

## Mentally ill young offenders

19 February 2009

Dr John Kasinathan  
 Consultant Psychiatrist  
 Adolescent Forensic Psychiatry

JUSTICE HEALTH | NSW HEALTH



## Young offenders

- High rates of re-offending
  - 60% in 2 years, NSW (Smith & Jones 2008)
  - 68% in 6 months, SA (Putnins 2003)
  - 71% in 2 years, WA (Roberts 2005)
  - 49% to adult jail in 8 years, QLD (Lynch 2003)

## Predictors of re-offending

- Extensive literature
- Cottle *et al.* 2001 meta-analysis
- 22 international samples (n=15,265)

Age at first commitment	-.346
Age at first contact with the law	-.341
Non severe pathology	.305
Family problems	.277
Conduct problems	.255

## Predictors of re-offending

- 259 in WA (Roberts 2000)
  - younger age at first detention
  - substance use
  - negative attitude about education
- 10,398 in NSW (Smith & Jones 2008)
  - Indigenous status, males
  - younger age
  - number of prior convictions (strongest factor)

## Youth in detention

- High levels of psychiatric disorders
  - 60% of males in 1,829 US (Teplin *et al.* 2002), excluding conduct disorder
  - Six-month prevalences (Desai *et al.* 2006)
    - substance use disorders (50%)
    - conduct disorder (41%)
    - anxiety disorders (31%)
    - mood disorders (28%)

## NSW Young People in Custody Health Survey 2003

- 88% of 242 detainees reported symptoms of
  - Conduct 61%
  - Substance 61%
  - Adjustment 39%
  - ADHD 30%
  - Mood 29%
  - Psychosis 21%
- 50 were excluded for “mental health / disruptive”
- Probably indicative of psychiatric disorders

## Despite the above...

- Specifically for mentally ill young offenders
- No published reports on
  - Re-offending rates
  - Predictors of re-offending
  - Background demographics
  - Mental health characteristics

## YPiC cont'd

- 30% reported high psychological distress on the Kessler-10
  - cf. 11% in normative samples
- 19% of males and 24% of females had seriously considered attempting suicide
- 8% of males and 12% of females had attempted suicide previously

## Aims

The present study set out to describe

- Demographics
- Mental health trends
- Psychiatric diagnoses
- Rates of subsequent incarceration
- Predictors of a rapid return to custody

## Why should we bother?

- Because they end up dead!!
- Coffey *et al.* 2003
- Young offender cohort for 12 years in Victoria
- Males were nine times more likely to die
- Females were 40 times more likely to die
  - than youth in the general population
  - Drug-related causes, suicide and non-intentional injury were the leading causes of death

## Hypotheses

- Elevated rates of re-incarceration
- Predictors of rapid return to custody
  - Indigenous status
  - Younger age at release
  - Number of prior incarcerations
  - Serious mental illness, substance abuse

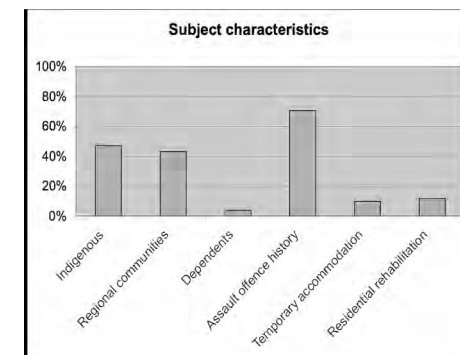
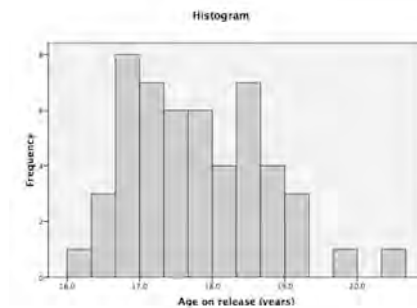
## Methods

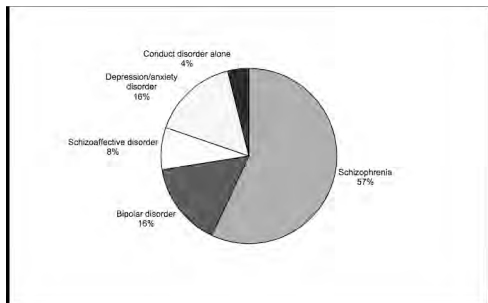
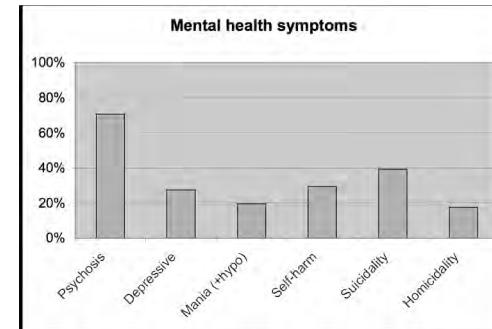
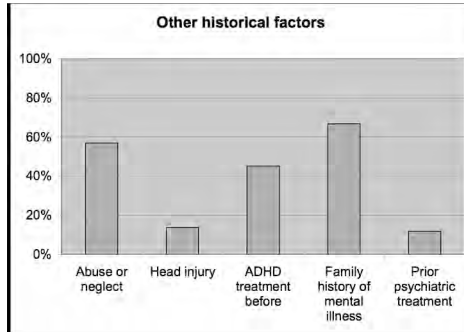
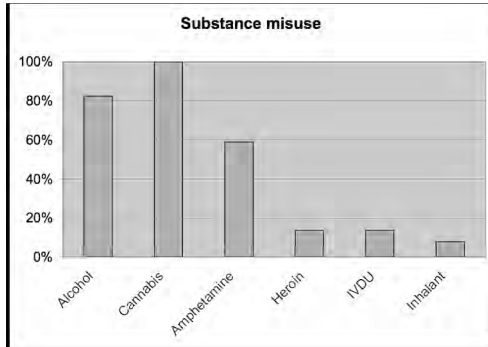
- Approved by Justice Health Ethics
- Ambidirectional cohort follow-up of 51 young detainees with psychiatric illness
  - released from custody (Frank Baxter JJC)
  - referred to community mental health
  - between 1 Jan 2005 and 31 Dec 2007
- Prospective follow-up for any return to custody
  - Median 28 months (range 12 - 44 months)



## Results

- n = 51 males
- Means ...
  - Age at education disruption 14.2 years
  - Age of first detention 14.9 years
  - Prior incarcerations 8.2 times
  - Recent time served 7.4 months
  - Time treated (custody) 4.9 months
  - Age at release 17.8 years

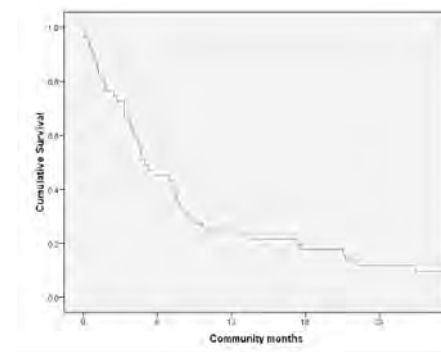




### Returns to custody

- 90% returned to custody
  - follow-up period
    - median 28 months, range 12 - 44 months
  - 37% of returns were to adult jail
  - 15 of 29 juvenile returns were for assault
- Kaplan-Meier survival analysis
  - median 5 months to re-incarceration

Kaplan-Meier survival function for all participants



## Linear regression

- $y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots$
- y Days 'survival' in community (dependent variable)
- a constant
- $b_n$  coefficient of  $n^{\text{th}}$  factor
- $x_n$  explanatory factor or variable (e.g. Sz)

## Linear regression models

- Model 1
- from all factors
- F=9.11
- $p < 0.001$
- 37% of variance
- Model 2
- from only clinical factors
- F=6.67
- $p < 0.001$
- 43% of variance

**Table 1: Stepwise linear regression model one – derived from all factors**

Model	Unstandardised Coefficients		Standardised Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	685.859	85.588			8.013	<.001
Schizophrenia	-295.771	80.276	-.441		-3.684	.001
Family history of mental illness	-276.716	83.221	-.393		-3.325	.002
Temporary accommodation	-405.218	135.88	-.363		-2.982	.005

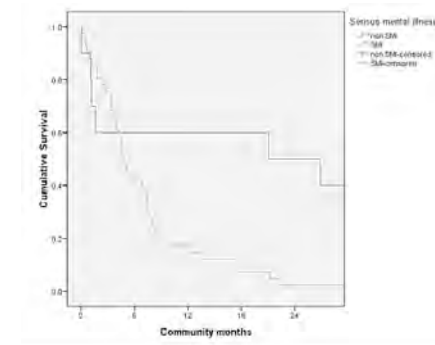
**Table 2: Stepwise linear regression model two – derived from only clinical factors**

Model	Unstandardised Coefficients		Standardised Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	391.313	105.035			3.726	.001
Schizophrenia	-703.613	136.510	-1.049		-5.154	<.001
Bipolar disorder	-468.745	131.002	-.513		-3.578	.001
Schizoaffective disorder	-540.397	184.087	-.437		-2.936	.005
Antipsychotic medication	387.816	135.556	.480		2.861	.006
Months treated in custody	23.405	8.103	.337		2.888	.006

## Predictors of rapid return

- Diagnoses of schizophrenia, schizoaffective disorder & bipolar disorder
  - Survival was significantly shorter
    - Log rank (Mantel-Cox, chi-square 6.89,  $p = .009$ )
    - Median: SMI 4.7 months vs non-SMI 21 months
- Family history of mental illness
- Temporary accommodation

Kaplan-Meier survival function for serious mental illness (SMI) vs non-SMI diagnoses



## Anything protective?

- Antipsychotic treatment
- Length of time treated prior to release
  - one month treatment => “survived” 23 days longer in the community

## Limitations

- n = 51
- Follow-up periods unequal
  - Minimum 1 year, median 2 years
- Clinical diagnoses
- Assumption to facilitate linear regression
  - Remaining 10% returned at end of follow-up

## Strengths

- Direction of causality
  - confident of diagnosis and other factors prior to the subjects' return to custody
- Significant clinical predictors that contrast “criminogenic” predictors from generic cohorts
  - (younger age, number of prior detentions, substance abuse, early disruption of education)

## Highlights

- Mentally ill young offenders are a population group at risk
- Psychiatric diagnoses of serious mental illness predicted rapid re-incarceration
- This subgroup's re-offending appears responsive to treatment