such ‘high-level’ drug policy settings.

In the dynamic area of global drug policy, informed debate on drug user representation, its theory and practice is largely absent. Even in the growing critical scholarship on drug policy analysis, deliberations on drug user representation and the related issues of power and legitimacy are rare with scholars calling for “a more complex and careful analysis of the concept of participation” and what it might “do or produce” in drug policy contexts. My thesis research is therefore seeking to address this gap in the academic literature on drug policy by exploring the understandings and experiences of drug user representation in ‘high level’ drug policy contexts and how these relate to contemporary social theories on power, identity and political representation.

As I am not undertaking my confirmation until November 2018, this presentation will focus on a preliminary discussion of the key themes and issues emerging from the formative mapping stage of my research study.

Risk behaviour and reinfection: Longitudinal sexual and drug use behaviours among HIV/HCV co-infected population in Australia

Samira Hosseini Hooshyar - The Kirby Institute

Author Names: Samira Hosseini Hooshyar, Gail Matthews, Marianne Martinello, Gregory Dore, on behalf of CEASE study group

Abstract:

Background: Direct-acting antiviral (DAA) therapy can lead to a sustained virological response (SVR) of more than 90% in HIV/HCV coinfected individuals. Yet, the possibility of HCV reinfection remains a big challenge. The Control and Elimination of HCV from HIV-infected individuals within Australia (CEASE-D) is an observational cohort study. HIV/HCV coinfected adults (≥18 years) completed an enrolment questionnaire between 2014 and 2017 and received a follow-up questionnaire 1 year after the DAA therapy. Participants reported high levels of risk behaviours for HCV transmission at baseline (e.g., 33% ≥weekly and 18% unsafe injecting among last month injectors, and 69% condom-less anal intercourse and 34% group sex among MSM).

Aims and hypotheses: In this analysis, I aim to (1) identify associations with risk behaviours at baseline (2) evaluate changes and factors associated with changes in risk behaviours between enrolment and follow up and (3) estimate the incidence of HCV reinfection and identify predictors of reinfection among participants. My hypothesis is that high levels of risk behaviours at baseline will be associated with age, ethnicity, employment status and education level, that risk behaviours will reduce in most but not all individuals over follow-up and that the incidence of reinfection will be low despite ongoing risk behaviours among individuals.

Methods: Descriptive statistics will be calculated for the follow-up risk behaviours. Univariate and multivariable logistic regression will be used to identify associations with risk behaviours at baseline. Generalized estimating equations (GEE) will be used to evaluate factors associated with changes in risk behaviours. Moreover, reinfection incidence will be calculated using person-time of observation. Exact Poisson regression analysis will be used to assess factors associated with HCV reinfection.
Conclusion: Evaluating risk behaviours and HCV reinfection after DAA therapy among HIV/HCV co-infected individuals can help inform the needs of post-treatment surveillance, strategies and ongoing education in this population.

Exposure-affected Time-varying Confounding in non-randomised longitudinal research

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Abstract:

Background: Obtaining unbiased causal estimates from longitudinal observational data can be difficult due to exposure-affected time-varying confounding, where confounders are themselves affected by prior exposure. The past decade has seen considerable development in methods for analysing such complex longitudinal data. However, the extent to which those methods have been implemented is unclear, as are the barriers to greater implementation. This work describes and characterises the state of the field in methods adjusting for exposure-affected time-varying confounding and examines their use in the literature. It also addresses some outstanding issues in the field through a combination of applied research and Monte-Carlo simulation

Methods: The state of the field was examined using a systematic review of the use of the methods in the literature, from 2000 to 2016. A Monte-Carlo simulation study exploring the methods, and an applied article using substance use data was also conducted.

Results: There was steady growth in the use of the methods over the course of the study period, increasing from two in 2000, to 112 in 2016. Application was primarily using inverse probability weighting (IPW), while doubly robust techniques such as targeted maximum likelihood estimation (TMLE) saw much more limited use. Monte Carlo simulations suggest TMLE and covariate-adjusted IPW to be the most stable, unbiased methods.

Conclusions: There has been marked growth in research addressing exposure-affected time-varying confounding. This was driven by work in a small number of topic areas, with other areas showing relatively little uptake. Further simulation study is required, as well as greater guidance for applied research researchers, such as tutorial papers, packages/programs for other statistical programs beyond R, and guidelines for implementation.