Centre for Health Research in Criminal Justice

2nd Prisoner Health Research Symposium

18th February 2005
Registration

Opening Addresses

• Professor Tony Adams, Chairman Centre for Health Research in Criminal Justice Board.

• The Hon. Frank Sartor, Minister for Energy and Utilities, Minister for Science and Medical Research, Minister Assisting the Minister for Health (Cancer), and Minister Assisting the Premier on the Arts. (to be confirmed)

Drug and Alcohol

Four-year follow up of imprisoned male heroin users and methadone treatment: mortality re-incarceration and hepatitis C infection. Alex Wodak

Defining ‘success’ in prison-based structured smoking cessation programs. Niyi Awofeso

A multi-component intervention for smoking cessation among Australian male prison inmates. Robyn Richmond

Effectiveness of naltrexone, methadone, buprenorphine and drug free counselling in 204 heroin using prison inmates in New South Wales. Alex Wodak

Supply, demand and harm reduction strategies in Australian prisons: implementation, cost and effectiveness. Kate Dolan

Mental Health

A review of court outcomes for clients of the Newcastle Mental Health Court Liaison Service. John Sharples

The relationship between amphetamine use, crime and mental illness. Steve Riddle

An investigation of mental health, personality and psychopathy among convicted arsonists in New South Wales. Stephen Allnutt

Reported head injury and its correlates in a prison reception sample. Peter Schofield

Genetic factors in aggression - comparison of the prevalence of neuropeptide Y1 receptor gene polymorphism between violent and non-violent of fenders. Olav Nielsen

A proposed study to examine individuals who breach restraining orders. Stephen Allnutt

Infectious Diseases

HIV prevalence at reception into Australian prisons, 1995 – 2003. Anne McDonald

Summer influenza outbreak in an Australian prison. Lorraine Young

Health related quality of life in prisoners with and without chronic hepatitis C infection in Australia. Rosie Thein

Hepatitis C Incidence and Transmission Study, phase II (HITS-II). Paul Haber

Launch of Monograph - National Prison Entrants’ Bloodborne Virus Pilot Survey, Professor Ron Penny, Chair Justice Health Board.

National prison entrants bloodborne virus survey Leng Boonwaat
Lunch

After Dinner Mints
Music in therapy. Ronald O'Brien
Quality use of medicines and dosage administration aids in New South Wales correctional centres. Richard Lord
Care leaver over-representation in the New South Wales prison population. Katherine McFarlane
Examination of causes of death among ex-prisoners using data-linkage. Azar Kariminia
An intervention for problem gamblers in the New South Wales prison system. Tony Butler
Health status of long term prisoners in New South Wales. Gary Eckstein
A little bit of MAGIC - Mothers and Gestation in Custody. Michael Levy
The New South Wales prison injury surveillance system. Tony Butler

Throughcare
Correctional Centre Release Treatment Scheme. Vicki Archer
Post-release experience of prisoners in Queensland. Stuart Kinner

Juvenile Detainees
Young people in custody health survey: follow through. Mark Allerton
Impact of violence classification on observed relationships with psychological measures and other mental health indicators. Dianna Kenny

National Issues
Training needs and competencies of medical officers working in prisons. Chris Holmwood
National prison health indicators project. Tony Butler

Concluding remarks - Professor Sandra Egger, Chair Justice Health Human Research and Ethics Committee

Post-symposium reception 4.00pm – 5.00pm
Four-year follow up of imprisoned male heroin users and methadone treatment: mortality, re-incarceration and hepatitis C infection.

Kate A Dolan, James Shearer, Bethany White (National Drug and Alcohol Research Centre), Jialun Zhou, John Kaldor (National Centre of HIV Epidemiology and Clinical Research), Alex D Wodak (St Vincent’s Hospital).

**Aims:** To examine the long term impact of methadone maintenance treatment (MMT) on mortality, re-incarceration and hepatitis C seroconversion in imprisoned male heroin users.

**Design, Setting and Participants:** The study cohort comprised 382 imprisoned male heroin users who had participated in a randomised controlled trial of prison-based MMT in 1997/98. Subjects were followed up between 1998 and 2002 either in the general community or in prison.

**Measurements:** All-cause mortality; re-incarceration, hepatitis C and HIV serostatus, and MMT retention.

**Findings:** There were no deaths recorded while subjects were enrolled in MMT. Seventeen subjects died while out of MMT – representing an untreated mortality rate of 2.0 per 100 person years (95% CI, 1.2-3.2). Re-incarceration risk was lowest during MMT episodes of eight months or longer (adjusted hazard ratio 0.3 (95% CI, 0.2-0.5; p<0.001) although MMT periods 2 months or less were associated with greatest risk of reincarceration (p<0.001). Increased risk of hepatitis C seroconversion was significantly associated with prison sentences less than two months (adjusted hazard ratio 20 (95% CI, 5-76; <p=0.001) and MMT episodes less than five months (adjusted hazard ratio 4.2 (95% CI, 1.4-12.6; p=0.01). Subjects were at greatest risk of MMT drop out during short prison sentences of one month or less (adjusted hazard ratio 10.4 (95% CI, 7.0-15.7; p<0.001). HIV incidence was 0.3 per 100 person years (95% CI, 0.03-0.99).

**Conclusions:** Retention in MMT was associated with reduced mortality, reincarceration rates and hepatitis C infection. Prison-based MMT programs are integral to the continuity of treatment needed to ensure optimal outcomes for individual and public health.
Defining ‘success’ in prison-based structured smoking cessation programs.

Niyi Awofeso (Justice Health)

Despite the increasing popularity of smoking cessation programs in community, institutional and cyberspace settings, there is currently no consensus on what constitutes a successful outcome for participants enrolled in smoking cessation programs in prison settings. Such a consensus should facilitate effective monitoring and evaluation of prison-based Quit programs, and enable program managers and funding agencies to better determine the extent to which smoking cessation programs designed for prisoners meet pre-determined objectives. This presentation proposes ‘success’ parameters for structured smoking cessation programs in prison settings, based on the author’s experience with the management of such programs, and findings from literature.
A multi-component intervention for smoking cessation among Australian male prison inmates.

Robyn Richmond, Tony Butler, Alex Wodak, Kay Wilhelm, Ian Anderson, Tony Falconer.

The prevalence of daily tobacco use in prison (80%) is much higher than that in the general population (20%). Despite this, there have been few evidence-based trials of smoking cessation programs within prisons.

Our project will be the first randomised controlled trial in the world to directly evaluate the effectiveness of an intervention for smoking cessation among prisoners. Male inmates who are current smokers will be randomly assigned to placebo or active nortriptyline (a tricyclic antidepressant also used as a smoking cessation aid). All inmates will receive brief cognitive behavioural therapy nicotine patches, a prison specific stressor package and referral to the Quitline.

The proposed study extends a pilot study of a similar intervention, addresses a major preventable health issue within a highly marginalised population and will assist in the development of services for inmates with tobacco dependencies.
Effectiveness of naltrexone, methadone, buprenorphine and drug free counselling in 204 heroin using prison inmates in New South Wales.

James Shearer, Kate A Dolan (National Drug and Alcohol Research Centre), Alex D. Wodak (St Vincent’s Hospital)

Objectives: Treatment outcomes associated with naltrexone, methadone, buprenorphine and drug-free counselling were compared for heroin using prisoners in 13 prisons in New South Wales, Australia. Outcomes included retention, compliance, side effects, changes in drug use, drug injecting and other health and psychosocial outcomes.

Methods: Between January 2002 and January 2004, 204 male prisoners who met study eligibility criteria were recruited and provided baseline data. Although subjects were originally randomised equally to receive naltrexone (50mg/day), agonist pharmacotherapy (methadone or buprenorphine) or drug free counselling, poor uptake of naltrexone resulted in unsuccessful randomisation. Subjects were followed up after six months and 12 months. Data analysis was by self-selected treatment exposure rather than the originally planned intention-to-treat.

Results: Induction and retention rates for oral naltrexone were poor. Only 7% of all subjects (n=14) started naltrexone over the two-year study period. Six-month retention was significantly lower for naltrexone (7%) compared to methadone (58%) (p=0.0007). Six-month retention in buprenorphine was 30%. Mean days in treatment at six months were 59 (95% CI, 32-86) for naltrexone, 100 (95% CI, 70-130) for buprenorphine and 149 (95% CI, 117-181) for methadone. No deaths or serious adverse events were noted during the study. Few side effects were noted in those subjects who received naltrexone.

Conclusions: Treatment of heroin dependent prison inmates using oral naltrexone was relatively ineffective because of limited attraction and poor compliance. Compliance was superior for oral methadone, which was also more attractive and more effective. Depot preparations and implantable devices for both naltrexone and buprenorphine are being developed and may overcome the poor treatment retention experienced in this study. We conclude that oral naltrexone has limited value for treatment of heroin dependent prison inmates.
Supply, demand and harm reduction strategies in Australian prisons: implementation, cost and effectiveness.

Kate Dolan, Emma Black (National Drug and Alcohol Research Centre), Alex Wodak (St. Vincent’s Hospital)

The objective of this study was to document the responses to drug use in Australian prisons. All prison departments operated supply reduction strategies (drug detection dogs and urinalysis). Most prison departments operate demand reduction strategies including detoxification services, methadone, alcohol and other drug counselors/programs and drug-free units. Some prison departments operated harm reduction strategies such as HIV and hepatitis C education, hepatitis B vaccination, condoms and bleach programs.
A review of court outcomes for clients of the Newcastle Mental Health Court Liaison Service.

(Centre for Mental Health Studies and Hunter Mental Health, University of Newcastle.)

This paper examines court outcomes for all clients referred to the Newcastle Mental Health Court Liaison Service between 1997 and June 2003.

Outcome data on 1,773 clients involved in 2,246 service episodes was extracted from Court records. For each service episode, basic socio-demographic, clinical, service contact, criminal charge details and sentencing details were collected. Recorded Court outcomes included: punishment received; charges dismissed; Apprehended Violence Orders received; and warrants issued.

Court outcomes will be reported by socio-demographic characteristics, diagnosis and offence type. Preliminary analyses (N = 1,139 service episodes) revealed 70.3% of clients incurred a punishment (45.9% received a bond, 34.7% a gaol term, and 19.6% were fined). For a further 24.2% charges were dismissed (61.3% under S32 of the Mental Health Act).

Previous studies identified relationships between gender, diagnosis, patterns of offending, and court outcome. By examining such relationships within its own data, the Newcastle Mental Health Court Liaison service may be better equipped to identify client service needs, improved intervention strategies and even stronger links between the mental health and criminal justice systems.
The relationship between amphetamine use, crime and mental illness.

Steve Riddell, Olav Nielssen, Tony Butler, M Christie, G Starmer

Purpose: To examine for possible links between amphetamine use, psychiatric disorders and the offences committed by inmates in New South Wales prisons.

Methods: Data from a survey of inmates on remand to New South Wales prisons in 2001 were obtained. Prisoners had been interviewed using CIDI-auto questionnaire. The data were analysed using chi-squared frequency tables and logistic regression.

Results: Over one third of the inmates on remand during the study period had been using amphetamine. The offences of the amphetamine users were more likely to be robbery and property crime ($\chi^2 = 22.185, p = 0.014$). Prior to incarceration, amphetamine users had more psychiatric admissions ($\chi^2 = 13.74, p = 0.000$) and were also more likely to report symptoms of psychotic illness ($\chi^2 = 16.252, p = 0.000$).

Conclusion: The results showed that there was an association between amphetamine use and the prevalence of psychiatric disorders and the crimes which had been committed.
An investigation of mental health, personality and psychopathy among convicted arsonists in NSW

Stephen Allnutt, Andrew Ellis, Tony Butler. (Justice Health)

Arson is a serious and costly problem with NSW Fire Brigades attending 35,000 fires each year. Considering Australia’s peculiar vulnerability to bushfires, there is a dearth of local research on the subject. This study will interview NSW arsonists and collect information on their motivation, personality, mental health and recidivism risk.

Juvenile detainees, adult prisoners, and forensic patients convicted of arson will be included in the study. Participants will be asked to provide details of the offence and complete a number of psychiatric and criminologic screeners. Offence data will be compared to corroborative information where available.

Three forensic patients have been interviewed as a pilot for this study. The interview was well accepted and tolerated by the participants. Participants were frank and forthcoming. They revealed unflattering information about themselves and their offences and their accounts of the offence were similar to police reports and court transcripts.
Reported head injury and its correlates in a prison ‘reception’ sample.

Peter Schofield, Steve Lee, Wendy Kelso, Stephanie Hollis (Hunter Mental Health), Tony Butler (Justice Health)

Background: Traumatic brain injury (TBI) is an important cause of neuropsychiatric morbidity within the general community. Previous studies have indicated that a history of TBI is very common among individuals within the criminal justice system, but there has been little information concerning the correlates of such a history. We screened individuals entering the criminal justice system for a history of past TBI and for the possible presence of related neuropsychiatric problems.

Subjects: Male individuals who had recently been received into the criminal justice system completed our face-to-face questionnaires.

Methods: Subjects were interviewed for a history of past TBI and screened for depression, psychosis, personality disorder, alcohol and other drug use, and ‘social connectedness’. We attempted to retrospectively validate the occurrence and severity of TBI by accessing and reviewing the subjects’ hospital records.

Results: Of 205 individuals, 64% endorsed a history of previous TBI with loss of consciousness. The mean number of reported TBIs was 7.8. Those who reported past TBI differed from those without such a history with respect to a range of personality psychiatric and drug taking characteristics as elicited by our questionnaires.

Conclusions: Individuals recently received into custody reported a high frequency of past TBIs and there were a number of important neuropsychiatric correlates of this history of relevance to the criminal justice system.
Genetic factors in aggression - comparison of the prevalence of neuropeptide Y1 receptor gene polymorphism between violent and non-violent offenders.

Herbert Herzog (Garvan Institute), Olav Nielssen (Justice Health)

Several neurotransmitters in the brain have been implicated in aggressive behaviour in studies of mice and humans. Preliminary studies performed at the Garvan Institute have identified a receptor for the neuropeptide Y as a new potential candidate in mediating increased aggressive behaviour. This study aims to determine if alterations in this gene can be found in populations of violent offenders.

The hypothesis is that alterations in the expression of the neuropeptideY1 receptor gene or mutations in the gene lead to increased aggressive behaviour in man.

The aims of the study are:
• Compare the allelic frequency of a well-characterised polymorphism in the Y1 receptor gene within a populations of violent offenders and compare it to non-violent offenders.
• Search for mutations in the Y1 receptor gene in a cohort of particularly aggressive offenders

In the proposed study, blood samples and detailed histories of violence and other criminological variables will be collected from violent prisoners and a control group of non-violent offenders.

The potential significance of a finding would be to confirm a genetic influence in violent conduct that could guide risk assessment and intervention to modify risk. Furthermore, development of specific drugs acting on the Y1 receptor opens the possibility for a therapeutic intervention in violent subjects.
A proposed study to examine individuals who breach restraining orders.

Tony Butler, Stephen Allnutt (Justice Health), Sandra Egger (University of New South Wales)

Restraining orders aim to protect individuals from future violence, abuse and harassment from specific persons. However, in 2002, over 6,500 individuals appeared in NSW courts charged with breaching an Apprehended Violence Order (AVO).

Most research into the utility and effectiveness of AVOs has used victim self-report. This provides reliable information on some variables but important information about the offender (their mental health, substance use, personality traits) cannot be reliably assessed.

The identification of variables that predict risk of breach may assist the court in determining appropriate conditions to be attached to the order, may assist the police in the identification of high-risk individuals and lead to the development of management plans to reduce risk.

We are hoping to conduct a study that will interview individuals who have been incarcerated for breaching an AVO. We hope to collect information on the circumstances surrounding the breach and the mental health, personality and substance use of breaches.

A McDonald, M Levy, M Derrington, A Falconer, R Kinnear, T Ginley, R Vine, E Jones, M Middleton and JM Kaldor. #

Objective: Monitor the extent and outcome of HIV antibody testing among people entering Australian prisons.

Methods: Each State/Territory department of corrections provided quarterly reports of the number of people received into prison, the number tested for HIV antibody at reception and the number with HIV infection, separated into those newly diagnosed in the corrections jurisdiction and those previously known to have HIV infection.

Results: The percentage of entrants tested for HIV antibody at reception declined from 73.5% in 1995 to 58% in 1999 and has remained around 60% in 2000 – 2003. In NSW, the proportion tested declined from 62.2% in 1995 to 28.9% in 1999 and then increased to 41% in 2003. Almost all entrants were tested in the NT and QLD in 1995 - 2003. HIV prevalence was less than 1.0% in each corrections jurisdiction throughout 1995 – 2003 and was less than 0.2% among both men and women. The majority of cases with HIV infection (61%) had been diagnosed at a previous reception. There was no indication of any change over time in the proportion of entrants who were newly diagnosed with HIV infection.

Conclusion: HIV prevalence has remained low, suggesting limited HIV transmission in the population entering Australian prisons.

# ¹/²/NCHECR, UNSW, 376 Victoria Street, Darlinghurst, NSW 2010; ³/⁴/Centre for Health Research in Criminal Justice, NSW; ⁵/⁶/NT Correctional Services, NT; ⁷/⁸/Department of Corrective Services, QLD; ⁹/¹⁰/SA Prison Health Service, SA; ¹¹/¹²/Corrections Health Service, TAS; ¹³/¹⁴/Department of Health and Human Services, VIC; ¹⁵/¹⁶/Department of Justice, WA.
Summer influenza outbreak in an Australian prison.

Young LC, Dwyer DE, Harris M, Guse Z, Noel V, Levy MH, on behalf of the Prison Influenza Outbreak Investigation Team

An unusual outbreak of influenza A occurred in New South Wales prisons in January 2003. We report only the third confirmed outbreak of influenza in a prison environment.

The outbreak investigation included case ascertainment, statewide surveillance and a case-control study. Interventions to limit the outbreak included: infection control, quarantine, cohorting of cases, and the use of antiviral medication for prophylaxis. Our investigation and management was facilitated by the cooperation of the prisoners and the custodial staff.

A total of 37 clinical cases were identified. Influenza A virus was detected in 11 of the 22 respiratory tract specimens collected. The virus was typed as an influenza A/Fujian/411/2002 (H3N2)-like virus. This strain subsequently became the predominant virus strain during the 2003 northern hemisphere winter and the following Australian southern hemisphere 2003 winter influenza season.
Health related quality of life in prisoners with and without chronic hepatitis C infection in Australia.

Rosie Thein¹, Tony Butler, M Krahn ², William Rawlinson ³, Michael Levy ², John Kaldor, Greg Dore⁴#

Aims: To examine the effect of health-related quality of life (HRQOL) attributable to HCV and being a prisoner and to examine factors associated with HRQOL.

Methods: A cross-sectional and a longitudinal study screening for HCV as part of a population-based health survey in prison inmates at 29 New South Wales corrections centres.

Results: There were no significant differences in the HRQOL between the HCV negative (n=423) and HCV antibody positive (n=267) prisoners, and between those exposed but cleared HCV (n=89) and viraemic (n=178) groups. Compared with population norms, prisoners had lower mental health scores, with mean improvements observed between 1996 and 2001. Selected demographic factors, drug dependency, co-morbidity and medical care utilisation influenced HRQOL.

Conclusions: These results contrast with previous studies in non-prisoner groups in which HCV infection appears to decrease overall HRQOL. Other factors were likely to override HCV-specific HRQOL. However, the adverse mental health effects attributable to HCV cannot be excluded.

¹ National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales, Sydney, NSW, Australia. ² Centre for Health Research in Criminal Justice (Justice Health), Sydney, NSW, Australia. ³ Departments of Medicine and Health Policy, Management and Evaluation, University of Toronto, Ontario, Canada. ⁴ Virology Division SEALS Prince of Wales Hospital, The University of New South Wales, Sydney, NSW, Australia.
Hepatitis C (HCV) Incidence and Transmission Study, phase II (HITS-II).

Andrew Lloyd, Paul Haber, Michael Levy, William, Rawlinson, Rosemary Ffrench, Kate Dolan, John. Kaldor, Charles Harvey and Jeffrey Post (for the HITS study group).

The prison HITS-I study reported an incident case rate for HCV of 11.0 per 100 person years. High-risk events for HCV transmission were frequent. Immunological studies of incident cases revealed a novel phenotype of self-limiting viraemia without hepatitis or seroconversion, which we termed ‘seronegative-immune’ - suggesting protective immunity against the virus. The HITS-II study is funded by NHMRC and aims to extend these findings to determine (i) the incidence of, and risk factors for, primary HCV infection during imprisonment and following release; and (ii) the cellular and molecular basis for the seronegative-immune phenotype. A cohort of 300 consenting HCV negative inmates will be recruited and followed annually in prison and in the community. Demographic and behavioural risk factor data will be recorded. HCV antibody and PCR tests and immunological assays of cellular immunity against HCV will be done. Three annual follow-up visits will review behavioural attributes and cellular immune parameters which predict subsequent HCV infection.
National Prison Entrants’ Blood borne Virus Survey.

Tony Butler¹, Leng Boonwaat², Sue Hailstone³, Tony Falconer³, Pam Lems⁴, Tricia Ginley⁴, Vanessa Read⁵. *

The National Prison Entrants’ Blood Borne Virus Survey is the first nationally collaborated prisoner health research project. It examined the prevalence of hepatitis C, hepatitis B and HIV in a consecutive sample of prisoners in New South Wales, Queensland, Tasmania and Western Australia and was based on the National NSP Survey. 612 out of 739 prisoners approached (83%) agreed to participate.

The overall HCV prevalence was 36%; 56% among IDU; and 83% among female injectors. HCV prevalence among injectors ranged from 33% in WA to 69% in NSW. Similar rates of HBV were found in NSW (23%) and TAS (26%), with lower rates in WA (18%) and QLD (13%). Immunity from vaccination was 17% in NSW, 39% in QLD, 22% in TAS and 28% in WA. Amphetamine use was the most common drug used at the last injection in all states except NSW.

The study suggests that screening for blood borne virus on entry to prison provides valuable surveillance information and should be conducted annually.

¹Centre for Health Research in Criminal Justice, New South Wales Public Health Officer Training Program, Health and Medical Unit, Queensland Corrective Services, ²Health Promotion Unit, Queensland Corrective Services, ³Department of Justice Health
Music in therapy.

Ronald O’Brien, Pam Hotham (Department of Corrective Services).

Music therapy in a correctional setting is best described as a motivating factor in the rehabilitation process of persons serving a sentence.

Close analysis of changes in an inmates’ behaviour pattern will display relationships to resocialisation, self-esteem education and learnt music skills.

The aim of the project being developed at Berrima Correctional Centre is to have a structured and ongoing music therapy program based on practical performance skills. Musicianship, musicality and a displayed knowledge of music theory.

As in the adoption of any modality for therapeutic use, the musical experience itself is the most important objective.

As participants, the inmates will become
- Musically literate
- Able to freely express themselves through music both as an individual performer and an ensemble member
- Display creativity through improvisation
- By use of their music vocabulary create music
- Be free in inventiveness, uninhibited in movement, speech singing and performance
Quality use of medicines and dosage administration aids in NSW correctional centres.

Richard Lord (Mirrijini Pty Ltd)

This study was set up to evaluate the use of dose administration aid (DAA) in Long Bay Hospital, Metropolitan Special Programs Centre (Long Bay) and the Metropolitan Remand Reception Centre (Silverwater) correctional centres for a variety of inmates, including those on daily dosing (supervised and unsupervised) and weekly dosing. It was also designed to evaluate and compare the current system of packing and dosing with that using DAAs and the likely cost implications. Nursing staff were interviewed for both the current system and that using DAAs, and observations made by the consultant for packing times and administration times for medication at pill parades.

Since inmates in correctional centres are unable to access community pharmacies and rely on JH clinics to provide all of their medication needs, there is a quality and safe use of medication issue for daily and weekly dosing, or when inmates are transferred from one correctional centres to another or when they are discharged from Long Bay Hospital, or when they are required to attend Court, or when they are discharged back into the community, when their prescribed medication may not be readily available to them for a variety of reasons. This may result in an adverse health episode, or hospitalization, or the substitution of illegal drugs with harmful consequences. It was considered that the use of DAAs could improve some, or all of the above situations.
Care leaver over-representation in the NSW prison population.

Katherine McFarlane (NSW Attorney-General’s Department)

The presentation will:

- detail the factors which led to the inclusion of questions on care leaver history in the 2001 Justice Health Inmate Health Survey;
- consider the significance of the Survey’s findings that 38% of surveyed prisoners came from a care background;
- detail proposed research that will draw on the Survey data to illustrate the specific demographics and experiences of the care leaver population (health status, education levels; offending history, recidivism etc) within the larger prison population;
- explore the significance of a greater understanding of the recognition of State ward and care leaver involvement in the criminal/penal system – potential impact on criminological, crime prevention, social policy and economic policy and practice.
Examination of causes of death among ex-prisoners using data-linkage.

Azar Karaminia, Tony Butler, Matthew Law, Simon Corben, Michael Levy, John Kaldor

Harding-Pink (1990) found the death rate among former prisoners in Geneva, Switzerland, to be over four times that of the general population. Violent offenders in Finland have been reported to have a death rate five times greater than that of age matched males in the general population. Risk of death from unnatural causes was nine times higher among young offenders in Victoria. Evidence from overseas studies suggests that the risk of death from overdose is particularly high immediately following release from prison. This phenomenon has been attributed to opiate intolerance or ‘drug naiveté’ arising from abstinence or a reduction in drug consumption during incarceration. Seamen (1999) identified that the risk of death from overdose among UK inmates was highest in the two-week period following release from prison.

The NSW study cohort consisted of 85,204 men and women aged 18 to 85 years at the time of release who had been incarcerated between 1998 and 2002. Death was determined using the Australian National Death Index (NDI). The NDI is a computerised index of death records in Australia maintained by the Australian Institute of Health and Welfare.

# 1 Centre For Health Research in Criminal Justice (CHRCJ) 2 School of Public Health & Community Medicine, University of NSW 3 National Centre in HIV Epidemiology and Clinical Research, University of NSW
A pilot intervention for problems gamblers in the NSW prison system.

Tony Butler, (Centre for Health Research in Criminal Justice (Justice Health), School of Public Health and Community Medicine, University of NSW)

The 1996 Inmate Health Survey identified 16% of females and 17% of males as regular (more than three times per week) gamblers with amounts ranging from $50 to over $5,000 per week. Almost half of males and female gamblers reported that their gambling was problematic and crime was reported a significant source of finance for gambling, particularly among males.

This information was enhanced in the 2001 Inmate Health Survey using the South Oaks Gambling Screen, and found that 11% of women and 20% of men were ‘Probable pathological gamblers’, while 24% of women and 29% of men had ‘Some problem’.

The pilot study will establish a referral service for soon-to-be released inmates using the existing mental health help line. Individuals with gambling problems will be assessed by a dedicated psychologist/therapist. Some of these individual may be referred to a psychiatrist for a possible pharmacological based intervention aimed at reducing impulsiveness. Selective serotonin reuptake inhibitors (SSRIs) have been shown to help in the treatment of problem gambling. Similarly, Naltrexone, which is used to treat heroin addiction, has been shown to play a role in the treatment of pathological gambling disorder.

The pilot study will involve 30 inmates in the Sydney metropolitan area. Half will receive therapy while the other half will receive therapy and the SSRIs for a period of four months. These inmates will be followed up three months after release to determine whether they have relapsed to problem gambling. The long-term aim will be to undertake a Randomised Controlled Trial.
Health status of long term prisoners in NSW.

Gary Eckstein (Essential Equity)

The NSW Corrections Health Service (now Justice Health) conducted two surveys of the health status of the prisoner population in 1996 and 2001. Publications following each survey provided important cross-sectional information on prisoners in comparison with the general population.

It was found that 157 inmates participated in both surveys with sufficient information to obtain longitudinal comparisons. They divided fairly equally between those who were in continual custody during the intervening five years and those recidivists who had spent one or more periods of time outside the prison environment but had once again been incarcerated.

This paper examines statistical variation between the two groups of inmates in an endeavour to determine whether prisoners under continual health care fare better than persons left to their own recognisance. The instrument used was the SF-36 plus dental health evaluation and while many components were not significantly different, emotional role and social functioning was better for those receiving continual care.
A little bit of MAGIC - Mothers and Gestation in Custody.

Michael Levy, Lesley Jordan, Josephine Belcher (Justice Health), .......and national Magicians

Women in prison
The number of women incarcerated within Australian prisons has been rising over the last decade. Between 1994 and 2004, the female prisoner population has increased by over 100%, in comparison to a 40% increase in the male prisoner population. There were 1,672 women in custody in Australia in 2004.

Prison pregnancies
Approximately 5% of female inmates in NSW prisons are pregnant at any one time. There are usually between 20 and 30 pregnant women within the NSW correctional system at any one time. The proportion of pregnant prisoners is thought to be similar in the other states.

There has been no Australian research into the effect incarceration has upon pregnant women or their babies. Some believe that women who are incarcerated during their pregnancy may have better pregnancy outcomes as the women are outside their normal milieu with restricted access to alcohol and illicit drug use, separation from abusive partners. Others argue that the stress of incarceration and the separation from friends and family could result in poorer pregnancy outcomes.

We plan to follow all prison pregnancies for three years, in all Australian jurisdictions.

Discussion on the best control group is continuing.
The NSW prison injury surveillance system.

Tony Butler 1, 2, Azar Kaminia 1, 2, 4 Centre For Health Research in Criminal Justice (CHRCJ), 2 School of Public Health & Community Medicine, University of NSW

Injury accounts for a substantial proportion of the global burden of disease, and is the third most common cause of overall mortality in developed countries. In 1999, injury and poisonings were the sixth leading cause of death and the fourth leading cause of hospitalisation in New South Wales. Injury mortality and morbidity is highest among disadvantaged young men [prisoners]. Prisons are recognised as violent environments with a high risk of assaults (physical and sexual), self-harm, and unintentional injuries.

In 2003, we piloted a surveillance system at two prisons. Based on the success of the pilot project the system has now been established in seventeen adult and juvenile centres. Results from the pilot study identified that sports injuries (33%) and assaults (24%) were the common types of injuries. Assaults occurred in similar proportions in both violent and non-violent offenders (26% vs. 24%, p=0.9) and were more common on Sundays. Seventeen per cent of all injuries happened in the workplace with 63% caused by machinery. Half of all eye injuries were caused by workplace machinery. Analysis of the text descriptions identified that welding flash was responsible for 82% of all eye injuries. Injury surveillance is a valuable public health tool. Future development will use data from the surveillance system to develop interventions aimed at reducing the burden of injury in the prison system.
**Correctional Centre Release Treatment Scheme.**

**Vicki Archer (Justice Health)**

The main aim of the Correctional Centre Release Treatment Scheme project is to enhance successful reintegration into the community for recidivist clients with a Drug & Alcohol health concern by providing them with links to service providers in the community during their transition from incarceration. Through successful re-entry back into society both the inmate and the wider community will benefit.

The following agencies are involved in the scheme:

- Area Health Services
- Aboriginal Medical Services
- Department of Housing / Private accommodation services (accommodations needs)
- Centrelink (employment)
- Registry of Births Deaths & Marriage (provision of formal identification)
- Department of Community Services (welfare and social support)

The period immediately following release from custody represents the time when drug dependent persons are most likely to return to drug-use. Support from the above mentioned agencies can assist in reducing homelessness, unemployment, social isolation, and promote family welfare.
Post-release experience of prisoners in Queensland.

Stuart Kinner (University of Queensland)

Prisoners released to the community are characterised by chronic social disadvantage, poor mental health and high rates of substance use. Recently released prisoners are also characterised by a high rate of recidivism and a markedly increased rate of both fatal and non-fatal overdose. Nevertheless, remarkably little is known about patterns of substance use among recently released prisoners.

This presentation will introduce the Post-Release Experience of Prisoners in Queensland (PREP-Q) project, and present some preliminary findings. Using a prospective design, the PREP-Q project involves interviews with 150 adult prisoners in Queensland prior to their release and again 4, 12, 20 and 24 weeks post-release. Interviews explore patterns of substance use, socio-economic status, physical and mental health, treatment, overdose, risk-taking, gambling, social support, relationships and recidivism.

The findings of the project will be used to inform the development of pre- and post-release services for ex-prisoners in Queensland.
Young people in custody health survey: follow through.

Mark Allerton (Department of Juvenile Justice)

This comprehensive health survey of young people in custody found extensive health-related needs, related to social backgrounds, chronic physical and mental health needs, cognitive and educational needs, and serious risk behaviours.

We believe these data imply that clients require continuous interventions and treatments, more focused interventions responding to assessed needs, more engagement with our organisational and community partners, and that better communication is at the heart of improved services.

Action in response has included discussion with other NSW Government agencies involved with young offenders: a DJJ/JHPi/CHS Working Party which is developing an integrated clinical services plan, the implementation of MHOAT-CA, and planning further coordinated survey analysis; improved entry screening of detainees, and planning of more focused interventions, particularly in alcohol and other drugs, with young women, families, and for intellectual disability.

Impact of violence classification on observed relationships with psychological measures and other mental health indicators.

Dianna T Kenny (University of Sydney), Aimee L Press (University of New South Wales).

Violent criminal behaviour fuels moral outrage, unsettles the predictability of the environment and monopolises public disquiet about law and order. Understanding the precursors of violent crime and its association with other factors is necessary to inform the development of appropriate actuarial risk assessments, interventions and to reduce recidivism. Currently tensions between legal, research and community definitions of violence cause confusion in the classification and understanding of violent criminal behaviour. This paper evaluates seven violence classification methods used in the literature and in the legal system to code violent young offenders, and offers a first attempt at developing a systematic coding of violence based on the type, frequency and outcome of the violent behaviour that distinguishes between levels of violence severity. Comparison of these methods demonstrated the differing effects that coding methods can have on observed associations with a range of psychological and mental health factors, and calls for the adoption of a consistent and uniform way of coding violent offenders in future research.
Training needs and competencies of medical officers working in prisons.

Alison Jones, Chris Holmwood (South Australian Prison Health Service)

INTRODUCTION: Medical and nursing staff working in prisons in Australia have some unique educational requirements due to the distinct mix of clinical problems they encounter and the environment in which they work.

METHODS: This project investigated the learning needs of medical officers working in South Australian prisons using qualitative methods. Subsequent to this, a draft set of competencies was developed which was sent to medical officers working in South Australia and three other jurisdictions for validation. The draft set of competencies was refined based on this validation process.

RESULTS: The skill set required of medical officers working in prisons overlaps with that of general practitioners working in the community. However, special skills are required in the areas of mental health, management of substance dependence, infectious diseases and emergency medicine. Rural practitioners working in prisons already have a broader skills set, particularly in acute care. Therefore, they may have education requirements that are somewhat different from those of their urban counterparts. Delivery of education and training to a workforce that is geographically so dispersed in most jurisdictions, offers particular challenges.

CONCLUSION: This set of competencies is useful for planning of induction programmes for new medical staff and for planning of continuing professional development opportunities for them.
The national prisoner health indicators project.

Tony Butler (Centre for Health Research in Criminal Justice (CHRCJ), School of Public Health & Community Medicine, University of New South Wales)

While prisoners are recognised as some of the most disadvantaged and stigmatised individuals in the community and have poor health, there is scant data available on the health status of prisoners in Australia. Only two sources of information on prisoners’ health are routinely published at the national level: HIV notifications, and deaths in custody. Ironically, copious amounts of information are collected on prisoners at various stages of the incarceration process. However, there has been no attempt made to standardise and collate this information at the national level.

To remedy this situation, the CHRCJ and the AHW convened a working party to promote the collection of health data on prisoners. The aims of the group are to identify a minimum dataset for prisoners based on existing information (e.g., data collected during routine reception assessments) and eventually make recommendations, which implement the data collection. The NPHIP builds on suggestions outlined in a publication produced by the Australian Institute of Health and Welfare (AIHW) in 2001.

Prisons represent a valuable opportunity to collect data on one of the most disadvantaged group in the community. This revolving door presents an opportunity to monitor health indicators in groups such as indigenous Australians who are massively over-represented in the criminal justice system. Prisons can also be used as sentinel sites to monitor infectious disease outbreaks in hard to access communities examine trends in drug use, and the impact of social policy on disadvantaged groups.