

Cannabis use among Australian young offenders: impacts on re-offending behaviour

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Acknowledgements

- **Co-Investigators (YPICHS)**

- Claudia Vecchiato, Leigh Haysom, Julie Carter, Una Champion, Claire Gaskin, Eric Heller, Natalie Mamone, Rodney Beilby, Shalin Kumar, Peter Muir, Gilbert Whitton

- **Survey Team**

- **Justice Health:** Shalin Kumar, Renee Hoomans, Corinna De Wit, Maxwell Mutakiwa, Jennifer Ireland, Suzanne Riach, Julie Plimmer, Wendy Lance, Jonine Gilmour, Maree Keller, Thanduxolo Gogwana, Kathryn Peters, Jude Page, Lisa Pearce
- **Juvenile Justice:** Claudia Vecchiato, Pauline Holme, Katrina Paton; Ngari Kennedy-Schultz, Necia Sheehy, Aimee Gayed, Sugi Heng, Leatrice Todd, Leah Vircoe, Kylie Hamblin, Emma Thomas, Ian Nisbet, Alicia Capararo, Carla Johnson, Olga Coulogeorgiou, Helen Plumb

- **Operational Support**

- Juvenile Justice Centre Managers, Justice Health Nurse Unit Managers

- **Funding Bodies**

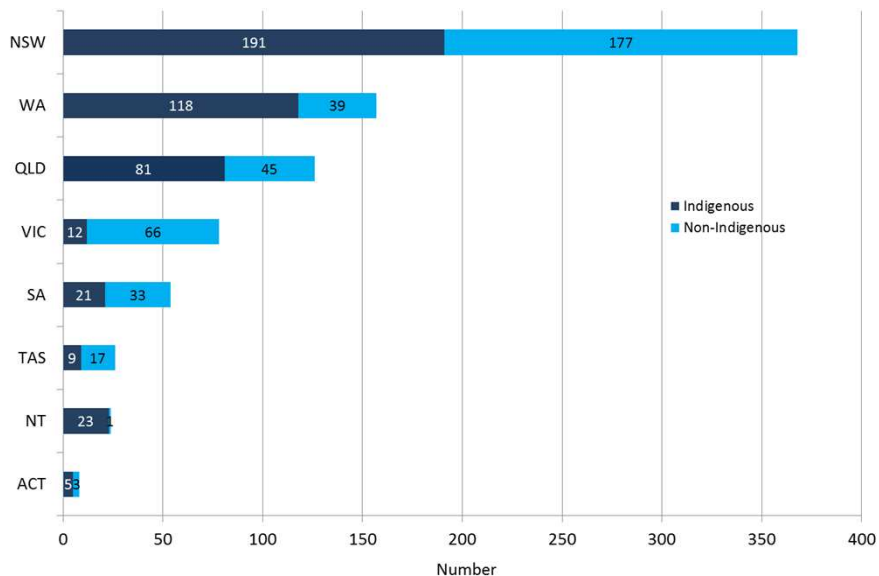
- Juvenile Justice, NSW Health (Centre for Aboriginal Health)

- **Participants and Families**



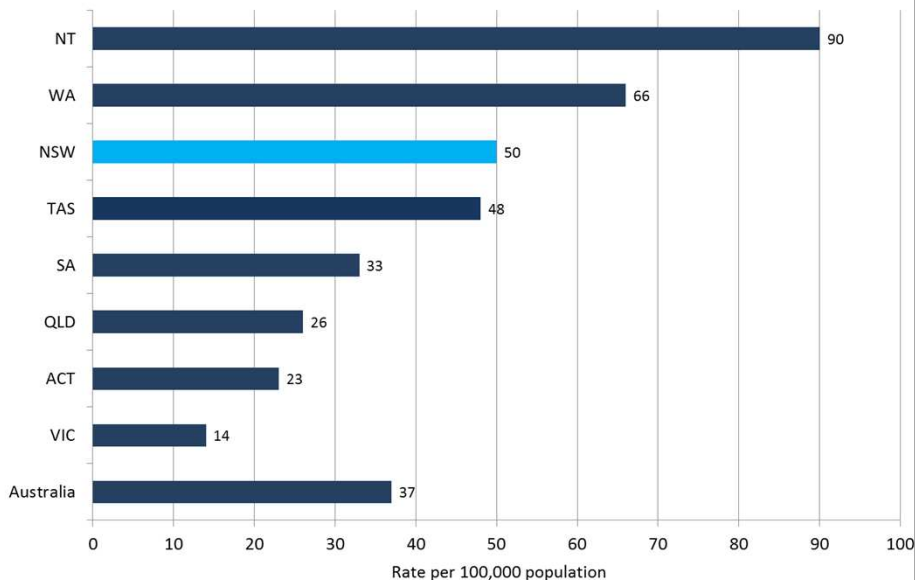
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Juveniles in detention (number) by state, 30 June 2008

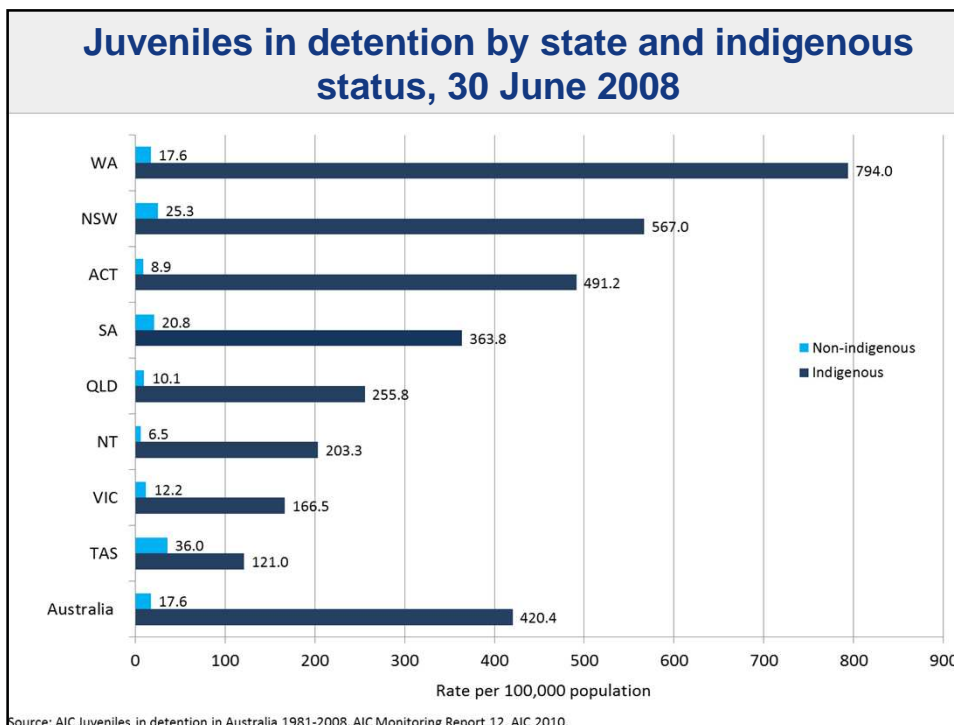


Source: AIC Juveniles in detention in Australia 1981-2008, AIC Monitoring Report 12, AIC 2010.

Juveniles in detention (rate) by state, 30 June 2008



Source: AIC Juveniles in detention in Australia 1981-2008, AIC Monitoring Report 12, AIC 2010.



Average length of stay in custody, NSW 2009/2010

- 57% stay up to 1 week
- 17% stay between 1 week to 1 month
- 21% stay between 1 to 6 months
- Only 5% stay longer than 6 months

Source: Juvenile Justice, NSW 2011

Recidivism among juvenile offenders

- 50% juveniles in court have previous conviction
- 1/3 juveniles in court will be re-convicted before 18 years old; 2/3 including early adulthood convictions

Source: Payne AIC report 2007



Background: cannabis use

Cannabis use (Australians 14+ years)

- 35% ever tried cannabis
- 10% used cannabis in past year (15% of those aged 14-19 years)

Cannabis use in past year correlates

- Higher in Aboriginal people (19% vs. 10%)
- Higher among those never married (20% vs. 7%)
- Higher among those unemployed (20% vs. 12%)
- Higher among those with a mental illness (19% vs. 11%)
- No correlation with education, socio-economic status, rural/urban

Source: 2010 National Drug Strategy Household Survey.



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Background: cannabis use and crime

- Some evidence of association between cannabis use and criminal activity.

(Fergusson et al., 2003; Pedersen et al., 2010; White, 1991)

- Meta-analysis suggest odds of cannabis users engaging in crime 1.5 times higher than non-users. Less than that of amphetamine and heroin users. (Bennett et al., 2008)

- Relationship between cannabis use and offending complex.



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Study aims

1. To describe the prevalence of cannabis use and other associated risk factors in young people in custody in NSW by Aboriginality;
2. To explore the strength of the association between cannabis use and offending behaviours, compared to other risk factors.

Methods: 2009 Young People in Custody Health Survey (YPICHS)

- Conducted Juvenile Justice (primary funder) and Justice Health
- Baseline interview, follow-ups at 3, 6 and 12 months
- Ethics approval granted from: Justice Health, Juvenile Justice, Corrective Services NSW and AHMRC
- Informed consent provided for each component of study (parental consent sought if under 14 years)
- Baseline: paid \$10 and provided with lunch and snacks;
Follow-ups: paid \$10 for each follow-up in custody and movie vouchers if followed up by telephone in community

2009 YPICHS Baseline Survey

- N=361 overall participants; 87% male, 48% Aboriginal origin
- Most young people invited to participate (excluded some units due to insufficient time)
- Response rate: 80% all young people; 95% among those invited to participate; N=21 refusals (2003 survey: 85%)
- N=331 face-to-face baseline health interviews
- 10 weeks (August – October 2009)
- 8 juvenile justice centres and 1 juvenile correctional centre
- Each participant 1 day to do all components of the study
- Health questionnaire nearly identical to 2003 Survey



2009 YPICHS Baseline Survey Parts

- 1. Health questionnaire** - demographics, education/occupation, family history, health status, disability, medication, asthma, dental, injury, smoking, alcohol, drugs (including SDS), drug treatment, mental health, SF12, sexual health, diet, K10, etc
- 2. Physical health exam** - height, weight, blood pressure, eyesight, peak flow, audiometry, ear exam, dental exam, blood/urine samples (BBV/STI, etc)
- 3. Psychometric testing** – IQ testing (WISC, WAIS, ABAS), mental illness (K-SADS-PL), abuse/neglect (CTQ), self-reported offending behaviour



2009 YPICHS Participants/Non-participants

Characteristic	Participants N = 361 (80%)	Non-Participants N = 91 (20%)
Gender		
Male	319 (88%)	76 (84%)
Female	42 (12%)	15 (17%)
Ethnicity		
Aboriginal	174 (48%)	31 (34%)
Non-Aboriginal	187 (52%)	60 (66%)
Mean age years \pm SD	17.0 (1.5)	16.9 (1.5)
Custodial Centre		
Rural	94 (26%)	10 (11%)
Urban	267 (74%)	81 (89%)

$p < 0.05$



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2009 YPICHS Participant Characteristics

Social determinants:

88% male 48% Aboriginal

mean age 17.0 years (47% <17 years old)

37% attending school 27% placed in care <16 years old

45% either parent ever in custody

Tobacco, alcohol, illicit drug use:

73% daily tobacco smokers

78% risky alcohol use

25% used illicit drugs (other than cannabis) at least weekly



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2009 YPICHS Participant Characteristics

Mental health:

70% psychological disorder (excluding SUD)

60% exposed child abuse or trauma

46% possible ID/borderline ID

Offending behaviour:

62% 3+ admissions to custody

35% first incarcerated <14 years old

80% violent offence baseline incarceration

34% in custody 12+ months

50% re-incarcerated (18-month FU)



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Cannabis use by Aboriginality, YPICHS 2009

	Aboriginal (N=148)	Non- Aboriginal (N=147)	Total (N=295)
Ever use cannabis	93	82	87
First used cannabis <13 years	43	25	34
Use cannabis at least weekly in past year	73	55	64
Daily cannabis use prior to baseline incarceration	58	42	50
Cannabis ever caused problems (e.g. school, friends, police)	50	39	45
Cannabis problematic use (SDS 4+)	36	28	34

p<0.05



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Cannabis and offending

Risk factors for 3+ previous incarcerations by Aboriginality, YPICHS 2009

	Aboriginal (N=160)	Non-Aboriginal (N=171)	Total (N=331)
First used cannabis <13 years	1.96 (0.77-4.94)	3.40 (1.17-9.94)	2.49 (1.27-4.86)
Daily use of cannabis prior to incarceration	2.00 (0.79-5.07)	1.07 (0.43-2.64)	1.37 (0.73-2.59)
Cannabis problematic use (SDS 4+)	4.16 (1.46-11.85)	1.81 (0.70-4.70)	2.68 (1.36-5.27)
Age <17 years	0.79 (0.31-2.00)	3.22 (1.28-8.13)	1.49 (0.80-2.76)
Male	0.60 (0.17-2.19)	0.99 (0.28-3.46)	0.74 (0.31-1.77)
Possible ID/borderline Intellectual disability (IQ<80)	3.18 (1.26-8.01)	1.88 (0.72-4.91)	2.34 (1.26-4.36)
Placed in care <16 years	1.57 (0.60-4.14)	4.93 (1.25-19.53)	2.20 (1.06-4.57)

p<0.05

Risk factors for first incarceration <14 years by Aboriginality, YPICHS 2009

	Aboriginal (N=160)	Non-Aboriginal (N=171)	Total (N=331)
First used cannabis <13 years	8.85 (3.26-23.98)	8.51 (2.45-29.59)	9.00 (4.27-18.98)
Daily use of cannabis prior to incarceration	1.96 (0.76-5.10)	2.23 (0.69-7.21)	2.01 (0.98-4.12)
Cannabis problematic use (SDS 4+)	1.58 (0.62-4.03)	2.40 (0.75-7.71)	2.08 (1.03-4.18)
Age <17 years	1.27 (0.51-3.16)	4.86 (1.59-14.84)	2.35 (1.19-4.65)
Male	6.27 (1.58-24.88)	3.75 (0.59-23.63)	4.98 (1.66-14.94)
Possible ID/borderline Intellectual disability (IQ<80)	3.47 (1.37-8.81)	3.33 (0.95-11.63)	4.00 (1.96-8.17)
Placed in care <16 years	1.94 (0.78-4.86)	1.91 (0.52-7.08)	2.08 (1.02-4.25)

p<0.05



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Risk factors for most serious offence 'non-violent' by Aboriginality, YPICHS 2009

	Aboriginal (N=160)	Non-Aboriginal (N=171)	Total (N=331)
First used cannabis <13 years	0.53 (0.23-1.21)	0.99 (0.25-4.01)	0.78 (0.39-1.54)
Daily use of cannabis prior to incarceration	2.74 (1.07-7.04)	4.72 (0.90-24.65)	2.77 (1.33-5.79)
Cannabis problematic use (SDS 4+)	0.75 (0.31-1.80)	1.04 (0.27-4.00)	0.85 (0.43-1.69)
Age <17 years	3.13 (1.35-7.25)	3.36 (0.91-12.36)	3.88 (1.98-7.62)
Male	1.59 (0.46-5.46)	1.13 (0.19-6.61)	1.53 (0.57-4.12)
Risky drinker (AUDIT 8+)	0.27 (0.10-0.78)	1.54 (0.29-8.16)	0.61 (0.28-1.32)

p<0.05



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Risk factors for time in custody 12+ months by Aboriginality, YPICHS 2009

	Aboriginal (N=160)	Non-Aboriginal (N=171)	Total (N=331)
First used cannabis <13 years	1.03 (0.44-2.43)	1.20 (0.47-3.10)	1.05 (0.57-1.94)
Daily use of cannabis prior to incarceration	0.53 (0.21-1.35)	1.81 (0.72-4.54)	0.96 (0.51-1.81)
Cannabis dependence (SDS 4+)	2.18 (0.87-5.50)	0.83 (0.33-2.14)	1.28 (0.68-2.41)
Age <17 years	0.24 (0.10-0.57)	0.08 (0.03-0.24)	0.15 (0.08-0.28)
Male	7.29 (0.87-60.81)	1.31 (0.35-4.93)	2.49 (0.87-7.09)

p<0.05



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Risk factors for re-incarceration in 18 months follow-up by Aboriginality, YPICHS 2009

	Aboriginal (N=160)	Non-Aboriginal (N=171)	Total (N=331)
First used cannabis <13 years	0.76 (0.37-1.58)	0.95 (0.39-2.33)	0.88 (0.51-1.52)
Daily use of cannabis prior to incarceration	1.09 (0.49-2.42)	1.42 (0.62-3.28)	1.29 (0.74-2.29)
Cannabis dependence (SDS 4+)	1.00 (0.47-2.16)	1.12 (0.47-2.71)	1.11 (0.63-1.95)
Age <17 years	0.86 (0.41-1.77)	0.89 (0.39-2.02)	0.94 (0.55-1.60)
Male	0.52 (0.17-1.55)	0.34 (0.11-1.03)	0.42 (0.20-0.91)
Possible ID/borderline Intellectual disability (IQ<80)	1.25 (0.60-2.59)	2.42 (1.02-5.75)	1.87 (1.09-3.19)

p<0.05



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Discussion: High cannabis prevalence

- Young people in custody have rates of cannabis use 7 times higher (87% vs. 13%) than their community peers
- Half of young offenders were using cannabis on a daily basis prior to custody and 1/3 had problematic cannabis use (2-3 times higher than Australian adult lifetime prevalence for cannabis dependence)
- Rates of cannabis use significantly higher in Aboriginal young people in custody

Discussion: Cannabis use associated with offending

- **Young people who first used cannabis <13 years of age**
 - 9 times more likely: first incarceration <14 years (All groups)
 - 3.4 times more likely: 3+ previous incarcerations (non-Aboriginal only)
- **Young people with problematic cannabis use (SDS 4+) were:**
 - 4.2 times more likely: 3+ previous incarcerations (Aboriginal only)
 - 2.1 times more likely: first incarceration <14 years (Total only)
- **Young people who used cannabis daily prior to custody**
 - 2.7 times more likely: in custody for a non-violent offence (Aboriginal only)

Study limitations

- Only 40 young women participated in the study so was not able to conduct the analysis by gender
- Difficult to determine the temporal relationship between cannabis use and offending – offenders may smoke more to deal with the trauma of incarceration.
- There may be other confounding variables not accounted for in the relationship between cannabis and offending.
- Not all psychometric instruments were validated for use in Aboriginal young people so results must be interpreted with caution.

Implications

- There is a need for evidence-based interventions to address cannabis use among young offenders.
- Interventions must be tailored to be culturally appropriate for Aboriginal young people in custody.

Thank you

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Indig D, Vecchiato C, Haysom L, et al. (2011) *2009 NSW Young People in Custody Health Survey: Full Report*. Justice Health and Juvenile Justice. Sydney.

