ABSTRACTS BOOKLET

World Indigenous Peoples' Conference on Viral Hepatitis

14–16 September 2014
Alice Springs Convention Centre

viral HEPATITIS
ALICE SPRINGS 2014
9TH AUSTRALASIAN CONFERENCE

17–19 SEPTEMBER 2014
ALICE SPRINGS CONVENTION CENTRE, **AUSTRALIA**
CENTRAL ISSUES IN VIRAL HEPATITIS IN 2014

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World Indigenous Peoples' Conference on Viral Hepatitis

14–16 September 2014
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ORAL ABSTRACTS

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1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

THE OUTCOMES OF A CLINICAL HEPATITIS B AUDIT AT THE CENTRAL AUSTRALIAN ABORIGINAL CONGRESS ABORIGINAL CORPORATION

Boffa J [1], Beever W [2]

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The Central Australian Aboriginal Congress Aboriginal Corporation is the largest Aboriginal health service in the NT and provides more than 100 000 episode of care each year to more than 10 000 unique, Aboriginal clients. As part of its comprehensive sexual health program is decided some years ago to incorporate Hepatitis B testing as part of the Sexual Transmitted Infections and Blood Bourne Viruses STI/BBV management template on Communicare which is offered every 12 months to every patient that attends Congress over 15 years of age. Hep B serology is taken from patients if it has not been indicated on their clinical notes that they are Hep B immune.

This paper presents the findings of a clinical audit that was completed nearly 1000 Aboriginal adults who have had their hepatitis B status determined as part of the sexual health program. The prevalence of Hepatitis B in the population has been determined. The paper also examines the effectiveness of Hep B vaccination procedures as well as the outcome for patients with active disease. Finally, it considers improvements for clinical practise as a result of the audit.

PROFFERED PAPER SESSION A
HEPATITIS B – EPIDEMIOLOGY, AUDIT AND BIOLOGY
1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

THE BEACHCOMBER TRAIL OF HBV-C SUBGENOTYPES ALONG THE ROUTE FOLLOWED BY THE FIRST WAVE OF *HOMO SAPIENS* OUT OF AFRICA

Yuen L1, Littlejohn M[1], Edwards R[1], Jackson K[1], Sollano J[2], Aziz N[3], Locarnini S[1]

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BACKGROUND Hepatitis B virus (HBV) is one of the most successful pathogens infecting humans. The World Health Organisation has estimated that at least two billion people worldwide have been infected with this virus. Recent discoveries of endogenous viral elements in the genome of avian species revealed hepadnaviruses are at least 80 million years old. Yet, its evolutionary history remains unclear. Numerous theories have been proposed, but none can adequately explain the current geographical distribution of HBV genotypes (A–J). Genotype C HBV is regarded as the oldest as well as most oncogenic genotype of HBV, and a substantial proportion of the Indigenous populations living along beachcomber/coastal route followed from North-East Africa to Sahul are also infected with HBV-C. The aim of this study was to characterise these HBV-C isolates and look for possible linkage between them.

METHODS Serum samples of 26 Indigenous people from five geographical regions, who were infected with HBV, were used to generate viral genome sequences for analysis. HBV sequences from other indigenous populations were also extracted from GenBank. Phylogenetic analysis was carried out to determine subgenotypes and genetic diversity, and mutational analysis is being performed to identify clinically significant mutations known to be associated with natural disease progression.

RESULTS Phylogeography analysis of the viral sequences confirmed HBV subgenotypes have a distinct geographical distribution. The following subgenotypes were found along the beachcomber route Jarawas of the Andaman Islands (C1), Orang Asli from Malaysia (C1), Mangyan from the Philippines (C5), Pacific Islanders (C3), Indigenous Australian (C4), and Torres Strait Islanders (C14). Genetic diversity, mutational analysis and linkage analysis is currently ongoing.

CONCLUSION We have described a "coastal trail" of genotype C HBVs from Africa, to the Andaman Islands, onto the Sunda shelf, out into the Pacific and also into Sahul.

DISCLOSURE No relevant conflicts to declare.

PROFFERED PAPER SESSION A
HEPATITIS B – EPIDEMIOLOGY, AUDIT AND BIOLOGY
1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

PHYLOGEOGRAPHY OF HEPATITIS B VIRUS, SUB-GENOTYPE C4 IN INDIGENOUS AUSTRALIANS.

Littlejohn M[1], Yuen L[1], Edwards R[1], Luciani F[2], Davies J[3], Locarnini S[1], Davis J[3], Tong S[3]

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[2] School of Medical Science, University of New South Wales, Sydney, Australia
[3] Menzies School of Health Research and Charles Darwin University, Darwin, Australia

BACKGROUND The hepatitis B virus (HBV) isolated from Indigenous people living in Australia's Northern Territory infected with chronic HBV forms a divergent group within the HBV/C genotype. This unique strain has only been described in Indigenous Australians. The aim of this study was to use phylo-geographic techniques to identify possible pathways of transmission and the evolutionary history of HBV strains both across and between communities.

METHODS Full genome HBV sequences have been obtained from HBsAg positive individuals enrolled in the observational CHARM study. Participants have been recruited from over 18 communities across the Northern Territory including Alice Springs. Written informed consent was obtained from all participants. Phylogenetic analysis has been initially carried out using the software program MEGA5, analysis is continuing using Bayesian reconstruction methods (software package BEAST).

RESULTS Initial phylogenetic analysis of the viral sequences revealed that the C4 sequences clustered according to geographic regions, corresponding to the areas where the person was born, spent the first 5 years of their life, and in the majority of cases also corresponded to where their mother (and frequently many earlier generations of ancestors) were born. This analysis also revealed greater than 4% diversity within the HBV/C4 sequences indicating that these geographical groupings have been diverging from the most recent common ancestor for potentially 60,000 years.

CONCLUSION Analysis is continuing to determine evolutionary relationships between the viral clusters to identify possible pathways of transmission. Once these pathways are identified we will be able to develop strategies to disrupt transmission events, thereby reducing the spread of HBV in the Indigenous communities.

DISCLOSURE No relevant conflicts to declare.

PROFFERED PAPER SESSION B
HEPATITIS C – YARNING AND LIVING WITH HEPATITIS C
1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

DEADLY LIVER MOB PROJECT - YARNING UP HEPATITIS C

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BACKGROUND The Deadly Liver Mob Project (DLMP) is modelled on The Safe Injecting Cwiz (SIC) project (Wentworth Area Health Service 1998 -2002), targeting under 25yr/o who inject drugs; and was adapted from the ECHO model, a HIV peer driven intervention conducted in Connecticut (Broadhead, et,al, 1998). These earlier projects provided the evidence to establish a focussed, incentive based education program that would reach deep into hidden and hard to reach networks**.**

Our question was whether hepatitis C knowledge can be enhanced within at risk Aboriginal people, their broader families and their community networks using a traditional story-telling approach to sharing health messages.

METHOD The DLMP operates from a Western Sydney Needle and Syringe Program (NSP), co-located with Sexual Health. Project. Recruitment targets Aboriginal clients plus their networks.

The Aboriginal Sexual Health Worker and Aboriginal Hepatitis C Project Worker provide initial point of access and engagement, which is followed by a culturally sensitive education 'yarn' about hep C.

Using an incentive based peer driven model, participants are encouraged to recruit, educate their peers, return to the project for consolidation of health messages and collect incentive payment. A further incentive is offered encouraging participants to undergo hepatitis testing, hep B vaccinations and opportunistic sexual health screening.

RESULTS At the time of writing, DLMP has been operational for 80 days (2 days per week) with **418** Aboriginal people recruited, **(~78%)** attending Sexual Health.

CONCLUSIONS Results suggest that the use of peer driven intervention, coupled with incentive payment, may enhance interest, uptake and sharing of health messages; and that by allowing participation by non-injecting community members, we anticipate that over time there will be a reduction in shame and stigma associated with Hep C.

PROFFERED PAPER SESSION B
HEPATITIS C – YARNING AND LIVING WITH HEPATITIS C
1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

CLIENT EXPERIENCES OF UNDERTAKING HCV TREATMENT THROUGH AN ABORIGINAL COMMUNITY CONTROLLED HEALTH SERVICE INSIGHTS FROM A QUALITATIVE EVALUATION

Mooney-Somers J[1], Nori A[2], Hammond B[2], Harrod, ME[3], Kaldor, J[3]

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[2]Nunkuwarrin Yunti of South Australia, Inc., 182-190 Wakefield Street, Adelaide, SA 5000
[3]The Kirby Institute, The CFI Building, Corner Boundary and West Streets, Darlinghurst, NSW 2010

BACKGROUND Between 2006 and 2008 the Healthy Liver Program (HLP) provided culturally safe community based Hepatitis C treatment and support services at Nunkuwarrin Yunti (NY), an Aboriginal Community Controlled Health Service. An evaluation was carried out via the Research Excellence in Aboriginal Community Controlled Health (REACCH) project by a collaboration of NY staff and university researchers. The project aimed to understand what the HLP offered including clinical outcomes and an audit of costs, issues of equity, and how acceptable it was to clients, clinical and allied health staff. This paper focuses on qualitative data on client treatment experiences.

METHODS An audit process identified 11 clients treated through HLP between 2006 and 2008. We were able to make contact with 8, and 7 agreed to participate in a semi-structured interview (5 had cleared the virus). Clients talked about the story of their illness, how they came to be involved in the HLP, their life context at the time of treatment, and their experience of treatment and the HLP. We conducted a Framework Analysis of the data.

RESULTS Drawing on client interview data, our analysis examines two features of the clients' treatment accounts a) their experiences of the HLP and b) their experience of treatment.

CONCLUSION Hepatitis C continues to be a significant health concern within the Aboriginal and Torres Strait Islander community; they accounted for 7% of new HCV cases in 2012. Yet, little is known about Aboriginal people's experience of HCV treatment. Our evaluation addresses this gap by providing insights into the lived experience of treatment, and identifying how a community-based service met the specific needs of this population.

PROFFERED PAPER SESSION B
HEPATITIS C – YARNING AND LIVING WITH HEPATITIS C
1.30PM – 2.15PM MONDAY 15 SEPTEMBER 2015

YARNING ABOUT HEP C; ABORIGINAL VICTORIANS TELLING OUR STORIES ABOUT LIVING WITH HEP C

Peter Waples-Crowe1, Andrew Bamblett1, Kat Byron[1], Sandra Gregson[2], Garry Irving[3]

Victorian Aboriginal Community Controlled Health Organisation[1], Victorian Aboriginal Health Service[2], Hepatitis Victoria[3]

ABSTRACT Newly acquired Hepatitis C has been found to be up to six times higher in Aboriginal Victorians in recent years, compared to the non-Aboriginal population. The close relationship between hepatitis C and injecting drug use fuels shame, discrimination and creates barriers to health care.

This project was developed to put a Koori face and story to hep C, and start yarns about hepatitis C in our communities. The original concept for this film was developed through a collaboration of the Victorian Aboriginal Community Controlled Health Organisation (VACCHO) and the Victorian Aboriginal Health Service (VAHS), together with a mainstream organisation, Hepatitis Victoria.

The short video, *Yarning about hep C*, is about our mob talking about experiences of living hep C, looking after your health and treatments for hep C. Participants were invited to talk in their own words of living with hepatitis C, their experiences of discrimination, experiences of treatment as well as social and emotional support they had during their treatment. The individual stories were interspersed with health workers providing clinical information about hep C. Uncle Ronnie Briggs, one of the stars of the video, became a hepatitis C 'champion' education through the process. As a result of his involvement, he became a Hepatitis Victoria 'Hep Hero' and the recipient of the Hepatitis Victoria 'Mark Farmer' award recognising individuals living with viral hepatitis who have become champions in their community.

Yarning about hep C is a key resource in the delivery of viral hepatitis education to Aboriginal Health Workers and Aboriginal Social and Emotional Wellbeing workers, newly diagnosed Aboriginal community members and their families, mainstream health professionals and the wider community.

Our presentation will show highlights from the video, share the impact of this video as well as reflect on our collaborative creative processes and partnership with Aboriginal and non-Aboriginal organisations.

DISCLOSURE OF INTEREST This project was funded by a grant from Hepatitis Australia

PROFFERED PAPER SESSION C
HEPATITIS B – SURVEILLANCE, EDUCATION AND COMMUNITIES
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

YARNING ABOUT HEP B: AN AWARENESS AND EDUCATIONAL PROGRAM FOR VICTORIAN ABORIGINAL COMMUNITIES

Waples-Crowe P1, Irving G2

[1]Victorian Aboriginal Community Controlled Health Organisation, [2]Hepatitis Victoria

BACKGROUND Aboriginal Australians constitute a disproportionate number of people in Australia living with chronic hepatitis B. Newly acquired hepatitis B in the Aboriginal community is mostly in people in the people aged 30 to 39, with a large number of undiagnosed and therefore unmanaged hepatitis B particularly in regional communities.

METHOD The *Yarning about hep B* project was developed as a partnership between Hepatitis Victoria and the Victorian Aboriginal Community Controlled Health Organisation to provide awareness and education about hepatitis B to health and community workers in Aboriginal Controlled Health Organisations in Victoria and to raise awareness of hepatitis B amongst community members.

A project Steering Committee comprising key community representatives guided the project. A series of designs for an awareness poster and a general educational brochure were developed following consultation, based around the developed consistent concept of '*Hep B – it's everyone's business.*' These were then focus tested amongst community members and health professionals. The agreed design contained simple information and data around hepatitis B applicable to both community members and health professionals. The completed resources were widely distributed.

As part of the project, a series of 'Hepatitis B Awareness Forums' were developed and presented at key regional locations throughout Victoria. The Forums were aimed at health and community workers to provide basic information around a range of issues related to Hepatitis B in the Aboriginal community.

RESULTS The presentation will provide an overview of the process of the development of the educational resources, the impact of the Awareness Forums and the lessons learned in the development of this program.

CONCLUSION The *Yarning about hep B* project has provided a simple and cost effective way to raise awareness about hepatitis B in the Victorian Aboriginal community and to provide information and education to health and community professionals working with community.

DISCLOSURE OF INTEREST This project was funded by a Grant from Hepatitis Australia.

PROFFERED PAPER SESSION C
HEPATITIS B – SURVEILLANCE, EDUCATION AND COMMUNITIES
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

THE ESTABLISHMENT OF A CULTURALLY SENSITIVE HEPATITIS B SURVEILLANCE PROGRAM IN AN SEMIURBAN INDIGENOUS COMMUNITY INYARRABAH FAR NORTH QUEENSLAND

Milton Mossman, Katrina Connolly and Rhonda Lewis

PROFFERED PAPER SESSION C
HEPATITIS B – SURVEILLANCE, EDUCATION AND COMMUNITIES
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

A NEW ZEALAND COMMUNITY-BASED MODEL FOR FOLLOW-UP OF PEOPLE WITH CHRONIC HEPATITIS B: DOES IT MAKE A DIFFERENCE?

S Hay; E Gane, J Fung, C Moyes, J Hornell

INTRODUCTION Since 1984, the Hepatitis Foundation of New Zealand has been providing community-based nurse follow-up for people with chronic hepatitis B. This model of managing chronic disease has contributed to patient-centred care with clear evidence of better health outcomes for patients and their families.

MATERIALS AND METHOD Between 1999 and 2002, the Hepatitis Foundation of New Zealand was contracted to deliver a Government-funded, community-based national HBV screening programme. 177,292 people were screened, of whom 11,936 were identified as persistently HBsAg positive[1]. The Foundation has provided these individuals with community education, support and 6 monthly monitoring for active chronic hepatitis B and hepatocellular carcinoma. All patients with suspected active CHB or HCC were referred to secondary or tertiary care.

RESULTS Surveillance for elevated ALT and HBV DNA facilitated earlier management of active CHB, which prevented disease progression, thereby reducing the incidence of decompensation and demand for liver transplantation. In addition, long-term surveillance for HCC achieved earlier detection of HCC, which was associated with increased likelihood of curative resection (Fig 1) and improved survival (Fig 2).

SUMMARY The New Zealand community-based HBV screening and follow-up programme improves long-term health outcomes for individuals with chronic HBV infection.

Figure 1

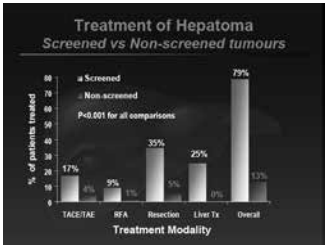
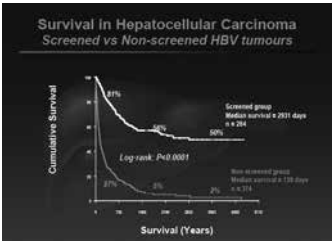


Figure 2



Reference(s) 1. Robinson, T, Bullen C, Humphries W, Hornell J, Moyes C. The New Zealand Hepatitis B Screening Programme screening coverage and prevalence of chronic hepatitis B infection. 2005. NZMJ; Vol 118 No 1221.

PROFFERED PAPER SESSION C
HEPATITIS B – SURVEILLANCE, EDUCATION AND COMMUNITIES
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

"IT REALLY IS IN A PRETTY COMPETITIVE SPACE TO GET A PROFILE": FACILITATORS AND BARRIERS TO PROVIDING HEPATITIS B CLINICAL CARE TO ABORIGINAL PEOPLE IN SOUTH AUSTRALIA

Olsen A

Kirby Institute, UNSW

BACKGROUND Aboriginal and Torres Strait Islander people account for 9.3% of all chronic hepatitis B (CHB) infections. Furthermore, around 26% of Aboriginal and Torres Strait Islander people live in remote or very remote areas. Increasing the clinical monitoring of Aboriginal and Torres Strait Islander people living with CHB in regional/remote Australia is imperative to reducing the individual and community burden of disease.

METHODS This qualitative study explored facilitators and barriers to biomedical knowledge, cultural healthcare needs and clinical care for Aboriginal people living with CHB in South Australia. In-depth interviews were conducted with physicians, nurses, policy-makers and other health workers in South Australia. Ethnographic observational data were collected in a remote community in South Australia.

RESULTS Poor knowledge of CHB and limited access to specialist hepatitis services act as major barriers. Structurally there are gaps in patient review, monitoring, follow up and specialist referral. Given the high prevalence of chronic diseases among Aboriginal Australians it can be difficult to prioritise disorders with lower prevalence, lower community visibility and less direct health funding, such as CHB. Several other general barriers were evident including travel, cultural and socio-economic circumstance and the high levels of population mobility. Key informants called for better nurse and general practitioner education. In particular, most key informants supported shared-care models, in which general practitioners, nurses and specialist services work together to monitor and treat patients, as an alternative to specialist focused care.

CONCLUSIONS Numerous social and structural barriers were identified. However, the advancement of shared-care models was highlighted as a potentially successful way to improve integration of services and pathways to treatment in regional settings. Shared-care models enable both specialist and remote stationed staff to better adapt to the specific regional and cultural needs of Aboriginal Australians. Examples of current progress in this area will be detailed.

DISCLOSURE OF INTEREST This project was funded by a National Health and Medical

PROFFERED PAPER SESSION D
HEPATITIS C – ASSESSMENT & ANALYSIS
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

PREVALENCE AND INCIDENCE OF CHRONIC HEPATITIS C AMONG INDIGENOUS PEOPLE WHO INJECT DRUGS IN MELBOURNE, AUSTRALIA

Nambiar, D[1,2], Stoové, M[1,2], Higgs, P[1,3], Hellard, M[1,2] , Doyle, J[1,2] and Dietze, P[1,2]

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[2]Department of Epidemiology & Preventive Medicine, Monash University, Australia
[3]National Drug Research Institute, Curtin University, Australia

BACKGROUND People who inject drugs (PWID) and people identifying as Aboriginal or Torres Islander (ATSI) have disproportionately high rates of hepatitis C (HCV) infection compared to the general Australian population. PWID who identify as ATSI may be a particularly vulnerable population to HCV.

METHODS HCV testing was undertaken in longitudinal community-recruited cohort of 507 PWID based in Melbourne, Victoria, followed between 2008 and 2013. We measured the prevalence and incidence of HCV infection in ATSI and non-indigenous PWID and identified the correlates of chronic HCV prevalence using generalised estimating equations.

RESULTS At baseline, the median age of participants was 30 years (inter-quartile range 27 to 33), 64.3% (n=326) were male, 54.0% (n=274) were on opioid substitution therapy and 5.5% (n=28) identified as ATSI. Prevalence of chronic HCV at last interview was 53.6% (95% confidence interval (CI) 33.9% – 72.5%) among ATSI participants compared to 62.2% (95% CI 57.7%–66.6%) among non-ATSI participants. Incidence of chronic HCV was 7.7 per 100 person-years (PY) (95% CI 0.9–25.1) among ATSI participants compared to 9.4 per 100PY (95% CI 6.6–12.9) among non-ATSI participants. In adjusted analysis, ATSI status was not associated with chronic HCV prevalence.

CONCLUSIONS We found a non-significantly lower HCV prevalence and incidence among ATSI compared to non-ATSI participants in our sample of PWID and no association between ATSI status and chronic HCV prevalence. These findings suggest HCV risk is characterised by factors associated with injecting practices, independent of ATSI status. Implementing effective harm reduction interventions in a culturally appropriate way to target ATSI communities should be a priority to reduce HCV risk among ATSI PWID.

DISCLOSURE OF INTEREST STATEMENT The authors have no conflicts of interest to declare.

PROFFERED PAPER SESSION D
HEPATITIS C – ASSESSMENT & ANALYSIS
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

A DESCRIPTIVE ANALYSIS OF ROUTINE HCV TESTING DATA FROM FOUR ABORIGINAL COMMUNITY CONTROLLED HEALTH SERVICES: TESTING, POSITIVITY, FOLLOW UP AND CONTEXT OF TESTING

Harrod ME[1]; Dore G[1], Gregson S[2]; Belfrage M[2]; Delaney-Thiele D[3], Hammond B[4], Williams S[5], Donovan B[1]; Mooney-Somers J[6], Saunders M[7], Kaldor J[1]; Ward J[8]

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[4]Nunkuwarrin Yunti of South Australia, Inc.
[5]Goondir Health Services
[6]*Centre for Values, Ethics & Law in Medicine*, University of Sydney
[7]National Aboriginal Community Controlled Health Organisation
[8]Baker IDI

BACKGROUND Aboriginal people are disproportionately represented in populations at risk for acquisition of hepatitis C (HCV) – people who inject drugs and prisoners. The incidence and prevalence of HCV in Aboriginal people is not well described as Aboriginal status is not consistently reported in notification data. We aimed to describe hepatitis testing and positivity in routine clinical data in primary care clinics participating in the Research Excellence in Aboriginal Community Controlled Health (REACCH) project.

METHODS A retrospective, cross-sectional analysis of clinical encounter data was undertaken. De-identified, encrypted data were extracted for people aged 15 to 54 years from 2009-2013 data via the GRHANITE™ program. For each patient, information was extracted on age, sex, Aboriginal and Torres Strait Islander, antenatal status and hepatitis C testing.

RESULTS Overall, 2,975 patients (59.9% were women, 81.6% were Aboriginal) were tested for HCV antibody. In Aboriginal patients, 17.3% of women and 9.8% of men attending for medical consults were tested. Age over 30 and other sexually transmissible or blood borne viral testing predicted HCV testing. Of the patients tested, 19.5% returned a HCV antibody positive result (14.4% of women, 27.4% of men) indicating exposure. A total of 328 of 1,272 Aboriginal antenatal clients were tested with 22 (6.7%) HCV antibody positive. Of the 661 patients who tested positive for HCV antibody, 516 were tested for HCV RNA with 85.6% (442) testing positive indicating current infection, with 45% of the sample genotype 1 and 48% genotype 3 variants.

CONCLUSIONS There was a high level of HCV infection in this sample. Strategies that emphasise appropriate risk assessment and screening including routine antenatal testing and serology requests with follow up included in the initial request should be considered. The ongoing follow up of exposed and infected patients is important to maximise the benefit of upcoming treatments for Aboriginal people.

DISCLOSURE OF INTEREST STATEMENT REACCH is funded under the National Health & Medical Research Council Centre for Research Excellence scheme. No pharmaceutical grants were received to support the conduct of this research.

PROFFERED PAPER SESSION D
HEPATITIS C – ASSESSMENT & ANALYSIS
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

ASSESSING THE KNOWLEDGE, CARE AND TREATMENT OF ABORIGINAL PEOPLE LIVING WITH HEPATITIS C IN NSW

Brener L. Jackson C. Wilson H. Saunders V. Newland J. Johnson P. Treloar, C.

Centre for Social Research in Health, The University of New South Wales

The Australian Indigenous population is overrepresented in both the prevalence of HCV and incidence of newly reported HCV infections. It is estimated that around 16,000 Indigenous persons are chronically infected with HCV in Australia, representing around 8.3% of the total Australian population living with chronic HCV at present. Despite this, research assessing the experiences of Aboriginal people living with HCV is limited. This study aimed to assess perceptions of HCV care, HCV treatment uptake, HCV knowledge as well as stigma and discrimination related to living with HCV. Aboriginal people living with HCV were recruited via personal and community contacts and through harm reduction and HCV services. Potential respondents called a toll free number and the survey was conducted telephonically. Data was collected from 180 respondents. Findings suggest that the majority of participants were tested as part of routine screening, a fair percentage while in prison. Few participants noted that they were offered any pre or post counselling at testing. Overall the HCV knowledge of respondents was good, with a mean score on the scaled items of 11.6 range 0-16. Further analysis revealed an association between lower HCV knowledge scores and a history of incarceration. The majority of participants perceived that they have experienced stigma and discrimination as a result of having HCV. Bivariate analysis suggested that greater general HCV stigma as well as cultural specific stigma was associated with decreased satisfaction with health services. On a positive note, exposure to hepatitis C health promotion materials was related to increased hepatitis C knowledge and greater intent to access HCV treatment. These findings speak directly to the benefits of health promotions programs and materials designed for and targeting Aboriginal people living with hepatitis C.

PROFFERED PAPER SESSION D
HEPATITIS C – ASSESSMENT & ANALYSIS
3.50PM – 4.50PM MONDAY 15 SEPTEMBER 2015

ASSESSING THE KNOWLEDGE, CARE AND TREATMENT OF ABORIGINAL PEOPLE LIVING WITH HEPATITIS C IN NEW SOUTH WALES: INFORMATION, STIGMA AND RESILIENCE

Treloar C[1], Jackson C[1], Newland J[1], Gray R[1], Wilson H[1], Saunders V[1], Johnson P[1], Brener L[1]

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INTRODUCTION As a group, Indigenous Australians face a number of disadvantages on a range of health and socio-economic outcomes which is often the result of unequal access to the same opportunities as non-Indigenous Australians as well as needing to be recognised as a culturally distinct group within the dominant society/culture. The Australian Indigenous population is overrepresented in both the prevalence and incidence of hepatitis C (HCV). Little research, however, has focused on the experience of living with HCV.

METHODS Aboriginal people living with HCV in NSW were recruited via personal and community contacts as well as via harm reduction and HCV services.

RESULTS HCV-related stigma dominated the experience of living with HCV for the majority of 39 participants. Participants described high levels of distress in response to diagnosis (such as feeling "shattered" and "dirty") and very limited or total lack of disclosure of HCV status. There was limited information available in Aboriginal communities to support participants in living with HCV. Although some participants reported that relationships with family had improved with time and information, others reported that they remained isolated from family. There were very strong motivations among participants to take steps to promote their health and resilience in seeking information and care despite significant concerns about confidentiality and fear of the shame associated with hepatitis C. Participants discussed similar barriers to engaging with treatment that have been discussed in previous research particularly, fear of treatment side effects. The experience of multiple and layered stigma – related to both having HCV and being Aboriginal – was discussed by some participants.

CONCLUSIONS Further work is required to raise the health literacy of Aboriginal communities in relation to HCV, to lessen the burden of stigma and discrimination felt by people diagnosed with HCV and potentially lead to increased numbers taking lifestyle advice and treatment.

DISCLOSURE OF INTEREST STATEMENT The Centre for Social Research is supported by a grant from the Australian Government Department of Health and Ageing. This work was supported by NSW Ministry of Health. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

PROFFERED PAPER SESSION E
HEPATITIS B – VACCINES & THERAPY
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

USE OF ANTIVIRAL THERAPY IN PREGNANT WOMEN WITH HEPATITIS B IN THE TOP END OF THE NORTHERN TERRITORY, AUSTRALIA

Marshall CS[1], Sharma S[1], Davies J[1,2], Tong S[1,2], Davis J [2,3]

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[2] Menzies School of Health Research, Darwin, NT, Australia
[3] John Hunter Hospital, Newcastle, NSW, Australia

BACKGROUND Antiviral therapy with lamivudine and telbivudine has been shown to reduce the risk of maternal to child transmission (MTCT) of hepatitis B (HBV) in women with a high viral load. There is limited data to support the use of tenofovir for HBV in pregnancy but it is increasingly being prescribed for this indication.

METHODS This is a retrospective audit of pregnant women with Hepatitis B managed through the Royal Darwin Hospital Liver Clinic from 2011- 2014 with a focus on those that were prescribed antiviral therapy during pregnancy. Infant serology was actively collected.

RESULTS Between 2011- 2014 41 women with HBV had 42 pregnancies. 19 women were prescribed antivirals during 20 pregnancies, 2 received lamivudine and 18 tenofovir. One woman who had 2 pregnancies was on therapy prior to conception. 18 women had therapy prescribed primarily to prevent MTCT. 12/19(63.2%) of women were Indigenous Australians and 13/19(68.4.%) lived in remote locations. Of the 22 women not prescribed anti-viral therapy 19 had a low viral load, 2 presented late or delivered before therapy was initiated and one declined therapy. Of 13 infants with 1 year follow-up, 9 had serology results where antivirals were prescribed. All were HbsAb positive and 2/9 (22.2%) were also HbcAb positive. One infant born to a mother with high viral load not prescribed antivirals was found to be HbsAg positive. Antiviral therapy was well tolerated with no serious adverse events reported in either mothers or infants. Follow-up of remote dwelling Indigenous women was difficult post-partum with 9/12(69%) ceasing therapy prior to the planned duration. Despite this there were no clinically significant flares of hepatitis reported.

CONCLUSIONS Antiviral therapy during pregnancy was generally accepted by women and was well tolerated with no major adverse events, including in remote dwelling Indigenous Australians, although post-partum follow-up was challenging.

All authors No disclosures of interest

PROFFERED PAPER SESSION E
HEPATITIS B – VACCINES & THERAPY
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

CAN THE CURRENT HEPATITIS B VACCINE MARK THE END OF THE AUSTRALIA ANTIGEN IN THE NORTHERN TERRITORY OF AUSTRALIA OR IS THE TERRITORY JUST DIFFERENT?

Davies J[1,2], Littlejohn M[3], Yuen L[3], Edwards R[3], Sozzi T[3], Jackson K[3], Cowie B[3,4], Locarnini S[3], Tong S[1,2], Davis J[1].

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INTRODUCTION Hepatitis B was first described in an Indigenous Australian however decades later chronic hepatitis B (CHB) prevalence estimates are 1-14% in the Northern Territory (NT). Universal vaccination (vaccine strain sub-genotype A2 serotype *adw2*) has been practiced in the NT since 1990 however there is concern from small studies about its effectiveness in this population.

METHODS Following ethics approval and informed consent, blood specimens and clinical details from Indigenous adults known to be infected with HBV and who were born and raised in the NT were obtained. HBV full genome sequences were obtained from isolates with sufficient HBV DNA by polymerase chain reaction. Phylogenetic and recombination analysis was then performed.

RESULTS Serum samples were obtained from 65 HBsAg positive individuals of whom 35 had sufficient viral load to obtain a full genome sequence. Phylogenetic analysis confirmed all samples to be sub-genotype C4 serotype *ayw3*. Recombination analysis revealed a ~600 base pair section of C4 that showed greater similarity to genotype J as opposed to other C sub-genotypes. This recombined region encompasses most of the small surface antigen gene of the hepatitis B virus. Molecular markers consistent with an aggressive phenotype were identified.

CONCLUSION The exclusive sub-genotype in the NT Indigenous population is C4 which has only previously been described twice before in two Indigenous individuals from Queensland. This is a recombinant virus with a different serotype to the currently used vaccine strain. This raises the possibility of a virological explanation for the observed concerns about vaccine effectiveness in this population.

DISCLOSURE OF INTEREST STATEMENT JSD and JD have received an unrestricted research grant from Gilead sciences for the development of an educational HBV resource for Indigenous Australians.

PROFFERED PAPER SESSION E
HEPATITIS B – VACCINES & THERAPY
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

MAPPING THE HBSAG PHENOTYPE TO IDENTIFY VACCINE ESCAPE

Walsh R, Yuen L, Littlejohn M, Hammond R, Devi U, Warner N, Locarnini S

Victorian Infectious Diseases Reference Laboratory, Melbourne, Australia.

BACKGROUND HBV remains a global health issue despite the introduction of the HBV vaccine >20 years ago. The HBV vaccine delivers recombinant genotype A2 serotype *adw2* hepatitis B surface antigen (HBsAg), to elicit neutralising anti-HBs antibodies targeting the conformationally dynamic HBsAg antigenic ('a') determinant (residues 99-169). Failure of vaccine elicited anti-HBs to neutralise may be attributed to virus mutations, or sub-optimal vaccine-induced antibody repertoires due to HBsAg genotype/serotype mismatch. Reported vaccine escape mutants (VEMs) include sG145R and sP120T, whilst reduced vaccine efficacy has been observed for the serotype mismatched genotype E*ayw4* virus (common in West Africa). Vaccine efficacy could impact Australian indigenous populations, where the unique and serotype mismatched HBV C4*ayw3* strain is dominant. Our goal is the development of an immunoassay mapping HBsAg phenotypes of HBV genotypes and HBsAg variants to identify VEM or reduced vaccine efficacy HBsAg profiles.

METHODS Our novel HBsAg multiplex immunoassay enables real-time detection of HBsAg using a panel of 19 multiplexed anti-HBs monoclonal antibodies (mAbs) directed against HBsAg epitopes.

RESULTS We have performed extensive HBsAg mapping using the 19plex anti-HBs panel to establish HBsAg phenotype and escape profiles across HBV strains (genotypes A-F) and variants (e.g. sG145R). VEM phenotypes were found to vary across multiple epitopes or 'a' determinant regions. Divergent HBsAg phenotypes were observed for genotype/serotype mismatch strains, such as for C4*ayw3* strain dominant in the CHARM indigenous cohort, which varied at 8/19 mAbs compared with the A2*adw2* vaccine strain.

CONCLUSION The dynamic nature of HBsAg topology means that variations impact phenotype and anti-HBs neutralisation. There is a clear need for assays to map HBsAg, to define and monitor VEMs and variant/mismatched HBV. Our assay has established HBsAg phenotype variability experimentally, and can reliably differentiate between HBV strains and variants to identify VEMs based on HBsAg phenotype.

DISCLOSURE OF INTEREST This project was funded in part by GeneMatrix. Antibody reagents were gifted by Abbott Diagnostics, bioMerieux Diagnostics, XTL Biopharmaceuticals, and Howard Thomas (UCL).

PROFFERED PAPER SESSION E
HEPATITIS B – VACCINES & THERAPY
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

PROFFERED PAPER SESSION E
HEPATITIS B – VACCINES & THERAPY
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

PROMOTING ART AND STORY FOR INDIGENOUS HEALTH

Newley-Guivarra N [1]

[1]Hepatitis Queensland

Health service providers in Far North Queensland have identified chronic hepatitis B as having an increasing impact on primary health care services in the Torres Strait. Supporting data shows the region has the highest per capita notification rate of chronic hepatitis B in Queensland. Research also shows a disproportionate impact on Indigenous people, particularly in remote communities.

The 2013 'Yupla Sabe' (You Understand) Project was based on the highly successful, award-winning 'Promotion and Information with Respect' (PAIR) project, implemented by Hepatitis Queensland in 2008 using the twin cultural pillars of art and story to educate Indigenous communities about viral hepatitis.

Working collaboratively, this project aims to build stronger links with local Aboriginal and Torres Strait Islander services and communities in the Far North Queensland region, with a focus on building hepatitis B awareness and understanding. The program uses award-winning art workshop techniques to educate and inform community members. The value of art workshops has been recognised by the Queensland Aboriginal and Islander Health Council (QAIHC) and Indigenous health workers in remote areas.

The program helps to implement the recommendations outlined in the 2011 Department of Health and Ageing report "A Situational Analysis of chronic hepatitis B in the Torres Strait". In contrast with mainstream health promotion resources, this project uses hands-on art practice, including traditional sand-painting, as a communication medium to educate Aboriginal and Torres Strait Islander people about the importance of knowledge, monitoring and treatment of hepatitis B. By including Elders, this delivery medium provides the catalyst for ongoing discussion with communities about the critical issues surrounding liver health. Project quality was ensured through qualitative and quantitative feedback provided by service providers and participants, including pre and post training surveys.

PROFFERED PAPER SESSION F
HEPATITIS C – LEADERSHIP, SUPPORT & EDUCATION
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

THE CONNECTION'S "YOUNG, STRONG & SMART" LEADERSHIP PROGRAM - WORKING TOGETHER AS PEERS TO EDUCATE ON VIRAL HEPATITIS WITHIN THE ABORIGINAL COMMUNITY

Capper A M 1

INTRODUCTION The Connection is Australia's first ever Aboriginal Drug Users Organisation, run by and for Aboriginal Drug Users in Canberra. The Connection is now supported and managed by Canberra Alliance for Harm Minimisation & Advocacy (CAHMA).

The Connection has been delivering and developing Peer Education Workshops on Blood Borne Viruses for the past 10 years to the Aboriginal and/or Torres Strait Islander Community of Canberra.

METHODS Early this year The Connection was approached by numerous young Aboriginal people to expand the workshops into an ongoing Leadership Program. Since then The Connection and the young people have developed a training program to encourage the young people to become peer educators and leaders with in their networks and community.

The young people are provided with extensive knowledge on blood borne viruses and Sexually Transmitted Infections (STI). The group identified that STIs, HIV and Viral Hepatitis are often mentioned together but that the differing routes of transmission information can be complex. For example HIV is both sexually and transmissible through blood. This project was unique in being able to work across sexual transmission, blood borne virus transmission and injecting drug use issues and transmission risks for young Aboriginal people in Canberra.

CONCLUSION Although this program is currently in the very early stages, we would like to share some of the methods and early outputs that have already been achieved. The young people themselves have a greater understanding of the transmission risks through this peer education health promotion and with that can come empowerment and self-esteem. This knowledge and the empowerment to share it is instrumental in extending this knowledge outside of the Program to other young Aboriginal people who use or have used illicit and/or injecting drugs, as well as their friends and family.

PROFFERED PAPER SESSION F
HEPATITIS C – LEADERSHIP, SUPPORT & EDUCATION
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

ABORIGINAL HEPATITIS C PEER EDUCATION IN INNER WEST SYDNEY

Damien House

PROFFERED PAPER SESSION F
HEPATITIS C – LEADERSHIP, SUPPORT & EDUCATION
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

RESOURCES TO SUPPORT HEPATITIS C DECISION-MAKING IN CANADIAN ABORIGINAL POPULATIONS

Mitchell S [1,3], Butt G [1,2], McGuinness L[2], Buller-Taylor T[2]

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[3]University of Sydney

BACKGROUND Hepatitis C virus (HCV) affects an estimated 250,000 Canadians. Despite recent reductions in new cases, rates for HCV remain higher among Aboriginal people (1%-18%) compared to other Canadians (0.5%-2%).

Stigma associated with HCV is one more factor that can lead Aboriginal people to become marginalized and isolated resulting in lack of attendance for hepatitis C care-services

Research suggests patterns of infections and other factors that make Aboriginal people more likely to acquire HCV are different from other Canadians and therefore decision-making around prevention and accessing health-services needs to reflect their specific circumstances and cultural identity.

METHODS This National project was lead by an advisory committee of Aboriginal partners, including those living with HCV and health and social-service providers. A Participatory Action Research approach informed the project processes and ensured the expertise of those affected was incorporated into the resource materials.

RESULTS Culturally relevant resources created by and for Aboriginal people, for those affected and front line service providers were developed, evaluated and disseminated. Other resources continue to be developed, such as, materials for use by specific aboriginal groups e.g., Inuit in the far North and Cree in Alberta. Evaluation indicates positive outcomes of the project are multiple culturally specific resources that support HCV decision-making, and a strong national Aboriginal network consisting of people affected by HCV and their service-providers. Rapid uptake of resources across Canada resulted from the significant involvement of the advisory committee, those affected and clinicians.

CONCLUSIONS The culturally relevant resources that support self-care and health care decision-making are beneficial for Aboriginal people affected by HCV and other chronic conditions and their care providers. This project is increasing capacity across Canada to support the needs of First Nation people living with HCV through engagement and education of those affected by HCV and their service providers.

DISCLOSURE OF INTEREST STATEMENT None to disclose.

PROFFERED PAPER SESSION F
HEPATITIS C – LEADERSHIP, SUPPORT & EDUCATION
11.30AM – 12.30PM TUESDAY 16 SEPTEMBER 2014

LIVING WITH HEPATITIS C – IS THERE HOPE?

Quewezance L

BACKGROUND Saskatchewan has the second highest incidence of hepatitis C cases in Canada, with 70 cases per 100,000 people. The national average for hepatitis C incidence is 35/100,000. Newly diagnosed cases of hepatitis C continue to be high in Saskatchewan with 600-700 new cases identified annually. The estimated rates for Hepatitis C are higher among Inuit and First Nations (1%-18%) compared to other Canadians (0.5%-2%).

Individuals living with Hepatitis C become isolated due to the stigma associated with the illness and addiction; community support plays a crucial role in helping individuals. Treatment is available therefore cure is obtainable. Leona has personal experience living with Hepatitis C (while pregnant). She is currently the Program Director for All Nations Hope where she provides Hepatitis C workshops to treatment centres and Indigenous communities.

METHODS oral presentation

Results We are sharing ways of working with and for Indigenous people living with Hepatitis C. By showing strength by protecting and supporting the most vulnerable. Leona promotes health and well-being in her community, leads by example, there is hope. It is possible cure hepatitis C.

CONCLUSION It is essential for community engagement and education participants will gain an insight on what it is like to be Hepatitis C positive, addicted, pregnant and Indigenous. They will learn how to address multi-faceted issues, how to provide realistic options that set people up to succeed rather than fail. The tools learned will empower clients, thereby helping individuals be responsible and accountable. This leads people into a healthy holistic lifestyle. The lessons learned help provide opportunity for people to participate in their well-being and obtain a cure for hepatitis C with hope. Leona Quewezance works for a non-profit organization no pharmaceutical grants were received in the development of this study.

BIO Leona Quewezance is an Indigenous singer mother of four. She was raised by a traditional family. She's had a challenging life. But has overcome many obstacles to be a positive role model for her children and grandchildren. She believes in giving back to her community and Indigenous people.

viral ALICE SPRINGS 2014
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CENTRAL ISSUES IN VIRAL HEPATITIS IN 2014

ORAL ABSTRACTS

CROSS-TRACK SYMPOSIUM - VIRAL HEPATITIS AND SUBSTANCE USE
4.30PM – 6.00PM WEDNESDAY 17 SEPTEMBER 2014

TREATMENT FOR HEPATITIS C VIRUS INFECTION AMONG PEOPLE WHO INJECT DRUGS IN THE OPIOID SUBSTITUTION SETTING: THE ETHOS STUDY

Micallef M1, Grebely J1, Alavi M1, Dunlop AJ2,3, Balcomb AC4, Day CA5,6, Treloar C7, Bath N8, Haber PS5,9, Dore GJ1; on behalf of the ETHOS Study Group

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BACKGROUND Assessment and treatment for hepatitis C virus (HCV) among people who inject drugs (PWID) is low and strategies are needed to enhance access to care. This study aims to evaluate the effectiveness of HCV treatment among PWID.

METHODS Enhancing Treatment for Hepatitis C in Opioid Substitution Settings (ETHOS) is a prospective observational cohort, evaluating a model for the provision of HCV assessment and treatment among people with a history of injecting drug use and chronic HCV. Recruitment occurred through six opioid substitution treatment (OST) clinics, two community health centres and one Aboriginal community controlled health organisation in NSW, Australia. A preliminary treatment analysis was undertaken. Participants initiating pegylated interferon/ribavirin (PEG-IFN/RBV) treatment between February 2009 and July 2011 (genotype 1, G1) or December 2011 (genotypes 2 and 3, G2/3) were included, to allow for adequate post-treatment follow-up. Statistical analyses were performed using Chi-squared or Fisher's exact tests, as appropriate.

RESULTS Among 418 participants, 21.5% (n=90) commenced treatment. Among those treated between 2009 and 2011 (n=73, mean age 43 years, 77% male), 31.5% (n=23) had injected drugs in the past six months and 56% (n=41) were currently receiving OST. In an intent-to-treat analysis, the sustained virological response (SVR) was 77% overall (56 of 73), 81% in G1 (17 of 21) and 63% in G2/3 (33 of 52). There was no difference in SVR between never (70%, 21 of 27) and currently (71%, 29 of 41) receiving OST. SVR was higher among those who had injecting drugs in the past six months (87%, 20/27) compared to those who had not (60%, 30/50, P=0.027).

CONCLUSION Response to treatment in this population was high and active injecting drug use did not compromise the treatment response. This data suggests that targeted initiatives to enhance HCV treatment in OST or community health clinics can be successful.

DISCLOSURE OF INTEREST STATEMENT 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. This work was supported by the National Health and Medical Research Council (NHMRC 568985) and New South Wales Health. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

CROSS-TRACK SYMPOSIUM - VIRAL HEPATITIS AND SUBSTANCE USE
4.30PM – 6.00PM WEDNESDAY 17 SEPTEMBER 2014

EVALUATION OF TWO COMMUNITY-CONTROLLED PEER SUPPORT PROGRAMS FOR ASSESSMENT AND TREATMENT OF HEPATITIS C VIRUS INFECTION IN OPIOID SUBSTITUTION TREATMENT CLINICS: THE ETHOS STUDY, AUSTRALIA

Treloar C[1], Rance J[1], Bath N[2], Everingham H[2], Micallef M[3], Day C[4,5], Hazelwood S[6], Grebely J[3], Dore G[3] on behalf of the ETHOS Study Group

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AIM Peer support programs have been shown to be beneficial in increasing uptake and adherence to treatment in other areas but there are a few examples of these programs in hepatitis C (HCV) care. This study examined the operation and experience of two community-controlled peer support programs operating within a larger study aimed at increasing access to hepatitis C care and treatment for opiate substitution treatment (OST) clients, ETHOS.

METHOD Semi-structured interviews were conducted in two clinics with three groups of participants: clients (n=31), staff (n=8) and peer workers (n=3) and examined the operation of the program in relation to process, outputs and impacts.

RESULTS There was a very strong positive response to the peer worker program reported by staff and clients who had and had not interacted with the peer worker. A number of changes were reported that were not explicit goals of the program including providing access to additional services for clients and staff, peer workers acting as mediators between clients and staff and a less tangible notion of a changing "feel" of the clinic to a more positive and client-friendly social and physical space. Explicit goals of the program were also reported in peer workers supporting clients to consider and prepare for treatment (via blood tests and other assessments) as well as provide information and support about treatment.

CONCLUSIONS The peer support program was acceptable to clients and clinic staff. All groups of participants noted that the program met its goals of engaging clients, building trusting relationships and providing instrumental support for clients to access HCV treatment. Peer workers may also contribute to more effective deployment of health resources by preparing clients for clinical engagement with HCV health workers.

DISCLOSURE OF INTEREST STATEMENT The Centre for Social Research in Health and the Kirby Institute are 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. This work was supported by the National Health and Medical Research Council (NHMRC 568985) and New South Wales Health. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

CROSS-TRACK SYMPOSIUM - VIRAL HEPATITIS AND SUBSTANCE USE
4.30PM – 6.00PM WEDNESDAY 17 SEPTEMBER 2014

LIVERLIFE: A HEALTHY LIVER CAMPAIGN AMONG PEOPLE WHO INJECT DRUGS IN THE DRUG AND ALCOHOL SETTING

Micallef M[1], Grebely J[1], Telenta J[2], Jones SC[2], Bath N[3], Treloar C[4], Trusler R[5], How-Chow D[6], Byrne J[7], Harvey P[8] and Dore GJ[1]

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BACKGROUND Liver disease burden among people who inject drugs (PWID) continues to rise. Strategies are needed to enhance assessment and treatment. This study aims to evaluate the impact of a healthy liver campaign incorporating non-invasive liver disease assessment (Fibroscan®) on liver disease knowledge, assessment and treatment.

METHODS LiverLife is a healthy liver campaign designed to enhance liver disease assessment, developed through partnerships between community/peer groups and researchers. This project builds on the success of peer-support worker involvement in the Enhancing Treatment for Hepatitis C in Opioid Substitution Settings (ETHOS) study. The three project phases includes: 1) campaign message/resource development; 2) campaign message/resource testing; and 3) campaign implementation. Phases I/II were conducted via focus-group testing with the target population. Phase III consists of campaign implementation within four drug and alcohol clinics in NSW. This includes resource material promotion (posters, videos, and booklets), surveys (including liver knowledge), Fibroscan®-based assessment, HCV RNA testing (dried-blood-spot), and nurse/specialist assessment.

RESULTS Phase I demonstrated a need to improve liver disease knowledge; increase self-efficacy; address current beliefs about treatment; and focus on prevention, early detection and treatment of liver disease among PWID. Using language which was non-technical, positive and credible, campaign messaging and resources were developed to: 1) convey the message that Fibroscan® assessment is free, quick and painless; 2) incorporate real stories from real people; and 3) highlight facts about liver disease and treatment. In Phase II, resource messaging was revised via further focus-group testing with PWID. Phase III is currently underway.

CONCLUSION Through effective partnerships, the LiverLife campaign has been successfully developed for the drug and alcohol setting. Phase III research will inform whether this campaign will improve liver disease knowledge, assessment and treatment. This project could also be adapted to other settings such as Aboriginal community controlled health organizations, prisons and primary care.

DISCLOSURE OF INTEREST 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. This work is supported by MSD Australia. None of the authors have commercial relationships that might pose a conflict of interest in connection with this paper.

CROSS-TRACK SYMPOSIUM - VIRAL HEPATITIS AND SUBSTANCE USE
4.30PM – 6.00PM WEDNESDAY 17 SEPTEMBER 2014

LIVER MATES: WHY MUST THE AFFECTED COMMUNITY BE SUPPORTED TO LEAD ON THE DEVELOPMENT AND DELIVERY OF HEPATITIS C TREATMENT AND HEALTHY LIVER INTERVENTIONS?

Bath N[1] and Crawford S[2] on behalf of the ETHOS Study Group

[1]NSW Users and AIDS Association, Inc., Sydney, NSW, Australia, and [2] Canberra Alliance for Harm Minimisation and Advocacy, Canberra, ACT, Australia

BACKGROUND The aim of the Enhanced Treatment for Hepatitis C in Opioid Substitution Settings (ETHOS) study, which finishes in June 2014, was to examine hepatitis C virus (HCV) assessment and treatment uptake, response to therapy, and re infection following successful treatment among patients with chronic HCV infection and a history of injection drug use. An important component of the study was the inclusion of the affected community and the development, implementation and study of peer driven interventions.

METHODS During the study, NUAA, the NSW drug user organisation representing those most affected by HCV, designed and delivered three different models of peer support to complement and work effectively in three different ETHOS sites in an effort to compare and contrast modalities. In addition, NUAA developed a manual and toolkit to support clinics to be able to employ and support treatment and care from peer workers along with a sustainable DIY (Do It Yourself) group based support kit. These tools are part of NUAA's Liver Mates program of self directed care for people living with hepatitis C.

RESULTS This paper will explore the crucial role the affected community have to play in the development and delivery of hepatitis C assessment, treatment and healthy liver interventions. Tools and manuals developed by NUAA to support affected community based interventions will be showcased.

CONCLUSION Delegates will be encouraged to consider ways in which they can better engage with their local drug user organisation's and consider barriers and facilitators to supporting affected community responses to HCV treatment and healthy liver interventions.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

DECLINING INCIDENCE OF HEPATITIS C VIRUS INFECTION AMONG PEOPLE WHO INJECT DRUGS IN A CANADIAN SETTING, 1996-2012

Grebely J[1], Lima VD[2,3], Marshall BDL[4], Milloy M[2,5], DeBeck K[2,6], Montaner J[2,3], Simo A[2,3], Krajden M[7], Dore GJ[1], Kerr T[2,3], and Wood E[2,3]

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BACKGROUND People who inject drugs (PWID) are at high risk of hepatitis C virus (HCV) infection. Trends in HCV incidence and associated risk factors among PWID recruited between 1996 and 2012 in Vancouver, Canada were evaluated.

METHODS Data were derived from a long-term open prospective community-recruited cohort of PWID in Vancouver, Canada (Vancouver Injection Drug Users Study, VIDUS). Beginning in May 1996, active PWID (i.e. those who reported injecting drugs in the previous month) were recruited in the Greater Vancouver region on an ongoing basis throughout the study period. Trends in HCV incidence were evaluated. Factors associated with time to HCV infection were assessed using Cox proportional hazards regression.

RESULTS Among 2,589, 82% (n=2,121) were HCV antibody-positive at enrollment. Among 364 HCV antibody-negative participants with recent (last 30 days) injecting at enrollment, 126 HCV seroconversions were observed [Overall HCV incidence density 8.6 cases/100 person-years (py); 95% confidence interval (95% CI) 7.2, 10.1; HCV incidence density among those with injecting during follow-up 11.5 cases/100 py; 95% CI 9.7, 13.6]. The overall HCV incidence density declined significantly from 25.0/100 py (95% CI 20.2, 30.3) in 1996-99, as compared to 6.0/100 py (95% CI 4.1, 8.5) in 2000-2005, and 3.1/100 py (95% CI 2.0, 4.8) in 2006-2012. Among those with injecting during follow-up, the overall HCV incidence density declined significantly from 27.9/100 py (95% CI 22.6, 33.6) in 1996-99, as compared to 7.5/100 py (95% CI 5.1, 10.6) in 2000-2005, and 4.9/100 py (95% CI 3.1, 7.4) in 2006-2012. Unstable housing, HIV infection, and injecting of cocaine, heroin and methamphetamine were independently associated with HCV seroconversion.

CONCLUSION HCV incidence has dramatically declined among PWID in this setting. However, improved public health strategies to prevent and treat HCV are urgently required to reduce HCV-associated morbidity and mortality.

DISCLOSURE OF INTEREST STATEMENT 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. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

OPIOID SUBSTITUTION TREATMENT PROTECTS AGAINST HEPATITIS C VIRUS ACQUISITION IN PEOPLE WHO INJECT DRUGS: THE HITS-C STUDY

White B[1], Dore GJ[1], Lloyd[2] A, Rawlinson W3, Maher L[1]

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3Virology Division, SEALS Microbiology, Prince of Wales Hospital, Randwick NSW 2031, Australia

BACKGROUND While evidence of the effectiveness of opioid substitution treatment (OST) in reducing HIV transmission among people who inject drugs (PWID) is strong, less is known about its impact on hepatitis c virus (HCV) transmission. Despite increasing evidence of the protective effects of OST in combination with other interventions, a recent systematic review concluded there was insufficient evidence of the effectiveness of OST alone in preventing HCV infection in PWID.

METHODS We aimed to estimate HCV incidence and identify associated risk and protective factors among PWID in Sydney, Australia. HCV antibody negative PWID were enrolled in a prospective observational study – the Hepatitis C Incidence and Transmission Study – community (HITS-c). Interviewer-administered behavioural questionnaires and serological assessments were conducted every 24 weeks. Incidence was estimated using the person-time method.

RESULTS Incidence of HCV was 7.9/100py, substantially lower than the 44.1/100py observed a decade previously in a similar cohort in urban Sydney. Younger age (AHR 5.10; 95% CI 1.54-16.81, p=0.007), daily or more frequent injecting (AHR 3.91; 95% CI 1.13-13.49, p= 0.031) and not being on OST for those who mainly injected heroin (AHR 4.42; 95% CI 1.02-19.20, p< 0.047) were independently associated with incident infection.

CONCLUSIONS Incidence of HCV among PWID in Sydney has declined substantially over the last decade. Ours is the first community-based prospective observational study to observe an independent protective effect of OST against HCV infection. This is likely due to increased coverage of OST and needle and syringe programs combined with a decrease in the population of PWID.

DISCLOSURE OF INTEREST STATEMENT This research was initially funded by the University of New South Wales (UNSW Hepatitis C Vaccine Initiative) and subsequently by the National Health and Medical Research Council (Project Grant #630483). Professor Lisa Maher is supported by an NHMRC Senior Research Fellowship and Professors Gregory Dore and Andrew Lloyd are supported by NHMRC Practitioner Fellowships. The Kirby Institute is affiliated with the Faculty of Medicine, UNSW and is funded by the Australian Government Department of Health and Ageing.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

LOW RATES OF RE-INFECTION LONG-TERM FOLLOWING RECENTLY ACQUIRED HCV IN THE AUSTRALIAN TRIAL OF ACUTE HEPATITIS C: THE ATAHC RECALL STUDY

Joseph S. Doyle[1,2,3], David Shaw[4], Gregory J. Dore[5,6], Jason Grebely[5], Amanda Erratt[5], Margaret E. Hellard*[1,2,3], Gail V. Matthews*[5,6]

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BACKGROUND Treatment of recently acquired hepatitis C infection (HCV) with and without HIV co-infection is effective, safe and feasible. However, very little is known about the individual's health status years following treatment-induced or spontaneous clearance of HCV.

METHODOLOGY The Australian Trial of Acute Hepatitis C prospectively recruited 163 individuals (82% PWID, 29% HIV-co-infected) with acute/early chronic (<24 months) HCV between 2004 and 2008. Treatment uptake was high (79%) with overall sustained virological response (SVR) 71% among HCV/HIV co-infected and 55% among HCV-monoinfected individuals.

Individuals originally enrolled from the three main recruiting sites (n=121) were invited to participate in this recall study in 2013 assessing clinical, laboratory parameters and behaviour. HCV re-infection incidence rate ratios (IRR) were calculated using Poisson regression from time of HCV clearance to first new HCV RNA detection, excluding treatment relapses.

RESULTS Fifty individuals (82% male, median age 42 years) were able to be recalled of whom 25 (50%) were HIV infected. The median duration since primary HCV infection was 7.2 years (range 5.2-10.3). 37 (74%) had received primary HCV treatment with an SVR of 70%, while 10 (20%) spontaneously cleared. Of 36 HCV RNA negative at end of ATAHC, 32 remained RNA negative at recall.

Four HCV re-infections were identified three from injecting and one MSM sexual exposure in an HIV-infected male. Thirty-three (66%) initially acquired HCV through injecting behaviour, but only 15 (30%) reported ongoing injecting. Re-infection incidence was 1.8/100py (95%CI 0.7—4.8). Incidence was not affected by HIV status (IRR 1.3, 95%CI 0.2—9.6), mode of acquisition (sexual versus injecting IRR 1.6, 95%CI 0.2—15.2), or ongoing injecting (IRR 2.4, 95%CI 0.3—16.8).

CONCLUSIONS In this first long-term assessment of acute HCV treatment, early virological benefits are sustained with low rates of HCV re-infection 5-10 years after primary HCV infection.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

TRENDS IN CHRONIC HEPATITIS B DIAGNOSIS IN AUSTRALIA, 2009-2013

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BACKGROUND An estimated 100,000 Australians are currently living with undiagnosed chronic hepatitis B infection, and a substantial increase in opportunistic screening is required to enable those affected to engage in appropriate clinical care. Infectious diseases notifications can provide insight into these practices of screening and diagnosis over time.

METHODS Notifications for unspecified (chronic) hepatitis B according to year of diagnosis, state and territory, age, and sex were extracted from the National Notifiable Diseases Surveillance System and analysed to determine changes in the number of notifications over time and according to demographic and geographic factors. Differences between groups were assessed using the 2-sample test of proportions.

RESULTS The number of chronic hepatitis B notifications reported per year in Australia increased in 2013 for the first time since 2009, by 7.9% (6,517 to 7,030, p-value for difference <0.001). This increase was seen in all states except SA, TAS and VIC. The most pronounced increases were in the NT (75.6% increase) and WA (17.2% increase).

The increase in notifications occurred almost exclusively among men, with males comprising 413 of the 513 (80.5%) additional notifications between 2012 and 2013. This increase was concentrated amongst younger males, with the largest change of any age group in males 15-19 years (33.3% increase), and substantial increases in those aged 20-34 years (9.3%); while in women there was a slight decrease in notifications (-0.4%).

CONCLUSION Given that the majority of people living with CHB in Australia acquired their infection at birth or in early childhood, this increase in notifications could represent a positive sign of increase screening and diagnosis, particularly among younger men, who have previously been underrepresented in notifications. Further work is needed to determine the underlying cause of these changes.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

TRENDS IN RELATIVE SURVIVAL OF PATIENTS DIAGNOSED WITH HEPATOCELLULAR ARCINOMA: A POPULATION-BASED COHORT STUDY

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BACKGROUND To estimate the relative survival of patients diagnosed with hepatocellular carcinoma (HCC) in Ontario, Canada over time and to examine potential factors associated with excess risk of mortality.

METHODS A retrospective cohort study of all eligible patients diagnosed with HCC in Ontario, Canada, during 1990-2009 utilizing Ontario Cancer Registry (OCR) linked health administrative data. Standardized-mortality-ratios (SMRs) by 5-year time periods for both sexes were calculated using the observed deaths from the OCR and expected deaths from the Ontario life tables. 1-/5-year relative survival were estimated, constructing life tables to control for background mortality by age at diagnosis, year of diagnosis and sex. A generalized linear model was used to determine the impact of important factors on the relative excess hazard ratios of mortality.

RESULTS During 1990-2009, there were 5,481 patients diagnosed with HCC, with a 3-fold increase over time. The majority (78%) of patients were males. The SMR for both sexes was highest during 1990-1994 (F:32.0, 95% Confidence Interval 20.9-43.1; M:22.0, 12.8-31.2) and moderately decreased after this period (SMR during 2005-2009, F:21.7 (12.5-30.8; M:19.8, 11.1-28.5). For both sexes, there were significant improvements in the 1-year relative survival over time in all age groups; the highest survival was among those diagnosed at age ≤60 years during 2005-2009. There was only a significant increase in the 5-year relative survival among males aged ≤60 years during 2005-2009 compared to those during 1990-1994. Overall, the 5-year relative survival did not exceed 25%. The relative excess risk of mortality decreases significantly with follow-up years and year of diagnosis, but increases with aging and being male diagnosed at age ≤60 years.

CONCLUSION The results showed that the prognosis for HCC remains poor. Our findings are important measures of the overall effectiveness of health systems in the prevention and early detection for curative treatment of HCC.

DISCLOSURE OF INTEREST STATEMENT "This study was supported by the Institute for Clinical Evaluative Sciences (ICES), which is funded by an annual grant from the Ontario Ministry of Health and Long-Term Care (MOHLTC). The opinions, results and conclusions reported in this paper are those of the authors and are independent from the funding sources. No endorsement by ICES or the Ontario MOHLTC is intended or should be inferred."

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – TRENDS AND TRAJECTORIES

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

TIME TO HEPATOCELLULAR CARCINOMA AFTER NOTIFICATION OF HEPATITIS B OR C INFECTION: A POPULATION-BASED COHORT STUDY, 1992–2007

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BACKGROUND Temporal changes in time between HBV/HCV notifications and HCC diagnosis were assessed to determine changes in screening patterns.

METHODS HBV and HCV notifications (mandatory anti-HBV/HCV positive serology notification since 1991) reported to the New South Wales Health Department 1992-2007 were linked to cancer registry data.

RESULTS The cohort comprised 43,453 and 84,121 individuals with HBV and HCV mono-infection, respectively. Median age at HBV notification was 35 years [interquartile range (IQR) 27-45], 54% were male. Median age at HCV notification was 35 (IQR 28-42) years, 63% were male. Overall, 553 people had HBV-related HCC, median time to HCC was 1.6 (IQR 0.0-5.6) years. HCV-related HCC occurred among 604 people, median time to HCC was 4.2 (IQR 0.7-8.0) years. Among people with HBV-related HCC in 1992-1995, 37% (n=30), 44% (n=36) and 19% (n=15) of HCC diagnoses were before HBV notification, at the time or ≤6 months post-HBV notification and >6 months post-HBV notification, respectively. In 2005-2007, 8% (n=11), 15% (n=21) and 77% (n=108) of HCC diagnoses were before HBV notification, at the time or ≤6 months post-HBV notification and >6 months post-HBV notification, respectively. Among people with HCV-related HCC in 1992-1995, 27% (n=13), 27% (n=13) and 46% (n=22) of HCC diagnoses were before HCV notification, at the time or ≤6 months post-HCV notification and >6 months post-HCV notification, respectively. In 2005-2007, 2% (n=5), 6% (n=11) and 92% (n=177) of HCC diagnoses were before HCV notification, at the time or ≤6 months post-HCV notification and >6 months post-HCV notification, respectively.

CONCLUSION The proportion of HBV/HCV-related HCC cases with "late" (≤6 months of HCC) HBV/HCV diagnosis is declining, but remains high. Despite the increase in hepatitis screening rates, the higher proportion of "late" HBV than HCV diagnoses among HCC cases in the mid-2000s (23% vs 8%) suggests a relatively higher undiagnosed HBV-infected population.

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PROFFERED PAPER SESSION: CLINICAL CARE - HBV
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

THE ROLE OF FINANCIAL INCENTIVES IN DEVELOPING HEPATITIS B IMMUNITY FOLLOWING ACCELERATED VACCINATION AMONG PEOPLE WHO INJECT DRUGS IN SYDNEY, AUSTRALIA: RANDOMISED CONTROLLED TRIAL

Day CA[1], Shanahan M[2], Topp L[3], Deacon RM[1], Haber PS,[1,4] Wand H[5], Rodgers C[6], White A[4], van Beek I[6] Maher L[5] on behalf of the Hepatitis Acceptability and Vaccine Incentives Trial (HAVIT) Study Group

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BACKGROUND People who inject drugs (PWID) are at risk of hepatitis B virus (HBV) infection, but despite the availability of an effective vaccine, have low rates of vaccination uptake and completion. The provision of modest financial incentives substantially increases vaccination schedule completion, but its association with serological protection is unclear. Objective To investigate factors associated with vaccine induced HBV immunity among a sample of PWID randomly allocated to receive a modest financial incentive or not upon receipt of an accelerated 3-dose HBV vaccination schedule (0,7,21 days).

METHODS Serologically confirmed HBV-susceptible PWID were randomly allocated to receive AUD$30 cash following receipt of vaccine doses two and three ('incentive condition'), or standard care ('control condition') in two inner-city health services and a field study site in Sydney, Australia. The primary outcome was vaccine-induced immunity assessed as hepatitis B surface antibodies ≥10mIU/ml at 12 weeks post schedule commencement.

RESULTS Of the 139 eligible participants, 77% completed the schedule and 56% achieved HBV vaccine-induced immunity. Intention-to-treat univariate analysis indicated that those who completed the vaccine schedule were more than twice as likely to achieve HBV vaccine-induced immunity than those who did not (62% vs 41%; OR 2.35 95%CI). While allocation to the incentive group increased vaccine completion rates (87% incentive vs 65% control), it was not associated with vaccine-induced immunity. No other variables were associated with vaccine-induced immunity.

CONCLUSIONS The only factor associated with increasing vaccine induced immunity among this sample of PWID was completion of the accelerated 3-dose HBV vaccination schedule. Although no direct relationship was found between incentives and vaccine induced immunity in this analysis, this was probably due to the high completion rates in both groups, producing a ceiling effect.

DISCLOSURE OF INTEREST STATEMENT The Hepatitis B Vaccine and Incentives Trial (HAVIT) was funded by the Australian National Health and Medical Research Council (NHMRC Project Grant No. 510104). The funding body had no role in study design; collection, analysis or interpretation of the data; preparation of this manuscript; nor the decision to submit this manuscript for publication. PH is a member of an advisory board for Lunbeck. This role has no relationship to viral hepatitis. No other authors have any connection with the tobacco, alcohol, pharmaceutical or gaming industries or any body substantially funded by one of these organisations.

PROFFERED PAPER SESSION: CLINICAL CARE - HBV
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

TREATING IMMUNE-TOLERANT HBV: FACTORS ASSOCIATED WITH SIGNIFICANT DECLINE IN HBEAG AND HBSAG LEVELS

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BACKGROUND The GS-US-203-0101 trial studied persons in the immune-tolerant (IT) phase of CHB. Combination tenofovir (TDF)+emtricitabine for 192 weeks was associated with improved viral suppression vs. TDF monotherapy, but low rates of HBeAg loss and no HBsAg loss were observed. The aim of this follow-on study was to perform a detailed virological characterization of IT individuals at baseline and ontreatment to determine factors that predict for positive treatment outcomes.

METHODS 126 persons were enrolled and IT was defined by HBeAg positivity, high HBV DNA (>7.3$\log_{10}$IU/ml) and ALT<ULN. Virological studies included full genome population sequencing, qHBsAg and qHBeAg testing. Analysis was limited to persons with genotypes B/C.

RESULTS Data were available for 113 persons (median age 32yrs, 54% male, 96% Asian, 56%/44% genotype B/C, median ALT 25IU/mL, median HBV DNA 8.4$\log_{10}$IU/mL, median HBsAg **4.8 $\log_{10}$IU/ml, median HBeAg 3.6 $\log_{10}$PEIU/ml**). End of treatment analysis available for 93/113 persons showed that 30% achieved a >1 $\log_{10}$ decline in HBeAg, which was associated with low baseline HBsAg (OR 25.0; p=0.002), HBV genotype B>C (OR 5.0; p=0.02), as well as with higher baseline ALT (OR 1.1; p=0.007) and variation from wild type in core protein (OR 5.4; p=0.01). 19% achieved a >1 $\log_{10}$ decline in HBsAg which was associated with low baseline HBsAg (OR 7.1; p=0.02), HBV genotype B>C (OR 3.9; p=0.03) and high baseline HBV DNA (OR 11.9; p=0.04).

CONCLUSION Long-term potent NA therapy is associated with significant HBeAg and HBsAg decline of in 30% and 19% of IT persons respectively. Viral heterogeneity detected at baseline, which could be predicting a transition towards immuneclearance disease, is associated with improved treatment outcomes. This study may identify individuals who could further benefit from add-on immunomodulatory therapy, thereby warranting further clinical evaluation.

DISCLOSURES This study was funded by Gilead Sciences, Inc.

PROFFERED PAPER SESSION: CLINICAL CARE - HBV
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

USE OF ANTIVIRAL THERAPY IN PREGNANT WOMEN WITH HEPATITIS B IN THE TOP END OF THE NORTHERN TERRITORY

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BACKGROUND Antiviral therapy with lamivudine and telbivudine has been shown to reduce the risk of maternal to child transmission (MTCT) of hepatitis B (HBV) in women with a high viral load. There is limited data to support the use of tenofovir for HBV in pregnancy but it is increasingly being prescribed for this indication.

METHODS This is a retrospective audit of pregnant women with Hepatitis B managed through the Royal Darwin Hospital Liver Clinic from 2011- 2014 with a focus on those that were prescribed antiviral therapy during pregnancy. Infant serology was actively collected.

RESULTS Between 2011- 2014 41 women with HBV had 42 pregnancies. 19 women were prescribed antivirals during 20 pregnancies, 2 received lamivudine and 18 tenofovir. One woman who had 2 pregnancies was on therapy prior to conception. 18 women had therapy prescribed primarily to prevent MTCT. 12/19(63.2%) of women were Indigenous Australians and 13/19(68.4.%) lived in remote locations. Of the 22 women not prescribed anti-viral therapy 19 had a low viral load, 2 presented late or delivered before therapy was initiated and one declined therapy. Of 13 infants with 1 year follow-up, 9 had serology results where antivirals were prescribed. All were HbsAb positive and 2/9(22.2%) were also HbcAb positive. One infant born to a mother with high viral load not prescribed antivirals was found to be HbsAg positive. Antiviral therapy was well tolerated with no serious adverse events reported in either mothers or infants. Follow-up of remote dwelling Indigenous women was difficult post-partum with 9/12(69%) ceasing therapy prior to the planned duration. Despite this there were no clinically significant flares of hepatitis reported.

CONCLUSIONS Antiviral therapy during pregnancy was generally accepted by women and was well tolerated with no major adverse events, including in remote dwelling Indigenous Australians, although post-partum follow-up was challenging.

All authors No disclosures of interest

PROFFERED PAPER SESSION: CLINICAL CARE - HBV
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

IMPROVING QUALITY OF CARE: FOR PEOPLE LIVING WITH HEPATITIS B IN PRIMARY CARE PRELIMINARY DATA FROM THE INTEGRATED HEPATITIS B SERVICE.

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BACKGROUND Of the estimated 218,000 people living with chronic hepatitis B (CHB) in Australia, approximately 13% are receiving monitoring or treatment. The First National Strategy recognised that innovative models of care are needed, including shifting care to primary health services.

The Integrated Hepatitis B Service (IHBS) at Melbourne Health was established in 2012 to develop clinical pathways and capacity in primary care practices in areas of high hepatitis B prevalence to provide ongoing monitoring and management of CHB.

METHODS The IHBS conducted a clinical audit at three community health centres and two private general practices, reviewing over 830 patient records associated with 'hepatitis B'. In a two-step clinical audit, baseline data were compared with subsequent results collected 18 months after the implementation of IHBS.

RESULTS The baseline clinical audit identified 323 individuals with CHB. 46% of patients were receiving care through a specialist service, 33% with their general practitioner (GP) and 6% were in shared care. 10% of patients had been lost to follow up by a specialist service and 5% had disengaged with their GP. 10% of patients were receiving antiviral treatment. In patients being managed by a GP, hepatitis B viral load had been documented in 51% in the preceding 12 months.

Preliminary data from the follow-up audit demonstrates an increased number of individuals receiving appropriate 6-12 monthly monitoring and maintenance treatment through their GP, including hepatitis B serology, liver function tests and viral load, in line with CHB management guidelines. Patients have re-engaged with care and been referred out from specialist to GP-led care.

CONCLUSION Challenges in CHB management in primary care are well recognised, however preliminary data indicate that guideline-based management for people living with CHB is possible in primary care when supported by specialist services such as the IHBS.

DISCLOSURE OF INTEREST STATEMENT All authors have nothing to disclose.

PROFFERED PAPER SESSION: CLINICAL CARE - HBV
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

MANAGEMENT OF HEPATITIS B DURING PREGNANCY AT GEELONG HOSPITAL: A RETROSPECTIVE REVIEW

Beynon S[12], Athan E[1], Heath M[1], Wade A[1]

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BACKGROUND It has been shown that in several Victorian hospitals assessment of pregnant women infected with hepatitis B is inadequate. Women with a positive hepatitis B surface antigen (HBsAg) require assessment of viral load, which is an important predictor of transmission of hepatitis B virus from mother to child. If maternal viral load is high, transmission can occur despite routine prophylactic administration of hepatitis B immunoglobulin (HBIG) and infant hepatitis B vaccination (HBV).

The refugee population in Geelong is increasing and so too are the number of pregnant women from hepatitis B endemic areas attending the Geelong Hospital for antenatal care and delivery. The purpose of this study was to investigate whether these women receive optimal hepatitis B screening and management during pregnancy.

METHODS Retrospective data over a five-year period were collected from Geelong Hospital medical records for 35 pregnancies to women recorded as being hepatitis B infected in antenatal records.

RESULTS 80% of the women were non-Australian born. There was relatively high adherence to HBeAg testing, which occurred in 80% of the study population. In contrast, only 37% were tested for hepatitis B viral load. Involvement in antenatal care was excellent (97% of pregnancies) while liver clinic attendance poor (22% of pregnancies).

CONCLUSION Several weaknesses were identified in the current assessment and management practices at Geelong Hospital for women with chronic Hepatitis B infection. Routine testing of hepatitis B viral load and liver clinic referral is necessary for HBsAg positive women. We propose that by incorporating these changes through new hospital management protocols, and by improving awareness within the Geelong hospital system, there is potential to reduce mother-to-child-transmission of hepatitis B infection in this population.

DISCLOSURE OF INTEREST STATEMENT There are no recognised potential conflicts of interest.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

EVERYDAY OBJECTS AND INJECTING: WHY DO PEOPLE WHO INJECT DRUGS IN SEXUAL PARTNERSHIPS 'RUN OUT' OF EQUIPMENT?

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BACKGROUND While rates of hepatitis C transmission among people who inject drugs appear to be decreasing, a need remains to understand and respond to better a key site of transmission the sharing of injecting equipment within sexual partnerships. Why does equipment sharing continue within sexual partnerships? What meanings are attached to sharing, to injecting equipment and to relationships forged in the context of injecting drug use?

METHODS This presentation reports on preliminary findings of a large qualitative research project that looks directly at these questions. A total of 80 interviews were conducted with people who inject drugs in New South Wales and Victoria. The majority of this data set comprises interviews with both partners in partnerships (n=68), while the remainder (n=12) were with individuals currently or recently involved in partnerships where injecting occurred.

RESULTS Participants regularly reported 'running out' of sterile injecting equipment as a primary reason for sharing. Some reported distributing their stock of equipment to others in need, while others alluded to trust in their relationships such that recourse to sharing was not considered risky. A further group explicitly likened injecting equipment to the most mundane of household objects such as bread or milk, and presented running out as an effect of this.

CONCLUSIONS The presentation concludes by considering these findings in light of the project's related aim of developing a new injecting fit pack for sexual partnerships. The status of injecting equipment as everyday and lacking in special meaning or value suggests that rethinking the presentation of injecting equipment to lend it greater meaning and value could interrupt the somewhat naturalised process of running out reported in our research.

DISCLOSURE STATEMENT The research project reported on here was funded by the National Health and Medical Research Council. The authors report no conflict of interest.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

NEGOTIATING RISK, NAVIGATING RELATIONSHIP: ACCOUNTS OF NEEDLE-SYRINGE SHARING WITHIN ROMANTIC PARTNERSHIPS

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BACKGROUND Injecting drug surveillance and social research data indicate that the majority of needle-sharing occurs within sexual partnerships. Nonetheless, very little qualitative research has specifically considered the sexual relationship itself as a key site of potential transmission and prevention of hepatitis C (HCV). This presentation examines accounts of 'sharing' from people in romantic partnerships who inject drugs.

METHODS This presentation draws on preliminary findings from a large qualitative research project examining HCV understanding and prevention within sexual partnerships. A total of 80 interviews were conducted with people who inject drugs from NSW and Victoria. The majority of interviews included both partners of the relationship; the remainder were with sole participants currently or recently involved in partnerships where injecting occurred.

RESULTS While approximately three quarters of our sample reported sharing needle-syringes with their current partner, nearly all participants were adamant that such incidents only ever took place within the relationship. Couples consistently demonstrated a commitment to, and strategies of, viral management. Couples who reported sharing within their partnership articulated an explicit strategy of 'negotiated safety', with HCV serostatus a primary consideration. There was evidence too, that couples' viral management adapted over time to reflect changes in the relationship's HCV serostatus – following one partner's HCV treatment, for example.

CONCLUSIONS Our qualitative data appears to support findings from earlier Australian quantitative-based work that concluded i) sharing within heterosexual couples is not organised around HCV status; ii) couples with discordant serostatus are no more or less likely than those with concordant status to share. However, it would be erroneous to conclude that this in turn indicates an indifference to HCV or HCV-related risk among participants. Examining interview accounts of needle-syringe sharing enables a more nuanced and complex interpretation to emerge; one better aligned with participants' lived experience and their understandings of risk and safety.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

INNOVATION IN HEPATITIS C PREVENTION: A TRIAL OF SYMBIOTIC AND PLEASURE-BASED MESSAGES WITH NSP STAFF AND CLIENTS

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AIM Prevention of hepatitis C (HCV) remains a public health challenge. A new body of work is emerging seeking to explore and exploit "symbiotic goals" of people who inject drugs (PWID). That is, strategies used by PWID to achieve other goals may be doubly useful in facilitating the same behaviours (use of sterile injecting equipment) required to prevent HCV. This project developed and trialled new HCV prevention messages based on the notion of symbiotic messages.

METHOD New HCV prevention messages were developed in a series of 12 posters after consultation with staff from NSPs and a drug user organisation. Two posters were displayed each week for a six week period within one NSP. Staff were asked to record clients' comments in a diary. NSP staff and clients were invited to focus groups to discuss their responses to the posters

RESULTS Seven staff participated in one group and a total of 21 clients participated over three groups. Responses to each of the posters were mixed. Staff were concerned that not all HCV prevention information was included in any message. Clients appreciated the efforts to use bright imagery and messages that included acknowledgement of pleasure. Clients were not aware of some harm reduction information contained in the messages (such as "shoot to the heart") and this generated potential for misunderstanding of the message intent. Clients felt that any message provided by the NSP could be trusted and did not require visible endorsement by health departments.

CONCLUSIONS While the logic of symbiotic messages is appealing, it is challenging to produce eye-catching, brief messages that provide sufficient information to cover the breadth of HCV prevention. Using symbiotic and pleasure-based messages as adjuncts to more complete information may be a way to capitalise on the interest of clients in these new messages.

DISCLOSURE OF INTEREST STATEMENT None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript. The Centre for Social Research in Health is supported by a grant from the Australian Government Department of Health and Ageing. This research was supported by a grant from a NSW Local Health District.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

PEER EDUCATION THE FORGOTTEN TOOL FOR FIGHTING VIRAL HEPATITIS

Poder F Chris Gough

Community Programs Worker PeerLink NUAA

BACKGROUND This presentation will explore how the NSW Users and AIDS Association utilises peer education as an effective viral hepatitis health promotion tool for working with hard to reach populations of people who inject drugs in NSW.

METHODS PeerLink, NUAA's key peer education program, is able to identify regional areas of high need across NSW and successfully recruit and train members of the illicit injecting drug using community to become effective viral hepatitis peer educators amongst their networks.

This presentation will explore the process of recruiting within local networks of people who inject drugs and the innovative ways in which we are able to increase knowledge about viral hepatitis, safer using, stigma and discrimination and peer education, all of which have been shown to be effective tools in the prevention of viral hepatitis transmission. The process of identifying local service delivery needs and working collaboratively with local services to identify and address fill these gaps will also be explored.

RESULTS This presentation will also address how NUAA develops and delivers appropriate training, how knowledge retention is measured and how we record incidents of peer education amongst networks of people who inject drugs. It will also address how NUAA measures changes in behaviour and improvement of health amongst members of PeerLink.

CONCLUSION This presentation will endeavour to explore how peer education through Peerlink strives to create sustainable, empowered communities and this presentation will give examples of how NUAA uses community development and health promotion principals to achieve viral hepatitis education sustainability amongst the illicit drug using community.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

BUILDING ON SHAKY GROUND - A PEER EDUCATOR AND LEADER TRAINING PROGRAM

Parkes P[1], Crawford S[1]

[1]Canberra Alliance for Harm Minimisation and Advocacy (CAHMA)

BACKGROUND Canberra Alliance for Harm Minimisation & Advocacy (CAHMA) is Canberra's local drug user group. CAHMA undertakes regular peer education sessions for its community. Over the past 2 years CAHMA has been delivering outreach services to a supported accommodation centre who have a high proportion of illicit and injecting drug users.

METHOD As a way of extending an empowering health promotion approach to a group of people who live in a unique community housing situation and who are highly marginalised, CAHMA undertook a program training this group to become peer educators and leaders in their community. This includes a long term training syllabus, regular training sessions, mentoring and the provision of technological aids to enliven the group's peer education. The group is encouraged to provide safer using information at the point of injection and drug use to peers and to keep records of these interactions.

RESULTS The program is ongoing but showing encouraging uptake, attendance and positive pre and post-test evaluation results.

CONCLUSION Running training for peer educators rather than discrete peer education sessions, and providing equipment that is not typically available for this population has allowed core safer using, harm reduction, viral hepatitis transmission and HIV transmission prevention, as well as viral hepatitis treatment information to be more widely disseminated than any organisation is able to achieve. The project is ongoing but interim results are positive.

DISCLOSURE OF INTEREST CAHMA is funded by ACT government and Australian Federal government grants.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – PREVENTING VIRAL HEPATITIS

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

ACQUIRING HEPATITIS C IN PRISON: A QUALITATIVE STUDY OF THE HITSP COHORT

Treloar C[1], McCredie L[2], Lloyd A on behalf of the HITSp investigators*

[1] Centre for Social Research in Health, UNSW Australia, Sydney, NSW, Australia,
[2] Centre for Health Research in Criminal Justice, Sydney
[3] Inflammation and Infection Research, School of Medical Sciences, UNSW Australia

AIM The potential for transmission of hepatitis C (HCV) in prison settings is well established and directly associated with sharing of injecting and tattoo equipment as well as physical violence. This study is one of the first studies to examine the circumstances surrounding the acquisition of HCV in the prison setting.

METHOD HITSp cohort participants included NSW prison inmates with a lifetime history of injecting drug use and who had a HCV serologically negative test within 12 months prior to enrolment. Cohort participants were monitored three-six monthly for HCV antibodies and via behavioural surveillance questionnaire. Participants with a documented HCV seroconversion were eligible to be invited to participate in in-depth interviews with a research nurse known to them.

RESULTS Six participants (four men, two women) with documented HCV seroconversion believed that they had acquired HCV inside prison. Participants believed that they were sharing syringes with others who were hepatitis C negative, trusted that others would have declared their HCV status if positive and that there was no apparent difference in their injecting practice or circumstances that could have led to HCV acquisition. Some participants described cleaning equipment with water, but not with other products. In a departure from usual routine, one participant suggested that he may have acquired HCV as a result of using a syringe already containing drugs provided to him as a result of lending his syringe to another inmate. Participants described regret at acquiring HCV and noted a number of pre and post-release plans that this diagnosis impacted upon.

CONCLUSIONS Further support must be provided to prison inmates to increase rates and effectiveness of syringe cleaning, in the absence of prison-based NSP. The social organisation of injecting, in trusted networks, is a challenge for HCV prevention programs and requires additional research.

*HITSp investigators Luciani F, Dolan K, Haber P, Rawlinson, Maher L, Dore G.

DISCLOSURE OF INTEREST STATEMENT The Centre for Social Research is supported by a grant from the Australian Government Department of Health and Ageing. The views expressed in this publication do not necessarily represent the position of the Australian Government. This work was supported by the National Health and Medical Research Council (APP1016351) and New South Wales Health. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – ENGAGING COMMUNITY

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

ART AND STORY; INDIGENOUS LED VIRAL HEPATITIS EDUCATION

Nicky Newley-Guivarra

Hepatitis Queensland

Estimates indicate that 16,000 Indigenous people have chronic hepatitis C; 26,000 have chronic hepatitis B. Looking back on Indigenous health issues in relation to viral hepatitis the situation is a growing epidemic. In seeking to move forward, Hepatitis Queensland identified the critical aspects of story and art for Indigenous people in facilitating communication and acceptance of the sometimes difficult subject of blood borne viruses and the liver.

Art and story is being used by Hepatitis Queensland to engage with Indigenous communities from Cape York to the Gold Coast, and west to Cherbourg. Recently a specific hepatitis B art and story program was also facilitated on the Torres Strait Islands. Art workshops and personal story have been used to introduce health promotion on viral hepatitis, reaching men and women, elders and children, community members and healthcare workers – who have taken this experience into their communities. A key reason for the program's success is the role of the Indigenous project officer.

Art workshops have been delivered by Nicky Newley-Guivarra, a trained, experienced and acknowledged Indigenous artist from a well-known Queensland family. This project, the first of its kind to work at grass-roots level with people most at risk of viral hepatitis, connected with the young, the homeless and others at risk. The innovative combination of hep C and art in delivering this unique program has been made possible by the courage of Nicky in being willing and able to utilise her personal experience of successful treatment for hep C, with her skills in art. The program won a Queensland 'Innovation in Practice' health promotion award in 2010.

The next decade needs to see a focus on grass-roots story and art to continue this meaningful cultural communication in Indigenous communities, raising awareness, and facilitating access to treatment and management of viral hepatitis in this vulnerable part of the Australian population.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – – ENGAGING COMMUNITY

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

SO HEPPY TOGETHER: PERCEPTIONS OF PEERS AND ITS IMPACT ON SOUTH-SOUTH HEPATITIS C CAPACITY BUILDING COLLOBRATIONS

Morrison ER

Australian Injecting and Illicit Drug Users League (AIVL) – Canberra, Australia

BACKGROUND The Australian Injecting and Illicit Drug Users League (AIVL) was likely the first peer-based drug user organisation to receive development aid to support drug user organisations in developing countries. AIVL's International Program supports the development of capacity of regional, national and local drug user organisations in countries around Asia including Indonesia and Vietnam. Over the course of the program, hepatitis C, and co-infection with HIV, has become a serious growing concern for people with a history of injecting drug use in Asia.

METHODS AIVL recently piloted a program of south-south collaboration, using the growing expertise of the national network of people who use drugs (PUD) in Indonesia (PKNI) to work with AIVL to develop the capacity of the Vietnam Network of People who Use Drugs (VNPUD). PKNI and AIVL co-facilitated a workshop for VNPUD focused on increasing knowledge of hepatitis C and techniques for training trainers, through which VNPUD members built knowledge and capacity around hepatitis C prevention, testing and treatment of its own members.

RESULTS The collaboration between the Indonesian, Vietnamese and Australian drug user networks yielded was extremely successful and yielded some surprising results. As expected, hepatitis C knowledge was increased among VNPUD participants. Additionally, the participants in the training revealed a lack of knowledge about their own HIV and hepatitis health status and treatment guidelines. The participants responded very well to the learning environment provided by peers from both Australia and Indonesia, paying particular attention to the experience of peers from environments they perceived as similar to their own.

CONCLUSION As experience and knowledge increase among PUD in developing countries, south-south collaborations are an important potential future source of capacity building for less developed communities. The peer-based nature of the relationships is heightened by the perceptions of similarity of policy and legal environments and experience.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – ENGAGING COMMUNITY

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

LEARNING BY DOING- CALD YOUTH AS HEPATITIS B COMMUNITY EDUCATORS

Debbie Nguyen[1], Mamta Porwal[1], Monica Robotin[1,2]

1 Cancer Council NSW 2 University of Sydney School of Public Health
Community and social research stream

BACKGROUND Chronic hepatitis B (CHB) infection disproportionately affects Australians born in hepatitis B-endemic countries, but despite the availability of antiviral treatments that can change the natural history of the disease, high-risk communities have a limited engagement with the continuum of hepatitis B diagnosis and care. To increase disease awareness, we sought to engage local youth in a high CHB prevalence area in Sydney to be the "agents of change" and hepatitis B peer-educators in their communities.

MATERIAL AND METHODS We partnered with schools and community organisations in Fairfield City to identify and engage local youth to become hepatitis B educators, while facilitating their learning of new and marketable skills in all aspects of film-making and film animation.

RESULTS Our program partners included over ten local community organisations, two schools and one University. Cabramatta youth were engaged hands-on in all steps of movie–making, producing "Change of our lives", a feature film about Vietnamese-Australian families weaving hepatitis B issues in the storyline. Intensive English centre students in Fairfield created stop-motion and animation films. Cabramatta High school students learnt about hepatitis B during PHDPE classes and developed an animated film – "Master Zanzu's hepatitis Masterclass" conveying hepatitis B prevention messages to their peers, families and communities.

CONCLUSION We facilitated students' learning about CHB in an applied and creative context, which also imparted valuable new skills. The movies they created and produced were widely advertised locally, screened at large community events, local cinemas and entered in Film Festivals. This in turn led to heightened hepatitis B awareness in their communities, through the participation of family and friends at gala events and community screenings. This helps demystify hepatitis B, encourages open discussion about the disease, increases awareness of CHB treatments and helps reduce stigma and discrimination in a "win-win" and replicable format.

DISCLOSURE This work was supported by Cancer Council NSW and a grant from the Cancer Institute New South Wales. The Cabramatta High school animation project was funded by the Gilead Sciences Pty Ltd Australia through an unrestricted educational grant.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – ENGAGING COMMUNITY
10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

HEPATITIS WORKFORCE DEVELOPMENT: A DECADE OF LEARNING THE ABCS

Pocock L Walton J

Hepatitis Queensland

Hepatitis Queensland (HQ) facilitates a state-wide workforce training and development program for people working with clients at risk of, or living with, viral hepatitis. The ABC of Hepatitis training and education program (The ABC) has been part of HQ's core business since 2003. The aim of The ABC is to increase community capacity to respond appropriately and effectively to viral hepatitis. This presentation will highlight the results of the two-year mixed-method, external evaluation of The ABC, including insights on achievements, geographic information system (GIS) analysis, social networking analysis, and key recommendations.

The unique approaches of The ABC include scheduled training days that cover all aspects of viral hepatitis information awareness sessions tailored to local needs, including rapidly emerging local issues, with particular attention to priority populations outreach to regional communities across the state comprehensive and regularly updated workbook manual collaboration with clinicians as guest speakers, sometimes via telehealth services inclusion of trained positive speakers with lived experiences of viral hepatitis.

The evaluation findings highlighted achievements including between July 2012 and February 2014, education was provided to 5,182 people, with estimated 'flow-on' effect to 1,664 additional workers and 454 community members significantly improved viral hepatitis knowledge and confidence a high level of satisfaction with training increased support for regional networking and extended reach to priority populations increased in client referrals to GPs, liver clinics, and Hepatitis Queensland services.

Additionally, the results of the evaluation also validated the current format and approaches of The ABC. The GIS analysis demonstrated good coverage of education to key areas, and has highlighted that further travel is required into other high incidence areas such as Cape York Hospital and Health Service (HHS).

The ABC program is an effective education package and will continue in the future.

Nil disclosure of interest

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – ENGAGING COMMUNITY

10.20AM – 11.50AM THURSDAY 18 SEPTEMBER 2014

IMPROVING CHLAMYDIA AND HEPATITIS C AWARENESS THROUGH A SEXUAL AND REPRODUCTIVE HEALTH EDUCATION PROGRAM FOR ABORIGINAL AND TORRES STRAIT ISLANDER STUDENTS IN VICTORIAN SECONDARY SCHOOLS

Whitton B[1], Kinsey R[1], Greet B[1], Sutton K[1]

[1]Melbourne Sexual Health Centre

BACKGROUND Aboriginal and Torres Strait Islander (ATSI) people aged 15-29 experience a high burden of chlamydia and hepatitis C infection nationally.

Victorian secondary schools are encouraged to engage local ATSI, community sexual health and hepatitis organisations as a resource to enhance the sexual and reproductive health curriculum delivered to ATSI students in years 7-12.

The Wulumperi ATSI Sexual Health Unit at Melbourne Sexual Health Centre offers schools with ATSI students an opportunity to participate in a structured program that complements and improves their knowledge about chlamydia and hepatitis C.

METHODS Wulumperi developed a culturally and educationally peer reviewed program designed to enhance key messages that impact on the sexual and reproductive health of ATSI secondary students.

Importantly the program includes, encourages and supports local ATSI, community, sexual health and hepatitis organisations to be involved with the education and to continue delivery of the program in the future.

The program focuses on three main themes

1. Chlamydia and Hepatitis C transmission.
2. Health promotion and harm reduction messages about safe sex, injecting, tattooing, and body piercing.
3. Accessing information, screening and treatment services provided by local ATSI, community, sexual health and hepatitis organisations.

RESULTS Evaluation of the program participants, (348 students at 25 schools) measured their knowledge about the messages delivered. Most students identified risks of acquiring chlamydia, hepatitis C infection and the importance of using condoms for safe sex and using clean injecting, tattooing, and body piercing equipment. Students also identified where to access information and health services in their local area.

CONCLUSION Partnerships between schools and health service providers delivering this effective program increases knowledge and awareness about chlamydia, hepatitis C, harm reduction and access to health services for ATSI students in Victorian secondary schools. Continued collaboration with schools and local health service providers will impact on reducing the rates of chlamydia and hepatitis C transmission.

DISCLOSURE OF INTEREST STATEMENT none

SYMPOSIA SESSION 1: EPI, PH & PREVENTION – CASCADE OF CARE (ACCESS TO CARE)

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

THE CASCADE OF CARE FOR PEOPLE LIVING WITH CHRONIC HEPATITIS B: ACCESS TO TREATMENT AND MONITORING IN AUSTRALIA

Allard N[1-3], MacLachlan J[1,2], Cowie BC[1,2,4]

[1]University of Melbourne, [2]Victorian Infectious Diseases Reference Laboratory, [3]Cohealth, [4]Royal Melbourne Hospital

BACKGROUND AND AIMS All people living with chronic hepatitis B (CHB) require regular monitoring including HBV viral load testing to assess risk for the development of liver cancer and cirrhosis and eligibility for antiviral treatment. The estimate of the proportion of people with CHB requiring antiviral treatment ranges from 15-25%, Australia's draft Second National Hepatitis B Strategy 2014-2017 currently having a target of 15% on treatment. The aim of this analysis was to estimate the level of access to care using annual viral load and treatment uptake, to examine existing gaps in clinical and public health responses nationally and by state and territory.

METHODS Medicare Benefits Schedule HBV DNA viral load data by year and state, gender and age group 2008- 2013 showing trends over time. Pharmaceutical benefits data (PBS) from 2012 and estimates of diagnosed over the time period using mathematical modelling of population dynamics. Proportions in care and on treatment calculated used 2011 census-based estimates of people living with CHB. Analysis of the data was performed by state/ territory and nationally.

RESULTS In 2013,19,087 HBV DNA viral load tests were rebated by Medicare, representing testing of approximately 9% of the estimated number of Australians living with CHB. There was an increasing trend over time between 2008- 2013 with an average annual increase of 2783 tests. Nationally uptake of antiviral therapy in 2012 is estimated to be 5%, with notable variation between jurisdictions.

CONCLUSION This study reveals substantial gaps in Australia's response to CHB, with an estimated 87% not receiving appropriate guideline-based management based on virological testing or treatment. HBV DNA testing is a measurable indicator of guideline-based care and can be analysed with treatment data to estimate gaps in care for people living with CHB.

DISCLOSURE OF INTEREST The authors have no conflicts of interest to declare

SYMPOSIA SESSION 2: CLINICAL CARE – AHA NURSING SESSION
4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

HEPATOLOGY NURSING IN THE ERA OF EXPANDING HEPATITIS C EVIDENCE

Richmond J[1], Mason S[2]

[1] Australian Research Centre for Sex, Health and Society, La Trobe University, Melbourne, Australia.
[2] Royal Prince Alfred Hospital, Sydney, Australia.

BACKGROUND Treatment of hepatitis C is undergoing a rapid evolution. The hepatology nursing role will most likely change in the future with more opportunities to take on a greater workload. In this evolving era a clearer understanding of the education needs of hepatology nurses is required to ensure that new evidence is presented using appropriate strategies to aid implementation into practice.

METHOD The study used mixed methods interview, online questionnaire and focus group. Interviewees were purposively recruited according to experience and geographic location. Analysis of the interviews informed the development of an online questionnaire which was circulated through the Australasian Hepatology Association (AHA). Questionnaire data was explored in-depth in a focus group.

RESULTS Eleven semi-structured interviews were conducted with hepatology nurses. Reliance on external sources (medical colleagues, pharmaceutical representatives) for the latest evidence, lack of a systematic approach for keeping up-to-date and preference for "lay" information to encourage patient education, were highlights from the interview analysis.

Ninety three of 136 nurses (68%) responded to the questionnaire 46% felt confident to perform a literature review; 58% felt confident in distinguishing between "good and bad" research and 36% felt confident in performing research. Nurses identified their most important information sources as the AHA Summit (35%), industry funded educational forums (22%) and nursing colleagues (20%).

The focus group discussion allowed in-depth exploration of the strategies employed to remain informed; how hepatology nurses assess the trustworthiness of information; the role of mentoring; conducting nursing research; and the educational needs of hepatology nurses.

CONCLUSION The findings of this study provide comprehensive insight into the educational needs, learning preferences, research interest and ability, and strategies used by hepatology nurses to remain informed during this rapidly changing treatment environment.

SYMPOSIA SESSION 4: BASIC SCIENCE – HCV1 – CURING HCV WHAT WILL THE VIRUS TRY NEXT?

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

QUAC Q80K MUTATION PREVALENCE IN AN AUSTRALIAN HEPATITIS C POPULATION

Ong ATL[1,2,3], George J[1,3], Douglas MW[1,2,3]

[1]Storr Liver Unit, Westmead Millennium Institute, University of Sydney at Westmead Hospital, Sydney, Australia
[2]Centre for Infectious Diseases and Microbiology, Westmead Hospital, Sydney, Australia
[3]Marie Bashir Institute for Infectious Diseases and Biosecurity, University of Sydney, Sydney, Australia

BACKGROUND Hepatitis C virus (HCV) is the primary cause of liver transplantation and hepatocellular carcinoma (liver cancer) in Australia. NS3 protease inhibitors boceprevir or telaprevir have significantly improved SVR (sustained virological response) rates for genotype 1 HCV, in combination with peginterferon and ribavirin, and are now standard of care in Australia. The next generation protease inhibitor simeprevir is already licenced in the USA and Europe and is expected to enter the Australian market within 12 months.

The presence of a Q80K mutation in NS3 confers reduced susceptibility to simeprevir *in vitro* and in clinical trials. The Q80K mutation occurs primarily in HCV genotype 1a, but the prevalence of this mutation varies geographically (48.1% in North America, 19.4% in Europe). No data are available for Australia.

The United States Food and Drug Administration (FDA) antiviral drugs advisory committee and Janssen, the manufacturer of simeprevir, have recommended that patients with HCV genotype 1a infection are tested for the Q80K mutation before being prescribed simeprevir.

This study will determine the prevalence of the Q80K simeprevir resistance mutation among Australian patients with HCV genotype 1a infection.

METHODS A single centre study was performed at Westmead Hospital using 380 samples submitted for hepatitis C genotyping between 2011 and 2012.

Total RNA was extracted and reverse transcribed into cDNA. The HCV NS3 region was amplified by PCR and sequenced using Sanger sequencing.

RESULTS A total of 380 samples were processed and 21 samples were positive for the Q80K mutation, giving a prevalence of 5.6%.

CONCLUSION This is the first large scale Australian study assessing the prevalence of the Q80K resistance mutation among people living with hepatitis C. The rate of 5.6% is lower than previously published rates in the USA and Europe, suggesting that simeprevir should be a useful HCV treatment in Australia.

SYMPOSIA SESSION 4: BASIC SCIENCE – HCV1 – CURING HCV WHAT WILL THE VIRUS TRY NEXT?

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

HEPATITIS C VIRUS CAN ACCUMULATE MUTATIONS THAT CONFER RESISTANCE TO A NOVEL BROADLY NEUTRALIZING ANTIBODY MAB24

Gu J[1,2], Vietheer P[1], Alhammad Y[1,2], Boo I[1], Poumbourios P[1,2], and Drummer HE[1,2,3]

[1]Burnet Institute, Melbourne, Australia
[2]Department of Microbiology, Monash University, Clayton, Australia
[3]Department of Microbiology and Immunology, University of Melbourne, Parkville, Australia

BACKGROUND Hepatitis C virus (HCV) causes chronic liver disease and is the main reason for liver transplantation in Western countries. One of the challenges in the treatment and prevention of HCV is its high mutation rate and genetic variability. During entry into host cells, the surface glycoprotein E2 interacts directly with the host cell receptor CD81. E2 is the main target of the neutralizing antibody response and antibodies can prevent infection in experimental animals. Our group developed Delta3™, a lead vaccine candidate that consists of a highly conserved E2 core domain.

METHODS Mice were vaccinated with Delta3™ and hybridoma clones producing monoclonal antibodies (MAbs) were isolated and characterized. Cell culture derived HCV was allowed to replicate in the presence of MAb in vitro and viral sequences of HCV structural proteins were analyzed.

RESULTS One MAb (MAb24) isolated had the ability to neutralize virus and biochemical analyses showed that MAb24 cross reacted with E2 from six major genotypes and inhibited the interaction between E2 and CD81 (IC_{50} 3µg/mL). Epitope mapping revealed that MAb24 recognizes a region immediately downstream of hypervariable region 1 of E2, (I^{411}QLINTNGSWHINSTALN^{428}). MAb24 can neutralize HCV from genotypes 1a and 2a (IC50 3µg/mL and 9µg/mL respectively). Sequential passage of virus at increasing concentrations of MAb24 resulted in resistance being detected at passage 9 where virus was able to replicate in the presence of 20-times the IC90. The entire structural region encoding HCV glycoproteins E1 and E2 was sequenced after 4 and 9 passages. Sequencing revealed that the resistant virus population has direct changes in its epitope at position, N415D (56%) and N417S (25%). In vitro passaging experiments suggests that to escape MAb24 neutralization, the virus possibly utilises cell-cell transmission.

CONCLUSION We report a novel broadly neutralizing antibody MAb24 and found that HCV can escape MAb24 by directly changing its epitope and possibly via an alternative mode of transmission.

DISCLOSURE OF INTEREST None

SYMPOSIA SESSION 4: BASIC SCIENCE – HCV1 – CURING HCV WHAT WILL THE VIRUS TRY NEXT?

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

PRECLINICAL DEVELOPMENT OF A PROPHYLACTIC VACCINE FOR HEPATITIS C VIRUS USING A NOVEL E2 CORE DOMAIN

Patricia Vietheer[1,2], Irene Boo[1], Jun Gu [1,2], Kathleen McCaffrey[1], Pantelis Poumbourios[1,2], Heidi E Drummer[1,2,3]

1. Viral Fusion Laboratory, Centre for Biomedical Research, Burnet Institute. Melbourne, Australia. 2. Department of Microbiology, Monash University, 3.Department of Microbiology and Immunology, Melbourne University. 4 CSL Limited, Parkville, Australia.

Hepatitis C Virus (HCV) causes a chronic infection in approximately 200 million people resulting in liver disease and carcinoma. Prophylactic HCV vaccines are yet to be developed in part due to the high degree of sequence variation in circulating strains. Neutralizing antibodies (NAbs) are primarily directed to the major surface protein glycoprotein E2 and have been correlated with viral clearance in both natural and animal models of HCV infection. We have produced a candidate HCV subunit vaccine based on the E2 core domain (Delta3™) that lacks three variable sequences, HVR1, HVR2 and the igVR. Delta3™ retains the ability to bind cell surface receptor CD81 and is recognised by conformational antibodies. Immunization studies reveal that removal of HVR1, HVR2 and the igVR is necessary to promote the production of NAb directed towards conserved epitopes in the E2 core domain that comprise the CD81 binding site. These antibodies have the capacity to mediate broad potent neutralization of HCV replication in cell culture. Further analysis of oligomeric forms of Delta3™ revealed that its quaternary organization alters the specificity of the antibody response generated. Monomeric and dimeric forms of Delta3™ are poorly immunogenic and fail to elicit broadly neutralizing antibodies. By contrast, high molecular weight forms induce potent high titre broadly NAbs. The antibodies elicited to these high molecular weight forms of Delta3™ are directed to epitopes spanning 410-428, 430-451 and 523-549, all three regions contribute to the CD81 binding site on virion incorporated E2. By contrast, monomeric and dimeric Delta3™ elicited reduced titres of antibody to the epitopes located within 410-428. Thus the variable regions of E2 as well as its oligomerization state influence the specificity of the antibody response and must be considered for HCV vaccine development.

SYMPOSIA SESSION 4: BASIC SCIENCE – HCV1 – CURING HCV WHAT WILL THE VIRUS TRY NEXT?

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

NATURALLY OCCURRING DOMINANT DRUG RESISTANCE MUTATIONS OCCUR INFREQUENTLY IN THE SETTING OF RECENTLY ACQUIRED HEPATITIS C

Applegate TL[1*¶], Gaudieri S[2,3¶], Plauzolles A[4], Chopra A[3], Grebely J[1], Lucas M[3,5], Hellard M[6], Luciani F[7], Dore GJ[1], Matthews GV[1].

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BACKGROUND Directly Acting Antivirals (DAAs) are predicted to transform hepatitis C (HCV) therapy, yet little is known about the prevalence of naturally occurring resistance mutations in recently acquired HCV. This study aimed to determine the prevalence and frequency of drug resistance mutations in the viral quasispecies among HIV positive and negative individuals with recent HCV.

METHODS The NS3 protease, NS5A and NS5B polymerase genes were amplified from fifty genotype 1a participants of the Australian Trial in Acute Hepatitis C. Amino acid variations at sites known to be associated with possible drug resistance were analysed by ultra-deep pyrosequencing.

RESULTS Twelve percent of individuals harboured dominant resistance mutations, while 36% demonstrated non dominant resistant variants below that detectable by bulk sequencing (ie < 20%) but above a threshold of 1%. Resistance variants (< 1%) were observed at most sites associated with DAA resistance from all classes, with the exception of sofosbuvir.

CONCLUSIONS Dominant resistant mutations were uncommonly observed in the setting of recent HCV. However, low level mutations to all DAA classes were observed by deep sequencing at the majority of sites, and in most individuals. The significance of these variants and impact on future treatment options remains to be determined.

DISCLOSURE OF INTEREST TL Applegate, S Gaudieri and GV Matthews report grants from National Health and Medical Research Council during the conduct of the study.

SYMPOSIA SESSION 4: BASIC SCIENCE – HCV1 – CURING HCV WHAT WILL THE VIRUS TRY NEXT?

4.00PM – 5.30PM THURSDAY 18 SEPTEMBER 2014

CYTOLYTIC DNA VACCINES ENHANCE IMMUNITY TO HEPATITIS C VIRUS

Grubor-Bauk B[1], Yu W[1], Gowans EJ[1]

Discipline of Surgery, The University of Adelaide, Basil Hetzel Institute, 37a Woodville Road, Woodville South, SA 5011

BACKGROUND The potential of DNA vaccines has not been realised due to suboptimal delivery, poor antigen expression and a lack of a localised inflammatory response, necessary to induce immunity. The aim of this study was to develop strategies to overcome these deficiencies by intradermal vaccination as opposed to the conventional intramuscular route. The study tested the hypothesis that HCV antigen positive somatic cells which are induced to become necrotic will result in cross presentation in DC and increase HCV-specific immune responses.

METHODS We constructed a DNA vaccine encoding the HCV NS3 protein, recognized as a likely immunogen in a HCV vaccine, and a cytolytic protein, perforin. The DNA was used to vaccinate C57Bl/6 mice and White Landrace pigs and the immune responses to NS3 examined by ELIspot and intracellular cytokine staining.

RESULTS. Studies of cultured cells transfected with DNA encoding NS3 plus perforin resulted in a high proportion of cell death that was not evident in cells which only expressed NS3. Since there are no definitive markers of necrosis, and as the cells were negative for markers of apoptosis, we concluded that the cells were necrotic. Vaccination of mice with these DNA vaccines showed that the animals which received the NS3 plus perforin vaccine developed greater cell mediated immunity to NS3 compared with animals which received the NS3 vaccine. As DNA vaccines often fail to be effective in large animals, we vaccinated 70kg pigs with the DNA vaccines and confirmed that the NS3 plus perforin vaccine was also more effective than the canonical DNA vaccine.

CONCLUSIONS Cytolytic gene technology increases the immunogenicity of an immunogen encoded in a DNA vaccine in small and large animal models. A similar DNA vaccine will be used to treat HCV patients in an effort to reduce the viral load or clear the infection.

DISCLOSURE OF INTEREST The authors have no conflicting interests

SYMPOSIA SESSION : EPI, PH & PREVENTION – APPROACHES TO HEPATITIS B AND HEPATITIS C PREVENTION IN RURAL & REGIONAL SETTINGS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

MUCH MORE NEEDS TO BE DONE FOR ABORIGINAL PEOPLE WHO INJECT DRUGS – FINDINGS FROM A NSW COMMUNITY CONSULTATION

James Ward[1], Fiona Poeder[2], Nicky Bath[2], Lucy Peplolim[2].

1. Baker IDI Alice Springs
2. NSW Users and AIDS Association, Surry Hills New South Wales

BACKGROUND Injecting drug use among Aboriginal and Torres Strait Islander people is an emerging and critical issue. Historically, much of the focus of harm reduction programs in Aboriginal communities has been directed toward alcohol and cannabis use however there is evidence and a growing concern about a rise in injecting drug use and associated blood borne virus risk within the Aboriginal community.

METHODS We conducted seven focus groups with 70 Aboriginal People who inject drugs in two urban and five regional sites in New South Wales between March and May 2014. Within each focus group we explored the health needs, particularly harm reduction services, and assessed the knowledge of blood borne viruses and the New South Wales Users and AIDS Association.

RESULTS Local knowledge of health services was often very good, however there was found to be inadequate access to harm reduction services and equipment – particularly in regional areas. Informal peer networks were very functional in communities, however there were concerns about the increasing prevalence of drug use, particularly among younger Aboriginal people, and a general lack of knowledge in relation to blood borne virus transmission risk.

DISCUSSION NUAA and its key stakeholders will work to address a number of potentially contentious issues which have the ability to impact on not only the lives and wellbeing of Aboriginal PWID, but the broader Aboriginal community as well.

SYMPOSIA SESSION COMMUNITY AND SOCIAL RESEARCH – WORKING WITH CALD COMMUNITIES IN VIRAL HEPATITIS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

STRENGTHENING COMMUNITY RESPONSES TO HEPATITIS B

Le R[1], Mude W[1], Wallace J[1], Pitts M[1], Thompson A[1], Richmond J[1]

[1]Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne, Australia

BACKGROUND The increasing burden of chronic hepatitis B (CHB) in Australia falls disproportionately on a small number of key affected communities. Recent prevalence estimates reveal that China and Vietnam represent the top two countries of birth of people with CHB in Australia (10% and 11% respectively), with an increasing proportion of notifications of CHB infection in Victoria from people born in the Sudan (12%). An analysis of existing research and resources relating to CHB in these three key communities was undertaken to support an Australian Research Council grant to conduct a three-year community-based research project in these communities.

METHODS A review of all research reports and policy documents directly relating to the Chinese, Vietnamese and Sudanese communities were undertaken. Findings were analysed for the implications of CHB at the level of the individual, the family, the community and the health care system.

RESULTS Misconceptions about the transmission routes of hepatitis B remain prevalent among the Chinese and Vietnamese communities. Furthermore, gaps were identified in the provision of hepatitis B-related information pre- and post-diagnosis; concerns with disclosure of diagnoses; and issues with clinical management of hepatitis B. While there is a limited amount of epidemiological or prevalence data, no social research or policies specifically relevant to the Sudanese communities was identified. Fundamentally, current hepatitis-B related information and services are underpinned by a western model of health and illness and do not take into account the health beliefs and practices of people from these diverse communities.

CONCLUSION To effectively reduce the public health burden of CHB among these high prevalence communities, it is imperative that policies and services are provided in ways that directly respond to how these communities understand hepatitis B and address their specific needs and concerns.

DISCLOSURE OF INTEREST STATEMENT This research is supported under the Australian Research Council's Linkage-Projects funding scheme (Project number LP130100624)

SYMPOSIA SESSION COMMUNITY AND SOCIAL RESEARCH – WORKING WITH CALD COMMUNITIES IN VIRAL HEPATITIS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

NO VACCINATION AGAINST DISCRIMINATION CHINESE VIRAL HEPATITIS NEEDS ASSESSMENT

Wallace J[1], Pitts M[1], Lin V[1], Lai W[2], Liu, C[3], Hajarizadeh B[1], Richmond J[1]

[1]Australian Research Centre for Sex, Health and Society, La Trobe University, Melbourne, Australia
[2] Peking University Hepatology Institute, Peking University People's Hospital
[3] China Health Program, La Trobe University

BACKGROUND China has the largest absolute number of people in the world infected with chronic viral hepatitis, and people from China make up the largest single population in Australia affected by chronic hepatitis B. While hepatitis B transmission has been significantly reduced, the health care burden related to hepatitis C continues to increase. This project aimed to reduce the burden of chronic viral hepatitis on people infected with hepatitis B and/or hepatitis C by documenting the personal impact of the infection, including barriers to clinical management.

METHODS The study used a qualitative methodology involving semi-structured individual interviews with 55 people with chronic viral hepatitis in four Chinese cities during April 2014. The interview data was systematically reviewed to identify key issues, concepts and themes.

RESULTS Most participants were diagnosed through routine testing at educational institutions or workplaces with a lack of confidentiality, and with the results delivered by staff without health expertise. Issues of disclosure were noted by many participants particularly in the context of intimate relationships and within workplaces, with the fear of disclosure often limiting career choices. While most participants monitored their infection, treatment choices were determined by economic access. The lack of public funding for pharmaceutical treatments has a substantial individual, social and economic impact, particularly when several family members are affected by viral hepatitis.

CONCLUSION There is limited understanding of the infections among people with viral hepatitis, and within the Chinese community as a whole. Policy responses in China need to raise public awareness, reduce stigma and reduce barriers to treatment. The Australian public health response to viral hepatitis needs to be informed of the experiences of people with chronic viral hepatitis within China as they may shape the understandings and experiences of people from Chinese backgrounds living in Australia.

DISCLOSURE OF INTEREST STATEMENT Financial support for this research was provided by the Coalition to Eradicate Viral Hepatitis in Asia Pacific (CEVHAP).

SYMPOSIA SESSION COMMUNITY AND SOCIAL RESEARCH – WORKING WITH CALD COMMUNITIES IN VIRAL HEPATITIS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

TRADITION AND INNOVATION WORKING HAND IN HAND: ENGAGING COMMUNITIES AFFECTED BY CHRONIC HEPATITIS B

Suarez M[1], Sabri W, [1]

[1]Multicultural HIV and Hepatitis Service (MHAHS). Sydney Local Health District, NSW, Australia

BACKGROUND An estimated 218 000 people are living with chronic hepatitis B in Australia, 77 000 of those live in NSW. The burden of disease is unevenly distributed, primarily affecting communities that are marginalised and diverse. The significant number of people and the diversity of communities affected, plus the urgent need to address the issue, called for new ways of engaging communities to ensure no community was left behind.

METHODS The Multicultural HIV and Hepatitis Service (MHAHS) combined a traditional eighteen months long community development project with the Korean community and an innovative longer-term project to engage the range of culturally and linguistically diverse (CALD) communities affected, through the formation of the Hepatitis B Community Alliance NSW.

RESULTS Both projects were highly successful in engaging the communities involved.

The Korean community development project strong focus on building capacity was successful in establishing a 'Korean Health Committee' to ensure that chronic hepatitis B remained on the community's agenda beyond the life of the project.

The Hepatitis B Community Alliance NSW has proven an effective way to engage a diverse range of communities for a common goal. A key strength of the Alliance has been the ability to reach a significant number of people from a wide range of communities.

CONCLUSION This paper will describe the rationale for and outcomes of both approaches, their strengths and weaknesses, as well as the challenges and lessons learned in the process of mobilising and empowering communities to address chronic hepatitis B.

DISCLOSURE OF INTEREST Nothing to disclose

SYMPOSIA SESSION COMMUNITY AND SOCIAL RESEARCH – WORKING WITH CALD COMMUNITIES IN VIRAL HEPATITIS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

KNOW YOUR HEPATITIS B STATUS CAMPAIGN (WITH AFRICAN COMMUNITIES)

Oudih E [1], Ciotti S

[1] PEACE Multicultural Services of Relationships Australia (SA),

BACKGROUND Recent surveillance data indicates that African communities located in the northern suburbs of South Australia (SA) are disproportionately affected by hepatitis B (HBV). Anecdotal evidence suggests that many African communities lack a clear understanding of HBV and the implications of diagnosis. Further, African individuals living with HBV are more likely to access services at a crisis stage, lack adherence to monitoring and treatment, and develop liver cancer due to low health literacy, cultural and language barriers, and the inability to navigate the health system. In order to address these issues, PEACE (Personal Education And Community Empowerment) Multicultural Services, a service of Relationships Australia (SA), developed an innovative campaign focusing on influencing individuals to access testing and treatment, and in 'knowing their hepatitis B status'.

METHODS The campaign utilised a multi-level approach in order to address the various complexities – community consultation, social marketing, education and case management. With the endorsement and support of key community leaders, PEACE's African workers' provided personalised support to individuals and families in learning about HBV, accessing testing, attending appointments and providing cultural 'brokerage' between services.

RESULTS The multi-pronged and collaborative approach to the campaign, led to many outcomes, including 20 individuals (to date) participating and becoming aware of their hepatitis B status. Out of those tested, 4 were found to have chronic hepatitis B, including an individual aged only 19 years old.

CONCLUSION Despite the small scale of the project, much has been learnt about the systematic and cultural barriers in preventing transmission and providing adequate support services for African people affected by HBV. Such learning has provided a basis for actions, some of which has already been implemented. This presentation will highlight the challenges, lessons learnt and ways forward in creating and providing a collaborative and coordinated approach.

SYMPOSIA SESSION COMMUNITY AND SOCIAL RESEARCH – WORKING WITH CALD COMMUNITIES IN VIRAL HEPATITIS

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

CHRONIC HEPATITIS B EDUCATION IN THE NORTH QUEENSLAND HMONG COMMUNITY POSITIVE CHANGE THROUGH PROCESS AND PERSEVERANCE

Drazic YN[1], Caltabiano ML[1], Clough AR[1]

[1] James Cook University

BACKGROUND Chronic hepatitis B (CHB) is endemic in Hmong populations (estimated prevalence ~15%). This project aimed to raise awareness and facilitate CHB-related health seeking in the Cairns Hmong community. While behavioural theory (e.g. threat and efficacy constructs) is useful in health promotion, social determinants of health require equal attention. The support of a community leader and a bilingual/bicultural peer educator and motivational interviewer was instrumental in overcoming linguistic and cultural barriers throughout the processes of participant recruitment, data collection and education. This presentation outlines the methods used and offers pre- and post-intervention insights including a discussion of stigma.

METHODS 78 participants were recruited and surveyed (interviewed if necessary) via phone calls, home visits, and locations of work and recreation. Based on survey results and in consultation with members of the Hmong community and the Queensland Health Hepatitis Health Promoter, an educational event was planned as part of the Hmong New Year celebrations. To counteract stigma, CHB was consistently presented as a family and community issue. 50 attendees completed a brief post-intervention survey.

RESULTS Pre-education results show high levels of perceived threat and low levels of perceived efficacy. Together with other barriers, this combination inhibits health seeking. Therefore, the education emphasized the ease and affordability of managing CHB while still highlighting the potential consequences of inaction. The post-intervention survey shows increased perceived efficacy and improved intentions towards getting tested. Fear of stigma varies considerably.

CONCLUSION Behavioural theory can guide health promotion activities in CALD communities. However, finding suitable helpers and establishing trusting relationships must be accomplished first. This takes time and a willingness to listen, learn and adjust one's thinking. The result was a truly community-guided approach leading to positive changes. Members of the audience, particularly those working with CALD communities, may benefit from the take home messages of this presentation.

The project has received funding from the Gilead Australia Fellowship Research Grants Program.

SYMPOSIA SESSION BASIC SCIENCE – HBV 1: CHRONIC HBV INFECTION FACTORS INFLUENCING DISEASE PROGRESSION

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

SPLICED HBV GENOMES AND TRUNCATED SURFACE PROTEINS ARE ASSOCIATED WITH GROUND GLASS HEPATOCYTES, THE NEOPLASTIC PRECURSORS TO HBV ASSOCIATED HEPATOCELLULAR CARCINOMA

Bayliss J[1], Walsh R[1], McLean CA[2], Lim L[1,3], Angus P[3], Revill P[1], Locarnini SA[1] and Warner N[1]

[1]Division of Molecular Research and Development, Victorian Infectious Diseases Reference Laboratory, North Melbourne, Victoria 3051
[2]Department of Anatomical Pathology, Alfred Hospital, Prahran, Victoria 3181, Australia
[3]Department of Gastroenterology, Austin Hospital, Heidelberg, Victoria 3084, Australia

BACKGROUND Overproduction and sequestration of hepatitis B surface antigen (HBsAg) results in the appearance of "ground glass" hepatocytes (GGH). GGH are believed to represent pre-neoplastic lesions within which hepatitis B virus (HBV) promotes the development of hepatocellular carcinoma (HCC). This study aimed to determine the profile of spliced HBV (spHBV) DNA and HBsAg variants in serum and tissue of patients with chronic liver disease in comparison to patients who develop HCC.

METHODS Serum and tissue samples were collected from 15 patients with HCC and 10 patients with chronic liver disease. Three specific compartments of HBV were considered for each patient; serum, whole tissue extract and GGH. Pure populations of GGH were isolated through laser capture microdissection (LCM) of HBsAg positive cells. Quantitative real time PCR (qPCR) was used to compare relative DNA levels for wild type (wt) and spHBV DNA in serum, whole tissue extract and GGH. HBsAg variants sW172* and sW182* were quantified via pyrosequencing.

RESULTS spHBV DNA was detected in the serum from all patients, with HCC patients demonstrating higher spHBV levels (8.26% (6.01%- 23.093%) vs. 0.625% (0.121%- 8.943% for HCC and HCC-free respectively; $p< 0.01$). HBsAg variant detection ranged between 0% and 96.7%. sW172* and sW182* were detected in whole tissue extracts from 68% (17/25) and 44% (11/25) of patients respectively. sW172* was present at higher levels as compared to sW182* ($p= 0.01$) and in HCC patients as compared to HCC-free patients ($p= 0.02$). sW172* and sW182* were detected at higher levels in LCM isolated GGH as compared to whole tissue extract ($p= 0.05$).

CONCLUSION The results of this study confirm previous associations between HBV splicing and development of HCC. This is also the first study to confirm the role of truncated HBV surface proteins in HBV pathogenesis ***in vivo***.

DISCLOSURE STATEMENT Funding for this study was received from Melbourne Health. No pharmaceutical grants were received in the development of this study.

SYMPOSIA SESSION: BASIC SCIENCE – HBV 1: CHRONIC HBV INFECTION: FACTORS INFLUENCING DISEASE PROGRESSION

9.00AM – 10.30AM FRIDAY 19 SEPTEMBER 2014

PREVALENCE AND MOLECULAR VIROLOGY OF HEPATITIS DELTA VIRUS IN THE WESTERN PACIFIC REGION

Littlejohn M[1], Han M[1,2], Yuen L[1], Edwards R[1], Devi U[1], Bowden S[1], Ning Q[2], Locarnini S[1] and Jackson K[1]

[1]Research & Molecular Development, VIDRL, Doherty Institute, Melbourne, Australia 3000
[2]Department of Infectious Diseases, Tongji Hospital, Huazhong University of Science and Technology, Wuhan, China

BACKGROUND Hepatitis delta virus (HDV) is a defective RNA virus that uses the hepatitis B virus (HBV) surface antigens to assemble its envelope. Most patients co-infected with HBV and HDV have more severe liver disease. Although present worldwide, HDV has an irregular geographical distribution, especially in the Asian Pacific region. The aim of this study was to determine the prevalence and examine the molecular virology of HDV isolates in the Western Pacific region utilizing samples collected as part of the 1998 evaluation of the hepatitis B vaccine program.

METHODS Sera collected from 184 hepatitis B surface antigen (HBsAg) positive Pacific Islanders living in Micronesia, Polynesia and Melanesia, was tested for HDV RNA. Positive isolates had full genome sequence of the HDV carried out for genotyping and analysis.

RESULTS Serum HDV RNA was detected in 20 of 54 patients with chronic hepatitis B (CHB) from Kiribati (37%) while sera from patients with CHB from Tonga (59), Fiji (42) and Vanuatu (29) were all negative. Phylogenetic analysis revealed the Kiribati HDV isolates were genotype 1 and grouped with a previously published isolate from Nauru forming a distinct clade of Pacific HDV. This clade was most closely related to African genotype 1 strains. All Micronesian isolates contained a serine at codon 202 of large hepatitis delta antigen (L-HDAg) again indicating possible relatedness to genotype 1 strains of African origin.

CONCLUSION This study has confirmed endemic HDV infection in Micronesia and identified Kiribati as having amongst the highest prevalence for HDV viraemia in patients with CHB. Further investigations are ongoing into the origins of this unique HDV Pacific strain, and its inter-relationship with HBV.

DISCLOSURE No relevant conflicts to declare.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – PREVENTION AND CARE PROGRAMS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

TRENDS OF HEPATITIS B SURFACE ANTIGEN CARRIAGE IN CENTRAL NEPAL A REALITY CHECK FROM A MASS SCREENING AFTER NATIONWIDE HBV VACCINATION

Dhruba Acharya (dhruba099@gmail.com), Bikash Bogati (me.bikash@gmail.com)

Department of Microbiology, Dhulikhel Hospital-Kathmandu University Hospital, Kavre, Nepal

BACKGROUND Because majority of people infected with HBV do not develop clinical disease, seroepidemiological studies provide a more comprehensive picture of the distribution of this infection compared to acute disease surveillance. Detailed information from high risk population in Nepal is lacking. Moreover, trends in HBsAg carriage among general population are important in evaluating the effectiveness of the recommended routine vaccination.

METHODS A longitudinal cross-sectional retrospective study (2005-2012) was conducted in a tertiary care center of Central Nepal (N= 25,418), where all the pregnant women visiting ANC clinic, all the patients having surgery and clinically suspected high risk patients were enrolled for HBsAg detection by ELISA technique. Demographic details were taken from laboratory records.

RESULTS The overall age adjusted HBsAg seroprevalence throughout the study period was 0.63%, ranged from 0.62% (2006) to 1.29% (2008) with no significant difference ($p > 0.05$). Gender, age, and ethnicity were independently associated with HBsAg seropositivity. In a multivariate logistic regression model, males were at increased risk for HBsAg compared with females (odds ratio [OR] = 1.53, 95% confidence interval [CI] 1.09– 2.16) and persons aged 60 years or older were more likely to test positive than those younger than 15 (OR = 0.25, 95% CI 0.11–0.61). In addition, Tibeto-nepalese were more likely to test positive than Indo-nepalese population (odds ratio [OR] = 1.26, 95% confidence interval [CI] 1.09– 2.16).

CONCLUSIONS It was concluded that even though the prevalence of HBsAg carriage among study population over eight years were not significantly different, the lowest rate observed in the younger generation could be the impact of universal HBV vaccination implemented by Nepal Government in 2003.

KEY WORDS Trends, Seropositivity, HBV, Epidemiology, Screening

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – PREVENTION AND CARE PROGRAMS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

ESTIMATING UPTAKE OF TREATMENT FOR CHRONIC HEPATITIS B INFECTION ACROSS AUSTRALIA

MacLachlan JH[1,2], Allard NL[1,2,3], Cowie BC[1,2,4]

1. Epidemiology Unit, Victorian Infectious Diseases Reference Laboratory, Doherty Institute
2. Department of Medicine, University of Melbourne
3. Western Region Health Centre
4. Victorian Infectious Diseases Service, Royal Melbourne Hospital

BACKGROUND Appropriate antiviral therapy substantially reduces the incidence of liver cancer and end stage liver disease due to chronic hepatitis B (CHB), and treatment uptake is a key indicator in Australia's National Hepatitis B Strategy. Until recently however, existing reporting systems limited the capacity to estimate current treatment levels nationally and by region - of particular importance given the geographic concentration of CHB prevalence in Australia.

METHODS Antiviral prescription data for CHB were obtained for all prescriptions provided through the Pharmaceutical Benefits Schedule (for 2013), and from the Highly Specialised Drug (s100) Program expenditure reports according to state and territory (for 2011-12). These data were combined with published estimates of CHB prevalence by geographic area, derived using census and population seroprevalence data, to generate estimated uptake of antiviral therapy among people living with CHB by area over the study period.

RESULTS Approximately 11,000 Australians were receiving treatment for CHB in 2012, representing 5% of all people estimated to be living with CHB. Significant regional variability in treatment levels was observed, with uptake varying from below 2% to more than 6% across jurisdictions. These disparities are even more apparent within individual states and territories, with some Medicare Locals within metropolitan Melbourne and Sydney reaching treatment uptake levels of greater than 10% of people living with CHB.

CONCLUSION These estimates indicate that up to two-thirds of Australians living with CHB who would benefit from treatment are not receiving it, however access is considerably higher in some jurisdictions. Areas with reduced uptake of treatment for CHB should be prioritised for increased clinical service delivery, and those regions with high levels of treatment coverage provide insights into how this can be implemented at the community level.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – PREVENTION AND CARE PROGRAMS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

EVALUATION OF NEW SOUTH WALES HEPATITIS B PRESCRIBER PROGRAM – CHALLENGES AND SUCCESES

Towell V[1], An C[2]

1. Australasian Society for HIV Medicine
2. Bankstown Medical Practice; Cabramatta Medical Centre

BACKGROUND In Australia, 218,000 people are estimated to be living with chronic hepatitis B (CHB).[1] Access to regular ongoing monitoring and treatment, if indicated, are essential to reduce the morbidity and mortality caused by hepatitis B. The NSW Hepatitis B s100 Community Prescriber Program aims to facilitate the effective, safe management of CHB in primary care settings in order to increase access to care for people living with CHB. The first advanced course feeding into the program was conducted in April 2012 and the program has been formally supported by state policy in May 2013.

METHODS Post-course evaluations are conducted following each course. An online survey was completed by 84% of prescribers in January 2014. It collected self-reported data on throughput of patients for assessment, management and treatment. External consultants are currently conducting semi-structured interviews with general practitioners (GPs) and specialists involved in the program. As prescriber numbers are growing, an online survey prior to the conference is planned.

RESULTS The majority of prescribers are confident (65%) or very confident (27%) in their ability to monitor and manage CHB. Prescribers are monitoring patients from CHB priority populations in their practice and a number of those patients are on treatment, however only a small number of prescribers (20%) are writing scripts. Explanations for this and further information on enablers and barriers to CHB management in primary care will be available at the conclusion of the semi-structured interviews.

CONCLUSION The draft national strategy 2014-17 has as a target to "increase to 15% the proportion of people living with chronic hepatitis B who are receiving antiviral treatment" and "work towards improving access to hepatitis B medications, through GP prescribing and community dispensing". This evaluation, though formative, will assess interim outcomes of the program in its infancy to inform the future direction of the Hepatitis B s100 Community prescriber program in NSW and other jurisdictions.

REFERENCES 1. MacLachlan JH, Allard N, Towell V, Cowie BC. The burden of chronic hepatitis B virus infection in Australia, 2011. Aust NZ J Public Health. 2013;37(5):416-22.

The authors have nothing to declare.

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – PREVENTION AND CARE PROGRAMS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

CHARACTERISTICS OF CHRONIC HEPATITIS B INFECTION IN SW SYDNEY: CLINICAL CORRELATES AND POLICY IMPLICATIONS

Robotin M1, [2], Masgoret X [1], Porwal M [1], Fraser A [1], Goldsbury D [1], George J [2, 3]

[1] Cancer Council NSW 2 University of Sydney 3 Westmead Millenium Institute

BACKGROUND A recent national Hepatitis B mapping project estimated that in a region of Sydney with a large migrant population, approximately 10,000 people with chronic hepatitis B (CHB) were born overseas, particularly in Vietnam and China. The large local burden of disease prompted the development of the *B Positive* program, to enhance case detection, improve disease monitoring and increase antiviral treatment uptake.

MATERIAL AND METHODS The CHB Registry recruits and follows up local people with CHB, in collaboration with their General Practitioners. Biannual follow up includes a clinical assessment and a review of pathology and ultrasound examinations; follow up plans are documented. The Registry collects demographic information, limited risk factor information, test results and treatment details. Management decisions are guided by a risk stratification algorithm that enables GPs to conduct routine or enhanced surveillance and to refer people with active disease.

RESULTS Among the first 1,000 enrollees, 441 (44%) were males; median age was 48 years. Most (47%) were born in China, Hong Kong or Taiwan and 33% in Vietnam. The majority (89%) were hepatitis B e antigen (HBeAg) negative and 21% were receiving antiviral treatment. Risk stratification in people not receiving treatment suggested that 60% could undergo routine CHB surveillance, 21% enhanced surveillance and 19% needed specialist referral for elevated viral load and alanine amonitransferase (ALT) levels.

DISCUSSION Despite a limited number of data fields, the Registry facilitates CHB staging and management at primary care level, optimizes specialist referrals and antiviral treatment uptake and improves individual patient outcomes. By combining features of a population-based disease registry, a clinical disease Registry and public health surveillance, it allows a better measurement of hepatitis B-related burden of disease in the community and of program impact. By validating economic modeling assumptions the Registry can also inform the allocation of scarce economic resources.

DISCLOSURE This work was supported by Cancer Council NSW and funding from the NSW Ministry of Health

PROFFERED PAPER SESSION: EPI, PH & PREVENTION – PREVENTION AND CARE PROGRAMS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

CHAMPIONS AND CHALLENGES IN AUSTRALIA'S RESPONSE TO BLOOD BORNE VIRUSES

Marriott K[1]

[1] Hepatitis Australia.

BACKGROUND Australia is considered a global leader in responding to the HIV epidemic. This has included a strong public health response reinforced by high levels of community engagement, effective government investment, responsive clinical and social services backed up by strong social and clinical research. With an increasing number of people living with chronic HBV and HCV, and an increasing number of lives being lost, it is important and timely to consider Australia's response to HBV and HCV against the backdrop of the successful HIV response.

METHODS An analysis of government policy responses over time, national surveillance data, clinical and social research activity and the resourcing of Australia's responses to HBV, HCV and HIV was undertaken to examine the differences across BBVs and identify those areas most in need of further investment and development.

RESULTS The data to be presented demonstrates some significant disparities in the Australian response to BBVs. Using the HIV response as the benchmark and taking into account surveillance data, burden of disease and government investment, Australia's response to HBV and HCV is comparatively under-resourced.

CONCLUSION Through its action on HIV, Australia has demonstrated that strong commitment and appropriate resourcing are critical success factors for an effective response to BBVs. This paper considers whether Australia has to date emulated a similarly strong response to HBV and HCV. The increasing prevalence and increasing mortality associated with HBV and HCV demonstrate a need for all levels of government and sector partners to re-examine the critical success factors required for an effective response to blood borne viruses. This paper presents some initial data and analysis to inform the changes needed to achieve a more equitable response to HBV and HCV in Australia.

PROFFERED PAPER SESSION: CLINICAL CARE – HCV
11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

FACTORS ASSOCIATED WITH HEPATITIS C VIRUS RNA LEVELS IN EARLY ACUTE AND EARLY CHRONIC INFECTION: THE INC³ STUDY

Hajarizadeh B[1], Grady B[2], Page K[3], Kim AY[4], McGovern BH[5,6], Cox AL[7], Rice TM[3], Sacks-Davis R[8,9], Bruneau J[10], Morris M[3], Amin J[1], Schinkel J[11], Applegate T[1], Maher L[1], Hellard M[8,9], Lloyd AR[12], Prins M[2,11], Geskus RB[2,11], Dore GJ[1] and Grebely J[1], on behalf of the InC3 Study Group

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[7]Department of Medicine, Johns Hopkins Medical Institutions, Baltimore, MD, USA
[8]Burnet Institute, Melbourne, VIC, Australia
[9]Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia
[10]CRCHUM, Université de Montréal, Montreal, QC, Canada
[11]Academic Medical Center, Amsterdam, The Netherlands
[12]Inflammation and Infection Research Centre, School of Medical Sciences, UNSW, Sydney, NSW, Australia.

BACKGROUND Although HCV-RNA levels are predictive of spontaneous and treatment-induced HCV clearance, factors associated with HCV-RNA levels during early infection remain poorly understood. This study assessed the factors associated with high HCV-RNA levels during early acute and early chronic infection.

METHODS Data were drawn from an international collaboration of nine prospective cohorts of acute HCV (InC³ Study). Factors associated with high HCV-RNA levels (>5.6 log IU/mL=400,000 IU/mL) during the first two months post-infection were assessed. Among those with viral persistence, factors associated with high HCV-RNA levels (>5.6 log IU/mL) at one year (8-16 month window) post-infection were also assessed. Logistic regression was used in analyses.

RESULTS Among participants with detectable HCV-RNA during the first two months post-infection (n=178), *interferon lambda 3 (IFNL3)* CC genotype (vs. TT/CT; adjusted odds ratio [AOR] 3.05; 95%CI 1.48, 6.27; *P*=0.002) was the only factor associated with high HCV-RNA levels. Among those with persistent HCV infection (n=308), male sex (vs. female, AOR 1.93; 95%CI 1.01, 3.69; *P*=0.046), *IFNL3* CC genotype (vs. TT/CT; AOR 2.48; 95%CI 1.42, 4.35; *P*=0.001), HIV co-infection (vs. no HIV; AOR 3.27; 95%CI 1.35, 7.93; *P*=0.009), and HCV genotype G2 (vs. G3; AOR 5.40; 95%CI 1.63, 17.84; *P*=0.006) were independently associated with higher HCV-RNA levels. HCV G1 (vs. G3; AOR 1.87; 95%CI 0.99, 3.55; *P*=0.054) trended towards being associated with higher HCV-RNA.

CONCLUSION Higher HCV-RNA levels were independently associated with *IFNL3* genotype during the first two months post-infection and *IFNL3* genotype, sex, HIV co-infection, and HCV genotype at one year post-infection. During chronic infection, factors influencing HCV-RNA levels exert their effects as early as one year following infection. Further research is needed to understand the interplay between the role of gender, host genetics and viral genotype in the pathogenesis of HCV infection.

DISCLOSURE OF INTEREST STATEMENT 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.

PROFFERED PAPER SESSION: CLINICAL CARE – HCV
11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

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

Alavi M[1], Micallef M[1], Dunlop AJ[2,3], Balcomb AC[4], Day CA[5,6], Treloar C[7], Bath N[8], Haber PS[5,9], Dore GJ[1] and Grebely J[1] on behalf of the ETHOS Study Group

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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.

DISCLOSURE OF INTEREST STATEMENT 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. This work was supported by the National Health and Medical Research Council (NHMRC, 568985) and New South Wales Health. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

PROFFERED PAPER SESSION: CLINICAL CARE – HCV
11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

REGRESSION OF ADVANCED FIBROSIS FOLLOWING VIROLOGICAL RESPONSE TO ANTI-HCV THERAPY

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BACKGROUND Liver stiffness measurement (LSM) by transient elastography (TE, FibroScan® [FS]) is a validated, non-invasive method for staging liver fibrosis in chronic hepatitis C virus (CHCV) infection. As most hepatic complications occur with advanced fibrosis, our objective was to assess the impact of treatment on LSM in those with F3 or F4 disease.

METHODS Retrospective cohort study of all patients who received treatment for CHCV at a tertiary referral centre between April 2008 and May 2014, had evidence of F3 (9.6 – 12.5 kPa) or F4 (>12.5 kPa) fibrosis prior to treatment and had repeat TE at treatment completion. FS assessments were included if 1. ≥10 valid measurements, 2. success rate >60%, and 3. interquartile range (IQR)/median LSM <0.3.

RESULTS 71 patients met the inclusion criteria, with the following characteristics male 58/71 (82%); mean age 62 years (range 32 – 81 years); GT 1 42 (59%); HIV infection 12/71 (17%); cirrhosis 45/71 (63%). 43/71 (61%) achieved a sustained virological response (SVR). Median time between pre- and post treatment FS was 23.5 months (range 6 – 58.9 months).

For patients demonstrating SVR, the median pre- and post-treatment LSM were 14.1kPa (IQR 11.6 – 20.3kPa) and 8.7 kPa (IQR 5.9 – 12 kPa), respectively ($p<0.0001$). For those with partial response (2 [3%]), virological breakthrough (6 [8%]) and relapse (6 [8%]), the median pre- and post-treatment LSM were 14.35 kPa (IQR 12 – 16.9 kPa) and 8.4 kPa (IQR 5.9 – 16.3 kPa), respectively ($p=0.02$). For null responders (14 [20%]), no difference in LSM was demonstrated (pre-treatment 13.05 kPa [IQR 12 – 26.3 kPa]; post-treatment 13.6 kPa [IQR 8 – 25.4 kPa], $p = 0.64$).

CONCLUSION Any virological response to treatment for CHCV results in regression of LSM by TE in patients with advanced liver disease. While the full significance of this remains unclear, post-treatment TE may assist prognosis.

CONFLICTS OF INTEREST MM, DHC and MD have nothing to disclose. GD has received research funding, advisory board payments, speaker payments, and travel sponsorship from Gilead and research funding, advisory board payments and speaker payments from Janssen. GM has received research funding, advisory board payments and speaker payments from Gilead and research funding and speaker payments from Janssen.

PROFFERED PAPER SESSION: CLINICAL CARE – HCV
11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

EFFICACY AND SAFETY OF DACLATASVIR IN COMBINATION WITH ASUNAPREVIR (DCV+ASV) IN CIRRHOTIC AND NON-CIRRHOTIC PATIENTS WITH HCV GENOTYPE 1B: RESULTS OF THE HALLMARK DUAL STUDY

Kao J-H,[1] Heo J,[2] Yoffe B,[3] Sievert W,[4] Jacobson IM,[5] Bessone F,[6] Peng C-Y,[7] Roberts S,[8] Yoon KT,[9] Kopit J,[10] Linaberry M,[11] Noviello S,[11] Hughes S,[11] and Manns M[12]

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BACKGROUND Current therapy of HCV infection in cirrhotic patients is complicated by poor tolerability and suboptimal sustained virologic response (SVR) rates. All-oral, direct-acting antiviral (DAA)-based regimens may improve efficacy and tolerability for cirrhotics. A phase 3 study of DCV+ASV demonstrated SVR rates of up to 90% in genotype 1b infection; efficacy/safety outcomes in cirrhotics versus non-cirrhotics were assessed.

METHODS Treatment-naive (naive) patients were randomized (2:1; double-blinded) to receive DCV 60mg QD plus ASV 100mg BID (n=203), or matching placebo (n=102) for 12 weeks. DCV+ASV-treated patients continued treatment through 24 weeks; placebo recipients entered another DCV+ASV study. Patients with prior null/partial response to peginterferon/ribavirin (null/partial; N=205), and those medically ineligible for, or intolerant of, peginterferon/ribavirin (ineligible/intolerant; N=235) received DCV+ASV for 24 weeks. The ineligible/intolerant group included a subgroup (n=77) with advanced fibrosis/cirrhosis and thrombocytopenia (50-<90x109 cells/L). Primary endpoint was SVR at posttreatment Week 12 (SVR_{12}) using a modified intention to treat analysis.

RESULTS At baseline, 32 naïve (DCV+ASV), 63 null/partial, and 111 ineligible/intolerant patients had cirrhosis. Demographic/baseline characteristics were comparable in cirrhotics and non-cirrhotics. SVR_{12} was achieved by 172/206 (84%) cirrhotics and 370/437 (85%) non-cirrhotics. In cirrhotic patients, SVR12 rates were 91% in naïve, 87% in null/partial, and 81% in ineligible/intolerant patients. The ineligible/intolerant subgroup with advanced fibrosis/cirrhosis and thrombocytopenia had an SVR_{12} rate of 73% (56/77). No deaths occurred; no clinically meaningful differences were observed in frequencies of serious adverse events (AEs), AEs leading to discontinuation, or grade 3/4 AST/ALT elevations in patients with or without cirrhosis.

CONCLUSION All-oral DCV+ASV treatment exhibited similarly high SVR rates and no clinically relevant differences in safety/tolerability in cirrhotic and non-cirrhotic patients with HCV genotype 1b infection.

DISCLOSURE OF INTEREST STATEMENT The authors thank the patients, their families, and staff at all study sites

The authors thank Meghan Lovegren, Gail Denisky, and Mahnaz Mohebbian for their contributions to study execution

ClinicalTrials.gov, registration number NCT01581203 (Study AI447-028)

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PROFFERED PAPER SESSION: CLINICAL CARE – HCV
11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

TREATING HEPATITIS C: DOES GENDER MATTER?

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BACKGROUND In women infected with hepatitis C virus (HCV), premenopausal oestrogen levels have been shown to be protective for the liver and early menopause is associated with poorer response to antiviral therapy. Opiate use is also common in this population. We aimed to assess the association between opiate substitution therapy (OST) and levels of sex hormones in women with HCV.

METHODS We conducted an observational study to assess the impact of long-term (≥2 years) OST on sex hormone levels in women with HCV. Self-reported health data included drug use, menstrual and reproductive histories. Blood samples were taken two weeks apart to measure sex hormones (oestradiol, progesterone and follicle stimulating hormone (FSH)).

RESULTS Twenty-two pre-menopausal women with mean age 34.8 years (range 21 - 46 years) were enrolled. All women were on methadone OST and 19 (86%) had used heroin in the past 12 months. Two (9%) women reported using hormonal contraception. Decreased libido was reported by 9 (41%); amenorrhea or an irregular menstrual cycle reported by 10 (46%). At both visits, four (18%) participants demonstrated low oestradiol levels (<100pmol/L) whilst 10 (46%) demonstrated low progesterone levels (<3nmol/L). Research methods used for this study were acceptable to this population group.

CONCLUSION The study of relative hypogonadism in women with HCV using opiates has hitherto been a neglected area of research but has significant clinical implications for liver disease progression, bone mineral density, fertility and symptoms related to menopause. There was a high prevalence of sex hormone deficiencies in this study population of women with HCV on methadone OST. These data need to be confirmed with a larger cohort and using an appropriate control group.

DISCLOSURE OF INTEREST STATEMENT
n/a

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – LIVING WITH VIRAL HEPATITIS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

PSYCHOSOCIAL HEALTH AMONG PEOPLE WITH CHRONIC HEPATITIS B IN AUSTRALIA

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BACKGROUND It is estimated that 218,000 Australian people have chronic hepatitis B. Data on psychosocial health of Australians with hepatitis B is scarce with evidence from other countries indicating poorer psychosocial health and an increased prevalence of anxiety and depression. This study assessed the psychosocial health of people with hepatitis B in Australia.

METHODS People with chronic hepatitis B attending four public liver clinics and one general practice in three Australian jurisdictions completed a self-administered questionnaire including questions about the role of hepatitis B in their life and hepatitis B-related concerns/anxieties.

RESULTS Ninety-three people completed the survey. Mean age was 45 years, 43% were women, and 93% were born overseas (75% in South-/North-East Asia). Seventy-one participants (76%) reported having at least one of seven hepatitis B-related anxieties/concerns. The most common concern was of developing liver cancer (56%), followed by concerns of infecting other people (53%), developing liver disease (47%), being scared of hepatitis B (32%), feeling guilt related to hepatitis B (15%), feeling they did not deserve to get hepatitis B (14%), and feeling hopeless because of hepatitis B (14%). Health professionals were the key person for 34% of participants in helping them cope with having hepatitis B, while 18% reported no one supporting them. Participants with hepatitis B-related anxieties were significantly more probable to not talk to anyone about hepatitis B and of changing their life as a result of having hepatitis B.

CONCLUSION This study demonstrated a marked impact of hepatitis B on the psychosocial health of people with the infection. To support effective clinical management of people with hepatitis B, the clinical assessment needs to move beyond the usual clinical evaluation and address the specific concerns of the patients about their health and social life as essential components of care.

DISCLOSURE OF INTEREST STATEMENT Financial support for this research was provided by Bristol-Myers Squibb through the Coalition to Eradicate Viral Hepatitis in Asia Pacific (CEVHAP).

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – LIVING WITH VIRAL HEPATITIS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

EXPERIENCES OF AGEING AND LIVING WITH HEPATITIS C REFLECTIONS FROM A COHORT OF PEOPLE WHO INJECT DRUGS

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[3] Centre for Population Health, the Burnet Institute

BACKGROUND Ageing well and ageing productively are key national research priorities. Recent surveillance data from two annual, sentinel surveys with people who inject drugs (the Australian National Needle and Syringe Program Survey and the Illicit Drug Reporting System) suggest there is an ageing cohort of opiate injectors in Australia. Opioid substitution therapy data show that almost 20% of people in receipt of pharmacotherapy are currently aged over 50 years and this has doubled since 2006. In this qualitative study, we investigate understanding of hepatitis C by finding and interviewing participants from Australia's first study of injecting drug use (1989-1995), the Victorian Injecting Cohort Study (VICS). Little is known about the trajectories of this cohort beyond their last VICS interview in 1995.

METHODS Using informal social network contacts and snowball sampling, participants are being recontacted and interviewed about their current circumstances and those since their involvement in VICS. Given the high prevalence of HCV among this cohort at baseline (over 80%), this paper focusses on participant experiences of living with chronic hepatitis C.

RESULTS Several themes are arising from participant interviews. Negative attitudes from general health care workers around older peoples' complex health care needs in relation to living with blood borne viruses and a range of other chronic health conditions have been reported. Individual understandings of living with HCV over the long-term vary; among some, understandings are extremely limited while among others quite sophisticated. However, participants place great emphasis on their own need to start dealing with the consequences of chronic hepatitis C "before it's too late". Nonetheless, much hope and optimism is expressed by participants about changes to HCV treatment in the foreseeable future.

CONCLUSION Further analysis seeks to more clearly identify the health needs of this population to inform the development of appropriate public health policy and practice.

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PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – LIVING WITH VIRAL HEPATITIS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

HEPATITIS C AND AGEING: PERSPECTIVES FROM THE CLINICAL, COMUUNITY AND GOVERNMENT SECTORS

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BACKGROUND Australia's population is ageing, with 14% of the population aged 65 years or over. An estimated 226,700 people in Australia are living with chronic hepatitis C. Growing older and duration of infection are significant determinants in developing hepatitis C-related cirrhosis. There is little social research describing the experiences of people with hepatitis C as they age.

METHOD This study used a qualitative methodology and a purposive recruitment strategy to explore ageing and hepatitis C from the perspective of people working in the hepatitis C sector.

RESULTS In total, 22 semi-structured interviews were conducted with key informants in the hepatitis C clinical, community and government sectors. While ageing and hepatitis C was recognised as a significant issue, there were few clinical and community services for older people with hepatitis C. The lack of services is compounded by variations in definitions of ageing Federal government considers people over 65 years to be "older", whereas people over 55 years with hepatitis C were described as ageing. For people who inject drugs, the definition of ageing is further contested. Participants acknowledged that older people with hepatitis C often experience co-morbidities related to ageing, in addition to extrahepatic manifestations of hepatitis C infection, which often complicate the management and treatment of hepatitis C. Several clinicians expressed guilt about advising older people to wait for interferon-free regimes because of concern about comorbidities; however, they are now concerned that advising older people to wait 3-5 years may be too late.

CONCLUSION Older people with hepatitis C are not identified as a priority population nor their needs included in national responses to hepatitis C. Exploring the needs of people with hepatitis C as they age could strengthen a comprehensive, strategic approach and ensure that the needs of older people with hepatitis C are addressed.

DISCLOSURE OF INTEREST STATEMENT Nothing to declare

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – LIVING WITH VIRAL HEPATITIS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

YARNING ABOUT HEP C; ABORIGINAL VICTORIANS TELLING OUR STORIES ABOUT LIVING WITH HEP C

Peter Waples-Crowe1, Andrew Bamblett1, Kat Byron[1], Sandra Gregson[2], Garry Irving[3]

Victorian Aboriginal Community Controlled Health Organisation[1], Victorian Aboriginal Health Service[2], Hepatitis Victoria[3]

Newly acquired Hepatitis C has been found to be up to six times higher in Aboriginal Victorians in recent years, compared to the non-Aboriginal population. The close relationship between hepatitis C and injecting drug use fuels shame, discrimination and creates barriers to health care.

This project was developed to put a Koori face and story to hep C, and start yarns about hepatitis C in our communities. The original concept for this film was developed through a collaboration of the Victorian Aboriginal Community Controlled Health Organisation (VACCHO) and the Victorian Aboriginal Health Service (VAHS), together with a mainstream organisation, Hepatitis Victoria.

The short video, *Yarning about hep C*, is about our mob talking about experiences of living hep C, looking after your health and treatments for hep C. Participants were invited to talk in their own words of living with hepatitis C, their experiences of discrimination, experiences of treatment as well as social and emotional support they had during their treatment. The individual stories were interspersed with health workers providing clinical information about hep C. Uncle Ronnie Briggs, one of the stars of the video, became a hepatitis C 'champion' education through the process. As a result of his involvement, he became a Hepatitis Victoria 'Hep Hero' and the recipient of the Hepatitis Victoria 'Mark Farmer' award recognising individuals living with viral hepatitis who have become champions in their community.

Yarning about hep C is a key resource in the delivery of viral hepatitis education to Aboriginal Health Workers and Aboriginal Social and Emotional Wellbeing workers, newly diagnosed Aboriginal community members and their families, mainstream health professionals and the wider community.

Our presentation will show highlights from the video, share the impact of this video as well as reflect on our collaborative creative processes and partnership with Aboriginal and non-Aboriginal organisations.

DISCLOSURE OF INTEREST This project was funded by a grant from Hepatitis Australia

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – LIVING WITH VIRAL HEPATITIS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

YOUR MOB, MY MOB, OUR MOB PEER EDUCATION PROJECT

Walker K [1], Cairnduff S [2]

[1] HNSW
[2] AH&MRC

BACKGROUND The Aboriginal Health and Medical Research Council of NSW (AH&MRC), in partnership with Hepatitis NSW (HNSW), initiated the YMMMOM Peer Education Project.

Other stakeholders included Aboriginal Community Controlled Health Services (ACCHS), NSW Juvenile Justice Centre's (JJC) and NSW Justice Health.

The objectives of the project were to:

1. To increase awareness of Hepatitis C and related issues amongst young Aboriginal people (14 – 25) across NSW, at risk of contracting the Hepatitis C virus (HCV).
2. To increase the capacity of ACCHS to create a sustainable peer education program.

METHODS As a draw-card to attract young people to participate in the project, a professional street artist was employed to teach the techniques of street-art and assist young people in the development of permanent murals depicting messages around HCV.

The project was delivered 2 x 2 days over 2 weeks, followed by a participant's graduation day and showcasing of the street art mural. In the first week 1 x day of staff training and 1 x day of peer recruitment are run; involving basic HCV education, and an overview of the project, delivered to all participants.

RESULTS Since June 2012 the project was delivered at 5 NSW Juvenile Justice Centre's and in 3 Aboriginal community settings.

In total 133 young Aboriginal people participated in HCV education, with 72 graduating as Peer Educators.

Forty three staff participated in training, including their roles in supporting Peer Educators.

Participant's knowledge of HCV, as well as enjoyment of the project was evaluated through pre and post questionnaires.

Findings were that young people readily engaged in the project, that peers had increased knowledge and confidence and were committed to sharing HCV information with other young people, as well as the wider Aboriginal community. The primary challenges of the project were in peer follow up and financial constraints delivering the project state-wide.

PROFFERED PAPER SESSION: BASIC SCIENCE – HBV 2: THE HBV JOURNEY VIRUS ENTRY TO VIRAL VARIANTS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

THE ROLE OF GENOTYPE IN HBV REPLICATION AND NATURAL HISTORY

Sozzi T, Bannister E, Colledge D, Li X, Edwards R, Littlejohn M, Locarnini S, Revill PA[1]

[1]Victorian Infectious Diseases Reference Laboratory

BACKGROUND Hepatitis B virus (HBV) is a global health issue, affecting over 2 billion people worldwide with over 350 million people chronically infected and more than 2 million deaths annually, due to complications including chronic liver disease, cirrhosis and hepatocellular carcinoma (HCC). HBV exists as 8 major genotypes (A to H) and multiple subtypes, with marked diversity in CHB natural history including differences in modes of transmission, disease progression, replication phenotype, response to therapy and disease resolution. However, virological factors driving these differences are largely unresolved. Indeed there have been few comparative studies of HBV replication, infectivity or response to therapy across all HBV genotypes, largely due to the absence of appropriate *in vitro* models. We have recently synthesized infectious cDNA clones for all major HBV genotypes (and many subtypes) enabling us to directly compare HBV replication across genotypes.

METHODS Huh7 and HEpG2 cells were transfected with infectious cDNA clones of major HBV genotypes. HBV replicative intermediates were analysed by Southern and Northern blotting, and HBV proteins by quantitative serology and western blotting.

RESULTS We identified marked differences in HBV replicative capacity and protein expression across genotypes. Differences were observed in HBV DNA levels, as well as intracellular and secreted levels of hepatitis B e antigen and surface antigen. Sequence analysis identified differences in regulatory regions that alter transcription of the pgRNA replicative intermediate, as well as mRNAs for the HBeAg and envelope proteins.

CONCLUSION The reasons for genotype-specific differences in HBV natural history are largely unresolved. Our studies have identified a disconnect between HBV DNA levels and HBeAg/HBsAg protein expression that suggests a level of regulatory feedback not previously recognised for HBV. Differences in HBV replicative capacity and protein expression may contribute to some of the differences observed in HBV natural history and disease progression across genotypes.

PROFFERED PAPER SESSION: BASIC SCIENCE – HBV 2: THE HBV JOURNEY VIRUS ENTRY TO VIRAL VARIANTS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

HEPATITIS B VIRUS IN AFRICAN IMMIGRANTS LIVING IN AUSTRALIA

Edwards R[1], Yuen L[1], Littlejohn M[1], Revill P[1], Bannister E[2], Chu M[3], Salih F[3], Wade A[4], Schulz T[3], Sasadeusz J[3]

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[4]Barwon Health, Geelong Hospital, VIC, 3220

BACKGROUND The incidence of chronic HBV in Australia is increasing, largely due to the immigration of people from Sub-Saharan Africa and South-East Asia where the disease is prevalent. Whilst many studies focus on HBV in Asian populations, fewer have focused on HBV in Africans. Preliminary studies have shown that the African HBV A1 subgenotype, particularly in young males, appears to be associated with earlier progression to liver cancer. We aimed to characterise the HBV isolated from adult African immigrants living in Australia.

METHODS Forty-two African patients infected with HBV were recruited from three separate clinics in Victoria, Australia. Serum was obtained from each patient, and sequencing of the HBV polymerase gene and basal core promoter (BCP)/precore (PC) gene was performed. Phylogenetic analysis was carried out to establish HBV subgenotypes. Mutational analysis is being performed to identify clinically significant mutations known to be associated with disease progression.

RESULTS Forty patients had sufficient HBV viral load for amplification and subsequent genotyping/subgenotyping. Phylogenetic analysis revealed 13 patients with genotype A (32.5%), 13 with genotype D (32.5%), and 14 with genotype E (35%). Subgenotyping of genotype A viruses revealed 10 patients (25%) with subgenotype A1, and one (2.5%) each of A4, A5 and A6. Subgenotyping of genotype D isolates revealed 5 patients (12.5%) with subgenotype D2 and 8 patients (20%) possibly with subgenotype D7. Further analysis is ongoing to confirm this subgenotype.

CONCLUSION Phylogenetic analysis identified a high incidence (25%) of HBV subgenotype A1 which has been associated with an aggressive phenotype, resulting in an increased morbidity and mortality. This has important implications for patient monitoring and treatment, particularly with increasing immigration from the Sub-Saharan region.

DISCLOSURE OF INTEREST None declared.

PROFFERED PAPER SESSION: BASIC SCIENCE – HBV 2: THE HBV JOURNEY VIRUS ENTRY TO VIRAL VARIANTS

11.00AM – 12.30PM FRIDAY 19 SEPTEMBER 2014

DIRECTLY CYTOPATHIC DRUG RESISTANT HBV VARIANTS

Colledge D, Soppe S, Locarnini S, Warner N.

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Drug treatments for chronic hepatitis B include antiviral nucleoside/nucleotide analogues (NAs) which target the viral lifecycle by inhibiting the reverse transcriptase. NA resistance is common and widespread, characterised by point mutations in the overlapping polymerase/envelope genes. In some cases, stop codons at the C-terminal end of the surface proteins (HBsAg) are also selected, including rtM204I/sW196*, which confers resistance to LMV, and rtA181T/sW172* which confers resistance to multiple NAs. The **aims** of this study were to examine the replication and pathogenicity of variants encoding C-terminal stop codons.

METHODS Huh7 cells were transfected with infectious HBV encoding surface stop codons rtM204I/sW196*, rtA181T/sW172*, rtV191I/sW182*, or full-length surface proteins rtA181T/sW172L, rtA181V/sL173F, rtM204V/s195M, rtM204I/sW196S. Secretion and expression of altered HBsAg were measured by Western blotting and quantitative serology. Proliferation and apoptosis of transfected Huh7 cells were measured using flow cytometry.

RESULTS The three stop codon variants were defective in HBsAg secretion, which could be partially rescued by co-expression with wt HBV. HBV encoding rtA181T/s172L and rtM204I/sW196S had slight secretion defects, whereas rtA181V/sW173F and rtM204V/sI195M had wt secretion levels. Flow cytometry was used to show that cells transfected with these variants were less proliferative and had higher levels of apoptosis than full-length HBV. The most cytopathic variant was rtM204I/sW196*, followed by rtV191I/sW182* and rtA181T/sW172* which were approximately equal. HBV encoding full-length surface proteins had wt levels of apoptosis and proliferation.

CONCLUSIONS Some drug-resistant HBV variants selected during NA therapy are directly cytopathic to the host cell, promoting apoptosis. Apoptosis and chronic liver injury are strongly associated with disease progression and the development of HCC. Hence, although low genetic-barrier drugs may decrease viral load and increase survival in the short term, we predict that there may be long term detrimental effect in patients who have selected these variants.

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

HEPATITIS B KNOWLEDGE AMONG PEOPLE WITH CHRONIC HEPATITIS B IN AUSTRALIA

Hajarizadeh B[1], Wallace J[1], Ngo N[1], Richmond J[1]

[1]Australian Research Centre for Sex, Health and Society, La Trobe University, Melbourne, Australia

BACKGROUND It is estimated that while 218,000 Australian people have chronic hepatitis B, only 56% have been diagnosed and 3% receive clinical management. One explanation for low rates of diagnosis and treatment uptake could include knowledge gaps about the infection among affected people. This study assessed hepatitis B knowledge among people with chronic hepatitis B in Australia.

METHODS People with chronic hepatitis B attending four public liver clinics and one general practice in three Australian jurisdictions completed a self-administered questionnaire including 24 hepatitis B knowledge questions in four domains transmission, natural history, epidemiology-prevention, and clinical management. Knowledge scores for each participant were derived as sums of correct answers and were presented on a scale of 100.

RESULTS Ninety-three people completed the survey (Cronbach's alpha=0.93). Mean age was 45 years, 43% were women, and 93% were born overseas (75% in South-/North-East Asia). Mean total knowledge score was 55 out of 100 (Standard Deviation [SD]:22). Seventeen participants (18%) scored ≥75 (defined as a high knowledge). Clinical management scored the lowest (mean:30; SD:27), while natural history scored the highest (mean:69; SD:30). In adjusted linear regression, tertiary education (vs. secondary and under) was associated with higher knowledge score (Estimated means difference:11.9; 95%CI 2.4-21.4; *P*=0.014). In adjusted logistic regression, very good English proficiency (vs. no/not good English) was associated with high knowledge (Odds Ratio:7.6; 95%CI 1.9-30.2; *P*=0.004). Participants reporting concerns about liver cancer scored significantly higher on hepatitis B knowledge (mean:61; SD:21) compared to those reporting no such concerns (mean:47; SD:22; *P*=0.006). High knowledge was significantly associated with feeling confident that hepatitis B could be controlled with treatment (*P*=0.010).

CONCLUSION This study identified hepatitis B related knowledge gaps among affected people. Interventions are required to improve hepatitis B knowledge among patients with more focus on people with low levels of academic education and English proficiency.

DISCLOSURE OF INTEREST STATEMENT Financial support for this research was provided by Bristol-Myers Squibb through the Coalition to Eradicate Viral Hepatitis in Asia Pacific (CEVHAP).

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

AUTOMATIC DISPENSING MACHINES: NO EVIDENCE OF A HONEY-POT EFFECT

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BACKGROUND Needle and syringe programs (NSPs) are an essential component of HCV prevention for people who inject drugs. Automatic dispensing machines (ADMs) are a potentially cost-effective method of complimentary needle/syringe distribution. To date, the implementation of ADMs has been limited, with ~150 machines operating Australia-wide. In some locations the introduction of ADMs has been met with vocal community and media opposition. Community concern is focused on public amenity and discarded syringes, perceived increases in drug related and other crime, the potential "honey-pot effect" and general concern for children.

METHODS As part of an evaluation of a recently implemented ADM in an area historically known for high levels of drugs use, surveys of the fixed-site NSP clients to whom it was targeted were conducted. Nine months following implementation, 40 hours of activity around the ADM were observed and counts of users recorded.

RESULTS Only 16% of clients reported successfully using the machine three months post-implementation increasing to 42% six months post-implementation, although 28%-33%of survey participants continued to report difficulty using the ADM. The majority of NSP clients reported residing within one kilometre of the service and/or walking to the services on the last occasion of use. The majority of ADM users were fixed-site service users (95%) and accessed the machine on foot (78%). The ADM was used 1.8 times per hour (range 0-16) with 1.2 fitpacks collected per occasion (range 1-6).

CONCLUSION PWID accessing the ADM were largely the same population accessing the fixed-site service. NSP services in the area, including the ADM, attracted mainly local PWID with few coming from outside the area, discounting community concern of a honey-pot effect of these services. ADM distribution is likely to remain only a small proportion of fixed-site NSP distribution and as such increases in discarded syringes and crime are not anticipated.

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

INCREASING THE VICTORIAN ACCHO RESPONSE TO INJECTING DRUGS AND HEPATITIS C PREVENTION

Peter Waples-Crowe1, Andrew Bamblett[1], Kat Byron[1]

Victorian Aboriginal Community Controlled Health Organisation[1]

Aboriginal people in Victoria make up 0.6% of the population, yet are over represented in rates of injecting drug use (14% in the last Victorian Needle and Syringe Program (NSP) survey), methadone prescription and incarceration. All these factors link to Blood Borne Virus transmission. Newly acquired Hepatitis C has been found to be up to six times higher in Aboriginal Victorians in recent years, compared to the non-Indigenous population. At a national level, HIV exposure rates through injecting drug use are six times higher.

The Yiaga ba Wadamba project (Woi-wurrung phrase meaning 'find and renew'), was conducted by VACCHO in partnership with Anex. VACCHO spoke with 69 urban and rural Aboriginal people who inject drugs about their injecting practices, sexual health, and use of health services. Many spoke about the shame, isolation and the stigma they experience as a result of their drug use.

Some of the other findings included barriers to accessing sterile injecting equipment and these included service location and hours of operation, a lack of cultural safety, concerns about confidentiality or anonymity and potential or prior experiences of discrimination.

The results of this research have informed VACCHOs directions in blood borne virus prevention and is utilised as an advocacy tool to our membership.

Due to the ongoing stigma associated with Hepatitis C, HIV and injecting drug use, sustained strategic responses in Aboriginal health services can be challenging. In this presentation, we will explore integrating NSP service delivery in the ACCHO model.

PRESENTER BIOS

1. Peter is a Koori who has been working in Aboriginal health for over 20 years, and has gained much of his experience and expertise in health research and public health while working on various projects for both mainstream services and ACCHOs. He is a graduate of the NSW Public Health Officer Training program and has post graduate qualifications in Public Health.

2. Andrew Bamblett, Sexual Health Project Officer, is a Yorta Yorta/Kurnai man who has worked in the sexual health team for four years. Andrew's passion is to promote blood borne virus prevention and sexual health to young Aboriginal and Torres Strait Islander peoples.

DISCLOSURE OF INTEREST There is no conflict of interest from VACCHO or the presenters.

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

THE IMPACT OF OVERSEAS HEPATITIS B VACCINATION PROGRAMS ON THE FUTURE BURDEN OF HEPATITIS B IN AUSTRALIA

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[2]RMIT
[3]Department of Medicine, University of Melbourne

BACKGROUND An estimated 218,000 Australians were living with chronic hepatitis B (CHB) in 2011, over half of whom were born overseas. With over 90% of new CHB estimated to enter the population through migration, overseas vaccination programs will affect the prevalence of CHB in Australia in the future. This study aims to assess this impact by reviewing evidence for current trends in CHB prevalence in those born overseas, existence and coverage of universal hepatitis B vaccination programs, and projection of CHB in migrants in coming decades.

METHODS Notifications of unspecified hepatitis B in Victoria were analysed by country of birth for the years 1998-2013. The existence of universal infant vaccination programs and the population coverage by year were drawn from UNICEF and WHO data. Information on migration trends into Australia by country and year were obtained from migration and Census data.

RESULTS 175 countries have implemented universal childhood vaccination by 2012, with 68% of these having coverage above 90% and 47% having a birth dose of vaccine in their program. Countries in our Asia-Pacific region have a high coverage of birth-dose inclusive hepatitis B vaccination. No discernible trend was detected by vaccination program in country of birth in surveillance data, however based on source country prevalence estimates following implementation of vaccination programs, the burden of CHB will fall substantially amongst people migrating to Australia in coming decades.

CONCLUSION Although overseas vaccination programs are not currently having a discernible impact on the prevalence of CHB among eligible migrants to Australia, a profound reduction in the prevalence of CHB over time in Australia is projected in the coming decades, related to infant vaccination in endemic countries. Australian support for overseas hepatitis B vaccination programs will lead to a significant reduction in the burden of CHB in Australia.

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

INCIDENT HEPATITIS B INFECTION AND IMMUNISATION UPTAKE IN AUSTRALIAN PRISON INMATES

Douglas D[1], Teutsch S[1], McCredie L[2], Luciani F[1] and Lloyd A[1], on behalf of the HITS investigators*.

[1]Inflammation and Infection Research Centre, School of Medical Sciences, The University of New South Wales
[2]Centre for Health Research in Criminal Justice.

Worldwide, 400 million people live with chronic Hepatitis B virus (HBV) and1.2 million attributable deaths occur annually. In developed countries like Australia with a low HBV prevalence, horizontal transmission via parenteral and sexual means remains dominant. Injecting drug users (IDUs), prisoners, and Indigenous people are key risk groups for acquisition. IDUs and prisoners are recognised to have a significantly higher prevalence of HBV than that of the wider population, and significantly lower rates of vaccine-conferred immunity. Since universal childhood vaccination was introduced only in Australia in 2000, young adults remain largely non-immune. This study sought to define HBV incidence and successful immunisation in IDU prisoners, and the predictors of these outcomes. In NSW prisons, all at-risk individuals are offered immunisation with a standard schedule (0, 1 month, 6 months).

METHODS Stored plasma from n=500 subjects enrolled in the Hepatitis C Incidence and Transmission Study in prisons (HITS-p) prospective cohort were tested for serological markers of HBV at multiple time points of follow-up. Interviews recording demographic and behavioural risks at each time point were analysed for associations with HBV status.

RESULTS The incidence of HBV infection (HBsAg positive and HBcAb positive or negative), in previously marker negative IDU inmates was 10.5/100 person-years and was predicted by Indigenous status and the frequency of reported IDU. The incidence of successful HBV immunisation (HBsAb positive) was 35.8/100 person-years and was predicted by having a prison sentence length > 6 months and an increased number of previous imprisonments.

CONCLUSION The prison environment presents both a high risk for HBV transmission, and an opportunity for immunisation. A disconcertingly high incidence of new HBV infection was documented suggesting that prevention strategies are currently inadequate. Although a reasonable rate of successful immunisation was recorded, further improvements are required, potentially via an accelerated immunisation schedule (0, 7, 21 days).

* The HITS investigators are Luciani F, Dolan K, Haber P, Rawlinson W, Treloar C, Maher L, Dore G.

PROFFERED PAPER SESSION:
EPI, PH & PREVENTION – PRIORITY POPULATIONS
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

CAN PRIMARY HEALTH CARE IDENTIFY THE DIVERSE POPULATION LIVING WITH CHRONIC HEPATITIS B?

Wang JY1 , Simmons J 2, Cowie BC 3, Van Gemert C1, Fok E 2, Hellard M 1

1 Burnet Institute, 2 Cancer Council Victoria, 3 Victorian Infectious Diseases Reference Laboratory and 4 University of Melbourne.

INTRODUCTION Approximately one-third of the estimated 218,000 people with chronic hepatitis B virus (CHB) in Australia are undiagnosed, leading to potential liver cancer, liver failure and ongoing transmission. People born in Northeast or Southeast Asia constitute 49% of CHB cases in Australia. Those at risk typically rely on General Practitioners (GPs) to prompt testing and prevention. However, evidence suggests for many this is sub-optimal. Appropriate follow-up and early treatment is cost-effective and can significantly improve the health of people with CHB. We implemented a GP screening intervention to improve the diagnosis and management of populations susceptible to CHB in Melbourne.

METHODS A non-randomised, pre-post intervention study was conducted between September and December 2012 with three general practices in Melbourne, Australia. The intervention consisted of electronic review of clinics' patient management systems to identify susceptible populations including those from Asia-Pacific backgrounds, past injecting drug use and Indigenous status. Clinics determined methods of patient recall and provided pre and post intervention clinical data including CHB testing, prevention and monitoring. Qualitative interviews with a purposive sample of general practitioners, practice nurses and practice managers were also conducted to assess acceptability.

RESULTS From a total of 33,297 active patients, at baseline 2,674 (8%) patients were identified as susceptible to HBV and 2,275 (85%) were not tested within the last four years. Almost all (99%) susceptible patients were identified through name matching to a validated name list. The practices recalled 338 (15%) patients for HBV testing; 73 (22%) subsequently consulted a doctor at the practice. Time limitation was a major barrier identified HBV testing.

CONCLUSION This pilot program demonstrated the feasibility of a clinical tool to enhance diagnosis and management of CHB and structural barriers prevention optimisation of the screening tool in general practice. Further research is needed to evaluate a range of recall strategies.

DISCLOSURE OF INTEREST STATEMENT YJW was a member of the Adult Hepatitis B Advisory Board for GlaxoSmithKline Australia and Bristol-Myers Squibb.

PROFFERED PAPER SESSION: CLINICAL CARE – NON – TERTIARY SITES AND MODELS FOR CARE FOR HCV

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

TRENDS IN HEALTH SERVICES UTILIZATION ATTRIBUTABLE TO HEPATOCELLULAR CARCINOMA: A POPULATION-BASED COHORT STUDY

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BACKGROUND To estimate trends in net health services utilization (HSU) due to hepatocellular carcinoma (HCC) using a phase of care approach pre-diagnosis phase—within 1 year before diagnosis; initial phase—1 year after diagnosis; and end-of-life phase—6 months before death, according to survivorship short-term survivors (survived <6 months) and long-term survivors (survived ≥6months) over the period 2002-2008.

METHODS A retrospective cohort study using Ontario Cancer Registry linked health administrative data and a reference Ontario population to identify HCC cases and non-HCC controls and HSU (family physician, specialist, emergency department [ED], hospital, same-day-surgery and home care visits, and the number of prescription medications). For each phase, the mean (95% confidence interval [CI]) net HSU due to HCC (per 100-person days) was estimated using Student's *t*-test. Rate ratios (RRs) with controls as the reference population were estimated by modeling counts utilizing negative binomial regression.

RESULTS During 2002-2008, 2,322 HCC cases were identified. Those receiving radiofrequency ablation in the year after diagnosis increased significantly from 5% in 2002 to 19% in 2008; however, surgical resection decreased from 20% to 14%. Compared to controls, HCC patients used significantly greater health services, with the exception of same-day-surgery in the pre-diagnosis phase (RR 0.39, 95%CI 0.36-0.41) and prescription medications in the end-of-life for both short-term (RR 0.51 95%CI 0.45-0.58) and long-term (RR 0.70 (95%CI 0.63-0.78) survivors. ED, hospital and specialist visits due to HCC were the highest in the pre-diagnosis, initial and end-of-life (short-term survivors) phases. In the initial phase, total net HSU due to HCC in 2008 was significantly lower than in previous years, mainly due to reduction in specialist and hospital visits.

CONCLUSION Our findings suggest that the decrease in the initial phase use of specialists and hospital services after HCC diagnosis may be due to the trend towards utilization of radiofrequency ablation.

DISCLOSURE OF INTEREST STATEMENT This study was supported by the Institute for Clinical Evaluative Sciences (ICES), which is funded by an annual grant from the Ontario Ministry of Health and Long-Term Care (MOHLTC). The opinions, results and conclusions reported in this paper are those of the authors and are independent from the funding sources. No endorsement by ICES or the Ontario MOHLTC is intended or should be inferred.

PROFFERED PAPER SESSION: CLINICAL CARE – NON – TERTIARY SITES AND MODELS FOR CARE FOR HCV

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

PILOT FOR A COMMUNITY-BASED ASSESSMENT AND SUPPORT PROGRAMME FOR HEPATITIS C IN NEW ZEALAND

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Until 2010, New Zealand lagged behind many other developed countries in addressing hepatitis C, with no active national approach, funding, or guidelines. With an estimated 50,000 people infected and 75% of these undiagnosed, tackling these deficiencies presented a major challenge.

With an aging cohort, and the advent of effective tolerable therapies with targeted rollout funding in the next 5 years, the immediate need is for a programme to identify more people living with hepatitis C, and to prioritise patients accessing treatment.

The Hepatitis Foundation (NZ) has been contracted to develop and pilot a cost effective strategy to address Hepatitis C in New Zealand through increased awareness, testing, support and treatment. The resulting programme includes:

- A public awareness campaign
- Promotion of risk factor based targeted population testing
- Community– based early assessment and support including full laboratory work-up and FibroScan™ via community hepatitis nurses
- A clear patient pathway between community and secondary care
- Improved surveillance at local and national levels.

The 2 year pilot has operated since June 2012 in four districts providing healthcare to 16% of the adult NZ population. Thus far 766 people have been enrolled including 322 newly diagnosed or previously lost-to-follow-up. 504 FibroScans™ have been performed across 25 community sites demonstrating cirrhosis in 15.8%, and severe fibrosis in 5.5% of scans.

Currently 145 patients are referred to secondary care, predominantly through multidisciplinary meetings between the community nurses and hospital programmes. 621 patients that would otherwise have required review and monitoring through secondary care are being managed through the community support programme.

EARLY SUCCESSES Rediscovery of previously lost patients via laboratory and primary care collaboration

Early identification of cirrhotic cases who would not have been picked up in the existing care system

Provision of an effective safety net for people working towards, awaiting or progressing to existing and new treatments.

Freeing up secondary care resources to focus on treatment and the management of complex clinical cases.

Potential for community-based treatment

PROFFERED PAPER SESSION: CLINICAL CARE – NON – TERTIARY SITES AND MODELS FOR CARE FOR HCV

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

NO PREJUDICE! BEING A PRISONER, INDIGENOUS OR HAVING A PSYCHIATRIC ILLNESS SHOULD NOT LIMIT ACCESS TO TREATMENT FOR CHRONIC HEPATITIS C INFECTION

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BACKGROUND Cure of chronic hepatitis c virus (HCV) infection requires complex treatment regimens for several months. These treatments are complicated, side-effects are common and adherence to treatment is often difficult. Cure rates are highest when treatment is fully completed. This study aims to explore the correlations between treatment setting (i.e. prison vs community), indigenous status and psychiatric diagnoses and the rates of successful treatment completion.

METHODS This is a retrospective review of patients treated for chronic HCV infection at the Toowoomba Liver Clinic over a 3 year period (2010-2012). Data were collected including treatment setting (i.e. prison vs community), HCV genotype, indigenous status, comorbidities, contact with psychology services, treatment interruptions/ discontinuations, and follow up rates to confirm cure (defined as sustained virological response (SVR) 24 weeks after treatment completion).

RESULTS Of the 243 patients who received treatment, 74 were prisoners and 169 were community-based. 49 prisoners completed treatment (66.2%) versus 117 community-based patients (69.2%). 31 treated patients were indigenous and 212 were non-indigenous. 22 indigenous patients completed treatment (71.0%) versus 144 non-indigenous patients (68.0%). Regarding psychiatric diagnoses, 105 had a current psychiatric illness and 138 did not. 69 patients with a current psychiatric diagnosis completed treatment (65.7%) versus 97 patients without (70.3%).

Conclusion These results indicate chronic HCV sufferers can achieve equal treatment completion rates regardless of the treatment setting, indigenous status or whether they have a current mental illness. These results contradict misconceptions about patients' suitability for treatment, reinforcing the need for expanded treatment settings for infected patients.

DISCLOSURE OF INTEREST Nothing to declare

PROFFERED PAPER SESSION: CLINICAL CARE – NON – TERTIARY SITES AND MODELS FOR CARE FOR HCV

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

WHAT MAKES A COMMUNITY-BASED HCV TREATMENT PROGRAM ACCEPTABLE TO CLIENTS? INSIGHTS FROM HEALTH CARE PROVIDERS AND CLIENTS

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[3]The Kirby Institute, The CFI Building, Corner Boundary and West Streets, Darlinghurst, NSW 2010

BACKGROUND Between 2006 and 2008 the Healthy Liver Program (HLP) provided culturally safe community based Hepatitis C treatment and support services at Nunkuwarrin Yunti (NY), an Aboriginal Community Controlled Health Service. An evaluation was carried out via the Research Excellence in Aboriginal Community Controlled Health (REACCH) project by a collaboration of NY staff and university researchers. The project aimed to understand what the HLP offered including clinical outcomes and an audit of costs, issues of equity, and how acceptable it was to clients, clinical and allied health staff. This paper focuses on qualitative data from clients and staff on client acceptability.

METHODS We contacted people who had professional involvement with the HLP. 31 health care providers participated in a semi-structured interview about their experience of the HLP model of care; access protocols; strengths and weaknesses. An audit process identified 11 clients treated through HLP; 7 participated in a semi-structured interview (5 had cleared the virus) about experience of HLP access; services offered; support offered by NY staff. We conducted a Framework Analysis using the two data sets.

RESULTS Drawing on client and staff interview data, our analysis examined what made the HLP acceptable to clients. The key characteristics were dedicated and available staff; easy access; service provided in a primary care setting used to dealing with marginalised groups; culturally safe service that was everything a hospital-based service was not.

CONCLUSION Health care providers involved with the HLP and clients who received treatment through the HLP evaluated it to be highly acceptable to clients. Our evaluation provides knowledge for the development of a Hepatitis C treatment and support services, and insights into the characteristics of a health service acceptable to Aboriginal community members, with concrete examples of 'culturally safe' care.

PROFFERED PAPER SESSION: CLINICAL CARE – NON – TERTIARY SITES AND MODELS FOR CARE FOR HCV

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

TREATING HEPATITIS C IN PRIMARY CARE: RESULTS FROM A PILOT PROGRAM

Baker D1,2, Alavi M3, Erratt A3, Hill S1, Balcomb A4, Hallinan R5, Siriragavan S3, Richmond D6, Smart J7, Keats J8, Doong N9, Marks P3, Grebely J3 and Dore GJ3

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BACKGROUND The aim of this study was to evaluate the feasibility, safety and efficacy of treatment for chronic hepatitis C virus (HCV) infection through a primary care-based model in Australia.

METHODS This observational cohort study recruited participants through seven primary care clinics in New South Wales, Australia between November 2010 and June 2013. Patients with HCV genotype 2/3 were treated without specialist review, while those with genotype 1 required an initial specialist review. Treatment consisted of pegylated interferon alfa-2a/2b (PEG-IFN) and ribavirin. Sustained virological response (SVR) and adverse events were evaluated.

RESULTS Among 41 participants (mean age 44 years, 73% male) initiating treatment with PEG-IFN/ribavirin, 90% had injected drugs ever, 16% had injected drugs in the past 30 days and 56% had ever received opiate substitution treatment. HCV genotype 1 and genotypes 2/3 occurred in 17% (n=7) and 83% (n=34). HCV treatment was completed in 83% (34 of 41), with seven discontinuations [adverse event (depression), n=1; patient decision, n=1; lost to follow-up, n=3; virological nonresponse, n=2]. In an intent-to-treat analysis, SVR was 71% overall (29 of 41), 43% in G1 (3 of 7) and 76% in G2/3 (26 of 34).

CONCLUSION Initiation of HCV treatment in the primary care setting is an effective alternative for selected patients and may contribute to increasing access to HCV care. Further HCV education and training initiatives and research on models of HCV treatment and care delivery in the new era of antiviral therapy will be required to follow-up on promising initial community-based treatment initiatives.

DISCLOSURE OF INTEREST STATEMENT 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. None of the authors has commercial relationships that might pose a conflict of interest in connection with this manuscript.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – FACILITATING ACCESS TO TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

PSYCHOSOCIAL FACTORS INFLUENCING SUCCESSFUL INTERFERON-BASED HEPATITIS C TREATMENT OUTCOMES

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BACKGROUND Adherence to Hepatitis C treatment is critical for patients to attain a sustained virological response (SVR), or cure. However, a large a large proportion of patients have difficulty maintaining adequate adherence, thereby compromising treatment outcomes. Although non-adherence is often related to side effects, psychosocial factors such as lack of social support, unstable housing, discrimination and employment are also important. This study aims to identify the barriers to, and facilitators of, chronic hepatitis C (CHC) treatment adherence and completion in patients at various stages of the treatment cycle.

METHODS A qualitative study of 20 patients undergoing treatment for CHC used semi-structured interviews to explore the psychological, practical, and social issues faced by patients living with CHC during treatment. We sought to identify ways that health care professionals and services might better support patients to improve treatment outcomes.

RESULTS Analysis of patient interviews identified four key themes:

1) Motivations for commencing CHC treatment - fear of death and ridding themselves of stigma and shame; 2) The influential role of provider communication - information and feedback that was personalised was the most effective for improving adherence; 3) Facilitators of adherence and completion - social, emotional, and practical support and temporarily ceasing employment; 4) Barriers to adherence and completion side effects, stigma, a complicated dosing schedule and limitations of public health care delivery.

CONCLUSION Despite improved treatments, medical system and resource limitations will remain barriers to positive CHC treatment outcomes. Clinicians can improve results by addressing psychological and social factors that impact patients' treatment adherence and completion. Ensuring patients have adequate support and adaptive coping strategies before treatment initiation, as well as providing practical support, advice, and clinical feedback targeted to individual patient needs is instrumental for improving medical and psychological outcomes for patients with hepatitis C.

DISCLOSURE OF INTEREST STATEMENT Victoria Anne Sublette is funded by a University of Sydney UPA scholarship. Mark Douglas and Jacob George are supported by grants from the NHMRC and the Robert W. Storr bequest to the Sydney Medical Foundation.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – FACILITATING ACCESS TO TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

FIBROSCAN TESTING AS A COMMUNITY ENGAGEMENT STRATEGY

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BACKGROUND The Fibroscan is an effective tool for engaging with community workers, at risk populations and initiating discussions regarding viral hepatitis and assessment of liver disease. Accessibility to Fibroscan testing was improved by conducting seven Fibroscan outreach testing events over a 12 month period.

METHODS Settings were chosen where a high proportion of those at risk of hepatitis C virus (HCV) infection, congregate. Three neighbourhood centres, frequented by public housing recipients, Aboriginal or Torres Strait Islander communities, those at risk of injecting drugs and those experiencing socio-economic disadvantage were selected. Alternative settings included a private methadone clinic and a drug and alcohol rehabilitation service. The events reflected a successful collaboration between the government and non-government sector. Opportunities to link into Hepatitis Awareness Week and other community engagement events proved successful for promoting and conducting Fibroscan testing. Adopting a diversity of promotional strategies is essential for generating community interest.

RESULTS From the seven events a total of 88 Fibroscan tests were conducted. Of the 88 participants, 57 were male, 31 were female and 19 identified as been of Aboriginal or Torres Strait Islander descent. Five Fibroscans were unsuccessful and referred for further assessment. Participants were aged 19-83. People with high Fibroscan readings were referred to the Liver Clinic and information was provided to their General Practitioner (GP). Follow up with GPs provided a capacity building opportunity.

CONCLUSION Using the Fibroscan in an outreach capacity is an effective strategy for engaging with at risk populations and increasing community awareness of viral hepatitis and liver disease. The described model is based on strategic partnerships, representing the government and non-government organisation sector. It is recommended that when implementing Fibroscan testing events, additional opportunistic screening should also be offered, including sexually transmitted infection testing. Linking into existing community events ensures a captive audience.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – FACILITATING ACCESS TO TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

EVALUATION OF "THE HEPATITIS B STORY" – AN EDUCATIONAL RESOURCE TO USE IN DISCUSSION WITH PEOPLE WHO HAVE LOW HEALTH LITERACY

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BACKGROUND More than 75% of people living with chronic hepatitis B (CHB) are migrants, refugees, or are Aboriginal and Torres Strait Islanders. The diversity in the affected communities and low health literacy levels presents significant challenges in communicating complex medical information. Research demonstrates the lack of culturally appropriate, plain English and quality consumer information on CHB.

"The hepatitis B story" is a plain English tool for health care a worker that was developed to use in discussion with clients who have limited health literacy and who live with CHB. The teaching tool describes CHB care and management using informative illustrations alongside easy English text, encouraging clients to make informed choices and engage in their health care. It suggests strategies to use when communicating with patients who have limited health literacy.

The aim of this project was to perform a consumer evaluation, focussing on both health professionals and clients (people living with CHB).

METHODS The resource was developed in partnership with key agencies and was launched in November 2013. Health professional satisfaction was assessed using an on-line survey. A client evaluation was conducted by an independent consultant. An education intervention was administered to clients with a pre and post-test questionnaire.

RESULTS Preliminary results regarding health professional's level of satisfaction with using the resource demonstrate that most find it useful. Preliminary results from the education intervention administered to clients demonstrated that knowledge of HBV improved considerably after the intervention when compared to pre-intervention knowledge. Final results will be presented at the conference.

CONCLUSIONS "The hepatitis B story" is a plain English tool for health professionals to help educate clients about CHB. It was developed for use with clients having low health literacy, but has general relevance. Preliminary data from the evaluation process indicates that health professional's found the tool useful. Use of the resource increased patient's knowledge of hepatitis B.

PROFFERED PAPER SESSION: COMMUNITY & SOCIAL RESEARCH – FACILITATING ACCESS TO TREATMENT
1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

LOOKING BEYOND THE BARS – THE FIRST HEPATITIS C TREATMENT PROGRAM IN QLD FOR WOMEN IN CUSTODY

Walton J, Pocock L[1]

70% of women in Australian prisons have chronic hepatitis C. Yet, in many states treatment is not available for women in custody - often due to issues of sentence duration and continuity of care.

The *Beyond the Bars* project is the first hepatitis C education and treatment program in Queensland for women delivered in a Correctional Centre. The aim is to increase awareness, diagnoses, and treatment. The project is a collaboration between Hepatitis Queensland, Brisbane Women's Correctional Centre and Princess Alexandra hepatology clinic. It is a 'whole of prison' project for staff and inmates that integrates education, support, and clinical services.

Hepatitis Queensland's role in the project is to:

- Provide training and education to 50% of inmates, custodial, and clinical staff
- Provide a hepatology nurse to deliver clinical education to staff and treatment work up and clinics to inmates
- Facilitate an 8-week healthy living program for hepatitis C positive women
- Provide transitional and continuity-of-care support to inmates

Some of the innovative approaches in this project include art workshops and information-packs, awareness days, information distributed with Corrections Officer payslips, working with Prisoner Advisory Committees, and use of the in-house prisoner information phone-service. So far, education and training has been delivered to 78 staff and 151 prisoners - achieving the KPI's. Initial evaluation data demonstrates significant improvements in participant knowledge.

To date this project has demonstrated

- Treatment is both necessary and possible within a women's Correctional Centre
- Creating a holistic, integrated, and comprehensive treatment access program can enhance treatment and improve outcomes for both inmates and staff
- Addressing continuity of care and post-release links is a key aspect of working with female inmates
- At all levels within Corrections, it is critical to develop relationships, build trust, achieve 'buy-in', and respect the internal structures and processes

PROFFERED PAPER SESSION: BASIC SCIENCE – HCV2: MOLECULAR AND SOCIAL NETWORKS: INFORMING HCV TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

PHYLOGENETIC CLUSTERING OF HEPATITIS C AMONG STREET-INVOLVED YOUTH IN VANCOUVER, CANADA

Cunningham E[1], Jacka B[1], DeBeck K[2-3], Poon AF[2], Applegate TA[1], Harrigan R[2], Krajden M[5], Marshall B[6], Montaner J[2-4], Pybus O[7], Lima VD[2-4], Olmstead A[5], Wood E[2-4], and Grebely J[1]

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BACKGROUND Among long-term cohorts of people who inject drugs (PWID), phylogenetic clustering of HCV infection has been observed, providing insight into factors influencing HCV transmission. However, the majority of studies have included older PWID with more distant transmission events. The aim of this study was to investigate phylogenetic clustering of HCV infection among a cohort of street-involved youth.

METHODS Data were derived from a prospective cohort of street-involved youth aged 14-26 recruited between 2005 and 2012 in Vancouver, Canada (At Risk Youth Study, ARYS). Among participants who were HCV positive at the time of enrolment or had HCV seroconversion during follow-up, HCV RNA testing and sequencing (Core-E2/NS5B regions) were performed. Phylogenetic trees were inferred using maximum likelihood methods and clusters were identified using ClusterPicker (Core-E2, 90% bootstrap threshold, 0.05 genetic distance threshold).

RESULTS Among 942 individuals enrolled in ARYS, 15% (n=146) were either HCV antibody positive at enrolment (n=86) or demonstrated HCV seroconversion during follow-up (n=60). Among HCV antibody positive participants with available samples (n=126), 74% (n=93) had detectable HCV RNA and 69% (n=64) had available Core-E2/NS5B sequencing. HCV genotype prevalence was G1a 52% (n=33) and G3a 48% (n=31). Among participants with Core-E2 sequencing (n=47), 11% (n=5) were in a cluster (n=3) or pair (n=2). Participants had a mean age of 23 years, 34% (n=16) were female, 57% (n=27) reported recent (last 6 months) injecting methamphetamine use and 4% (n=2) were HIV+. Among individuals with clustering (n=5), the mean age was 23 years, 40% (n=2) were female and all five participants reported recent injection methamphetamine use.

CONCLUSION In this study of street-involved youth, 11% demonstrated phylogenetic clustering. All five individuals who demonstrated clustering reported recent methamphetamine injecting. Further research is needed to understand the role of methamphetamine injecting in the transmission of HCV infection in this population.

DISCLOSURE OF INTEREST 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. None of the authors have commercial relationship that might pose a conflict of interest in connection with this paper.

PROFFERED PAPER SESSION: BASIC SCIENCE – HCV2: MOLECULAR AND SOCIAL NETWORKS: INFORMING HCV TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

MOLECULAR EPIDEMIOLOGY OF HEPATITIS C VIRUS INFECTIONS 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 Little is known about factors associated with HCV transmission among people who inject drugs (PWID). Phylogenetic clustering and associated factors were evaluated among PWID in Vancouver, Canada.

METHODS Data were derived from the Vancouver Injection Drug Users Study. Participants who were HCV antibody positive at enrolment and those with HCV antibody seroconversion during follow-up (1996 to 2012) were tested for HCV RNA and sequenced (Core-E2 region). Phylogenetic trees were inferred using maximum likelihood and clusters were identified using ClusterPicker (90% bootstrap threshold, 0.05 genetic distance threshold). Factors associated with clustering were assessed using logistic regression.

RESULTS Among 655 eligible participants, HCV genotype prevalence was G1a 48% (n=313), G1b 6% (n=41), G2a 3% (n=20), G2b 7% (n=46), G3a 33% (n=213), G4a <1% (n=4), G6a 1% (n=8), G6e <1% (n=1) and unclassifiable 1% (n=9). The mean age was 36 years, 162 (25%) were female and 164 (25%) were HIV+. Among 501 participants with HCV G1a and G3a, 31% (n=156) were in a pair/cluster. Factors independently associated with phylogenetic clustering included age <40 (vs. age ≥40, adjusted odds ratio [AOR] = 1.64; 95% CI 1.03, 2.63), HIV infection (AOR = 1.82; 95% CI 1.18, 2.81), recent HCV infection (AOR = 3.05; 95% CI 1.40, 6.66) and recent syringe borrowing (AOR 1.59; 95% CI 1.07, 2.36).

CONCLUSION In this sample of PWID, one-third demonstrated phylogenetic clustering. Factors independently associated with phylogenetic clustering included younger age, recent HCV seroconversion, prevalent HIV infection, and recent syringe borrowing. Strategies to enhance the delivery of prevention and/or treatment strategies to those with HIV and recent HCV seroconversion should be explored, given an increased likelihood of HCV transmission in these sub-populations.

PROFFERED PAPER SESSION: BASIC SCIENCE – HCV2: MOLECULAR AND SOCIAL NETWORKS: INFORMING HCV TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

FACTORS ASSOCIATED WITH PHYLOGENETIC CLUSTERING OF ACUTE HEPATITIS C VIRUS INFECTION IN AUSTRALIA

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

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[2]Inflammation and Infection Research Centre (IIRC), UNSW Australia, Sydney, Australia
[3]The Burnet Institute, Melbourne, Australia
*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 patristic 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 G3a infection (AOR 0.47, 95%CI 0.22, 0.97).

CONCLUSION In cohorts of acute HCV in Australia, 20% demonstrated phylogenetic clustering. HIV co-infection and G3a 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.

PROFFERED PAPER SESSION BASIC SCIENCE – HCV2 MOLECULAR AND SOCIAL NETWORKS INFORMING HCV TREATMENT

1.30PM – 3.00PM FRIDAY 19 SEPTEMBER 2014

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

Hajarizadeh B[1], Grady B[2], Page K[3], Geskus RB[2,11], Kim AY[4], McGovern BH[5,6], Cox AL[7], Rice TM[3], Sacks-Davis R[8,9], Bruneau J[10], Morris M[3], Amin J[1], Schinkel J[11], Applegate T[1], Maher L[1], Hellard M[8,9], Lloyd AR[12], Prins M[2,11], Dore GJ[1] and Grebely J[1], on behalf of the InC3 Study Group

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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 an international collaboration of nine prospective cohorts of acute HCV (InC³ Study). 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. 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).

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 STATEMENT 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.

World Indigenous Peoples' Conference on Viral Hepatitis

14–16 September 2014
Alice Springs Convention Centre

POSTER ABSTRACTS

POSTER NUMBER 1

HEPATITIS B & C VIRUS EPIDEMIOLOGY, DISEASE BURDEN, PREVENTION AND CONTROL MEASURES IN TARABA STATE, NIGERIA

Adda D K

Chagro-Care Trust (CCT)

BACKGROUND The burden of viral hepatitis B and C in Nigeria is difficult to quantify precisely because of inaccurate statistical data and under-reporting and poor disease surveillance by government and the private sector. Hepatitis B virus (HBV) infection is a serious global health problem, with 2 billion people infected worldwide, and 350 million suffering from chronic HBV infection. Whereas hepatitis C virus is now recognized as a common viral infection causing chronic liver disease in human, so far, chronic hepatitis C virus infection in many individuals is asymptomatic and the prevalence of the antibodies to the hepatitis C virus is not well established in the state. Chronic hepatitis, cirrhosis and hepatocellular carcinoma accounts for over 45% of deaths in the medical wards of Federal Medical Centre (FMC) and Specialist hospital Jalingo. Over 60% of the population in Taraba state live in semi urban and rural communities with very poor access to quality healthcare.

METHOD This study addressed the epidemiology, prevalence and disease burden of hepatitis B and C in Taraba state, over a period of 3 years in 6,520 (random sampling among general population children 9-12 years, young people 15-19 years and adults all male and female) persons from 9 out of the 16 LGAs in the state.The screening of the anti-HCV and HBsAg were carried out for the population sample.

RESULT Our results showed that 14% of the children were positive to hepatitis B, 8% to anti-HCV. 12% of the young people were positive to HBV, and 9% were positive to anti-HCV. 11% of the adult population was positive to hepatitis B surface antigen (HBsAg) and 9% to anti-hepatitis C virus (HCV) tests.

CONCLUSION The high prevalence of HBV among young people and children indicates a critical mass population that might develop chronic hepatitis over time, and it reveals a gap in the mass immunization programs of government. More efficacious treatments, mass immunization programs, and safe injection techniques are essential for eliminating HBV infection and reducing global HBV-related morbidity and mortality.

POSTER NUMBER 2

HEPATITIS B AMONG THE MATIS AN INDIGENUOS ETINIC GROUP FROM THE BRAZILIAN AMAZON RAIN FOREST

Otávio Primo de Alvarenga1, Maria Luana Cristiny Rodrigues Silva[1], Márcia da Costa Castilho[1], Baritsica Matis[2] and Wornei Silva Miranda Braga [1]

[1]Tropical Medicine Foundation Doutor Heitor Vieira Dourado, Manaus, Amazonas, Brazil
[2]Dsei Javari, Atalaia do Norte, Amazonas, Brazil

BACKGROUND Hepatitis B is highly endemic among the indigenous population in the Amazon region of Brazil, Venezuela, Colombia, Peru and Ecuador. It is also endemic in Alaska, Southeast Asia and Africa. The importance of HBV in the Amazon is related to the increased occurrence of fulminant hepatitis, severe forms of end-stage chronic liver disease and hepatocellular carcinoma. The ethnia Matis live along the banks of Rio Branco, in the Javari Valley, western Amazon, the second largest indigenous land in Brazil, with the greatest concentration of isolated indigenous populations in South America. They represent 8% of the valley population. They came in contact with the white Brazilian population in the late 70s. However, the Matis still maintain their traditions such as living in strawhouse and eating animals and fruits from the forest. They make handicrafts and use facial, body ornaments and tattoo. We aimed to evaluate the impact of HBV infection among the Matis.

METHODS The study population was screened in 2006 and 2014.

RESULTS In 2006 survey, the prevalence of HBsAg was 6.8%. Seven of them were less than 10yrs. In 2014, the prevalence is 2.3% and all individuals infected are adults. Of the 19 individuals' positive in the 2006 survey, eight have left the village, nine became non-reactive and two still are positive with another four new individuals detected in 2014, three are women in reproductive age.

CONCLUSIONS The risk of vertical or horizontal transmission in early ages seems to be maintained besides apparently been reduced. Preventive policies focused on health education, vaccination of newborns and surveillance of risk group is imperative to the decrease of HBV circulation.

POSTER NUMBER 3

A MODEL OF SHARED CARE FOR VIRAL HEPATITIS: A PARTNERSHIP BETWEEN REDFERN ABORIGINAL MEDICAL SERVICE AND SYDNEY LOCAL HEALTH DISTRICT

Jonathan Brett (1), Damian House (1,2), Francis Tennison (1), Jannet-Pritchard Jones (1), Paul Haber (1).

(1) Drug Health Services, Royal Prince Alfred Hospital, Sydney Local Health District.
(2) Redfern Aboriginal Medical Service

BACKGROUND There is growing concern from within urban Aboriginal communities about the high prevalence of vial hepatitis. Studies of Sydney indicate that Aboriginal people and in particular Aboriginal women are over-represented in the population diagnosed with hepatitis C. Due to a number of risk factors Aboriginal people potentially suffer disproportionate harms related to hepatitis C infection, which if left untreated can lead to liver cirrhosis and hepatocellular carcinoma.

Despite advances in the treatment of viral hepatitis there remain many barriers to Aboriginal people seeking treatment, which largely remains within the domain of mainstream healthcare.

Redfern Aboriginal Medical Service is one of the oldest community controlled Aboriginal health services in the country and recognized the need for improved access to hepatitis C treatment for its patients.

METHODS Here we describe a model of shared care between Redfern AMS and Sydney Local Health District with the aim of improving access to monitoring and treatment for Aboriginal people with hepatitis C.

RESULTS The model involves working closely with and responding to the needs of the local Aboriginal community and Redfern AMS. The treating team is comprised of an Aboriginal peer support worker, a hepatitis clinical nurse consultant (CNC) and a liver specialist and registrar. The peer support worker provides assertive engagement, support and follow up and helps with practical issues such as transport, the CNC helps to integrate care between the hospital and the outreach clinic and runs a monthly fibroscan clinic and the specialist and registrar provide medical oversight. The partnership clinic was the first of its kind in Sydney and has successfully engaged over 100 patients since its inception in January 2010, with increasing numbers of patients engaging in monitoring and active treatment each year.

CONCLUSIONS This is a model that could be adopted in other community controlled Aboriginal health settings to increase access to treatment for Aboriginal people with viral hepatitis.

DISCLOSURE OF INTERESTS None to disclose

POSTER NUMBER 4

INCREASING THE VICTORIAN ACCHO RESPONSE TO INJECTING DRUGS AND HEPATITIS C PREVENTION

Peter Waples-Crowe[1], Andrew Bamblett[1], Kat Byron1

Victorian Aboriginal Community Controlled Health Organisation[1]

Aboriginal people in Victoria make up 0.6% of the population, yet are over represented in rates of injecting drug use (14% in the last Victorian Needle and Syringe Program (NSP) survey), methadone prescription and incarceration. All these factors link to Blood Borne Virus transmission. Newly acquired Hepatitis C has been found to be up to six times higher in Aboriginal Victorians in recent years, compared to the non-Indigenous population. At a national level, HIV exposure rates through injecting drug use are six times higher.

The Yiaga ba Wadamba project (Woi-wurrung phrase meaning 'find and renew'), was conducted by VACCHO in partnership with Anex. VACCHO spoke with 69 urban and rural Aboriginal people who inject drugs about their injecting practices, sexual health, and use of health services. Many spoke about the shame, isolation and the stigma they experience as a result of their drug use.

Some of the other findings included barriers to accessing sterile injecting equipment and these included service location and hours of operation, a lack of cultural safety, concerns about confidentiality or anonymity and potential or prior experiences of discrimination.

The results of this research have informed VACCHOs directions in blood borne virus prevention and is utilised as an advocacy tool to our membership.

Due to the ongoing stigma associated with Hepatitis C, HIV and injecting drug use, sustained strategic responses in Aboriginal health services can be challenging. In this presentation, we will explore integrating NSP service delivery in the ACCHO model.

DISCLOSURE OF INTEREST There is no conflict of interest from VACCHO or the presenters.

POSTER NUMBER 5

YOU'RE MOB, MY MOB, OUR MOB (YMMMOM) PEER EDUCATION PROJECT

Walker K, Cairnduff S

BACKGROUND The Aboriginal Health and Medical Research Council of NSW (AH&MRC), in partnership with Hepatitis NSW (HNSW), initiated the YMMMOM Peer Education Project.

Other stakeholders included Aboriginal Community Controlled Health Services (ACCHS), NSW Juvenile Justice Centre's (JJC) and NSW Justice Health.

The objectives of the project were to To increase awareness of Hepatitis C and related issues amongst young Aboriginal people (14 – 25) across NSW, at risk of contracting the Hepatitis C virus (HCV).

To increase the capacity of ACCHS to create a sustainable peer education program.

METHODS As a draw-card to attract young people to participate in the project, a professional street artist was employed to teach the techniques of street-art and assist young people in the development of permanent murals depicting messages around HCV.

The project was delivered 2 x 2 days over 2 weeks, followed by a participant's graduation day and showcasing of the street art mural. In the first week 1 x day of staff training and 1 x day of peer recruitment are run; involving basic HCV education, and an overview of the project, delivered to all participants.

RESULTS Since June 2012 the project was delivered at 5 NSW Juvenile Justice Centre's and in 3 Aboriginal community settings.

In total 133 young Aboriginal people participated in HCV education, with 72 graduating as Peer Educators.

Forty three staff participated in training, including their roles in supporting Peer Educators.

Participant's knowledge of HCV, as well as enjoyment of the project was evaluated through pre and post questionnaires.

Findings were that young people readily engaged in the project, that peers had increased knowledge and confidence and were committed to sharing HCV information with other young people, as well as the wider Aboriginal community. The primary challenges of the project were in peer follow up and financial constraints delivering the project state-wide.

POSTER NUMBER 6

IMPROVING CHLAMYDIA AND HEPATITIS C AWARENESS THROUGH A SEXUAL AND REPRODUCTIVE HEALTH EDUCATION PROGRAM FOR ABORIGINAL AND TORRES STRAIT ISLANDER STUDENTS IN VICTORIAN SECONDARY SCHOOLS

Authors Whitton B[1], Kinsey R[1], Greet B[1], Sutton K[1]

[1]Melbourne Sexual Health Centre

BACKGROUND Aboriginal and Torres Strait Islander (ATSI) people aged 15-29 experience a high burden of chlamydia and hepatitis C infection nationally.

Victorian secondary schools are encouraged to engage local ATSI, community sexual health and hepatitis organisations as a resource to enhance the sexual and reproductive health curriculum delivered to ATSI students in years 7-12.

The Wulumperi ATSI Sexual Health Unit at Melbourne Sexual Health Centre offers schools with ATSI students an opportunity to participate in a structured program that complements and improves their knowledge about chlamydia and hepatitis C.

METHODS Wulumperi developed a culturally and educationally peer reviewed program designed to enhance key messages that impact on the sexual and reproductive health of ATSI secondary students.

Importantly the program includes, encourages and supports local ATSI, community, sexual health and hepatitis organisations to be involved with the education and to continue delivery of the program in the future.

The program focuses on three main themes

1. Chlamydia and Hepatitis C transmission.
2. Health promotion and harm reduction messages about safe sex, injecting, tattooing, and body piercing.
3. Accessing information, screening and treatment services provided by local ATSI, community, sexual health and hepatitis organisations.

RESULTS Evaluation of the program participants, (348 students at 25 schools) measured their knowledge about the messages delivered. Most students identified risks of acquiring chlamydia, hepatitis C infection and the importance of using condoms for safe sex and using clean injecting, tattooing, and body piercing equipment. Students also identified where to access information and health services in their local area.

CONCLUSION Partnerships between schools and health service providers delivering this effective program increases knowledge and awareness about chlamydia, hepatitis C, harm reduction and access to health services for ATSI students in Victorian secondary schools. Continued collaboration with schools and local health service providers will impact on reducing the rates of chlamydia and hepatitis C transmission.

DISCLOSURE OF INTEREST STATEMENT n/a

POSTER NUMBER 7

PROJECT TO PROVIDE IMPROVED AND SUSTAINABLE HEPATITIS C SERVICES TO ABORIGINAL COMMUNITIES ACCESSING 5 ABORIGINAL MEDICAL SERVICES (AMS) IN REGIONAL NSW

Wilson B[1], Meredith S[2]

1. Australasian Society for HIV Medicine
2. Griffith Aboriginal Medical Service

BACKGROUND The Australasian Society for HIV Medicine (ASHM) has been working with the Riverina Murray Alliance, an alliance of Aboriginal Medical Services (AMS) in regional New South Wales, to strengthen staff and organisational capacity to address local needs in relation to hepatitis C virus (HCV) prevention, testing and management. The goal of the program is to provide improved and sustainable hepatitis C services to local Aboriginal Communities.

METHODS The program has been informed by comprehensive needs assessment conducted with the participating AMSs. The needs assessment informed a greater understanding of the services' context, size, priorities, patient numbers and current engagement with hepatitis C and/or management of other chronic diseases.

An advisory committee made up of representatives from each AMS has been formed to guide the program. A multifaceted approach has been devised containing three core areas education & training, the development and implementation of HCV clinical & organisational tools and ongoing professional development. HCV clinical & organisational activities include the adaptation and implementation of a model of care, team care plan and mapping of local clinical pathways including agreements between the AMSs and treatment services. AMSs are able to elect which activities to participate in based on their capacity and needs.

A comprehensive evaluation plan has been developed and agreed to by the advisory committee.

RESULTS The stakeholder consultation and analysis indicated that the services involved vary significantly in their engagement with hepatitis C and their capacity to increase engagement.

Program activities are currently underway.

CONCLUSION ASHM will discuss program progress and outcomes to date. Conference attendees will gain insight through the presentation of challenges encountered and lessons learnt. Conference attendees develop an understanding of HCV clinical and organisational management tools for an AMS context.

Nothing to disclose

POSTER NUMBER 8

WHAT ARE THE HEALTH STATUS AND SUPPORT NEEDS OF ABORIGINAL AND TORRES STRAIT ISLANDER PATIENTS WITH HCV IN A PRIMARY HEALTH CARE SETTING? A RETROSPECTIVE CHART AUDIT

Authors Lakhan P[1], Pokino L[1], Askew D[1], Spurling G[1], Hayman N[1], Hajkowicz K[3], Van Driel M[2], Clark P[1] , Kirk C[1]

[1] Southern Queensland Centre of Excellence in Aboriginal and Torres Strait Islander Primary Health Care
[2] The University of Queensland
[3] Royal Brisbane and Women's Hospital

INTRODUCTION The Southern Queensland Centre of Excellence in Aboriginal and Torres Strait Islander Primary Health Care aims to provide high quality, culturally safe clinical care to Aboriginal and Torres Strait Islander peoples and contribute to development of an Indigenous workforce and research base. The Centre has established close ties to the community, and developed a strong ethos in continuous quality improvement, teaching and research.

In addition to the primary health care clinic, seven specialist clinics deliver high quality care to our patients. The hepatology clinic, managed by a hepatologist and specialist nurse, was established in December 2012 to meet the specialist needs of patients with viral hepatitis. A current study at the Centre of Excellence aims to increase our understanding about the socio-demographic characteristics, health status and support needs of the 227 patients with a documented diagnosis of HCV in their medical record.

METHODS A retrospective audit of electronic medical records of all patients with HCV is being conducted to obtain the following information socio-demographic characteristics; HCV infection status and treatment (antibody positive, PCR positive, HCV genotype, HCV viral load, Laboratory variables ALT, AST, Bilirubin, Albumin, Platelets, INR, creatinine, GGT, referral for HCV treatment, details of any treatment received, outcome of treatment); presence of any liver disease and co-infection with HIV and hepatitis A& B; presence of comorbidities (depression, anxiety, other mental illness, ischemic heart disease, renal disease, eGFR<90 ml/min, hypertension, type 2 diabetes mellitus); and presence of lifestyle risk factors (alcohol, tobacco, intravenous drug, and opiate usage). Descriptive statistics will be used to describe our patients and multivariate analyses will be conducted to understand health needs of particular subgroups of patients.

RESULTS Study in progress

CONCLUSION The findings of this study will be used to improve the quality of care provided to current and future patients infected with HCV.

viral ALICE SPRINGS 2014
HEPATITIS
9TH AUSTRALASIAN CONFERENCE

17–19 SEPTEMBER 2014

ALICE SPRINGS CONVENTION CENTRE, **AUSTRALIA**

CENTRAL ISSUES IN VIRAL HEPATITIS IN 2014

POSTER ABSTRACTS

CLINICAL CARE POSTERS
POSTER NUMBER 1

LIVER CANCER SURVEILLANCE IN PRIMARY CARE CHALLENGES IN COORDINATION AND CARE FOR PEOPLE FROM AFFECTED COMMUNITIES

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BACKGROUND AND AIMS Six monthly liver cancer surveillance, for eligible people living with chronic hepatitis B (CHB), has been shown to significantly reduce mortality. Improving liver cancer surveillance in Australia is crucial as liver cancer is the fastest increasing cause of cancer death.

People from culturally and linguistically diverse communities have a disproportionate burden of liver cancer and participate less in other cancer surveillance programs including bowel, breast and cervical cancer screening. There is no centrally coordinated liver cancer surveillance program in Victoria, putting the onus on clinical services to undertake this role for individual patients. This study examined the impact of specialised nursing support on liver cancer surveillance in primary care setting.

Methods A cross sectional study using sequential clinical file audit 18 months apart at a high CHB case load community health centre. Non-identifiable demographic and clinical data was recorded, together with the dates of the last 2 abdominal ultrasounds before and after nursing support to improve coordination of clinical services was implemented.

RESULTS Of the 117 people with CHB identified 66% met the eligibility criteria for liver cancer surveillance. Sixty six percent had ever received an ultrasound with 43% had a record of an ultrasound within 12 months, for those who had received an ultrasound the median time to last ultrasound 6 months. Only 10% had a record of 2 ultrasounds in the last 12 months. At follow up 18 months after nursing support started 69% had received one ultrasound in the last 12 months with median time to ultrasound 7 months with 23% receiving ultrasound in last 12 months and 40% 2 ultrasounds in last 18 months.

CONCLUSION Liver cancer surveillance presents a challenge for the health system and requires a coordinated approach to address the rapidly increasing burden of poor outcomes for affected populations.

DISCLOSURE OF INTEREST The authors have no conflicts of interest to declare

CLINICAL CARE POSTERS
POSTER NUMBER 2

VIRAL HEPATITIS IN CHILDREN

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In 2009, The Children's hospital at Westmead received funding from the Ministry of Health to establish a clinical service for children with chronic hepatitis B (HBV) and chronic hepatitis C (HCV). This service was developed after the need for a specific paediatric viral hepatitis service was recognised due to poor screening and referral rates for children at risk of chronic viral hepatitis.

In our experience, many parents of children at risk of viral hepatitis are not accurately informed of the risks, screening guidelines or supports available to children with chronic viral hepatitis and their families. A large part of our role is educating a wide variety of paediatric and adult health services about the importance of children at risk of viral hepatitis. There are unknown numbers of infants, children and adolescents with undiagnosed chronic viral hepatitis within our communities.

We have found that most families whom engage with our service after a child is diagnosed with chronic viral hepatitis gain knowledge, support and empathy from attending the clinic. Some children with HBV and HCV have been offered treatment with promising results to date.

Medical and nursing staffs, who care for adults with chronic viral hepatitis need to be aware of the issues around children at risk of viral hepatitis and this in turn, will lead to better outcomes for these children and families.

No conflicts of interest to declare.

CLINICAL CARE POSTERS
POSTER NUMBER 3

EVALUATION OF THE WESTERN AUSTRALIAN REGIONAL NURSE-SUPPORTED HEPATITIS C SHARED CARE PROGRAM

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BACKGROUND The Western Australian Regional Nurse-supported Hepatitis C Shared Care Program aims to improve hepatitis C treatment access via nurses that coordinate patient care in the Kimberley, Great Southern and South West regions. The program had not previously been evaluated across the three regions.

METHODS Hepatitis nurses in the three regions invited current patients to complete a short written survey about their treatment experiences (n=46). Semi-structured telephone interviews were conducted with 11 health staff across Western Australia, including in regions that did not have a dedicated hepatitis nurse. A desktop review was also conducted of relevant documents and reports.

RESULTS Twenty-two patient surveys were returned (48%). Most (65%) respondents reported high satisfaction with the program overall, with the same proportion indicating satisfaction with the level of support received while on treatment. This support was mainly provided by the hepatitis nurses, who were also primarily responsible for providing blood test results and scheduling appointments. Health staff identified shorter waiting times, longer appointment times, reduced patient transport costs to tertiary centres and increased patient compliance as key benefits of the program. Challenges included scheduling treatment based on the capacity of regional health staff to support patients and few incentives for general practitioners to undertake shared care.

CONCLUSIONS Participating health staff and patients valued the improvement in service access provided by a nurse-supported shared care model. The report recommends that the requirements and feasibility of nurse-supported hepatitis C shared care services in other regions of WA needs further investigation.

DISCLOSURE OF INTEREST Nil

CLINICAL CARE POSTERS
POSTER NUMBER 4

MODEL OF CARE – ADVANCED LIVER DISEASE IN JUSTICE HEALTH & FORENSIC MENTAL HEALTH NETWORK (JH&FMHN)

Douglas J, Justice Health & Forensic Mental Health Network

Thirty-two percent of adults in custody in NSW are HCV antibody positive. The NSW prison population is around 10,800. Taking into account those who may spontaneously clear the virus, there may be around 2,500 people with chronic HCV. JH&FMHN has a well established Nurse Led Model of Care for patients undergoing antiviral therapy and around 150 people are treated annually. Also significant numbers of people have hepatitis B infection. Due to various reasons (eg co-morbidities, mental health issues, short sentence) a significant number of people don't undergo treatment for hepatitis C (or B) and are at risk of developing advanced liver disease (ALD). There are 224 patients with an "Advanced Liver Disease" alert on the JH&FMHN Patient Administration System. The challenge for JH&FMHN lies in the capacity to provide regular monitoring of patients with, or at risk of developing ALD so as to improve health outcomes and decrease disease burden.

Currently, patients with chronic hepatitis are monitored by Public Sexual Health Nurses (PSHN) whose main responsibilities are to conduct the Early Detection Program Screening and Management of BBV/STI and hepatitis/HIV care. The capacity of the PSHN to monitor this number of patients is limited. A model of care for patients with, or at risk of ALD, has been developed so all health staff are provided with the skills and knowledge to provide care for these patients.

Engagement of all clinical staff and streams is necessary to ensure systems and processes are workable in the custodial environment. Protocols, including monitoring tools, have been developed. An education package will be developed providing the necessary knowledge around health education, disease progression, disease monitoring and referral.

Staff knowledge before and after implementation of the education program will be assessed. Numbers of patients undergoing monitoring for ALD before and after implementation will also be assessed.

CLINICAL CARE POSTERS
POSTER NUMBER 5

PROMOTING UNDERSTANDING: THE DEVELOPMENT OF BEST PRACTICE COMMENTS FOR REPORTING HEPATITIS C DIAGNOSTIC TEST RESULTS

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BACKGROUND Confusion exists among some medical practitioners surrounding the interpretation of hepatitis C serology. This project aimed to provide guidance to pathology providers in New South Wales on the explanatory comments that could accompany hepatitis C serology test results so that clinicians interpret the results appropriately and recognise the need for further action or any additional testing required.

METHODS A Working Group (WG) comprising laboratory scientists, microbiologists, public health representatives, clinicians and a representative from Hepatitis NSW was established. Consensus on the final wording was obtained after several teleconferences and via a survey completed by the WG members. In determining the interpretive comments, the WG considered typical laboratory workflow for HCV testing, with serology testing first followed by polymerase chain reaction (PCR) to determine infection status when reactive serology results are obtained.

RESULTS All possible test outcomes, interpretation of results and further actions following serology testing were considered by the WG and incorporated in the final table presented in this paper. The WG agreed that laboratories were not likely to refer to an individual's serology results when reporting PCR results obtained on a different specimen, so a second table of possible results and interpretive comments for PCR testing were developed. The comments also had to be consistent with the Medicare Benefits Schedule recommendations for PCR testing, cater for tests that have an equivocal range specified by the test kit manufacturer, and be in line with the test kit manufacturer's instructions on interpreting results.

CONCLUSION It is anticipated the recommended interpretive comments will be adopted by pathology laboratories across NSW when providing results of serology and PCR testing. The provision of these concise and consistent comments may result in improved diagnosis and management of patients by identifying when further confirmatory testing may be required.

DISCLOSURE Funding for this project was provided via an unconditional education grant from Merck Sharp & Dohme.

CLINICAL CARE POSTERS
POSTER NUMBER 6

SUCCESSFUL DAA-BASED THERAPY IN AN HIV POSITIVE PATIENT WITH FIBROSING CHOLESTATIC HEPATITIS AND DECOMPENSATED LIVER DISEASE FOLLOWING ACUTE HCV INFECTION

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BACKGROUND Fibrosing cholestatic hepatitis (FCH) has been reported, albeit rarely, in immunocompromised hosts, including chronic HIV/HCV co-infection, in the absence of orthotopic liver transplant. We report, for the first time, the diagnosis and successful treatment of recently acquired HCV infection complicated by FCH and decompensated liver disease with directly acting antiviral (DAA) therapy in an HIV positive individual.

METHODS Case study.

RESULTS A 60 year old man with HIV infection (CD4 count 389 cells/mm^3; HIV viral load 27 copies/mL on cART) was diagnosed with acute genotype 1a HCV infection in January 2013, after presenting with jaundice, deranged liver function tests and bilateral upper limb paraesthesia. Risk factors for HCV acquisition were intermittent injecting drug use (crystal methamphetamine) and unprotected sexual intercourse with HIV-positive male partners. Within 3 months of diagnosis, the presentation was complicated by biopsy-confirmed FCH, decompensated liver disease (Child-Pugh 9 [B]; MELD 29; peak bilirubin 402 umol/L; INR 1.6; albumin 21 g/L) and HCV-associated cervical myelopathy. Restoration of hepatic function (with normalisation of liver, biochemical and coagulation abnormalities) and a rapid (RVR) and sustained virological response (SVR 24) was achieved with 24 weeks of sofosbuvir (400 mg daily) and ribavirin (weight-based dosing), preceded by 3 weeks of dose-reduced pegylated interferon alpha 2a, ribavirin and telaprevir (while awaiting access to sofosbuvir). No adverse events were observed.

CONCLUSION This case demonstrates several unique features including acute HCV infection complicated by FCH, the development of HCV-associated cervical myelopathy and the effectiveness of DAA-based therapy in this difficult (and potentially fatal) clinical scenario. The rapid and sustained suppression of HCV replication in this critically ill, immunocompromised host offers promise for future DAA regimens in patients who would have previously been deemed ineligible for interferon-based treatment.

CONFLICTS OF INTEREST MM and PC have nothing to disclose. GJD has received research funding, advisory board payments, speaker payments, and travel sponsorship from Gilead and research funding, advisory board payments and speaker payments from Janssen. GVM has received research funding, advisory board payments and speaker payments from Gilead and research funding and speaker payments from Janssen.

CLINICAL CARE POSTERS
POSTER NUMBER 7

SAFETY AND EFFICACY OF TELAPREVIR AND BOCEPREVIR IN THE "REAL WORLD": AN AUSTRALIAN EXPERIENCE

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INTRODUCTION Phase III trials involving telaprevir (TVR) and boceprevir (BOC) demonstrated improvement in sustained virological response (SVR) as compared with prior standard of care for genotype (GT) 1 chronic hepatitis C virus infection (CHCV). Our objective is to evaluate the safety and efficacy of TVR and BOC with pegylated-interferon (PEG) and ribavirin (RBV) in a "real world" setting.

METHOD Between 30 August 2011 and 1 May 2014, 57 patients had commenced TVR or BOC with PEG and RBV for GT1 CHCV outside of a clinical trial at a single tertiary referral centre; 50 patients have completed at least 12 weeks of post-treatment follow up (SVR 12) and are included for analysis. Demographic, clinical, adverse event and virological data were collected from baseline until date of last follow up (with loss to follow-up equated with treatment failure).

RESULTS Of the 50 patients (male 39 [78%]; age 53 ± 8.8 years; Caucasian 48 [96%]; HIV 8 [16%]; GT 1a 34 [68%]; cirrhosis 26 [52%]; treatment-experienced 29 [58%]), 34 (68%) received TVR and 16 (32%), BOC. The baseline median liver stiffness measurement by transient elastrography (FibroScan) was 13.1 kPa (IQR 8.8 – 20.25 kPa).

SVR was demonstrated in 34 (68%), including 14/26 (54%) with cirrhosis. 14 (28%) did not complete the intended treatment course due to adverse events, with early cessation of TVR or BOC in 12 (24%). Dose reduction of PEG and/or RBV was required in 32 (64%). Significant anaemia (Hb <10g/L) was documented in 30 (60%), with mean RBV level 2.33 mg/L (95% CI 2.07 – 2.58) at week 4 and 2.55 mg/L (95% CI 2.32 – 2.78) at week 8. No decompensated liver disease was observed.

CONCLUSION While response to treatment was relatively favourable, adverse events were frequent, highlighting the need for alternative therapies.

CONFLICTS OF INTEREST MM, DHC and MD have nothing to disclose. GD has received research funding, advisory board payments, speaker payments, and travel sponsorship from Gilead and research funding, advisory board payments and speaker payments from Janssen. GM has received research funding, advisory board payments and speaker payments from Gilead and research funding and speaker payments from Janssen.

CLINICAL CARE POSTERS
POSTER NUMBER 8

DELIVERING TREATMENT FOR HCV INFECTION IN AN OPIOID SUBSTITUTION TREATMENT SETTING WITH INTEGRATED PEER SUPPORT: AN EFFECTIVE MODEL OF CARE

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BACKGROUND Among people who inject drugs (PWID), HCV prevalence is high and treatment uptake remains low, despite evidence treatment is successful. New models are needed to address barriers to care. This study evaluated assessment and treatment for HCV infection among PWID attending an opioid substitution treatment (OST) clinic in Newcastle, NSW integrating an on-site peer-support worker (PSW).

METHODS HCV-infected PWID attending the Newcastle Pharmacotherapy Service were assessed for HCV as part of the Enhancing Hepatitis C Treatment in Opioid Substitution Settings (ETHOS) Study, a multisite prospective observational study of people with chronic HCV and history of IDU. Utilizing the existing infrastructure for drug and alcohol care, a peer-support worker was introduced to complement and extend services offered by the clinical team (including nurse-led HCV assessment and referral to S100-approved physician). Nurse- and PSW-related contacts and the proportion assessed and successfully treated were evaluated.

RESULTS A total of 1,576 patient contacts were collected from 330 patients between May 2009 and December 2012. Of these, 1,177 were PSW-related contacts from 270 individual patients, with the majority related to discussions about HCV treatment (34%), general HCV assessment (27%) and HCV-related education/counselling/support (24%). Between May 2009 and July 2011, 332 nurse-related contacts were collected from 40 individual patients. The majority of discussion was related to HCV treatment (27%), review of pathology tests (18%) and general HCV assessment (14%). Among the 76 patients who were enrolled in the ETHOS study, 17% (n=13) had initiated HCV treatment and 70% (9/13) achieved an SVR.

CONCLUSION PSWs facilitated discussions on HCV-related education/counselling/support, allowing nurses to focus time on HCV-related assessment and treatment. Response to therapy was high in this small sample. Integrating PSWs in HCV treatment programs within OST clinics may address barriers to HCV care. Further studies are needed to assess the impact of PSW on HCV assessment and treatment.

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CLINICAL CARE POSTERS
POSTER NUMBER 9

DEVELOPING A NURSE LED HEPATITIS B CLINIC IN INNER WEST SYDNEY

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BACKGROUND Inner West Sydney has an ethnically diverse community, with 51.5% of the population from CALD Background. It has the highest hepatitis B prevalence in NSW, with an estimated prevalence of 1.67% (9,140 people). It also has the highest liver cancer incidence. To improve chronic hepatitis B (CHB) outcomes we developed a community based nurse led clinic.

METHODS This study has two parts. It consists of a quantitative study describing the patients who attended the clinic and a qualitative study utilising a survey completed by the patients about their perceptions of the clinic. We collected demographic, clinical data, referral information and care planning information on all patients who attended the clinic. Demographic and clinical was collected in Excel. Survey data was collected in SPPS. Analysis was conducted using SPSS.

RESULTS Between November 2012 and November 2013, 47 people (Female=25; Male =22) attended the clinic. 34% (16) were aged less than 40 years; 14 between 40-50 years and 15 were aged greater than 50 and 2 were aged greater than 70. 53% (25) were born in Vietnam. One GP Practice provided 17 (36%) of the referrals. 11 (23%) patients consented to take part in the survey. 7 (85%) rated their experience at the clinic as very good. All patients said they would recommend the clinic to someone else.

CONCLUSION This nurse led CHB clinic aligns with strategies/actions identified in the National HBV Strategy 2010-2013 and the recently released Draft National and NSW Strategies. Patients rated highly their care at the clinic. The CHB nurse also supports GPs in their long-term management of patients. We plan to do further research, on which strategies are most effective for improving linkages with GPs and increasing the number of people receiving appropriate management.

CLINICAL CARE POSTERS
POSTER NUMBER 10

SHOULD PATIENTS WITH HEPATITIS C GENOTYPE 2/3 INFECTION WHO ARE SLOW RESPONDERS TO PEG-INTERFERON AND RIBAVIRIN HAVE TREATMENT DURATION EXTENDED FROM 24 TO 32-36 WEEKS? A BEFORE AND AFTER STUDY

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BACKGROUND Approximately 30% of patients with genotype 2 or 3 (G2/3) hepatitis C virus infection (HCV) do not achieve rapid virological response (RVR) with pegylated interferon and ribavirin treatment. It is unclear if these "slow responders" benefit from extending treatment duration beyond the standard 24 weeks.

METHODS In 2009, we introduced a protocol to extend the treatment duration for G2/3 slow responders to 36 weeks in the hope of improving rates of sustained virological response (SVR). In this before and after study, we analysed prospectively collected data to compare non-cirrhotic, slow responder (i.e. negative RVR) G2/3 patients treated prior to the protocol change to those treated after it, with the primary outcome measure being SVR 24 weeks following treatment completion (SVR24). Null responders (i.e. virus detected at week 12) had all treatment ceased and were excluded from analysis.

RESULTS 9 eligible patients were treated prior to the protocol change (standard duration, 24 weeks) and 17 were treated after it (extended duration, 32-36 weeks). The standard duration treatment group did not significantly differ from the extended treatment duration group in terms of mean age (48 vs 45 yrs), gender (6 males [67%] vs 9 males 53%]), mean weight (76.8kg vs 78.4kgs), proportion with G3 (88% vs 65%), and mean ribavirin dose (13.5 mg/kg vs 14.1 mg/kg; p>0.05 for all of these comparisons). The SVR24 rate was higher in the extended duration group (15/17, 88%) than the standard treatment group (5/9, 55%, p=0.06)

CONCLUSION Patients with G2/3 HCV who fail to achieve an RVR with PEG-interferon and ribavirin may benefit from an extension of treatment duration from 24 to 32-36 weeks. Larger studies are needed to confirm these findings and to reconcile them with conflicting studies in the literature.

CLINICAL CARE POSTERS
POSTER NUMBER 11

REMOTE CHALLENGES? FIRST EVALUATION OF A FIBROSCAN® OUTREACH PROGRAM IN VICTORIA

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BACKGROUND Assessment of liver fibrosis is an important part of treatment evaluation in chronic hepatitis. In recent years FibroScan® has become the preferred method for non-invasive fibrosis screening. The availability of a portable device allows for wider access to fibrosis screening including clinics in remote areas.

AIMS Improving access to liver disease assessment through an outreach program using a mobile FibroScan®.

METHODS FibroScan® sessions were held at four different types of locations a tertiary hospital, a community health centre, a clinic for people who inject drugs (PWID) and four remote clinics in rural Victoria. Data were collected prospectively using a standardized CRF and analysed using STATA SE 12.

RESULTS Of the 447 individuals scanned, 110 patients (24.6%) were evaluated during outreach sessions (rural 47 (10.5%); PWID 14 (3.1%); community 49 (11.0%)). The median age of the population was 44 years, and 62 % were male. While most patients in tertiary or community centres were referred for assessment of chronic hepatitis B (54.3%; 69.4% respectively), the majority of patients in rural or PWID settings were evaluated for chronic Hepatitis C (76.6% ; 100% respectively (among PWID 21% HIV co-infected)).

The proportion of patients without marked fibrosis (median stiffness < 7 kPa) was significantly lower in rural settings compared to three other locations (rural 57.1%; tertiary 74.4%; community 85.4%; PWID 63.6%, p 0.026), and a higher proportion of patients in rural and PWID settings presented with advanced fibrosis/ cirrhosis (F4) (rural 19%; PWID 18.2%; tertiary 6.5%; community 7.3%, p 0.026).

CONCLUSIONS Distinct, difficult to reach populations can be successfully assessed through an outreach program using mobile FibroScan®. Patients in rural settings and PWID are more often infected with chronic HCV and present with advanced fibrosis, a finding that should promote efforts to improve health care provision for these populations.

DISCLOSURE OF CONFLICTS OF INTEREST Purchase of the mobile FibroScan® was facilitated through a grant from Royal Melbourne Hospital, no contributions from industry partners were received.

CLINICAL CARE POSTERS
POSTER NUMBER 12

"JUST TREAT THEM?"-BARRIERS TO HCV THERAPY DESPITE IMPROVED ACCESS TO MEDICAL CARE FOR PEOPLE WHO INJECT DRUGS IN SWITZERLAND

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BACKGROUND Assessment and treatment of somatic comorbidities including HIV and HCV infections remain challenging in people who inject drugs (PWID). Since 1995 KODA Bern provided on-site heroin maintenance treatment, psychiatric and nursing care for PWID. Additional on-site access to somatic care was implemented in 2009.

AIM To assess diagnosis, therapy and barriers to treatment of somatic comorbidities, including HIV and HCV, in PWID on heroin maintenance treatment before and three years after implementation of on-site somatic care.

METHODS Cross sectional analysis of all patients treated in KODA was performed before the implementation of on-site medical care in 2009 (n=201; 145 male (72.1%), median age 39) and repeated in 2012 (n=215, 153 male (71.2%), median age 43).

RESULTS Prevalence of somatic comorbidities was high in 2012, 187/215 patients (82.8%) were suffering from at least one somatic disease. The number of patients with regular access to somatic care increased from 32/201 (15.9%) in 2009 to 109/215 (50.7%) in 2012.

In 2012, 92 of 153 patients (60.1%) with positive HCV serology suffered from chronic HCV. Evaluation for HCV treatment increased from 9/80 (11.3%) patients in 2009 to 50/92 (54.3%) patients in 2012. Reasons for deferred treatment evaluation were patient's refusal (14), comorbidities (13) or awaiting better options (3). Of the 50 patients assessed for treatment, 16 started HCV therapy and 9 were awaiting treatment. In 25 individuals treatment was postponed due to comorbidities (4), patient's refusal (10) or waiting for better options (11). Prevalence of genotype 3 was significantly higher in the treated group (87.5% vs. 40% p=0.003) and genotype 1 was found more frequently in the untreated group (48% vs. 6.3%, p=0.005).

CONCLUSIONS Assessment and treatment of somatic comorbidities in PWID can be improved through on-site access to somatic care. However relevant barriers to HCV treatment persist despite optimized medical care.

CONFLICTS OF INTERESTS Nothing to disclose

CLINICAL CARE POSTERS
POSTER NUMBER 13

INTEGRATED APPROACH TO HEPATITIS C SERVICES FOR REFUGEES IN RURAL AND OUTER URBAN VICTORIA. WHAT PARALLELS APPLY WHEN DEVELOPING SERVICES FOR INDIGENOUS COMMUNITIES?

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BACKGROUND Evidence suggests that marginalized populations respond to client centred models of service provision. We describe the implementation of integrated hepatitis C services (IHCS) to improve treatment access for marginalised groups outside tertiary settings. We examine service outcomes and client engagement in refugee patients undergoing Hepatitis C treatment. We identify parallels which may facilitate planned development of IHCS within indigenous communities.

METHOD The Department of Health National Hepatitis C Strategy 2010-2013 recommended access to and uptake of treatment improvements to identified priority groups. These included, culturally and linguistically diverse groups and Aboriginal and Torres Straight Islanders. Melbourne Health implemented models of care targeted at addressing access barriers identified by the strategy.

Refugee Health primary care partners established community viral hepatitis clinics attended by an Infectious Diseases Physician (IDP) and a Clinical Nurse Consultant (CNC). Care was delivered through face to face and telehealth consultations. Flexible referral pathways, onsite Fibroscan assessment, the use of telehealth and CNC care coordination. Enabling minimal scheduled appointments and reduced travel. General practitioners managing refugee patients were supported by the IDP and CNC.

RESULTS Referrals have increased from targeted priority groups seeking information, assessment and treatment.

Refugee clients commenced treatment at three community viral hepatitis clinics or via telehealth. 14 Refugee patients from Afghanistan, Burma, Sudan and Iran commenced treatment.93% (13/14) required interpreters. Of those completing therapy 4/7 have had sustained virological responses, two have relapsed and one ceased therapy, 7 patients remain on therapy. Barriers to engagement included, availability of interpreters, cultural awareness, competing health priorities and prescribing complexities.

CONCLUSION Management of Hepatitis C in community settings with supportive partnerships and tailored models of care is possible. Patient groups experiencing discrimination, stigma, cultural and financial constraints engaged with care and successfully completed hepatitis C treatment.

DISCLOSURE OF INTEREST STATEMENT No conflict of interest to declare

CLINICAL CARE POSTERS
POSTER NUMBER 14

INTERFERON-FREE 3 DAA PLUS RIBAVIRIN REGIMEN IN HCV GENOTYPE 1-INFECTED PATIENTS ON METHADONE OR BUPRENORPHINE

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BACKGROUND ABT-450 is an HCV NS3/4A protease inhibitor (dosed with ritonavir 100mg, ABT-450/r) identified by AbbVie and Enanta. ABT-267 is an NS5A inhibitor, and ABT-333 is an NS5B RNA polymerase inhibitor. This 3D regimen, dosed with ribavirin (RBV) in treatment-naïve and -experienced HCV-infected genotype 1 (GT1) patients, has demonstrated SVR_{12} rates of 96% after 12 weeks of treatment. We evaluated the safety and efficacy of 3D+RBV in HCV-infected patients receiving chronic opioid replacement therapy, a challenging population with a high prevalence of HCV.

METHODS Non-cirrhotic patients with chronic HCV GT1 infection who were on stable methadone or buprenorphine +/- naloxone therapy were enrolled in this open-label study. Patients were treated for 12 weeks with co-formulated ABT-450/r/267 (2 tabs QD), ABT-333 (1 tab BID), and weight-based RBV (3D+RBV). The percentage of patients achieving SVR_{12} (HCV RNA <LLOQ 12 weeks post-treatment) was assessed in an intent-to-treat analysis.

RESULTS 38 patients were enrolled (19 on methadone, 19 on buprenorphine). Mean age was 48.2 years, 66% were male, 95% were treatment-naïve, 84% had GT1a infection, and 68% had IL28b non-CC genotype. One patient prematurely discontinued due to serious adverse events unrelated to study drug (cerebrovascular accident and sarcoma). The remaining 37 subjects (97.4%) all achieved SVR_{12}; complete data through post-treatment week 24 will be presented. There were no virologic failures. The most frequent adverse events were nausea (50%), fatigue (47.4%), and headache (31.6%); 8 patients experienced hemoglobin < 10 g/dL while on treatment, which was managed with RBV dose reduction. No dose adjustments of methadone or buprenorphine were reported.

CONCLUSIONS Among patients on stable methadone or buprenorphine therapy, the 3D+RBV regimen was well tolerated and achieved an SVR_{12} rate of 97.4%.

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V Rustgi: Research support AbbVie, Achillion, BMS, Gilead. Speaker Gilead, Genentech, Janssen.

H Aguilar: Grants AbbVie. Speaker Santarus, Ironwood.

F Felizarta: Speaker for Merck, Vertex, Boehringer-Ingelheim and ViiV; research (as principal investigator) with AbbVie, Merck, Vertex, BI, Janssen, Gilead, Roche, BMS, and ViiV.

D Cohen, M King: employees of AbbVie and may own AbbVie stock or options

CLINICAL CARE POSTERS
POSTER NUMBER 15

RESULTS OF THE PHASE 2 STUDY M12-999 INTERFERON-FREE REGIMEN OF ABT-450/R/ABT-267+ABT-333+RIBAVIRIN IN LIVER TRANSPLANT RECIPIENTS WITH RECURRENT HCV GENOTYPE 1 INFECTION

Kwo P[1], Mantry P[2], Coakley E[3], Te H[4], Vargas H[5], Brown, Jr H.[6], Gordon F[7], Levitsky F[8], Terrault N[9], Burton, Jr. J[10], Xie W[3], Setze W[3], Badri P[3], Vilchez R[3], Forns X[11]

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BACKGROUND Recurrence of HCV infection after liver transplantation is universal and is a primary cause of graft loss. Interferon-based HCV therapies have treatment-limiting toxicities and low efficacy. ABT-450 is an HCV NS3/4A protease inhibitor (dosed with ritonavir 100mg, ABT-450/r) identified by AbbVie and Enanta. ABT-267 is an NS5A inhibitor, and ABT-333 is an NS5B RNA polymerase inhibitor. We examined the safety and efficacy of ABT-450/r+ABT-267+ABT-333+RBV in adult liver transplant recipients with recurrent HCV genotype 1 infection.

METHODS In this ongoing open-label phase 2 study, non-cirrhotic liver transplant recipients with recurrent HCV GT1 infection received co-formulated ABT-450/r/ABT-267(150mg/100mg/25mg QD)+ABT-333(250mg BID)+RBV(1000-1200mg divided BID) for 24 weeks. The patients were≥12 months post-liver transplant, treatment-naïve after transplantation, and had a screening biopsy-confirmed Metavir score≤F2. Because of potential interaction between calcineurin inhibitors (CNIs) and the therapy, dose adjustment of CNIs was required. RVR, EOTR, and SVR4 are reported. SVR12 and data on CNI management will be presented.

RESULTS Thirty-four patients were enrolled. Baseline characteristics/efficacy are in the table. To date, all patients achieved RVR (34/34) and EOTR (13/13). The current SVR4 rate is 92% (12/13) with one relapse. Treatment-emergent adverse events (AEs) were observed in 88.2% of patients and were generally mild. The most common treatment-emergent AEs were fatigue (38.2%) and headache (35.3%). One patient discontinued study drug due to AEs after week 18. Five patients received erythropoietin at investigator discretion and none underwent transfusion. There were no episodes of acute rejection.

CONCLUSIONS The interferon-free regimen of ABT-450/r+ABT-267+ABT-333+RBV was generally well-tolerated and achieved high RVR, EOTR, and SVR4 rates in liver transplant recipients with recurrent HCV GT1 infection.

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The design, study conduct, analysis, and financial support of the clinical trials were provided by AbbVie. AbbVie participated in the interpretation of data, review, and approval of the presentation.

This presentation contains information on the investigational products ABT-450/r, ABT-267, and ABT-333, and investigational use of ribavirin.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 16

KNOWLEDGE CONCERNING HEPATITIS B OR C AMONG MARRIED WOMEN: A CASE FROM ENDEMIC HEPATITIS COUNTRY

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INTRODUCTION Viral Hepatitis is a serious health concern and one of the most important infectious leading causes of death worldwide. Viral hepatitis leads to at least one million deaths in the world yearly. An estimated 18 million Pakistani population is infected with the hepatitis B and C virus in all including nearly seven million infected with HBV and 11 million with HCV while the disease is constantly swelling. Every 10th Pakistani is believed to be suffering from viral hepatitis. Better disease related knowledge is important to have positive attitude and that will bring the good practices which will prevent the further spread of infection. This study aimed to evaluate knowledge concerning hepatitis among ever married women in Pakistan.

METHODS The 2012-13 Pakistan Demographic and Health Survey (PDHS) is the third DHS in Pakistan. A nationally representative sample of 14,000 households from 500 primary sampling units (PSUs) was selected. All ever-married women age 15-49 in selected households were eligible for individual interviews. In the selected households, 14,569 eligible women were identified for individual interviews and 13,558 were successfully interviewed.

RESULTS Younger women, those in rural areas, with no education, and those in the lowest wealth quintile are least likely to have heard of hepatitis B or C. Those respondents who had heard of hepatitis B or C were asked if there was anything a person could do to avoid getting hepatitis B or C and, if so, what. Nineteen percent of women reported that the disease could be prevented by avoiding using contaminated food and water, while 9 percent each cited using disposable syringes and avoiding contact with infected persons; 8 percent reported safe sex as a means of prevention, and 6 percent cited safe blood transfer. Nineteen percent said that there is nothing a person can do to avoid hepatitis or that they do not know of any means.

CONCLUSION Women who are more knowledgeable about ways to avoid hepatitis B or C include urban women, those with more education, and those in the higher wealth quintiles.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 17

HCV TREATMENT AS PREVENTION IN THE PRISON SETTING: THE STOP-C PROJECT

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BACKGROUND Hepatitis C virus (HCV) infection is common among prisoners due to high rates of incarceration of people who inject drugs (PWID) and ongoing risk behaviours during incarceration. Harm reduction strategies including needle syringe programs (NSPs) and opiate substitution treatment have moderate impact on prevention of HCV transmission in the community, but NSPs are not available in Australian prisons and few jurisdictions internationally. The advent of highly effective, all-oral, tolerable HCV therapy with direct-acting antivirals (DAAs) offers an alternate prevention strategy. The Surveillance and Treatment of Prisoners with Hepatitis C (SToP-C) study will evaluate the feasibility and potential impact of a rapid scale-up of HCV treatment with DAAs on the incidence of HCV infection over a two-year period in the prison setting.

METHODS The NSW prison setting offers a unique opportunity to evaluate HCV treatment-as-prevention because of high transmission rates, existing nurse-led models of care for hepatitis and history of collaboration in previous studies. SToP-C is possible through partnership of Corrective Services NSW, Justice Health NSW, clinical researchers, industry (Gilead Sciences) and community organisations (Hepatitis NSW, NUAA). Two maximum-security prisons have been selected for the preliminary proof-of-principle phase (Lithgow, Goulburn) involving ongoing HCV surveillance and DAA therapy (early at one centre, deferred for 12 months at one centre). Subsequent expansion to medium-security centres is planned. Cost-effectiveness will be analysed and an implementation framework developed for treatment-as-prevention programs in prisons across the state and nationally.

RESULTS Stakeholder consultation has confirmed wide support and a Protocol Steering Committee assembled with representation from partner organisations. The Surveillance Phase will commence in mid-2014, with early data used to model the required sample size for the Treatment Phase, planned from mid-2015.

CONCLUSION SToP-C is an innovative world-first project that offers significant potential to influence public health policy and opportunities to halt transmission of HCV in prisons and the community.

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EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 18

BLOOD BORNE VIRUS PREVALENCE AND RISK BEHAVIOURS IN INDIGENOUS AND NON-INDIGENOUS PRISON ENTRANTS

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BACKGROUND Indigenous Australians experience rates of viral hepatitis that are considerably higher than the non-Indigenous population with 10% of hepatitis C (HCV) and 7% of hepatitis B (HBV) notifications in 2013 in people identified as Indigenous. Prison is a well-understood risk factor for viral hepatitis with Indigenous Australians 25 more likely to be incarcerated. Specific risk factors for acquisition of viral hepatitis in prison have not been described in detail for the Indigenous population. The aim of this study was to examine hepatitis prevalence and associated risk factors in Indigenous and non-Indigenous prison entrants.

METHODS Data was from the National Prison Entrant's Blood Borne Virus Survey (NPEBBVS). The NPEBBVS is a triennial cross-sectional survey established in 2004. Successive prison entrants over a two-week period complete a survey and provide blood and urine samples. Demographic data, risk factors and serological markers for hepatitis B core antibody (anti-HBc) and hepatitis C antibody (HCVAb) were analysed.

RESULTS 1752 (90% male, 28% Indigenous) prison entrants participated with 532 (38%) testing positive for HCVAB and 249 anti-HBc positive. Logistic regression was used to determine risk factors associated with HCV and HBV positivity, by indigenous status. Risks for HCVAb positivity were being female, injecting drug use and age over 30 years. In Indigenous prisoners, prior incarceration and urban background were associated with HCVAb positivity. Anti-HBc positivity was associated with a rural and remote background and older age in Indigenous and injecting in non-Indigenous inmates.

CONCLUSIONS Hepatitis risk varied between Indigenous and non-Indigenous inmates. Public health programs and interventions should take into consideration similarities and differences between Indigenous and non-Indigenous offenders when considering programs, policy and allocating funding. Further research should explore effective HBV vaccination strategies and HCV treatment options as a way of reducing the burden of disease in this vulnerable population.

DISCLOSURE OF INTEREST STATEMENT No conflicts of interest

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 19

MAKING DATA COUNT: USING ROUTINELY COLLECTED POPULATION INFORMATION TO GUIDE HEALTH SERVICE DELIVERY FOR PEOPLE LIVING WITH CHRONIC HEPATITIS B

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2. Department of Medicine, University of Melbourne

BACKGROUND Initiatives to improve care for people living with chronic hepatitis B (CHB) are highly dependent on demography, with guidelines regarding initial testing and HCC surveillance dependent on age, sex and country of birth - data often routinely collected at the population level. We aimed to use routine data to identify priority communities affected by CHB in Australia, and help guide interventions accordingly.

METHODS Data from the 2011 Australian Census, combined with seroprevalence estimates by country of birth, were used to identify those areas and communities with greatest needs relating to CHB diagnosis and HCC surveillance. Language spoken and year of arrival were analysed to identify populations with greater barriers to health service access.

RESULTS Of Australia's higher CHB prevalence communities, people born in China, Korea, Singapore, Iran and Afghanistan are the most recently arrived and requiring initial diagnosis and assessment. Australia's Laotian, Timorese, Vietnamese and Cambodian communities have the greatest proportion of residents requiring HCC surveillance. More than half of Australians living with CHB live in just 15 of Australia's 61 health districts, areas where the prevalence of CHB is 1-2% of the population. The most common languages spoken by Australians living with CHB who speak little English are Vietnamese, Mandarin, Cantonese, Korean and Arabic.

CONCLUSIONS The population living with CHB in Australia is highly diverse, however tends to be geographically focused, aiding in targeting (and evaluating) public health initiatives. Routinely collected demographic data can help identify those communities most in need of specific aspects of the multifaceted response to CHB.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 20

ENHANCING PROVISION OF HEPATITIS C TREATMENT IN AUSTRALIAN PRISONS

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BACKGROUND Prisoners have been identified in the Third National Hepatitis C Strategy 2010–2013 as a priority population. Around 30,000 individuals are in Australian prisons at any one time. Overall, 21% of Australian prison entrants are seropositive for HCV. Despite the high prevalence, treatment coverage is low - < 1% of those eligible receive treatment.

The aim of this study is to define the scope of barriers and opportunities to increase HCV treatment delivery in prisons across Australia, ultimately to establish a rationale and framework for the development of infrastructure for enhancement of treatment delivery within Australian prisons.

METHODS 50 stakeholders will be interviewed from the correctional sector in each state and territory in 2 stages senior stakeholders from each jurisdiction to gather quantitative data and all stakeholders for qualitative data regarding barriers and opportunities for enhanced assessment and treatment services.

RESULTS In NSW approximately 3,000 prisoners were diagnosed HCV positive in 2013, 141 (4.7%) commenced treatment; 2,000 in Queensland prisons, 25 (1.3%) were treated; 100 in ACT prisons and 20 treated (20%) and 135 in Tasmania prisons and 0 were treated in 2013 (20 commenced treatment in 2012). Data collection from other states and territories is on going.

Common causes why prisoners may not come forward for assessment and treatment include fear of side effects, short sentences and lack of awareness of the treatment service, whilst punitive behaviour by staff emerged as a reason why prisoners are considered ineligible. An increase of hepatitis clinical nurse consultants is the most popular response to how prions services could be improved.

CONCLUSION Many systems-level factors relevant to the delivery of HCV treatment in prisons were identified. New prison based models of care need to be implemented statewide to enhance awareness and diagnosis of HCV, facilitate timely referral and institute treatment safely.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 21

KNOWLEDGE, ATTITUDE, BEHAVIOR & PRACTICE (KABP) ASSESSMENT OF HIV AND HEPATITIS C PREVENTION AMONG YOUNG INJECTING DRUG USERS IN KATHMANDU, NEPAL

Author THAPA HITENDRA

Affiliation SATHI SAMUHA

BACKGROUND There are estimated 2, 40,000 people living with Hepatitis C (HCV) in Nepal of these nearly 75 thousands have chronic Hepatitis C. More than 80% of HCV infections are among injecting drug users-IDUs (Liver Foundation Nepal/2012). At present there is no vaccination against HCV and its control depends on public awareness.

Similarly there are 91,376 hard drug users among whom more than 50% are IDUs. HIV prevalence rate among IDUs is 3.40% (Ministry of Home Affairs/2013). HIV & HCV co-infection is emerging as major cause of death among IDU.

METHODS SATHI SAMUHA a sub-recipient of Global Fund HIV & AIDS Program is working in Kathmandu district since 2009. SATHI implemented a survey among its IDU clients to assess KABP for HIV & HCV prevention in 2012. There were 75 IDUs enrolled in survey and all participants were male aged between 15-28 years.

RESULTS Among total respondents 94.40% have ever heard of HIV and HCV and major source of information were peers, drug service organizations and media. Similarly 62% and 54% know the major HIV and HCV transmission methods respectively and 48.30% and 34.60% have ever done HIV and HCV testing respectively. Safe injecting practices were reported by 95.30% and 18% have shared or re-used old syringes due to fear of arrest. Only 24% of respondents were married and condom use was reported by 46.50%.

15% of respondents believe that they will know HIV positive person by simply looking and 72% know there is treatment for HIV. Similarly 59% reported that HCV is transmitted through causal contacts and only 34.20% know there is treatment for HCV.

CONCLUSIONS Findings suggest that HIV awareness compared to HCV is very high among IDUs. Test and Treat for HCV infection must be the priority agenda for national health strategy for key affected population.

DISCLOSURE OF INTEREST SATHI SAMUHA is funded by the Global Fund HIV & AIDS Program and the development of this study does not receive any support from Medicine Company.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 22

STOP THE CONFUSION: DEVELOPMENT OF BEST PRACTICE COMMENTS TO PROMOTE UNDERSTANDING OF HEPATITIS B SEROLOGY RESULTS

Towell V[1]

[1]Australasian Society for HIV Medicine

BACKGROUND GPs are well positioned to opportunistically test those at risk of hepatitis B and ensure people with hepatitis B understand their diagnosis and appropriately manage their infection. However, several studies have identified gaps in knowledge (including difficulty interpreting hepatitis B serology) as a barrier to GPs taking a greater role in the management of hepatitis B. In conjunction with other workforce capacity building strategies, this project aimed to break down this barrier in order to improve diagnosis and management of hepatitis B diagnosis within primary care.

METHODS A Working Group (WG) comprising laboratory scientists, pathologists, infectious diseases physicians, microbiologists, gastroenterologists and public health representatives was established and terms of reference agreed to. Consensus on the final wording was obtained over a ten month period via teleconference and email consultation.

RESULTS The 14 page document "Interpreting hepatitis B serology Recommended wording for national laboratories to report hepatitis B diagnostic test results" was produced and endorsed by ten organisations. All possible test outcomes, interpretation of results and further actions following serology testing were considered by the WG and incorporated in the final document. The comments had to be consistent with the Medicare Benefits Schedule and be in line with national immunisation handbook.

CONCLUSION An evaluation is planned to gauge the uptake the recommended interpretive comments have had by pathology laboratories across Australia when providing serology results for hepatitis B.

DISCLOSURE Funding for this project was provided via an unconditional education grant from Gilead.

EPIDEMIOLOGY, PUBLIC HEALTH AND PREVENTION POSTERS
POSTER NUMBER 23

PROJECT TO PROVIDE IMPROVED AND SUSTAINABLE HEPATITIS C SERVICES TO ABORIGINAL COMMUNITIES ACCESSING 5 ABORIGINAL MEDICAL SERVICES (AMS) IN REGIONAL NSW

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1. Australasian Society for HIV Medicine
2. Griffith Aboriginal Medical Service

BACKGROUND The Australasian Society for HIV Medicine (ASHM) has been working with the Riverina Murray Alliance, an alliance of Aboriginal Medical Services (AMS) in regional New South Wales, to strengthen staff and organisational capacity to address local needs in relation to hepatitis C virus (HCV) prevention, testing and management. The goal of the program is to provide improved and sustainable hepatitis C services to local Aboriginal Communities.

METHODS The program has been informed by comprehensive needs assessment conducted with the participating AMSs. The needs assessment informed a greater understanding of the services' context, size, priorities, patient numbers and current engagement with hepatitis C and/or management of other chronic diseases.

An advisory committee made up of representatives from each AMS has been formed to guide the program. A multifaceted approach has been devised containing three core areas education & training, the development and implementation of HCV clinical & organisational tools and ongoing professional development. HCV clinical & organisational activities include the adaptation and implementation of a model of care, team care plan and mapping of local clinical pathways including agreements between the AMSs and treatment services. AMSs are able to elect which activities to participate in based on their capacity and needs.

A comprehensive evaluation plan has been developed and agreed to by the advisory committee.

RESULTS The stakeholder consultation and analysis indicated that the services involved vary significantly in their engagement with hepatitis C and their capacity to increase engagement.

Program activities are currently underway.

CONCLUSION ASHM will discuss program progress and outcomes to date. Conference attendees will gain insight through the presentation of challenges encountered and lessons learnt. Conference attendees develop an understanding of HCV clinical and organisational management tools for an AMS context.

Nothing to disclose

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 24

THE LOVE YOUR LIVER CAMPAIGN – A VEHICLE TO NORMALISE VIRAL HEPATITIS

Anderson W

BACKGROUND Lack of awareness and negative perceptions of viral hepatitis in the community has damaging consequences for individuals living with hepatitis and undermines efforts to reduce the disease burden. The ***Love your Liver*** campaign aims to counter negative perceptions and improve understanding by normalising viral hepatitis as a liver health concern for all Australians.

METHODS The *Love Your Liver* campaign was developed by Hepatitis Australia to increase hepatitis awareness and understanding within Australia. It is a five-year campaign which commenced in 2011; activities concentrate around World Hepatitis Day (WHD) but continue across the whole year.

During the initial stage, the campaign sought to create conversations about general liver health incorporating soft messages about viral hepatitis. Methods included engaging the general community through the ***Love Your Liver*** website, social media, branded merchandise, events, newsletters, information resources, the O'liver mascot and broadcast media.

As the campaign progresses, more direct and specific viral hepatitis messages are being incorporated within the liver health framework. Hepatitis Australia leads the campaign while providing support and consultation to member and partner organisations.

RESULTS Evaluation to date show the campaign has effectively engaged public interest around liver health and helped reach a broader range of services. However, difficulties in implementing the campaign have been encountered. The strengths and challenges of the campaign design, implementation and evaluation will be discussed.

CONCLUSION Multiple approaches to normalising viral hepatitis in the community are needed. The *Love Your Liver* campaign provides one approach to hepatitis awareness and education by positioning viral hepatitis in the overall context of liver health. The campaign clearly recognises the general public as a key stakeholder; a necessary consideration in reducing stigma of viral hepatitis.

DISCLOSURE OF INTEREST STATEMENT Financial support for the *Love Your Liver* Project is provided by a range of Pharmaceutical Companies.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 25

CHANGING TRENDS, CHANGING DEMOGRAPHICS IN NEW SOUTH WALES - NEEDLE AND SYRINGE PROGRAMS IN 2020. WHAT DO THEY NEED TO LOOK LIKE?

Bath N

NSW Users and AIDS Association, Inc., Sydney

BACKGROUND The NSW Users and AIDS Association is the NSW drug user organisation that has been operating for 25 years. NUAA provides education, practical support, information and advocacy to users of illicit drugs, their friends, and allies. NUAA has often led the way in developing innovative approaches to peer education and community development, and has contributed to Australia having one of the lowest HIV rates amongst injecting drug users in the world.

With a changing membership mirroring the changing drug trends and demographics of our community NUAA's policy program has been focusing on what the NSW needle and syringe program will

METHODS The project has consulted with government representatives, needle and syringe program providers, existing NSP consumers, new initiates and priority populations including; young people, gay men, people who inject steroids and people who inject occasionally. A literature review has also been undertaken along with the exploration of new and developing technologies both nationally and internationally.

RESULTS The process has enabled NUAA to take stock and reflect upon the views of the varying stakeholders so that a position could be formulated and published in a discussion paper. The discussion paper will be used to advocate to ensure that the NSW needle and syringe program is equipped and able to meet the challenges that the future will bring.

CONCLUSION The NSW NSP needs to be enhanced and diversified if it is going to be able to improve people's health, eliminate HIV and drastically reduce the incidence of hepatitis C amongst the diverse population that inject drugs.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 26

RAPPED IN POETRY: A SUCCESSFUL EXAMPLE OF MEANINGFUL ENGAGEMENT AND COLLABORATION IN A CUSTODIAL SETTING WITH NO BUDGET

Bearpark R, Osborne R

BACKGROUND Hepatitis C prevalence in Australia is highest in the correctional setting.

HCV prevalence is six times higher in prisons than in the broader community. Being in prison is a transmission risk in itself and recognised by national and state hepatitis strategies which highlight the importance of prevention for prisoners.

Despite prioritising prison populations, allocated resources and structural policies can severely limit harm reduction and health promotion initiatives. Aiming to engage affected communities meaningfully within this context poses further challenges to health promotion projects in prison.

APPROACH Using community development principles the project worked with a group of prisoners to produce hepatitis C health promotion messages set in custodial environments and used multi-media and contemporary formats to which prison communities could relate.

All members of the group had been sentenced for drug related crime and were serving their sentence in Parklea Compulsory Drug Treatment Correctional Centre (CDTCC).

Stage one of the project ran a series of education sessions with prisoners identifying and exploring key issues that prisoners contend with to reduce the risk of HCV transmission in custody.

Stage two introduced two slam poets to the sessions which produced the foundation for a gritty piece of health promotion poetry.

Stakeholder partnerships in stage three developed multiple facets that could engage communities most affected while also providing diverse platforms for knowledge and skills development, music, literacy and social confidence in performance.

RESULTS The project produced 4 education sessions and a health promotion poem. Through a series of music workshops the poem was put to music and performed in another video workshop producing a music video that is used on prison TV.

CONCLUSION Combining available resources and skills across organisations who work with prisoners, strengthens networks and supports genuine community engagement to produce relevant messaging to high risk populations.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 27

PERCEIVED DISCRIMINATION IS ASSOCIATED WITH INJECTING RISK IN A SAMPLE OF PEOPLE WHO INJECT DRUGS

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BACKGROUND Previous research on stigma and discrimination indicates that this has negative consequence for both health care delivery and for health outcomes, including the transmission of hepatitis C, for people who inject drugs (PWID). Also important but not as well researched is the association between perceived discrimination and increased engagement in risky behaviours. This research aimed to explore whether perceived discrimination from workers in needle and syringe programs (NSPs) is associated with increased engagement in injecting risk practices such as the sharing of injecting equipment.

METHODS Convenience sampling was used across six NSP sites within Western Sydney, Australia. All clients who attended one of the NSPs were eligible to participate. Clients completed the survey at the NSP.

RESULTS Perceived discrimination from NSP staff was found to be significantly associated with some injecting risk practices. Respondents who reported greater perceived discrimination from NSP staff were significantly more likely to report being injected after someone else (12.0 vs. 9.8, $t=-3.587$, $df=227$, $p<0.001$) and reusing a needle or syringe (11.2 vs. 9.9, $t=-2.171$, $df=225$, $p<0.05$) in the last month. Although clients reported perceiving more discrimination from general health workers than from NSP workers (12.8 vs. 10.2, $t=7.739$, $df=226$, $p<0.001$), perceived discrimination from general health workers was not associated with increased injecting risk practices.

CONCLUSION The findings of this study suggest that NSP workers need to be aware that although they work in a model which is usually supportive and non-judgemental, their clients may still have a heightened sensitivity to discrimination which may then contribute to on-going engagement in risk practices associated with hepatitis C transmission

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 28

DRAWING THEM IN – STORIES FROM PEOPLE WHO KNOW

Cherry B R, Hepatitis NSW

BACKGROUND In a field as broad as viral hepatitis the development of health promotion resources that are engaging, practical, culturally appropriate and targeted is an ongoing challenge.

The problematic and counter-productive hepatitis C health promotion messages identified by Winter, Fraser, Booker and Treloar in their *'Technical review of hepatitis C health promotion resources'* (National Centre for HIV Social Research, 2011) highlight the need for rethinking the way such health promotion messages are informed and phrased.

METHODS The peer-based storyline process *Drawing Them **In*** incorporates the recommendations outlined by Winter et al in producing *Transmission Magazine*, a quarterly low-literacy magazine for people affected by hepatitis C in NSW.

I will examine the 12 recommendations from the *Technical review of hepatitis C health promotion resources'* (Winter et al, 2011) and map these against the *Drawing Them In* model of resource production in order to identify benefits of and challenges to effective health promotion messaging.

RESULTS This project and its outcomes demonstrate a targeted and engaging health promotion initiative that specifically addresses many of the short-comings identified by Winter et al.

Drawing Them In participant evaluation shows both actual and self-reported increased in knowledge about hepatitis C prevention and management alongside self-reported increased likelihood to seek healthcare relating to hepatitis C.

CONCLUSION The defining features of *Drawing Them In* - active involvement of peers from key sub-populations within the affected community, alongside a holistic health education approach informed by health literacy principles - provides a strong model for the production of effective and appropriate hepatitis C health promotion resources.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 29

WALK THE TALK: EXPERIENCING WHAT HEPATITIS C PREVENTION FEELS LIKE: SKILLING AND SUPPORTING YOUTH ORGANISATIONS TO ENGAGE WITH YOUNG PEOPLE ABOUT HEPATITIS C

Clayton-Freedman S, Hepatitis NSW

BACKGROUND There is a lack of knowledge about hepatitis C prevention for young people.

Organisations working with young people are ideally placed to address this gap, and increase access and engagement with hepatitis C prevention and education services.

METHOD NSW Going Viral is a three staged capacity building project targeting organisations working with young people Hepatitis C education, including exploring value and attitudes, and current/ potential hepatitis C service delivery.

Firsthand experience for participants to access local hepatitis C prevention services and Needle and Syringe Programs (NSP).

Grant funding and support to develop localised hepatitis C activity within the service.

- Going Viral was initially run as a local project in 2012.
- Successful project evaluation and promotion led to the development of a wider network of project partners across the State, enabling a scale up of the reach and impact of the project.
- The project has a three year timeframe, with June 2014 marking the end of the first year of successful implementation of the project.

RESULTS Evaluation results highlight - Increase in knowledge, skills and confidence of youth targeted organisations to engage with young people about hepatitis C.

Increase in links between youth targeted organisations and hepatitis C prevention services, as well as changes in values and attitudes around people who inject drugs and NSP.

Development and delivery of localised hep C prevention projects within the youth targeted organisations.

CONCLUSION Innovative project design ensures that participants are fully trained and supported, including breaking down barriers to NSP provision, to ensure increased potential for hepatitis C transmission prevention for young people at risk of hepatitis C.

The State wide partnership approach successfully increases the reach and impact of the project, focussing on channelling resources directly into local services.

DISCLOSURE OF INTEREST NSW Going Viral is a partnership project between Hepatitis NSW, and the HIV/AIDS and Related Program Units of Far West Local Health District (LHD), Nepean Blue Mountains LHD, South Eastern Sydney LHD, Sydney LHD, and Western Sydney LHD. The contribution of all project partners will be acknowledged within all reports and presentations of NSW Going Viral. The author has no commercial relationships that might pose a conflict of interest in connection with this paper.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 30

HEPATITIS HEROES: A DIGITAL FIGHT AGAINST STIGMA AND DISCRIMINATION

Eagle M, Chief Executive Officer, Hepatitis Victoria

BACKGROUND Stigma and discrimination often inhibits people with viral hepatitis from demanding the support and heath care they deserve. New digital techniques, giving expression to the affected community and supporters, can help maximize the voice against stigma.

METHOD For its 21st, Hepatitis Victoria focused on the people – those behind the organisation, and taking it forward. Activities culminated in a '**Hepatitis Heroes'** event at Melbourne's Federation Square.

In November 2013 a Government representative, surrounded by people in Hepatitis Heroes t-shirts, launched the website. Passersby were asked – online or partition – to fight discrimination. With the Happy Livers band playing, Heroes spoke publically.

The Hepatitis Heroes website features individual Heroes, including public health advocates, clinicians, community workers, and those bravely confronting their own condition.

Launched with 21 stories, further Heroes have come forward. Each shares why the issue is important and their message to others. Each is encouraged to use social media to spread the word, reinforced across multiple media channels by Hepatitis Victoria.

The site, containing a video of the launch, invites the public to make a pledge against discrimination, and encourages comment.

Filming of each Hepatitis Hero is underway. These vignettes will enliven the site, allowing others to use it to better convey the personal dimensions of hepatitis.

These collated personal videos will be utilised in a variety of digital forms to further spread the word – via you tube, social media, in health promotion and in education sessions.

RESULTS Promoting hepatitis heroes has allowed Hepatitis Victoria to build relationships with valued collaborators in fighting discrimination. It has also generated a versatile body of information to be used in multiple ways to further spread the word.

CONCLUSION Digital media can be a useful tool in giving expression to the personal impact of hepatitis and maximizing the fight against discrimination.

DISCLOSURE OF INTEREST STATEMENT None

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 31

COMMUNITY INVOLVEMENT IN CREATING SUPPORTING ENVIRONMENT TO ADVOCATE AND TREAT HCV IN RESOURCE LIMITED SETTINGS

Gauchan H

Regional President of Union C; Program Coordinator, Methadone Maintenance Treatment Program, Save the Children

BACKGROUND In Nepal, it is estimated that more than 90% of the drug users' community are infected with HCV. Many have been passed away due to coinfection of HCV and HIV and many are in the regulations in lack of awareness and treatment. In this context Union C (UC), one and only official network of HCV infected people in Nepal take a lead to strengthen hepatitis fellowship in Nepal as per their predetermined objective of raising the hepatitis awareness and advocacy for free and affordable treatment inside the country.

METHOD UC carried out the awareness and orientation activities in five different regions of Nepal in the support of Asian Network of People who Use Drugs (ANPUD) in the year 2011. UC is able to identify and appoint one focal person in all five regions as an outcome of the event. The focal persons is given the responsibility of identifying the HCV infected population and at the same time encouraged the others potential populations for testing in their region.

RESULT After the hard work of months UC has been succeeded to identify 140 plus members in the country during the year 2012. After the several consultations made through email and telephone conservation, UC organized the general assembly and has revised the executive committee one each member from other four regions and three members from the central region. UC is also able to make a separate regional board in all the five regions.

CONCLUSION Slowly people had started to come out and hepatitis momentum has been created inside the country. Infected populations are more open than before and are encouraged to support others member to come out. Advocacy campaigns are running throughout the country to advocate for treatment accessibility and created an example how the community participation can lead to the successful interventions.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 32

EXPLORING THE EFFICACY OF A PEER DRIVEN AND COMMUNITY CONTROLLED NSP IN SYDNEY

Candice Gilford

Community Programs Worker NSP NUAA

BACKGROUND NUAA, The NSW Users and AIDS Association is the NSW state wide drug user organisation and provides a primary NSP in Surry Hills and outreach NSP services in Cabramatta.

METHODS Central to the success of NUAA's NSP services is that they are designed and delivered by people who inject drugs for people who inject drugs. The NSP services are multifaceted and include a range of peer driven interventions such as strong community participation and engagement, a range of health promotion activities and regular innovative peer education sessions.

RESULTS This presentation will outline why strong community engagement is so important in the fight to stop the spread of viral hepatitis amongst people who inject drugs. NUAA understands that health promotion is at its strongest, when communities take ownership and control of health messages and activities. This presentation will provide examples of peer controlled health interventions. By working in partnership with the community NUAA is able to ensure the activities and messages in our NSP are appropriate and relevant.

CONCLUSION This presentation will explore the various components of NUAA's peer run NSP services. It will evidence why a peer run NSP can deliver a range of services whilst delivering peer driven interventions that increase the knowledge and reduce the incidents of viral hepatitis amongst injecting drug users.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 33

HOW THE HCV DIAGNOSIS EXPERIENCE MATTERS FOR FUTURE HEALTHCARE ACCESS; A QUALITATIVE STUDY OF WOMEN'S EXPERIENCES

Mitchell S [1,2], Bungay V [3], Day C[1], Mooney-Somers J[4]

Sydney Medical School, University of Sydney[1], BC Center for Disease Control[2], University of British Columbia[3], Centre for Values, Ethics and the Law in Medicine, University of Sydney[4].

BACKGROUND Hepatitis C virus (HCV) affects an estimated 250,000 Canadians. Despite recent reductions in the number of new HCV cases, prevalence remains high and rates of acute HCV are increasing more rapidly in women than men. Despite this being a critical time for HCV care, Canada lacks a national strategy to address the burden of disease or HCV diagnosis guidelines.

HCV diagnosis has long been described as being trivialization by healthcare providers. The absence of information and support at diagnosis may reduce follow-up and it remains unclear whether advances in HCV knowledge and treatment are reflected in the diagnosis experience. This presentation will focus on Canadian women's experience of HCV diagnosis.

METHODS This qualitative study was conducted in 2011 across three Canadian provinces. Through purposive sampling techniques 24 women were recruited and interviewed. Narrative methodology was used to explore and capture the women's experience of living with HCV.

RESULTS The thematic analysis revealed the experience of diagnosis was significant for the women in their journey into care. In this presentation two themes will be highlighted how women came to be diagnosed, including the context in which diagnosis took place, and the HCV-related information that women were given at diagnosis and how they interpreted or acted on this information.

CONCLUSION Whilst much insight into HCV has been gained, the information provided to women at diagnosis remains inadequate. Improving the diagnosis experience is a first step towards improving health outcomes and reducing the burden of the disease for the growing number of women living with HCV. Canada currently lacks a national HCV strategy, which could facilitate improvements in diagnosis and outcomes for people with HCV.

DISCLOSURE OF INTEREST STATEMENT None to disclose.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 34

LINKS-TO-LEARNING HEPATITIS C WORKSHOPS TWO YEARS ON: EVOLVING NEEDS OF YOUNG PEOPLE IN SCHOOLS AND OTHER DIVERSE SETTINGS

Paljor, S. Multicultural HIV and Hepatitis Service (MHAHS).

BACKGROUND Young people from culturally and linguistically diverse (CALD) backgrounds face multiple disadvantages that make them amongst the most vulnerable to hepatitis C. As young people, they are prone to risk factors that encourage uptake of injecting drug use. These include

- Experimentation with drugs including tobacco, alcohol and marijuana at a young age
- Behavioural problems through primary school
- Community disadvantage
- Incompletion of high school
- Poor academic achievement and negative feelings toward school

As members of the CALD communities, young people are likely to have low levels of viral hepatitis knowledge as well as facing barriers in accessing information and appropriate care from health professionals.

METHOD USED OR APPROACH TAKEN (DESIGN) In response, MHAHS partnered with priority community organisations to start a Links to Learning (L2L) hepatitis C program in 2011. Links to Learning (L2L) is a program implemented by the NSW Department of Education that provides grants to community based organizations to work with young people who experience barriers to participating in mainstream education and are at risk of leaving school. The program aimed at increasing awareness of hepatitis c transmission and prevention among young CALD people. L2L hepatitis C program has now reached priority groups across Sydney metro area.

RESULTS The program conducted more than 20 workshops and reached over 200 students across numerous Sydney metro schools. Feedback from students and partner organisations indicate strong community approval and participation.

CONCLUSIONS This presentation will look at some of the program's key features and share how it evolved over two years, with its inherent strengths and limitations. The presentation will highlights the importance of effective planning and community engagement, and a strong partnership approach in the development and implementation of health promotion strategies.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 35

EXPEDITING THE APPROVAL OF NEW TREATMENTS BY HARNESSING COMMUNITY ADVOCACY TO ACHIEVE CHANGES IN POLICY AND SERVICE DELIVERY FOR PEOPLE LIVING WITH HEPATIS C

Pieper, D Hepatitis NSW

BACKGROUND Hepatitis C faces challenges in attracting community support because of its association with injecting drug use, an illegal and highly stigmatized behavior. People living with hepatitis C are often socially excluded or isolated because of stigma and discrimination. This has limited broad community advocacy for and by people with hepatitis C.

METHODS Hepatitis NSW's ***C me*** Project recruited and trained Community Advocates from the affected community to act as local advocates in the Treat Us Better campaign. Community Advocates put a human face to campaigning and were active in advocating for change. Supporting and training volunteers to use their life experience to advocate for change provides a voice for communities affected by hepatitis C and enhances the capacity of Hepatitis NSW to interact with every Local Health District, Medicare Local and Electorate in NSW.

RESULTS Personal stories and the involvement of people with lived experience was a powerful tool in effecting change

Providing a range of campaign tools enables people to participate in campaign activities at a variety of levels

Involving Community Advocates in the development of the campaign message helps ensure the relevance of the message

Activities involving Community Advocates were successful in presenting the case for treatment approval to key political decision influencers

CONCLUSION Results from the Treat Us Better campaign demonstrate the importance of engaging in community advocacy campaigns. Although Community Advocacy requires intensive activity, the benefits to Community organizations are extensive. Communities of people living with hepatitis C are stronger with more active participants working together to tackle hepatitis C and enact change. As a result, people with hepatitis C are able to lead more active, healthier lives.

DISCLOSURE OF INTEREST STATEMENT The ***C me*** Project is part jointly funded by unrestricted educational grants to Hepatitis NSW from Merck Sharp & Dohme; Janssen and Abbvie.

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 36

DEVELOPING INFORMATION RESOURCES FOR PEOPLE AFFECTED BY HEPATITIS B AND LIVER CANCER

Robotin M1,2, Porwal M[1], Hopwood M[3], Treloar C[3], George J [2,4]

1 CCNSW 2 University of Sydney 3 Centre for Social Research, the University of NSW, 4 Westmead Millenium Institute

BACKGROUND In NSW, approximately half of all hepatocellular cancers (HCC) occur in people born in hepatitis-B endemic countries, who are 6-12 times more likely to develop these liver tumors than non-Indigenous Australian-born individuals. While in time modern antiviral therapies will lead to reductions in HCC incidence, the burden of disease is anticipated to rise in coming years. Limited available patient information resources and support systems about HCC (particularly for non-English speaking patients) led us to identify and address these deficiencies.

MATERIAL AND METHODS We researched the information needs and preferred sources of health information of people affected by HCC using in-depth interviews (IDI) and focus group discussions (FGD) conducted in English, Vietnamese, Cantonese and Mandarin. The findings informed the development of customized multi-media information and support resources for people affected by HCC (patients and carers).

RESULTS Four FGDs involved 29 participants (2 FGDs were conducted in English and one each in Cantonese and Mandarin); another 18 people took part in IDI (in all 4 languages). FGD and IDI transcripts were transcribed, translated and subjected to thematic content analysis. Key themes were analysed; they related to doctor-patient communication, HCC-related investigations, diagnosis and staging, treatment options, availability of practical support and preferred sources of health information. They formed the basis for developing scripts for the multimedia resources, which were filmed in 4 languages, featuring liver specialists, hepatology nurses, patients and consumer representatives.

CONCLUSION The resources will be distributed through liver clinics, private specialists and made available to community organisations serving migrant communities and through the ***B Positive program*** to ensure they reach the intended recipients in a timely fashion. This model of action research and resource development can meet the information needs of a wide range of people affected by hepatitis, chronic illness or cancer in CALD and Indigenous communities.

DISCLOSURES This work was funded by Cancer Council NSW and a grant from Cancer Australia

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER37

HIV/HCV CO-INFECTION: ENGAGING WITH HIV POSITIVE MEN WHO HAVE SEX WITH MEN (MSM)

Garry Sattell[1] Dimitri Daskalakis[2]

[1]Hepatitis Victoria [2]Living Positive Victoria

BACKGROUND In 2011 there was international concern that an epidemic of sexually transmitted hepatitis C among HIV positive men who have sex with men (MSM) was unfolding, with increasing diagnosis being reported around the world, including in Melbourne. There was a cluster of forty four men in Melbourne who were recently infected with hepatitis C, the majority of whom denied ever injecting drugs, making sexual transmission the most likely mode of transmission.

METHOD Living Positive Victoria and Hepatitis Victoria responded to the 'Melbourne Cluster' by launching a Victorian Health Department funded project to engage with and raise awareness of hepatitis C among HIV Positive MSM.

The project involved actively engaging with the affected community through public information sessions and targeted higher sexual risk activity forums, including; 'anal master-classes' that focused on high risk, douching and reducing trauma, safe use of sex toys and safer fisting practices, as well safer injecting of drugs in sex scenes.

Other initiatives included;

- The establishment of a multi organisation reference group
- Editorial and social marketing in community media; printed, online and radio
- Printed and online resources developed and distributed throughout community venues
- Coinfection training to sector health promotion staff

RESULTS Engagement included Over 100 people attended information sessions

Over 70 at risk men attended 'anal master-classes'

Development and distribution of printed and online resources

HIV / HCV cross sector staff training in coinfection

CONCLUSION The project has provided risk specific information directly to people at risk of sexual transmission of hepatitis C, using a variety of methods, including; face to face engagement, development and distribution of printed and online resources. The project has also provided the opportunity for sector training in relation to co-infection among HIV positive MSM.

DISCLOSURE OF INTErest This project was funded by the Victorian Department of Health

COMMUNITY AND SOCIAL RESEARCH POSTERS
POSTER NUMBER 38

IMPROVING CHLAMYDIA AND HEPATITIS C AWARENESS THROUGH A SEXUAL AND REPRODUCTIVE HEALTH EDUCATION PROGRAM FOR ABORIGINAL AND TORRES STRAIT ISLANDER STUDENTS IN VICTORIAN SECONDARY SCHOOLS

Whitton B[1], Kinsey R[1], Greet B[1], Sutton K[1]

[1]Melbourne Sexual Health Centre

BACKGROUND Aboriginal and Torres Strait Islander (ATSI) people aged 15-29 experience a high burden of chlamydia and hepatitis C infection nationally.

Victorian secondary schools are encouraged to engage local ATSI, community sexual health and hepatitis organisations as a resource to enhance the sexual and reproductive health curriculum delivered to ATSI students in years 7-12.

The Wulumperi ATSI Sexual Health Unit at Melbourne Sexual Health Centre offers schools with ATSI students an opportunity to participate in a structured program that complements and improves their knowledge about chlamydia and hepatitis C.

METHODS Wulumperi developed a culturally and educationally peer reviewed program designed to enhance key messages that impact on the sexual and reproductive health of ATSI secondary students.

Importantly the program includes, encourages and supports local ATSI, community, sexual health and hepatitis organisations to be involved with the education and to continue delivery of the program in the future.

The program focuses on three main themes

1. Chlamydia and Hepatitis C transmission.
2. Health promotion and harm reduction messages about safe sex, injecting, tattooing, and body piercing.
3. ssing information, screening and treatment services provided by local ATSI, community, sexual health and hepatitis organisations.

RESULTS Evaluation of the program participants, (348 students at 25 schools) measured their knowledge about the messages delivered. Most students identified risks of acquiring chlamydia, hepatitis C infection and the importance of using condoms for safe sex and using clean injecting, tattooing, and body piercing equipment. Students also identified where to access information and health services in their local area.

CONCLUSION Partnerships between schools and health service providers delivering this effective program increases knowledge and awareness about chlamydia, hepatitis C, harm reduction and access to health services for ATSI students in Victorian secondary schools. Continued collaboration with schools and local health service providers will impact on reducing the rates of chlamydia and hepatitis C transmission.

DISCLOSURE OF INTEREST STATEMENT n/a

EXHIBITS
POSTER NUMBER 1

"ONLY YOUR BLOOD CAN TELL THE STORY" – A PARTICIPATORY ACTION RESEARCH PROJECT TO INFORM THE DEVELOPMENT OF A CULTURALLY APPROPRIATE TOOL TO AID PATIENT DISCUSSIONS ABOUT HEPATITIS B

Davies J[1,3], Bukulatjpi S[2], Sharma S[3], Johnston V[1], Davis J[1]

[1] Menzies School of Health Research, Rocklands Drive, Darwin, NT
[2] Miwatj Health Aboriginal Corporation, East Arnhem, NT
[3] Royal Darwin Hospital, Rocklands Drive, Darwin, NT

BACKGROUND Hepatitis B (HBV) is endemic in the Indigenous communities of the Northern Territory. Although there is a paucity of research examining health literacy regarding HBV, it is recognised that low health literacy levels, different worldviews and English as a second language all contribute to the difficulties health workers often have in explaining biomedical health concepts to patients.

METHODS The impetus for this project came from health clinic staff at a remote community in Arnhem Land in the Northern Territory. Participants were clinic patients with HBV (12) other community members (9) and key informants (13), 25 were Indigenous individuals.

A qualitative participatory action research project design was used with purposive sampling to identify participants. Semi-structured interviews were undertaken to explore participants current understanding of HBV, desire for knowledge and perspectives on how to acquire the information they needed. All individuals were offered the use of an interpreter. Data were examined using deductive and inductive thematic analysis.

RESULTS Health literacy around HBV from a biomedical perspective is low despite a thirst for knowledge among participants. Accurate concepts grounded in culture such as "only your blood can tell the story" were present but accompanied by feelings of disempowerment due to a perceived lack of "medical" understanding and informed partnerships between care giver and patient.

Culturally appropriate discussions in language using contextual translation and visual aids were identified as crucial to improving communication. Language was overwhelmingly identified as the most important factor to aid understanding.

This information has fed into the development of a tablet based tool with anticipated launch in July 2014.

CONCLUSIONS Language is crucially important in developing a tool to aid in developing treatment partnerships for Indigenous patients with HBV. Using a culturally appropriate worldview as the foundation for development should help to reduce disempowerment and improve health literacy.

DISCLOSURE OF INTEREST STATEMENT Funding for this study was received from an unrestricted research grant from Gilead sciences.

EXHIBITS
POSTER NUMBER 2

PROMOTING THE VOICE OF HEPATITIS B POSITIVE SPEAKERS

Richmond J,[1] Tyrrell H[1]

[1] Hepatitis Australia

BACKGROUND The use of HIV and hepatitis C positive speakers during education and awareness raising activities is well established. Positive speakers have a powerful impact on the audience's ability to retain information and influences attitudes through the sharing of personal experiences. The demand for hepatitis B positive speakers to assist with education and advocacy is high, however, the number of people living with hepatitis B who are prepared to speak publically is limited.

METHOD Hepatitis Australia received funding to identify, train and support a small group of Hepatitis B Positive Speakers (phase one)

develop the capacity of state/territory hepatitis organisations to establish a hepatitis B positive speaker program (phase one)

develop online resource to enable the speakers to tell their personal stories to a wider audience (phase two).

RESULTS Phase one of the project was completed in 2013. Six people attended a specifically designed training course focused on developing and delivering a presentation based on their experience of living with hepatitis B. The second phase of the project involved the development of a 15 minute media product. Five people living with hepatitis B were interviewed by a nationally recognised journalist on their experiences of living with hepatitis B including their diagnosis, clinical journey and the impact of hepatitis B on their relationship and lives. The resultant media product will be shown during this presentation.

CONCLUSION The Hepatitis Australia Hepatitis B Positive Speaker project involved identifying, training and supporting six people with hepatitis B to publically tell their story both in-person and during a filmed interview. The development of an online media product ensures that the voice of people living with hepatitis B can be included during education, advocacy, service delivery and policy development throughout Australia.

DISCLOSURE OF INTEREST STATEMENT Financial support for this research was provided by Bristol-Myers Squibb.

EXHIBITS
POSTER NUMBER 3

THE CONNECTION'S "YOUNG, STRONG & SMART" LEADERSHIP PROGRAM- WORKING TOGETHER AS PEERS TO EDUCATE ON VIRAL HEPATITIS WITHIN THE ABORIGINAL COMMUNITY

Capper A M 1

INTRODUCTION The Connection is Australia's first ever Aboriginal Drug Users Organisation, run by and for Aboriginal Drug Users in Canberra. The Connection is now supported and managed by Canberra Alliance for Harm Minimisation & Advocacy (CAHMA).

The Connection has been delivering and developing Peer Education Workshops on Blood Borne Viruses for the past 10 years to the Aboriginal and/or Torres Strait Islander Community of Canberra.

METHODS Early this year The Connection was approached by numerous young Aboriginal people to expand the workshops into an ongoing Leadership Program. Since then The Connection and the young people have developed a training program to encourage the young people to become peer educators and leaders with in their networks and community.

The young people are provided with extensive knowledge on blood borne viruses and Sexually Transmitted Infections (STI). The group identified that STIs, HIV and Viral Hepatitis are often mentioned together but that the differing routes of transmission information can be complex. For example HIV is both sexually and transmissible through blood. This project was unique in being able to work across sexual transmission, blood borne virus transmission and injecting drug use issues and transmission risks for young Aboriginal people in Canberra.

CONCLUSION Although this program is currently in the very early stages, we would like to share some of the methods and early outputs that have already been achieved. The young people themselves have a greater understanding of the transmission risks through this peer education health promotion and with that can come empowerment and self-esteem. This knowledge and the empowerment to share it is instrumental in extending this knowledge outside of the Program to other young Aboriginal people who use or have used illicit and/or injecting drugs, as well as their friends and family.

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