

NSW Young People on Community Orders Health Survey 2003-2006

Key Findings Report

Dianna T Kenny
Paul Nelson
Tony Butler
Chris Lennings
Mark Allerton
Una Champion

University of Sydney
AUSTRALIA

© Copyright 2006. *The University of Sydney*

ISBN: 1 86487 845 2

Citation

Kenny, D.T., Nelson, P., Butler, T., Lennings, C., Allerton, M., and Champion, U. (2006). *NSW Young People on Community Orders Health Survey 2003-2006: Key Findings Report*. The University of Sydney.

Principal Investigator

Dianna T Kenny (The University of Sydney)

Project Manager

Paul Nelson (The University of Sydney)

Co-Investigators

Mark Allerton (NSW Department of Juvenile Justice)

Tony Butler (Centre for Health Research in Criminal Justice)

Una Champion (Justice Health NSW)

Chris Lennings (The University of Sydney)

Clinical Nurse Coordinators

Dianne Ison and Natalie Lyall (Justice Health NSW)

Field Staff

- Justice Health NSW (JH) nurses: Phe Affleck, Julie Honeychurch, Maree Keller, Lindsay Myles
- Forensic Psychology Masters students on placement from the University of New South Wales (UNSW): Robyn Carter, Ieva Cechaviciute, Nicole Duda, Jen Grant, Emily Higgins, Tasneem Khan, Erin Minard, Olivia Munn, Aimee Press, Natasha Rebronja, Istvan Schreiner, Nicola Weeks, Panayiota Zingirlis; University of Western Sydney (UWS): James Brown
- Research assistant: Rachel Cush

Acknowledgments

This study was funded by the Australia Research Council (ARC), Linkage Grant (Project LP0347017), and partner organisations, NSW Department of Juvenile Justice (DJJ) and NSW Health - Justice Health Division (JH). The team acknowledges with gratitude the support of Justice Health NSW and the NSW Department of Juvenile Justice, their staff in the 36 Juvenile Justice Community Centres across NSW and members of their executive staff, in particular, David Sherlock, former Director General DJJ and Richard Matthews, Chief Executive, JH for their financial support of this study; and to Peter Muir (DJJ) and Belinda Chaplin (JH) for ongoing operational support over the four years of the project. We also thank the young people who participated in this study and who shared their experiences in order that we may better understand how to break the juvenile crime cycle.

Copies of the report are available from:

Dianna T Kenny

The University of Sydney

PO Box 170, Lidcombe NSW 1825 Australia

Tel (+61 2) 9351 9644

Fax (+61 2) 9351 9540

Email d.kenny@fhs.usyd.edu.au

www2.fhs.usyd.edu.au/bach/staff/kenny/

NSW Department of Juvenile Justice

477 Pitt Street Sydney NSW 2000

www.djj.nsw.gov.au/research.htm

Justice Health NSW

PO Box 150, Matraville NSW 2036

www.justicehealth.nsw.gov.au/

CONTENTS

List of Tables	3
List of Figures	4
Abbreviations	4
Foreword	5
Executive Summary	6
Social and family background	6
Intellectual functioning and educational achievement	6
Physical health	6
Mental health	6
Background	7
Method	8
Participants	8
Measures	8
Interviewers	8
Reporting of results	8
Ethics	8
Results	9
Sample	9
Social background	11
Physical Health	12
Self-reported health status	12
Health conditions	12
Visual acuity	13
Asthma	13
Recent symptoms and health complaints	14
Sexual health	15
Blood-borne viruses and sexually transmissible infections	15
Tattooing and body piercing	17
Diet, nutrition and physical activity	18
Cognitive Ability	20
Full Scale IQ	20
Comparison of Verbal IQ (VIQ), Performance IQ (PIQ) and Full Scale IQ (FSIQ) scores	21
Educational Achievement	22
Educational history	22
Academic achievement	22
Comparison of reading, spelling and arithmetic with overall academic achievement	23
Intellectual disability estimates	24
Mental Health	25
Suicide and self-harm	28
Experience of abuse and neglect	30
Alcohol, tobacco and other drug use	31
Alcohol use	31
Tobacco use	32
Substance use	33
Gambling	36
Injury	37
Head injury	37
Health service utilisation	38
Appendix: Measures used	40
References	42

LIST OF TABLES

Table 1: Region of birth	9
Table 2: Offence category	10
Table 3: Self-reported total time spent in custody in lifetime	10
Table 4: Self-reported total time spent on community orders in lifetime	10
Table 5: Social indicators	11
Table 6: Conditions most frequently reported to be diagnosed by a health professional	13
Table 7: Most common recent symptoms and health complaints occurring in past 4 weeks	14
Table 8: Most common recent symptoms and health complaints by drug use in the past 4 weeks	14
Table 9: Blood-borne viruses and sexually transmitted infections	16
Table 10: Interpretation of hepatitis B results	17
Table 11: Setting where tattooing and body piercing was carried out	17
Table 12: Dietary/nutritional behaviour	18
Table 13: Body Mass Index	19
Table 14: Educational history	22
Table 15: APS-SF disorders	25
Table 16: Self-reported mental health and report of treatment	26
Table 17: Percentages (frequencies) of suicidal and self-harm ideation and behaviour in young offenders	28
Table 18: Most frequently reported methods for attempting suicide in past 12 months	29
Table 19: Most frequently reported methods for self-harm in the last 12 months	29
Table 20: Childhood Trauma Questionnaire scale score classifications	30
Table 21: Alcohol use among young people on community orders	31
Table 22: Indicators of alcohol dependency	32
Table 23: Offending behaviour and alcohol and other drug use	32
Table 24: Drugs ever used (other than alcohol or tobacco)	33
Table 25: Mean age of initiation/onset of drug use	34
Table 26: Self-reported substances of choice	35
Table 27: Factors influencing decision to first use illicit drugs	35
Table 28: Relationship between drug use and symptoms (in the past month)	36
Table 29: Relationship between no, single and polydrug use and symptoms (in the past month)	36
Table 30: Problems/behaviours associated with gambling in past 12 months	36
Table 31: Persons causing injury in the past 12 months	37
Table 32: Health service use	38
Table 33: Barriers to seeking medical treatment in the community	38
Table 34: Satisfaction with service provided at last visit	39
Table 35: Awareness (use) of help lines available to young people	39

LIST OF FIGURES

Figure 1:	Age of community sample	9
Figure 2:	Self assessed health from SF-12	12
Figure 3:	Lifetime number of sexual partners	15
Figure 4:	Herpes Simplex Virus Type 2 by lifetime number of sexual partners	16
Figure 5:	WASI Full Scale IQ scores and the WASI normative sample scores	20
Figure 6:	WASI Culture Fair IQ scores and the WASI normative sample scores	21
Figure 7:	WASI Full Scale, Verbal and Performance IQ scale scores	21
Figure 8:	WIAT-II-A Composite Standard Scores and normative sample scores	22
Figure 9:	WIAT-II-A Numerical Ability Standard Scores	23
Figure 10:	WIAT-II-A Spelling Standard Scores	23
Figure 11:	WIAT-II-A Word Reading Standard Scores	24
Figure 12:	K-10 psychological distress scores	27
Figure 13:	Childhood Trauma Questionnaire: Comparison of mean scores for community sample with CTQ normative population	30

ABBREVIATIONS

USYD	The University of Sydney
DJJ	NSW Department of Juvenile Justice
JH (CHS)	Justice Health NSW (formerly Corrections Health Service)
YPiCHS	Young People in Custody Health Survey
YPoCOHS	Young People on Community Orders Health Survey
'young people'	Those young people on community orders who participated in the health survey
ESB	English speaking background
CALD	Culturally and linguistically diverse
FSIQ	Full scale intelligent quotient
PIQ	Performance IQ
VIQ	Verbal IQ
BBV	Blood borne viruses
STI	Sexually transmissible infection

FOREWORD

The Department of Juvenile Justice and NSW Health - Justice Health Division have responsibilities for the health and welfare of young offenders. A key responsibility of the NSW Department of Juvenile Justice is to offer constructive interventions in the lives of young offenders to help them choose positive alternatives to offending behaviour. These interventions may occur while young people are detained in custody, during youth justice conferences, or during periods of supervision conducted by the Department for young people serving community orders. To do this work it is essential to understand the characteristics and health needs of this group.

In 2003, a collaborative team comprising the NSW Department of Juvenile Justice, NSW Health - Justice Health Division, and the University of Sydney undertook an extensive health survey of young people in custody, which found that this group had significant physical and mental health needs. Since the majority of young offenders are placed on community orders rather than in custody, the need to examine the health and wellbeing of the young people on community orders was identified.

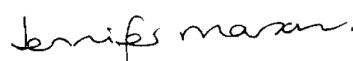
The University of Sydney and the two government departments formed another partnership and were successful in receiving an Australian Research Council Linkage Grant; to conduct the first comprehensive survey of the physical and mental health of young people serving community orders.

This report presents the key findings of this groundbreaking study. They provide compelling evidence that young people on community orders have wide-ranging health and welfare needs. Across a range of health indicators, there were significant commonalities between young offenders in custody and those serving community orders. Both groups experienced severely disadvantaged backgrounds characterised by poor physical and mental health, limited educational attainment, disrupted and dysfunctional families, abuse of alcohol and other drugs, risky sex and other risk-taking behaviours. Young offenders on community orders also experienced higher levels of infectious diseases, physical ailments, and poorer mental health than the wider adolescent population.

This collaborative project exemplifies the way in which university and industry partners can work together to investigate complex social issues, providing a strong evidence base for future policy and service developments to improve health and social outcomes for this group.



Dianna T Kenny
Principal Investigator
The University of Sydney



Jennifer Mason
Director General
NSW Department of Juvenile Justice



Richard Matthews
Chief Executive
Justice Health NSW

June 2006

EXECUTIVE SUMMARY

Young people serving community orders with the NSW Department of Juvenile Justice are a vulnerable and disadvantaged group of young people, as indicated by their disadvantaged social and family background, low intellectual functioning and poor educational achievement, high frequency of physical and mental health problems and engagement in risk behaviours. On most of the factors assessed, they did not differ substantially from young people in custody.

Social and Family Background

- 27% young people had one or more parents who had been imprisoned, and 5% had a parent who was currently incarcerated.
- 64% young people were living in the family home; 11% were in unsettled accommodation.
- 6% young people were parents of one or more children.
- Young people minimised and denied experiences of abuse and neglect; nevertheless, 31% reported low, moderate or severe levels of physical abuse, 46% emotional abuse; 14% sexual abuse, 50% emotional neglect; and 37% physical neglect.

Intellectual Functioning and Educational Achievement

- The mean WASI Full Scale IQ score (IQ=83) was in the low average range (80-89).
- 12% had culture-fair IQ scores (using FSIQ for ESB and PIQ scores only for CALD and Aboriginal and Torres Strait Islander young people) consistent with a possible intellectual disability.
- 15% had WASI Full-Scale IQ scores consistent with a possible intellectual disability.
- 11% met both IQ and adaptive behaviour deficits consistent with DSM-IV criteria for (possible) intellectual disability (8% based on a culture fair assessment).
- 56% had left school before commencing Year 10; 60% had not attended school regularly (skipped school more than twice per week), and 89% had been suspended from school.
- 62% could read at a low average level or better; 62% could spell at a low average level or better. The reading skills of 21% and arithmetic skills of 64% were equivalent to

those expected of people with intellectual disabilities.

Physical Health

- Most males (78%) and females (79%) rated their health as 'good', 'very good' or 'excellent'.
- Asthma had been diagnosed in 33% males and 35% females.
- Ear infections had been diagnosed in 26% males and 40% females.
- Sleeping problems (39%) and energy loss or fatigue (39%) were the most common recent symptomatic complaints.
- 5% males and 11% females tested positive for Chlamydia.
- 23% males and 25% females either never used condoms or used them less than half of the time when they had penetrative sex with casual partners.
- 3% males and 12% females were hepatitis C antibody positive.
- 7% males and 17% females had had injected drugs in the twelve months prior to completing the survey.
- 81% were smokers; 25% smoked more than 20 cigarettes a day.
- 89% had used cannabis; 47% used cannabis at least weekly.
- Most (91%) had been drunk; 31% engaged in binge drinking at least weekly (>6 standard drinks for males and >4 standard drinks for females).

Mental Health

- 40% reported severe symptoms on the Adolescent Psychopathology Scale consistent with a clinical disorder.
- Conduct Disorder (19%) and Substance Abuse Disorder (26%) were the two most prevalent disorders.
- 25% had 'high' or 'very high' distress scores on the Kessler Psychological Distress Scale, suggestive of a depressive or anxiety-related disorder.
- 15% males and 28% females had intentionally hurt or injured themselves.
- 14% males and 32% females had considered attempting suicide.
- 8% males and 18% females had attempted suicide.

Young people on community orders were characterised by their disadvantaged backgrounds, low intellectual functioning and poor educational achievement, high frequency of physical and mental health problems and engagement in risk behaviours.

BACKGROUND

During the transition from adolescence to young adulthood, some young people will have an encounter with the criminal justice system. A number will also be affected as a victim. Risk factors for involvement in juvenile crime include family factors, intellectual functioning and school performance, truancy, influence of delinquent peers, poverty, unemployment and substance misuse¹. Young perpetrators of crime are commonly already suffering from, or are at risk from poor health outcomes as a result of their offending².

Studies on the physical health of young offenders indicate an early engagement in health risk behaviours affecting physical and mental health, particularly among females. There is also a high prevalence of trauma, suicide attempts and self-harm. A recent study conducted in Victoria found that the standardised mortality rate was 9.4 for young male offenders and 41 for young female offenders. Young offender deaths accounted for 12% of all drug-related deaths in Victoria³. To date, most of the studies on adolescent offenders' health have been conducted in the USA. However, Australian data on which policy and practice can be based is now available.

In 2002, a population survey of 242 young offenders in custody was undertaken by the NSW Department of Juvenile Justice (DJJ), Justice Health NSW and The University of Sydney⁴. This study provided valuable information on the physical and mental health needs, intellectual functioning and educational achievements of incarcerated young people that subsequently resulted in an improvement in service delivery targeted to areas of greatest need. Recent policies within government and DJJ have emphasised the need to divert young offenders from custody. Placement on community orders is one of the major diversionary strategies employed. A community order is a court-directed supervision by DJJ of young offenders placed on good behaviour bonds, probation, community service or parole orders.

Although young offenders serving community orders comprise approximately 80% of the clientele of the NSW DJJ, no comprehensive profiling of the physical and mental health needs of this group had been undertaken in Australia. Accordingly, this study satisfies an important need to those government departments responsible for the care and rehabilitation of this group of young offenders.

As part of its ongoing efforts to provide appropriately targeted services to young offenders on community orders in NSW, The University of Sydney, NSW Department of Juvenile Justice and Justice Health NSW collaborated on an Australia Research Council (ARC) Linkage Grant:

BREAKING THE JUVENILE CRIME CYCLE: REHABILITATING HIGH-RISK JUVENILE OFFENDERS (Project LP0347017)

to conduct a comprehensive study of young people serving community orders with the NSW Department of Juvenile Justice.

This report, *Young People on Community Orders Health Survey (YPoCOHS)*, presents the findings, together with comparative data from the *Young People in Custody Health Survey (YPiCHS)*, and where possible, community based comparisons. It examines the physical and mental health needs of young people on community orders using a broad definition of health, including social and demographic factors, physical and mental health, risk behaviours, and intellectual and educational achievement. Specifically, this report:

- Identifies physical health status and needs, including blood-borne viruses and sexually transmissible infections
- Identifies mental health status and needs, including intellectual disability and psychological disorders
- Identifies risk behaviours
- Explores health service utilisation and needs, and
- Informs policy development and service provision.

METHOD

Participants

All young people on supervised community orders in NSW between October 2003 and December 2005 were eligible for inclusion in the survey. Parental consent was obtained for participants under the age of 14 years (n=61).

Measures

Demographic and criminogenic characteristics, educational background, employment history, living arrangements, parental characteristics, and family history were recorded.

A **health questionnaire** was developed to collect information on self-reported health status, disability, recent symptoms, medication, injury, and health service use. The questionnaire was modelled on the Young People in Custody Health Survey (YPiCHS) to allow direct comparisons between custody and community based offenders. Information was also collected on:

Health behaviours, including health education, physical activity, sun protection, nutrition and health service utilisation (including treatment for alcohol and substance abuse); and risk behaviours, including drug and alcohol use, sexual health, smoking, gambling, tattooing and body piercing.

A **standardised physical assessment** was conducted. Blood pressure, body mass index and visual acuity were measured. Serology specimens were collected to test for: HIV, hepatitis A, hepatitis B, hepatitis C, herpes simplex virus type-2, syphilis, cholesterol, liver function tests and creatinine (not reported). Urine specimens were collected to test for Chlamydia and gonorrhoea.

Standardised psychological tests assessed cognitive functioning (Wechsler Abbreviated Scale of Intelligence)⁵, validity of cognitive test administration (Guide to Assessment of Test Session Behaviour)⁶, educational achievement (Wechsler Individual Achievement Test II-Abbreviated)⁷, psychopathology (Adolescent Psychopathology Scale–Short Form)⁸, childhood trauma (Childhood Trauma Questionnaire)⁹, and psychological distress (Kessler Psychological Distress Scale)¹⁰.

Further details regarding the measures used in this survey are contained in the Appendix.

Interviewers

Registered nurses from Justice Health NSW conducted the health interviews and

assessments after undergoing training in the test protocol.

Registered psychologists and final year students from the Forensic Psychology Masters program (University of New South Wales and University of Western Sydney) conducted the psychological assessments under supervision from the team's clinical and forensic psychologist (Dr Chris Lennings).

Reporting of results

Data from (YPiCHS)¹ for the young people in custody are presented, where appropriate, alongside the results for community based participants. Some questions in the YPiCHS related to young people's experiences before entering custody and others while in custody and are indicated in the text as follows: [YPiCHS: before custody] and [YPiCHS: in custody]. While the females in custody sample represented almost all young women in detention at the time of the survey, the total number was only 19. Comparisons between in custody and community females must be made with caution.

Percentages in tables are given to the nearest whole number. Due to rounding artefacts, columns and rows in some tables may not sum exactly to 100. Percentage calculations in the tables are based on complete data sets for the factor reported. These numbers are indicated below each table.

Reliable comparisons between custody and community samples could not be made for some factors (eg substance use) because of the controlled environment in custody (as indicated by the text [YPiCHS: controlled environment]), insufficient numbers (indicated by [YPiCHS: low N]), or because parallel data were not recorded (n/r).

Where appropriate, comparisons with population-based surveys conducted in the community are included.

Ethics

Ethics approval was independently granted by: University of Sydney Human Research Ethics Committee, Research Applications Subcommittee of DJJ Collaborative Research Unit, Justice Health Human Research & Ethics Committee (formerly Corrections Health), and the Aboriginal Health and Medical Research Council. Written consent was required as a condition of participation. Parental consent was required for participants under the age of 14 years.

RESULTS

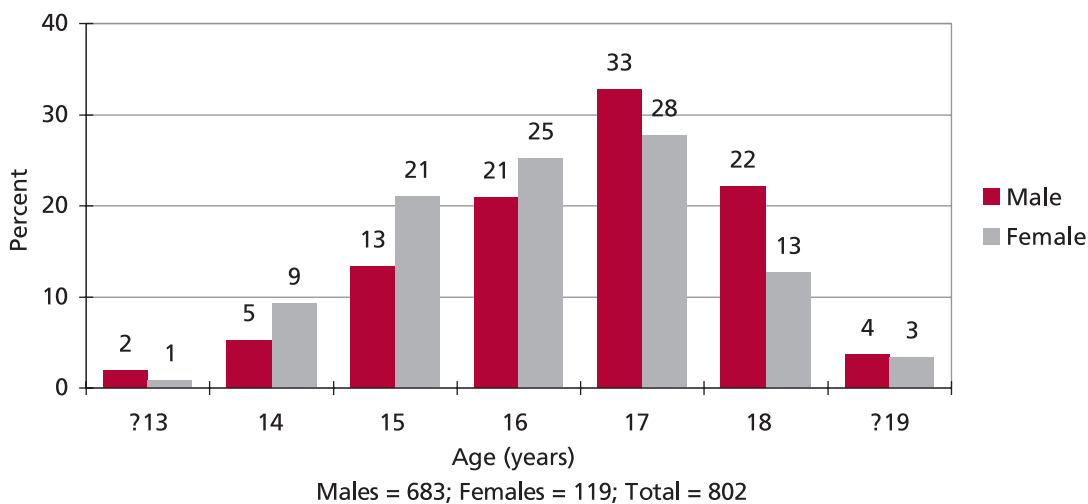
Sample

Approximately 1,900 young people were eligible for inclusion in the survey. Of this group, 400 refused to participate. 600 were uncontactable or failed to respond despite repeated efforts to contact them. 100 (90 males and 10 females) were excluded because of: serious mental health problems, substance withdrawal, considered to be too violent or disruptive by DJJ staff, and court appearances or being admitted to custody on the day of the survey.

These exclusions may have resulted in an underestimation of the prevalence of certain conditions, particularly mental health indicators, substance abuse, offence profile and violence characteristics.

The sample comprised 802 young people, 683 (85%) males and 119 (15%) females. These proportions are comparable to the total population on community orders during the study period. The mean age of the sample was 16 years 6 months (range: 12 to 21 years), 16 years 7 months (range: 12 to 21 years) for males and 16 years 2 months (range: 13 to 20 years) for females (Figure 1).

Figure 1: Age of community sample (%)



The sample comprised 802 young people (683 males and 119 females). The sample included 153 young Aboriginal and Torres Strait Islander people.

Mean age was 16.5 years.

The sample included 153 (20%) [YPiCHS 40%] young Aboriginal and Torres Strait Islander people who were under represented in our sample. They comprised 34% of young offenders in the total population of young offenders on community orders during the study period. The other major ethnic groups are presented in Table 1.

Table 1: Region of Birth (%)

Region of birth	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Australia	83	84	85	95	84	85
Other Oceania	8	7	13	0	9	6
Europe	<1	1	0	0	<1	1
Middle East	2	2	0	0	2	2
Asia	4	5	3	5	3	5
Americas	<1	1	0	0	<1	1
Africa	<1	<1	0	0	<1	<1

a Males = 673; Females = 118; Total = 801

b Males = 223; Females = 19; Total = 242

The most serious current offence for young people at the time of interview is presented in Table 2.

Table 2: Offence category (%)

Most serious offence	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Other assault	25	17	49	16	28	17
Robbery	23	27	14	32	22	28
Aggravated assault	15	7	13	0	15	6
Other	14	6	7	16	13	7
Car and other theft	10	9	15	26	11	10
Break and enter	10	22	3	5	9	21
Sexual assault	2	7	0	0	1	7
Homicide	<1	5	0	5	<1	5

a Males = 595; Females = 102; Total = 697

b Males = 223; Females = 19; Total = 242

14% (102) young people [YPiCHS 65%] estimated that they had spent six months or more in custody during their lifetime (Table 3).

Table 3: Self-reported total time spent in custody in lifetime (%)

Time	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
No time	10	0	10	0	10	0
Less than 6 months	76	35	80	37	77	35
6 months to 1 year	8	29	4	32	8	29
1 to 2 years	3	19	3	32	3	20
2 to 5 years	3	16	3	0	3	15
5 to 10 years	0	1	0	0	0	1

a Males = 660; Females = 116; Total = 776

b Males = 223; Females = 19; Total = 242

62% (475) young people estimated that they had spent six months or more on community orders during their lifetime (Table 4).

Table 4: Self-reported total time spent on community orders in lifetime (%)*

Time	Males	Females	Total
Order not yet commenced	4	5	4
Less than 6 months	35	31	35
6 months to 1 year	20	33	22
1 to 2 years	22	18	22
2 to 5 years	18	10	16
5 to 10 years	2	3	2

* Data not recorded for YPiCHS

Males = 655; Females = 116; Total = 771

14% young people estimated that they had spent six months or more in custody during their lifetime.

62% estimated that they had spent six months or more on community orders during their lifetime.

Social Background

Across several indicators linked to social inequity, many young people on community orders had characteristics indicating highly unstable backgrounds (Table 5). Of particular concern was the proportion of young women

not living in the family home and those with a history of care. A significantly higher proportion of those in custody had a parental history of imprisonment and reported that they had no close friends to talk to compared with those in the community.

Table 5: Social indicators (%)

Indicators	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Deceased parent	10	10	6	4	10	9
History of parental/step-parental imprisonment	25	42	38	50	27	43
Parent currently in prison	4	10	7	22	5	11
Not living in the family home*	34	35	46	17	36	33
History of care	21	28	36	39	24	28
Parent of child/children	5	11	10	6	6	10
Has no close friends to talk to	7	30	9	18	7	29
Lives with person with a physical or mental health problem affecting their daily life	20	19	30	17	21	19

* [YPiCHS: before custody]

^a Males (range) = 659-673; Females (range) = 114-118; Total (range) = 774-791

^b Males (range) = 198-209; Females (range) = 17-18; Total (range) = 215-227

Across several indicators linked to social inequity, many young people on community orders had characteristics indicating highly unstable backgrounds.

- *27% had parents with a history of imprisonment.*
- *24% had a history of having been placed in care.*
- *48 young people were parents of one or more children.*

PHYSICAL HEALTH

Self-reported health status

The 12-item Short-Form Health Survey (SF-12) was used to examine general physical and mental well-being and role limitations due to physical and mental health problems in the 4 weeks prior to assessment¹¹. Two summary scales, the physical health summary scale (PCS-12) and the mental health summary scale (MCS-12) are derived from the SF-12; low scores indicate poor functioning.

The mean PCS and MCS scores were 53 and 51 [YPiCHS: 54 and 47], indicating similar views of their physical and mental health to those of the US standardisation sample. Females and males had equivalent scores on the PCS: males 53 and females 52 [YPiCHS both males and females 54], and MCS: males 52 and females 48 [YPiCHS males 48 and females 43].

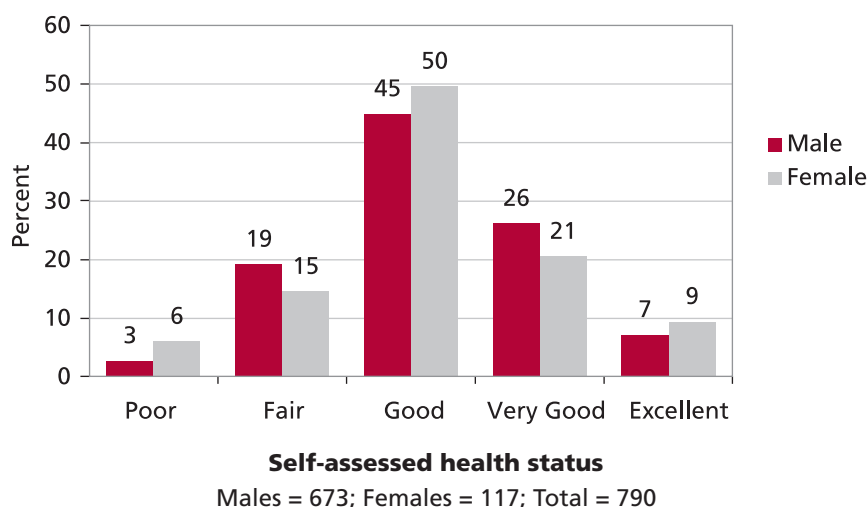
78% young people rated their health as good, very good or excellent, similar to the general adolescent population. Community prevalence of Hepatitis B and C was low and there were no reports of HIV, which accorded with the serological screening.

Question one of the SF-12 asks the person to rate their own health on a scale ranging from 'poor' to 'excellent' (Figure 2). Self-rated health status has been found to agree with objective measures of health¹². Most males (78%) [YPiCHS 91%] and females (79%) rated their health as 'good', 'very good' or 'excellent'.

Given the poor health detected objectively in this group, it appears that young people in this survey may have an unrealistic view of their health.

In the National Health Survey (2004-2005)¹³, 82% of young Australians aged 15-17 years rated their health as excellent or very good. A further 13% reported that their health was good. 4% reported their health as either fair or poor.

Figure 2: Self assessed health from SF-12 (%)



Health conditions

We asked participants to report if they had ever been diagnosed by a health professional with a range of health problems (Table 6).

Reported prevalence of Hepatitis A, B and C was low and there were no reports of HIV, which accords with the results of the serological screening (see Table 9 below).

Table 6: Conditions most frequently reported to be diagnosed by a health professional (%)

Health conditions*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Chicken pox	60	55	64	44	61	54
Asthma	33	28	35	56	33	30
Mental / behavioural problem [^]	34	43	29	35	32	43
Ear infections	26	28	40	39	28	29
Tonsillitis	23	27	36	39	25	28
Chest infections	20	15	30	17	22	15
Back problems	17	20	19	33	17	21
Allergy	15	11	15	11	15	11
Skin infection	12	11	19	17	13	11
Measles	11	12	9	17	10	13
Parasitic infestations	8	6	16	0	9	6
Gastroenteritis	9	10	8	11	8	10
Whooping cough	8	4	9	6	8	4
Glandular fever	7	4	10	6	7	4
Hepatitis A	<1	<1	0	<1	<1	<1
Hepatitis B	<1	<1	0	<1	<1	<1
Hepatitis C	<1	<1	6	<1	2	<1
German measles/Rubella	2	2	6	6	3	3
Mumps	3	3	3	6	3	3
Heart problems	2	5	3	6	2	5
Epilepsy	1	2	4	6	2	2
Cancer/tumours	1	1	1	0	1	1
Meningitis	0	<1	0	0	0	<1
Diabetes	<1	0	0	11	<1	1
HIV	0	0	0	0	0	0

* multiple responses permitted

a Males = 674; Females = 118; Total = 792

[^] Males = 670; Females = 117; Total = 787

b Males = 173; Females = 18; Total = 191

[^] Males = 203; Females = 17; Total = 220

Visual Acuity

Participants were tested for distance visual acuity using the Snellen eyesight chart. 3% of young people (17/623) had visual acuity below the normal limits suggesting they required referral for further examination. This proportion is lower than a community comparison group. According to the Australian Bureau of Statistics (2001), 11% of young men (15-24 years) and 22% of young women are short-sighted¹⁴. The ABS (2006)¹³ reported that 18% of young people aged 15-24 years were short-sighted.

Asthma

Asthma is a common disease in Australia and is characterised by recurrent episodes of wheeze, shortness of breath, and sometimes a cough. Asthma is of unknown cause, tends to run in families, and is closely linked to allergies. In the majority of people, asthma can be effectively controlled by a combination of the regular use of medications that reduce the symptoms and avoidance of, or controlling trigger factors.

33% (223) males and 35% (41) females reported having been diagnosed with asthma at some time. The 2001 National Health Survey¹⁴ (also based on self-report) indicated that 34% of young men aged 12-17 years and 29% of young women had been diagnosed with asthma. The NHS¹³ reported that 12% of young people aged 15-24 years had been diagnosed with asthma.

58% (139) of those who could recall when they last had an asthma attack had their last attack over one year ago; 17% (40) had an attack in the one month prior to interview. 43% (104) of those with asthma had been hospitalised for the condition. 31% (30) of those who had attended hospital for asthma had done so only once; 16% (16) [YPICHS 54%] had over five hospital visits for asthma.

Shortness of breath (16% males, 25% females), persistent cough (15% males, 24% females), and wheezing (9% males, 8% females) were reported in the four weeks prior to interview (see Table 7).

One third of males and females reported having been diagnosed with asthma.

- *17% had an attack in the one month prior to interview.*

- *16% had over five hospital visits for asthma in the one month prior to interview.*

Recent symptoms and health complaints

A symptom checklist noted recent health complaints (those occurring in the past four weeks)¹⁵. Recent ailments and symptoms covering cardio-respiratory, genito-urinary, psychological

and neurological, gastrointestinal, injection related, general and women's health issues were recorded. Sleep problems and energy loss/fatigue were the most common recent complaints in both males and females (see Table 7).

Table 7: Most common recent symptoms and health complaints occurring in past 4 weeks (%)

Symptoms / complaints*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Trouble sleeping	38	40	47	67	39	42
Tiredness/energy loss	36	34	51	33	39	34
Forgetting things	31	25	36	33	32	26
Headaches	26	23	39	39	28	24
Poor appetite	25	17	25	17	25	17
Sore throat	18	18	25	17	19	18
Weight loss/underweight	17	10	20	11	18	10
Shortness of breath	16	12	25	22	18	12
Night sweats	17	22	19	28	17	12
Teeth problems	15	21	30	28	17	21
Dizziness	15	11	25	17	17	11
Persistent cough	15	7	24	0	16	6
Muscle pain	14	20	18	17	15	20
Chest pain	12	12	19	11	13	12
Stomach/abdominal pains	10	8	26	6	12	8
Joint pains/stiffness	10	7	10	6	10	7
Swollen glands	8	7	20	11	10	7
Wheezing	9	7	18	6	10	7
Vision troubles	8	11	13	17	9	11
Ear problems	4	11	5	17	4	11
No symptoms reported	17	21	10	6	16	20

*multiple responses permitted

a Males = 674; Females = 118; Total = 792

b Males (range) = 208-209; Females = 18; Total (range) = 226-227

Amphetamine and polydrug use were associated with more frequently reported symptoms and health complaints than no drug use or Cannabis use. Cannabis use was most strongly associated with forgetfulness.

Table 8: Most common recent symptoms and health complaints by drug use in the past 4 weeks (%)

Symptoms / complaints*	No drugs	Cannabis	Amphetamine	Polydrug use
Tiredness/energy loss	33	41	50	52
Poor appetite	15	31	42	43
Trouble sleeping	32	44	51	56
Headaches	27	28	37	37
Forgetting things	25	73	37	33
Pain [^]	29	33	37	44

*multiple responses permitted

[^] chest, stomach, joint and/or muscular pain

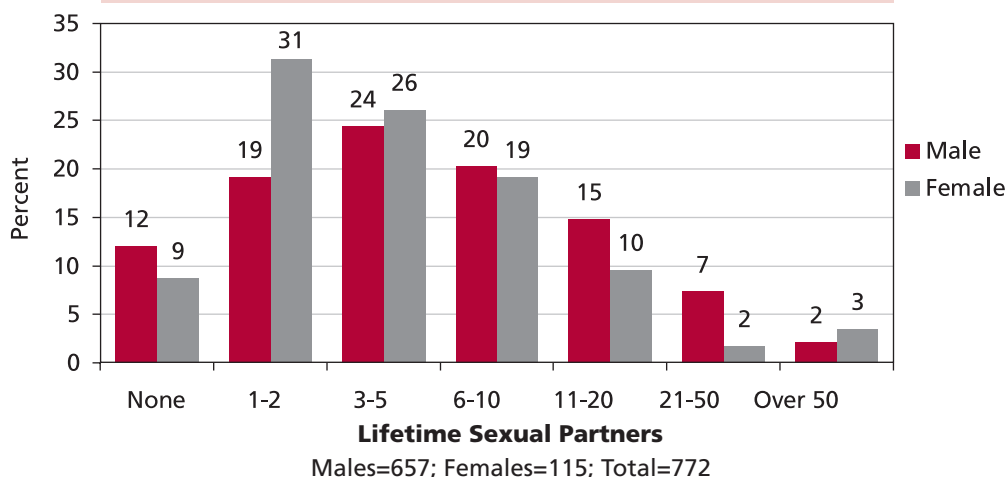
Total (range) = 104-445

Sexual health

The legal age of consent for sexual intercourse in Australia for males and females is 16 years. The median age of first vaginal intercourse in this sample was 14 years for both males (range: 6 to 18) and females (range: 7 to 17).

Of the 119 young women in the sample, 29% (35) had been pregnant (12 were mothers of one or more children, 16 reported having had at least one miscarriage, and 12 reported terminations of pregnancy).

Figure 3: Lifetime number of sexual partners (%)



89% (699) young people screened had engaged in sexual intercourse (including vaginal, anal, or oral sex). A survey of Australian secondary students¹⁶ found that 25% of year 10 students reported they had sexual intercourse, and by year 12 almost fifty percent reported having had sexual intercourse.

According to this survey, most sexually active students in year 10 and year 12 had only one sexual partner in the previous year. While not directly comparable, most young people screened in our survey had three or more sexual partners (Figure 3).

Of the 562 males and 99 females who had had a regular partner, 42% (236) males and 60% (59) females either never used condoms or used them less than half the time when they engaged in penetrative sex with regular partners. Of the 557 males and 92 females who had had a casual partner, 23% (128) males [YPiCHS 33%] and 25% (23) females either never used condoms or used them less than half the time when they had penetrative sex with casual partners.

3% (21) young people had engaged in sex in order to obtain drugs or money.

Blood-Borne Viruses and Sexually Transmissible Infections

Risk behaviours such as injecting drug use, sharing contaminated injecting equipment, unsafe tattooing and body piercing, and unprotected sex have been linked to increased exposure to blood borne viruses and sexually transmitted infections. Adult offender populations have a high prevalence of blood borne viruses such as hepatitis C and HIV, and sexually transmitted infections such as syphilis, Chlamydia, and genital herpes.

Hepatitis B is an infrequent occurrence in Australians, except for those born overseas. The most usual route of transmission is vertical (from mother to child) and through the use of non-sterile medical practices in the countries of origin. Tables 9 and 10 present the serology results for hepatitis B, and infection and immunity rates in the sample.

Prevalence for Hepatitis C in the general adult community is 0.5% and is strongly associated with injecting drug use. In this sample, 71% (17/24) of those with HCV (Hepatitis C virus) had injected drugs in the past, 54% within the past 12 months. Table 9 shows that prevalence

89% young people had engaged in sexual intercourse.

Median age of first vaginal intercourse was 14 years. Most young people had three or more sexual partners.

29% young women had been pregnant:

- *12 were mothers,*
- *16 had at least one miscarriage,*
- *12 had at least one termination of pregnancy.*

rates for HCV in young offenders on community orders is 10 times higher than in the general community; for young people in custody, the rate is 18 times higher than in the general community.

Chlamydia is one of the most prevalent of all STIs. Males are more likely than females to have symptoms of Chlamydia, but up to 75% of persons with Chlamydia show no symptoms. Chlamydia is acquired during oral, vaginal, or

anal sexual contact with an infected sexual partner. It is a curable STI. In 2001 Chlamydia notifications for young people (12-24 years) represented sixty percent of all notifications for Chlamydia.

Hepatitis A, although not a blood borne virus, was also tested. None of those screened were positive for hepatitis A antibody. This finding is consistent with community standards where Hepatitis A is almost zero for young people.

Table 9: Blood-borne viruses and sexually transmitted infections (%)*

Markers	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Hepatitis B Core Antibody (cAb)	4	11	4	18	4	11
Hepatitis B Surface Antigen (sAg)	<1	3	1	12	<1	4
Hepatitis B Surface Antibody (sAb)	23	n/r	33	n/r	24	n/r
Hepatitis C Antibody	3	8	12	18	5	9
HIV antibody	0	0	0	0	0	0
Herpes Simplex Virus Type 2	7	6	9	18	7	7
Chlamydia	5	6	11	7	6	6
Gonorrhoea	<1	2	1	0	<1	2
Any sexually transmitted infection ^c	13	13	22	19	15	13
Any blood borne virus ^d	4	12	14	29	5	13

* Details of pathology tests are given in Appendix 1.

a Males (range) = 431-449; Females (range) = 72-80; Total (range) = 507-529

b Males (range) = 162-181; Females (range) = 14-17; Total (range) = 178-197

c HSV-2, chlamydia, gonorrhoea. YPoCOHS Males = 373; Females = 67; Total= 440. YPiCHS Males = 158; Females = 16; Total= 174

d Hepatitis B, hepatitis C, HIV. YPoCOHS Males = 430; Females = 73; Total= 503. YPiCHS Males = 180; Females = 17; Total= 187

15% had a sexually transmissible infection;

- 5% had a blood borne virus;
- 6% tested positive for Chlamydia.

Prevalence rates (5%) for Hepatitis C virus in young offenders on community orders was 10 times higher than in the general community.

No-one tested positive for hepatitis A antibody or HIV.

Figure 4: Herpes Simplex Virus Type 2 by lifetime number of sexual partners (%)

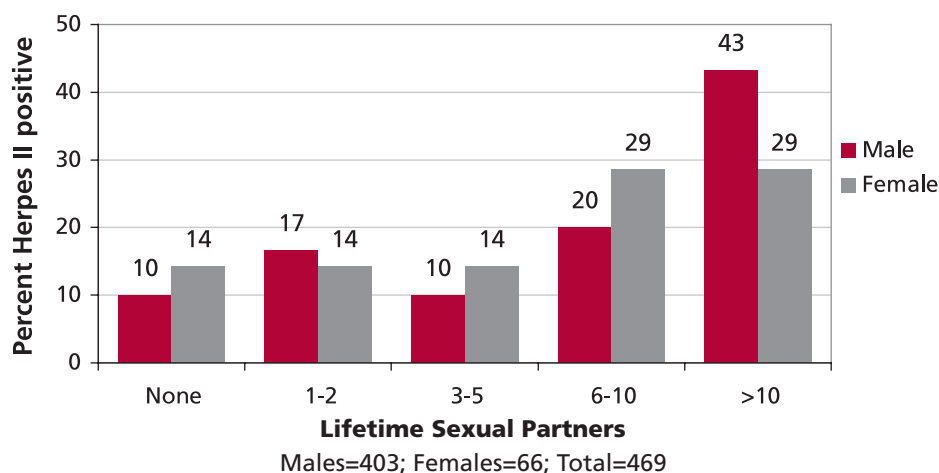


Table 10 provides additional interpretation of the hepatitis B results¹⁷. Criteria for susceptibility to Hepatitis B infection are that one does not have a current nor has had a previous infection. Immunity due to vaccination occurs when sAb is positive and cAb is negative. Immunity or natural infection occurs when both sAb and cAb are positive. Acute or chronic infection is indicated by a positive sAg. Blood test results from the majority of both male and female young people on community orders indicated they were likely to be susceptible to hepatitis B infection with only about one third of males and females having evidence of immunity from hepatitis

may be appropriate for this vulnerable population.

17% (4) of those testing positive for hepatitis C antibody (n = 21) had a history of injecting drug use only, 26% (6) tattooing/body piercing only, and 52% (12) a history of both injecting and tattooing/body piercing.

Tattooing and Body Piercing

Tattooing in custody has been linked with hepatitis C transmission¹⁸. 27% males and females (total n = 207) had at least one tattoo. Of those with a tattoo, 51% males [YPiCHS 66%] and 71% females (total n =

Table 10: Interpretation of hepatitis B results (%)*

Interpretation	Males	Females	Total
Susceptible to infection	70	62	69
Immune due to vaccination	26	34	27
Immune due to natural infection	3	1	3
Acute or chronic infection	<1	0	<1
Indeterminate	1	3	1

* Data not recorded for YPiCHS
Males (range) = 431; Females (range) = 73; Total (range) = 504

B vaccination. Among both sexes, a small proportion showed evidence of immunity to hepatitis B infection acquired from a previous hepatitis B infection. Active hepatitis B infection was detected amongst a very small proportion of males. These findings suggest that hepatitis B vaccination, including accelerated schedules,

113) had been tattooed by a non-professional. 37% males and 83% females (total n = 442) had one or more body piercings. Non-professionals had performed the procedure on 39% males and 17% females (total n = 111) who had a piercing. Table 11 summarises setting and location of tattooing and body piercing.

Table 11: Setting where tattooing and body piercing was carried out (%)

Setting	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Tattooing						
In the community	93	78	93	89	93	79
In custody	2	14	0	0	1	12
In the community and custody	5	8	7	11	5	9
Body Piercing						
In the community	98	90	100	93	99	90
In custody	0	7	0	0	0	6
In the community and custody	2	3	0	7	1	4

Tattooing: ^a Males = 241; Females = 94; Total = 335
Body Piercing: ^a Males = 178; Females = 29; Total = 207

^b Males = 73; Females = 9; Total = 82
^b Males = 59; Females = 14; Total = 73

Most males and females were likely to be susceptible to hepatitis B infection with only about one third having evidence of immunity from hepatitis B vaccination.

Diet, Nutrition and Physical Activity

In a longitudinal study of more than 10,000 9-14 year olds, increase in BMI was found to be larger in those who reported more time playing TV/videos/games and in those who increased their caloric intakes. Cumulative effects during the adolescent years produced substantial gains in body weight¹⁹. Prevention of overweight and obesity at an early age is essential. One third of obese preschool children become obese adults, as do half of obese school-aged children. Remission rates are low (<1% per year) and decline with age.

Young people were asked about their regular eating habits (Table 12).

Body Mass Index (BMI) is calculated by the algorithm [weight in kilograms divided by (height in metres²)] for all ages. It is used to classify individuals as underweight, of acceptable weight, overweight and obese against age-specific population norms.

For people under 18 years of age, BMI cut-off curves for overweight and obesity are defined to pass through the standard adult cut-offs of 25 kg/m² for overweight and 30 kg/m² for obesity. Substantial data link these cut-off points with disease risk in children and adults²⁰.

For people 18 years of age or older, a BMI of less than 18.5 kg/m² may be used to classify underweight; for this survey, cut-offs on a curve passing through this value were used to identify underweight people under 18 years of age²¹. 4% young people (3% males and 4% females) were underweight.

Comparison data were taken from the Schools Physical Activity and Nutrition Survey (SPANS)²², a study of overweight and obesity in school-attending adolescents. Data for 14-16 year olds are included in the table for comparison with young offender data.

Table 13 reports BMI results for young people on community orders; 34% were either overweight or obese.

- 30% young men ate pies, burgers or hot dogs every day.
- 15% sample ate other takeaway food every day.
- 34% young people were either overweight or obese.
- 4% were underweight.

Table 12: Dietary/nutritional behaviour (%)

Food	Males				Females			
	Never	1-2 per week	3-4 per week	Every day	Never	1-2 per week	3-4 per week	Every day
Community^a								
Breakfast	22	25	20	33	34	25	21	21
Fresh fruit	14	39	20	26	15	39	20	26
Fresh vegetables	15	26	27	32	16	23	19	42
Pies, burgers, hot dogs	4	32	33	30	10	50	24	16
Chips or crisps	11	39	30	20	10	44	31	15
Biscuits/chocolate/donuts/cake	13	43	25	18	12	43	24	21
Takeaway food	6	41	32	20	11	55	19	15
Custody^b [YPiCHS: before custody]								
Breakfast	35	12	13	40	41	24	6	29
Fresh fruit	20	33	19	29	24	59	0	18
Fresh vegetables	15	27	22	36	18	18	18	47
Pies, burgers, hot dogs	8	38	26	28	12	41	12	35
Chips or crisps	10	45	23	22	18	29	18	35
Biscuits/chocolate/donuts/cake	10	41	20	29	12	53	0	35
Takeaway food	9	42	26	22	6	53	6	35

a Males (range) = 669-670, Females (range) = 115-119, Total (range) = 784-789

b Males = 205; Females = 17; Total = 222

Table 13: Body Mass Index (%)

Classification / age group	Males			Females			Total	
	Comm. ^a	Custody ^b	SPANS	Comm. ^a	Custody ^b	SPANS	Comm. ^a	Custody ^b
Obese								
14 years and under ⁱ	10	6	10	9	0	4	10	6
15 years ⁱⁱ	11	5	7	4	50	4	10	8
16 years ⁱⁱⁱ	23	11	3	13	0	0	21	11
17 years ^{iv}	12	13	–	19	0	–	13	12
18 years ^v	12	10	–	21	0	–	12	9
19 years and over ^{vi}	14	30	–	0	0	–	12	30
Total ^{vii}	14	11	–	13	11	–	14	11
Overweight								
14 years and under ⁱ	26	18	22	9	0	19	23	18
15 years ⁱⁱ	15	14	18	25	0	13	17	13
16 years ⁱⁱⁱ	13	28	24	37	0	12	18	28
17 years ^{iv}	19	19	–	16	0	–	19	18
18 years ^v	26	23	–	7	0	–	24	21
19 years and over ^{vi}	37	15	–	50	0	–	38	15
Total ^{vii}	20	21	–	22	0	–	20	20

a i Males = 48; Females = 12; Total = 60

ii Males = 91; Females = 25; Total = 116

iii Males = 143; Females = 30; Total = 173

iv Males = 224; Females = 33; Total = 257

v Males = 139; Females = 14; Total = 153

vi Males = 22; Females = 4; Total = 26

vii Males = 667; Females = 118; Total = 785

b i Males = 17; Females = 0; Total = 17

ii Males = 22; Females = 2; Total = 24

iii Males = 46; Females = 1; Total = 47

iv Males = 70; Females = 3; Total = 73

v Males = 31; Females = 3; Total = 34

vi Males = 13; Females = 0; Total = 13

vii Males = 199; Females = 9; Total = 208

Obesity was most prevalent among 16 year olds (21%).

Overweight was highest amongst the 19 years and older group (38%).

COGNITIVE ABILITY

Intelligence tests were administered to estimate reasoning ability and academic potential. The Wechsler Abbreviated Scale of Intelligence (WASI) scores are measured against a normative sample with an average score of 100 and a standard deviation (SD) of 15, shown in the graph by the normal distribution taken from the standardisation sample⁵.

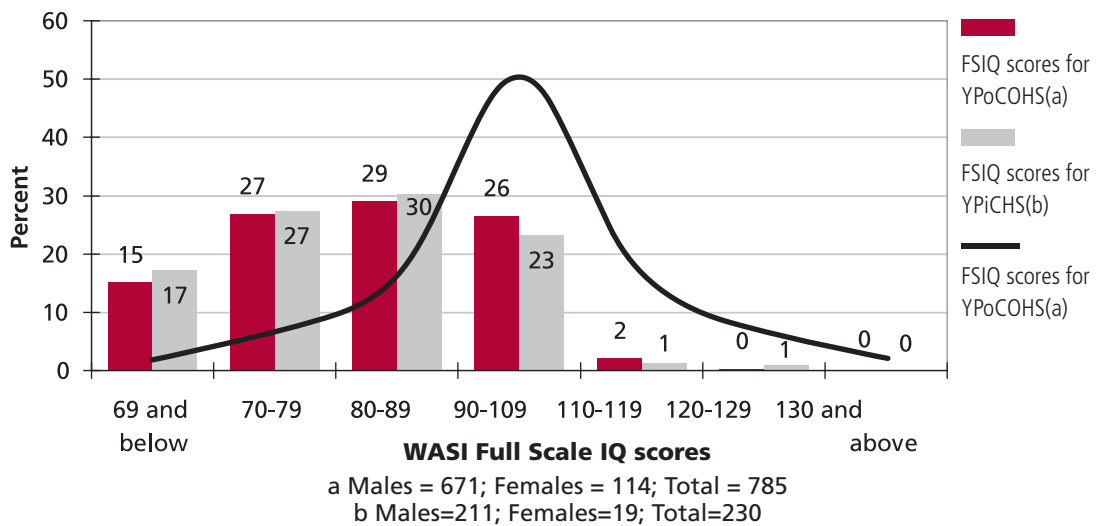
Many young people scored in the borderline

ability to solve non-verbal problems) is close to that of the normative group for the tests used. 62% (484) could read at a low average or better standard; 62% [YPiCHS 50%] were able to spell at a low average or better standard, but only 15% (116) could perform numerical operations at a low average standard or better.

The average WASI Full Scale IQ (FSIQ) score for young people on community orders was 83

Full Scale IQ

Figure 5: WASI Full Scale IQ scores and the WASI normative sample scores (%)

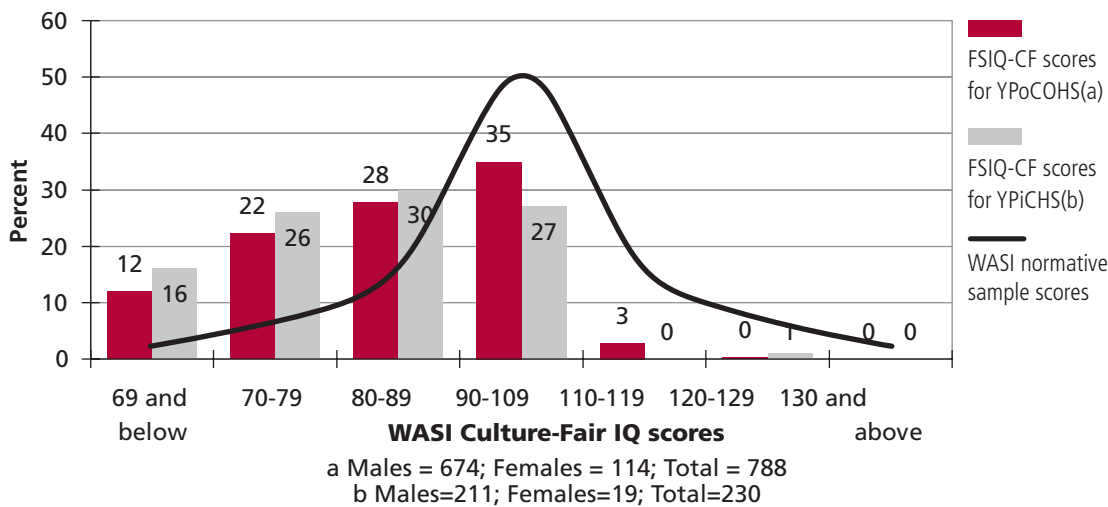


Many young people scored in the borderline or below average ranges on both the cognitive and academic tests, indicating difficulties with comprehending, communicating and problem solving using language or numbers.

or below average ranges on both the cognitive and academic tests. The pattern of results suggests that compared to other adolescents, many young people on community orders may have difficulty comprehending, communicating and problem solving using language or numbers. Conversely, their practical reasoning (fluid intelligence skills or

(SD: 13, range: 52 to 128). 72% scored below the average range, compared to 25% from the standardisation sample. 'Culture fair' IQs were calculated using the Full Scale IQs of young people from an English-speaking background, and the Performance IQs of Aboriginal and Torres Strait Islander and CALD young people (Figure 6).

Figure 6: WASI Culture Fair IQ scores and the WASI normative sample scores (%)

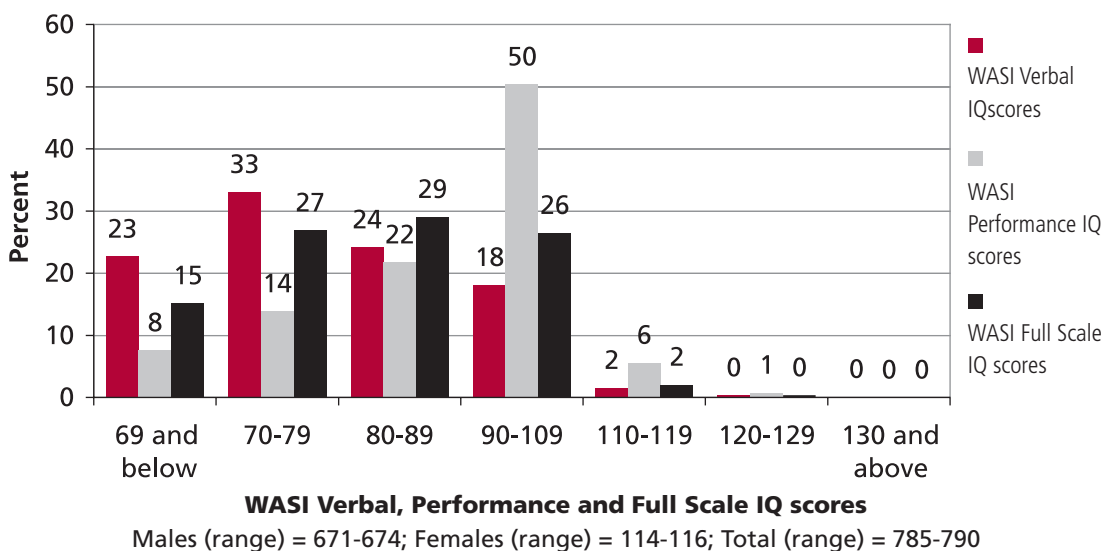


Comparison of Verbal IQ (VIQ), Performance IQ (PIQ) and Full Scale IQ (FSIQ) scores

Overall, the mean FSIQ score of 83 fell within the Low Average range. The mean VIQ score of

79 fell in the Borderline range. The mean PIQ score of 91 fell in the Average range. Means for the custody sample fell in the same ranges [YPiCHS: FSIQ = 82, VIQ = 76, PIQ = 91] (see Figure 7).

Figure 7: WASI Full Scale, Verbal and Performance IQ scale scores (%)



The mean FSIQ fell within the low average range.

The mean verbal IQ fell in the borderline range.

The mean PIQ fell in the average range.

EDUCATIONAL ACHIEVEMENT

Educational history

The young people assessed by the survey indicated a high level of disengagement with the educational environment from an early age

Academic Achievement

The Composite Standard Score on the Wechsler Individual Achievement Test-II-Abbreviated (WIAT-II-A) is an estimate of overall academic

Table 14: Educational history (%)

	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
[YPiCHS: before custody]						
Mean age left school (years)	15.0	14.5	14.5	14.6	14.9	14.5
Not attending school	82	81	84	83	82	82
– left school before Year 7*	2	1	1	0	2	1
– left school in Year 7*	7	16	6	20	7	16
– left school in Year 8*	15	24	16	33	15	25
– left school in Year 9*	31	34	43	20	32	33
– left school in Year 10*	30	16	27	27	30	17
– left school in Year 11*	11	8	4	0	10	7
– left school in Year 12*	5	1	3	0	5	1
Skip/skipped school regularly	59	n/r	69	n/r	60	n/r
Suspended from school	90	90	85	100	89	91
Special education [^]	37	39	32	50	36	40
Victim of bullying at school	29	19	37	29	30	20
Perpetrator of bullying	55	50	61	59	56	51
Victim and perpetrator of bullying	20	12	28	29	22	13

[^] Ever attended a special school, tutorial centre, special class in mainstream school, or alternative community based program

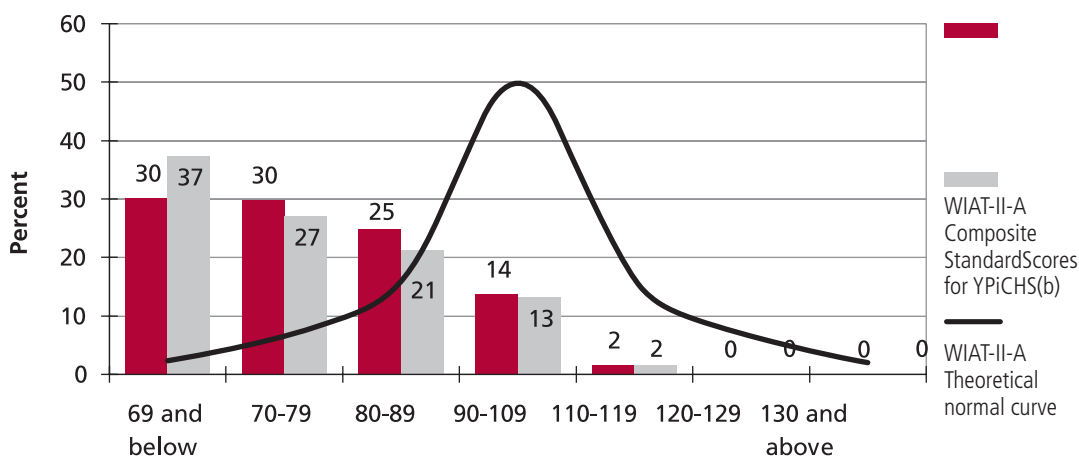
a Males = 673; Females = 118; Total = 791 * (Males = 551; Females = 97; Total = 648)

b Males (range) = 156-209; Females (range) = 12-18; Total (range) = 168-227

(Table 14). A high proportion had left school without achieving a minimal qualification; had not regularly attended school, and many had been suspended on numerous occasions.

achievement in reading, spelling and mathematics⁷. The WIAT-II-A is based on a normative sample with an average score of 100 and standard deviation of 15.

Figure 8: WIAT-II-A Composite Standard Scores and normative sample scores (%)



WIAT-II-A Composite Standard Scores

a Males=665; Females=116; Total=781

b Males=194; Females=18; Total=212

Young people showed a high level of disengagement with the educational environment from an early age. Mean school leaving age was 14 years, 9 months.

- 60% truanted regularly
- 89% had been suspended
- 36% had received special education
- 56% were perpetrators of bullying
- 30% were victims of bullying.

The average WIAT-II-A composite standard score was 77 (range 46 to 118), indicating that young people on community orders fell well below (1.5 standard deviations, on average) the expected norms in terms of their overall academic achievement.

Comparison of reading, spelling and arithmetic with overall academic achievement

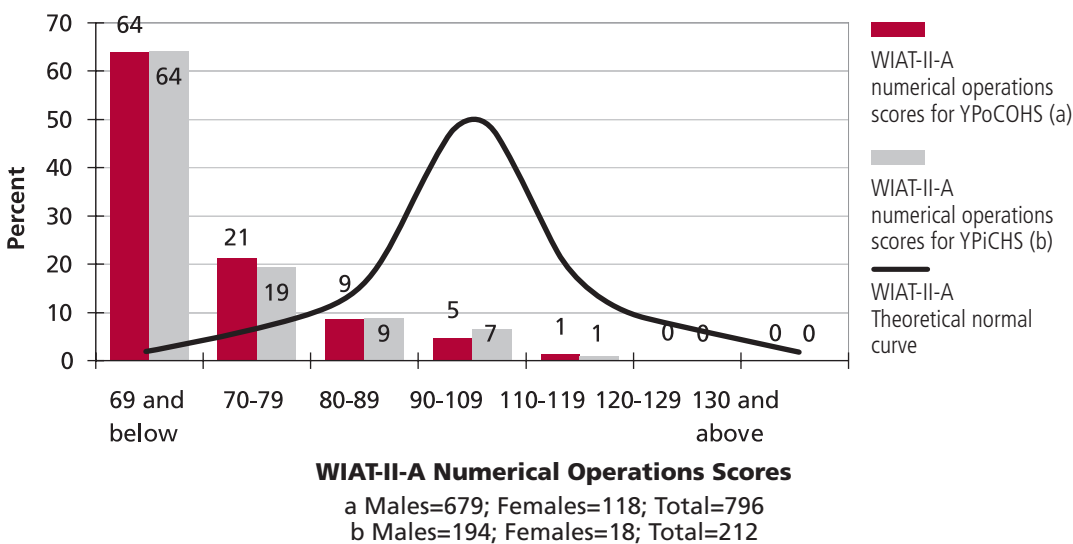
The following percentages of young people attained scores, listed below, consistent with performance in the intellectually disabled range:

30% (235) Composite Standard Scores (CSS);
 64% (502) scores on the numerical operations subscale;
 21% (168) scores on the word reading subscale;
 21% (163) scores on the spelling subscale.

The average overall academic performance fell within the borderline range, with most scores equivalent to those expected of people with intellectual disabilities (Figure 8).

Figures 9, 10, and 11 show the distribution of scores on each of the subscales with the normative curve from the standardisation sample for comparison.

Figure 9: WIAT-II-A Numerical Ability Standard Scores (%)



Overall academic performance fell within the borderline range, with

- 30% CSS
- 64% Numerical operations
- 21% Word reading
- 21% Spelling

achieving scores equivalent to those expected of people with an intellectual disability.

Figure 10: WIAT-II-A Spelling Standard Scores (%)

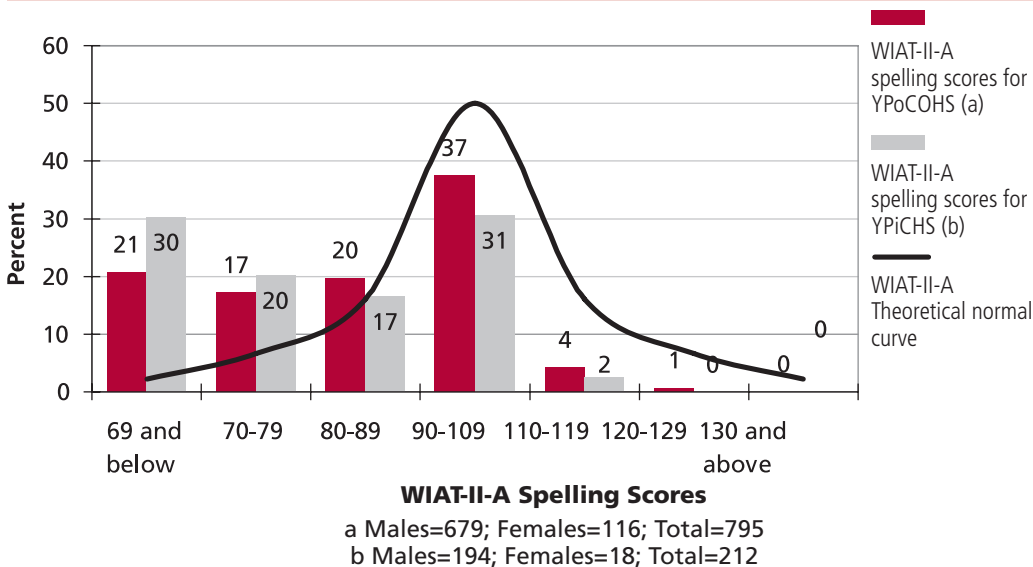
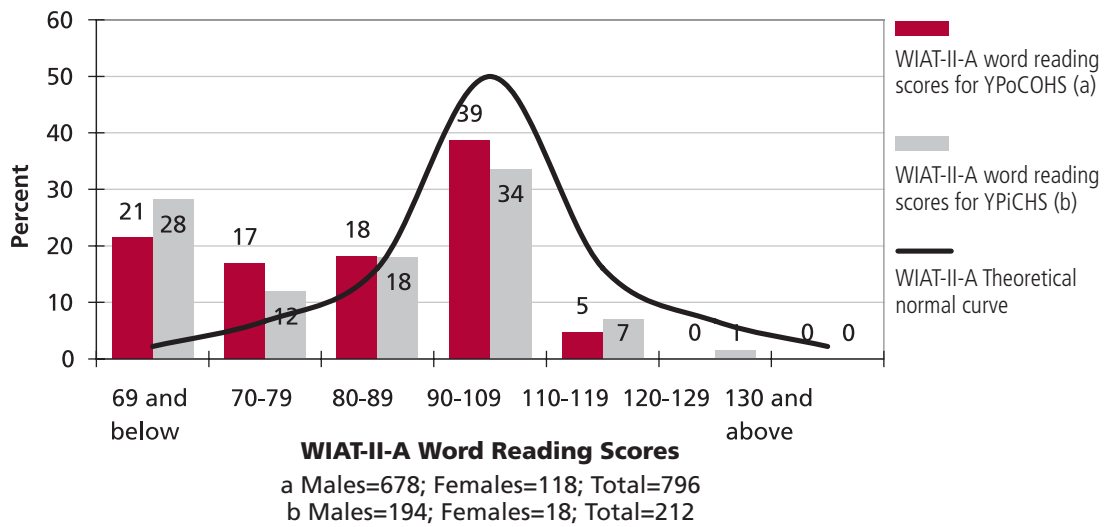


Figure 11: WIAT-II-A Word Reading Standard Scores (%)

11% may have an intellectual disability. The culture fair estimate of intellectual disability was 8%.

Intellectual disability estimates

For a diagnosis of intellectual disability to be made, tests of cognitive and adaptive functioning must be considered. The WASI assesses cognitive functioning, and the WIAT-II-A assesses one area of adaptive functioning, that of functional academic skills (two areas of adaptive functioning are required for a formal diagnosis – only one was available for this study). 15% (119) of the young people's WASI Full Scale IQ scores fell into the range consistent with intellectual disability (i.e., less than 70). 11% (87) young people scored below 70 on both the WASI Full Scale IQ and the WIAT-II-A Composite Standard Score (WIAT-CSS). This indicates that 11% young people on community orders may have an intellectual disability, at least in relation to their adaptation to mainstream Anglo-Australian society.

To understand a person's educational and adaptive needs, the normative standards of the dominant cultural group are important²³. However, to diagnose intellectual disability in a culture-fair manner, it is important to compare IQ and adaptive behaviour with those of a person's cultural group. With 19% (148) of the WASI and WIAT-II-A sample from Aboriginal and Torres Strait Islander backgrounds and 15% (112) from Culturally and Linguistically Diverse backgrounds (CALD: in YPoCOHS, CALD is coded for those with a language other than English mainly spoken in the home), these results require careful interpretation. These young people would be expected to have

lower verbal scores than those from an English-speaking background (ESB).

Aboriginal and Torres Strait Islanders' performance on the non-verbal (Performance) scales on IQ tests are comparable to available Australian norms, particularly for those raised in urban areas²³. One 'culture fair' estimate of IQ could be based on numbers of Aboriginal and Torres Strait Islander and CALD young people scoring less than 70 on the WASI Performance IQ Scale, and the number of ESB young people with a WASI Full Scale IQ below 70. 24 Aboriginal and Torres Strait Islander young people and 7 CALD young people scored less than 70 on the Performance IQ Scale, and 64 non-Aboriginal and Torres Strait Islander young people from an English-speaking background scored below 70 on the WASI Full Scale IQ. Hence, 12% (95) young people have culture fair IQ scores below 70.

Two thirds (64) of those young people with culture-fair IQ scores (i.e. WASI PIQ for CALD/Aboriginal and Torres Strait Islander groups) below 70 also had WIAT-CSS scores below 70. This combined assessment of adaptive functioning and culture fair IQ provides a valid culture fair measure of intellectual disability: 8% (64).

Several clients who refused to continue on the WASI may have done so to avoid the anxiety and perceived shame of being unable to complete the required tasks. This would suggest that 8% may be an underestimate of the true level of intellectual disability in this group.

MENTAL HEALTH

Mental health is not simply the absence of mental illness; it is a “state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life”²⁴. The World Health Organization acknowledges that theoretical and cultural differences in definition exist. For this report, we adopted an operational definition of mental health that was assessed by a series of norm-referenced psychological tests.

The Adolescent Psychopathology Scale – Short Form (APS-SF) generates 14 scales to describe a range of psychological and psychiatric symptoms warranting possible referral or intervention⁸. These scales are based on DSM-IV criteria for psychiatric, personality and psychosocial problems²⁵. The APS-SF provides an indication of possible disorders, not a formal diagnosis, and does not describe personality disorders.

Table 15 compares custody and community samples on scales that assess the same or similar clinical dimensions. (Note that the YPiCHS used the APS and some of those scales are not

included in the APS-SF).

40% (311) (40% males, 38% females) [YPiCHS males 48%, females 61%] reported severe symptoms consistent with a clinical disorder on at least one subscale. 19% (147) reported symptoms of Conduct Disorder in the severe range; 26% (207) reported symptoms of Substance Abuse Disorder in the severe range; 4% (27) reported symptoms for Academic Problems in the severe range.

13% (101) reported symptoms (in the severe range) for two or more clinical disorders [YPiCHS 26%]. The most commonly co-occurring disorders (in the severe range) were Substance Abuse Disorder and Conduct Disorder (8%, n = 62). Scores on the Substance Abuse Disorder and Conduct Disorder scales were the most prevalent disorders occurring in the severe range (Table 15).

52% males and 54% females scored in the normal range for Substance Abuse Disorder; 49% males and 57% females scored in the normal range for Conduct Disorder on the APS-SF scales.

Table 15: APS-SF disorders (%)

APS-SF scales	Mild		Moderate		SEVERE	
	Males	Females	Males	Females	Males	Females
Community^a						
Substance Abuse Disorder	9	8	13	9	26	29
Conduct Disorder	9	8	23	17	19	18
Academic problems (ADP)*	11	10	13	12	3	6
Anger / Violence Problems (AVP)	12	14	14	23	3	5
Posttraumatic Stress Disorder	7	13	7	14	2	4
Suicide (ideation and behaviours)	3	2	4	10	1	4
Oppositional Defiant Disorder	9	12	7	9	1	5
Interpersonal Problems	7	15	4	11	1	1
Major Depression	5	9	3	12	1	3
Self-concept Problems	6	8	3	3	<1	3
Eating disorders (EAD)	3	11	3	9	<1	3
Generalised Anxiety Disorder	1	9	2	7	<1	3

40% reported severe symptoms consistent with a clinical disorder on at least one subscale.

- **19% reported symptoms of Conduct Disorder in the severe range;**
- **26% reported symptoms of Substance Abuse Disorder in the severe range;**

Only 4% reported symptoms for Academic Problems in the severe range, which did not accord with psychometric testing.

Table 15 (Continued): APS-SF disorders (%)

APS scales	Mild		Moderate		SEVERE	
	Males	Females	Males	Females	Males	Females
Custody^b						
Substance Abuse Disorder	14	11	19	22	27	44
Conduct Disorder	4	0	32	50	24	22
Attention-Deficit Hyperactivity Disorder [cf ADP]	13	22	14	22	1	6
Anger [cf AVP]	8	6	14	33	3	6
Aggression [cf AVP]	22	28	14	17	11	11
Posttraumatic Stress Disorder	8	17	9	28	0	0
Suicide	3	11	1	0	5	6
Oppositional Defiant Disorder	8	17	12	22	3	0
Interpersonal Problems	26	33	12	17	4	17
Major Depression	9	11	3	11	1	0
Self-concept	11	6	3	6	0	0
Bulimia Nervosa [cf EAD]	1	17	3	11	1	11
Anorexia Nervosa [cf EAD]	1	11	1	6	0	0
Generalised Anxiety Disorder	3	17	5	17	1	0

a Males = 666-668; Females = 117; Total = 783-785 (* Males = 607; Females = 108; Total = 715)

b Males = 161; Females = 18; Total = 179

Attention Deficit Hyperactivity Disorder (19%) was the most frequently reported mental health diagnosis. However, only 1% males and 6% females scored in the severe range on the ADHD subscale on the APS-SF.

Table 16 shows the percentages of young people who had been told by a health professional that they had a mental health

problem and the percentages and numbers of young people who had received treatment for that problem.

Table 16: Self-reported mental health and report of treatment (n)^a

Problem	% with disorder	%(n) treated total
Anxiety Disorders	2	1(15)
ADHD, ADD, Hyperactivity (Attention Deficit Hyperactivity Disorders)	19	17(144)
Conduct Disorder, Oppositional Defiant Disorder	2	2(16)
Depression	6	5(48)
Other mood disorder (non-depressive, elevated mood)	1	1(10)
Intellectual Disability, Learning Difficulties	1	<1(9)
Schizophrenia, psychotic disorder	3	2(24)
Acute Stress Disorder, Post-Traumatic Stress Disorder	1	<1(8)
Anger Management problems	4	3(29)
Other	1	1(9)
Any disorder above	33	

* only those with a history of incarceration

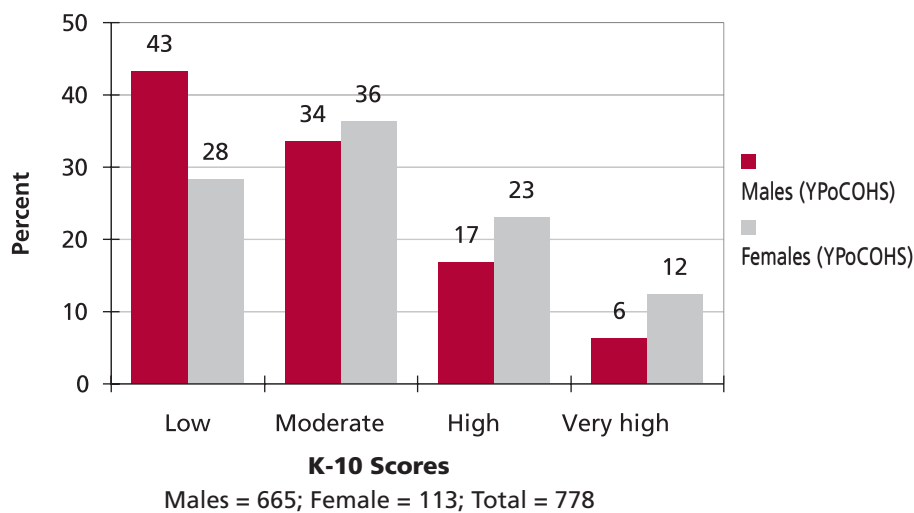
a Males = 665-669; Females = 117; Total = 783-786

The Kessler Psychological Distress Scale (K-10 LM) is a 10-item questionnaire yielding a global measure of psychosocial distress¹⁰. The questions examine the level of anxiety and depressive symptoms experienced in the previous four weeks. Scores range from 10 (no distress) to 50 (severe distress) and are categorised into four groups: low (10 to 15), moderate (16 to 21), high (22-29) and very high (over 30). Scores in the very high range are associated with a high probability of having an anxiety or depressive disorder²⁶.

Based on these data, 25% (193) community sample had high or very high psychological distress, consistent with a greater than 50% chance of having an anxiety or depressive disorder; 7% (56) had an almost 80% chance of having an anxiety or depressive disorder (6% (42) males and 12% (7) females [YPiCHS 8% (15) males, (n=199); 13% (2) (n=16) females]).

Population norms suggest that between 11% and 12% of the general population have high to very high scores on the K-10.

Figure 12: K-10 psychological distress scores (%)



On the K-10, 25% had high or very high psychological distress, consistent with a greater than 50% chance of having an anxiety or depressive disorder.

Suicide and Self-harm

Studies over the last 25 years reveal increasing rates of self harm in adolescents. Lifetime suicidal ideation in the general adolescent population has been estimated at 29.9%²⁷. Approximately 5% report having attempted suicide. Rates of self harm in the general adolescent population vary from 6.2% to

12.4%²⁸. The age specific suicide rate for 15-19 year olds is 8.3 per 100,000 persons (12.7 for males; 3.6 for females) (ABS, 2005). In Australian young offenders, suicide has been identified as the leading cause of mortality behind drug-related deaths³.

Table 17 summarises the suicide and self-harm information for males and females.

Table 17: Percentages (numbers) of young people with suicidal and self-harm ideation and behaviour

	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Suicide Ideation						
Considered suicide (ever)	14 (92)	19 (38)	32 (37)	20 (4)	17 (129)	19 (42)
Considered suicide (past 12m)	7(47)	15 (30)	14 (16)	12 (2)	8 (63)	15 (32)
Made suicide plan (ever)	9 (59)	10 (19)	13 (15)	6 (1)	10 (74)	12 (20)
Made suicide plan (past 12m)	5 (32)	7 (14)	8 (9)	0 (0)	5 (41)	6 (14)
Self-harm Ideation						
Considered self-harm (ever)	19 (125)	18 (37)	40 (46)	18 (3)	22 (171)	18 (40)
Considered self-harm (past 12m)	10 (66)	12 (25)	27 (31)	12 (2)	12 (97)	12 (27)
Made plan to self-harm (past 12m)	4 (26)	7 (14)	13 (15)	0 (0)	5 (41)	6 (14)
Self-harm ideation decreased*	7 (43)	50 (17)	18 (21)	50 (1)	8 (64)	50 (18)
Self-harm ideation increased*	1 (9)	34 (12)	3 (3)	0 (0)	2 (12)	32 (12)
Suicide Attempts						
Attempted suicide (ever)	8 (52)	n/r	18 (21)	n/r	9 (73)	n/r
Attempted suicide (past 12m)	4 (27)	8 (16)	9 (10)	12 (2)	5 (37)	8 (18)
One suicide attempt (past 12m)	2 (13)	3 (6)	2 (2)	12 (2)	2 (15)	4 (8)
2-3 suicide attempts (past 12m)	2 (12)	4 (7)	4 (4)	0 (0)	2 (16)	3 (7)
>3 suicide attempts (past 12 m)	<1 (2)	2 (3)	4 (4)	0 (0)	<1 (6)	1 (3)
Self Harm Attempts						
Self-harm (ever)	15 (98)	13 (26)	28 (32)	6 (1)	17 (140)	12 (27)
Self-harm (past 12m)	7 (49)	9 (19)	16 (18)	6 (1)	9 (67)	9 (20)
1 self-harm incident (past 12m)	2 (16)	3 (6)	2 (2)	6 (1)	2 (18)	3 (7)
2-3 self-harm incidents (past 12m)	3 (20)	3 (6)	7 (8)	0 (0)	4 (28)	3 (6)
>3 self-harm incidents (past 12m)	2 (12)	3 (7)	4 (5)	0 (0)	2 (17)	3 (7)

*YPoCOHS in past 12 months; YPiCHS since coming into custody

a Males = 665-667; Females = 114-116; Total = 779-783

b Males = 164-186; Females = 13-17; Total = 177-203

Suicidal ideation was lower and self-harm was higher than adolescent population estimates.

- 9% young people had attempted suicide; 5% in the past 12 months.
- 17% had self-harmed; 9% in the past 12 months.

Tables 18 and 19 show the suicide and self-harm methods for the subset reporting suicide attempts in the past 12 months.

Table 18: Most frequently reported methods of attempting suicide in past 12 months (%)

Methods*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Attempted hanging	42	56	24	50	37	56
Slashing wrists/ body parts	18	33	67	50	32	33
Overdose (pills and other)	26	19	39	0	30	17
Attempted overdose (pills)	14	19	24	0	17	17
Attempted overdose (other)	14	0	19	0	15	0
Jumping in front of (train, car)	10	6	0	0	7	6
Swallowing poisons	2	0	19	0	7	0
Asphyxiation	6	25	0	0	7	22
Jumping from a height	10	6	0	0	7	6
Car accident	4	0	14	0	7	0
Stabbing self	4	6	10	0	6	6
Punch/kick things repeatedly	2	0	5	0	3	0
Attempted overdose (alcohol)	4	6	0	0	3	6
Attempted overdose (heroin)	4	0	0	0	3	0
Eating foreign objects	0	0	0	0	0	0
Banging head	0	13	0	0	0	11
Self-immolation	0	13	0	0	0	11
Drowning	0	6	0	0	0	6
Firearm/ gunshot	0	0	0	0	0	0

*multiple responses permitted

a Males = 50; Females = 21; Total = 71

b Males = 16; Females = 2; Total = 18 [YPiCHS: low n]

Attempted hanging, slashing wrists or body parts and overdose were the three most frequent methods of attempting suicide.

Cutting, punching, kicking and banging head were the three most frequent methods of self-harm.

Table 19: Most frequently reported methods for self-harm (%) in the last 12 months

Methods*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Slashing	58	42	0	0	65	41
Punching/kicking (inc. fighting)	29	12	11	0	24	11
Banging/smashing head	13	15	11	0	12	15
Burning self (e.g. with lighter)	15	4	83	0	11	4
Blunt force (e.g. vehicle crash)	9	–	0	–	9	–
Stabbing self	8	0	11	0	9	0
Overdose	8	4	11	0	9	4
Attempting to cut off oxygen	4	19	11	0	6	19
Eating foreign objects	2	4	0	0	2	4
Biting of skin	0	4	11	0	0	4

*multiple responses permitted

a Males = 48; Females = 18; Total = 66

b Males = 26; Females = 1; Total = 27 [YPiCHS: low n]

16% (117) stated that a school peer had committed suicide.

28% (212) said that they knew someone who had committed suicide.

Experience of abuse and neglect

The Childhood Trauma Questionnaire (CTQ) examines experiences of physical, emotional and sexual abuse and assesses the degree to which people minimise or deny experiences of abuse or trauma⁹. Scores are classified as low, moderate, or severe depending on the level of abuse.

72% young people had experienced some form of abuse or neglect in their childhood (low, moderate, or severe abuse or neglect).

40% (270) males and 29% (35) females endorsed items on the Minimisation/Denial Scale of the CTQ, suggesting substantial under-reporting of abuse, neglect or trauma.

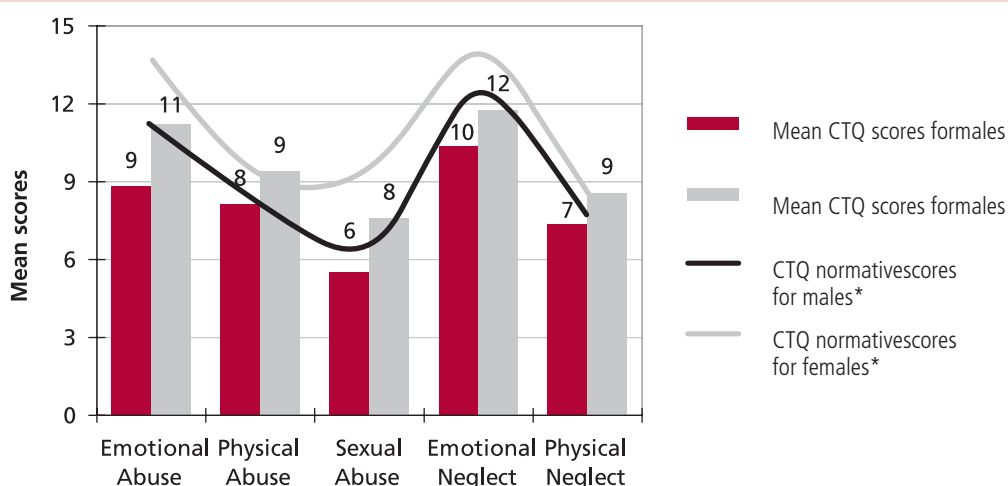
Table 20: Childhood Trauma Questionnaire scale score classifications (%)

CTQ scales	Low		Moderate		Severe	
Community^a	Males	Females	Males	Females	Males	Females
Emotional Abuse	24	30	10	14	9	20
Physical Abuse	17	16	5	11	8	14
Sexual Abuse	3	8	4	19	2	11
Emotional Neglect	29	28	11	6	9	23
Physical Neglect	17	11	11	18	8	16
Any abuse (above)	59	58	32	45	23	38
CTQ scales	Mild		Moderate		Severe	
Custody^b	Males	Females	Males	Females	Males	Females
Emotional Abuse	20	33	9	6	7	11
Physical Abuse	12	17	14	28	15	11
Sexual Abuse	4	11	3	6	2	22
Emotional Neglect	22	22	6	6	11	6
Physical Neglect	18	17	11	0	8	6
Any abuse (above)	53	67	32	44	25	28

a Males = 678; Females = 119; Total = 797

b Males = 198; Females = 18; Total = 216

Figure 13: Childhood Trauma Questionnaire: Comparison of mean scores for community sample with CTQ normative population*



CTQ scores and normative samples

a Males = 678; Females = 119; Total = 797

* Adolescent psychiatric inpatients

72% had experienced some form of abuse or neglect. Females (38%) reported more severe abuse and neglect than males (23%). Emotional abuse and neglect were the most frequently reported forms of abuse for both males and females.

Across all categories of abuse, this population report levels of abuse consistent with an adolescent psychiatric population.

ALCOHOL, TOBACCO AND OTHER DRUG USE

Alcohol use

Alcohol abuse and alcohol dependence affects a significant number of adolescents and young adults between the ages of 12 and 20. Adolescents who begin drinking before age 15 are four times more likely to develop alcohol dependence than those who begin drinking at age 21.

Early age of drinking onset is also associated with alcohol-related violence. The three leading causes of death for 15- to 24-year-olds are automobile crashes, homicides and suicide – alcohol is a leading factor in all three²⁹. Community data indicate that the mean age of alcohol initiation (drinking a full glass) among young people aged 14-24 years is 14.6 years for males and 14.8 years for females. NSW Health estimates that 22% boys and 18% girls aged between 12-16 years drink on a weekly basis; 40% of 16-17 year olds binge drink at least occasionally.

Almost all young people on community orders had consumed alcohol and been drunk at some time in the past (Table 21). The average age of first consuming alcohol was 13 years for both

males (range: 5 to 18) and females (range: 5 to 18). Young men were, on average, aged 14 years (range: 5 to 19) and young women were, on average, aged 13 years (range: 5 to 18) when they first got drunk.

27% (182) males and 23% (27) females reported being drunk at least weekly in the twelve months prior to completing the survey. Young people who drank more than six standard drinks (males) or four standard drinks (females) on any one occasion, or those who drank every day were classified as risky drinkers³⁰; 84% males (568) and females (98) drank at risky levels.

Binge drinking, defined as consuming six or more standard drinks on any one occasion³⁰, was common – 30% males [YPICHS 46%] and 36% females (combined n = 244) had engaged in binge drinking on a weekly basis prior to completing the survey.

A higher proportion of those who had received custodial sentences as opposed to a community order displayed patterns of drinking consistent with alcohol dependence.

Typical indicators of alcohol dependence are reported in Table 22.

Table 21: Alcohol use among young people on community orders (%)

Alcohol use	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Ever tried alcohol	97	96	98	100	97	96
Had a full serve of alcohol	95	93	97	100	95	94
Ever been drunk	91	84	91	100	91	85
Been drunk before age 16	73	80	78	78	73	80

a Males = 674; Females = 116; Total = 790

b Males (range) = 172-208; Females = 18; Total (range) = 190-226

More than 90% young people had consumed alcohol and been drunk. The average age of first consuming alcohol and getting drunk was 13-14 years for both sexes.

- 27% males and 23% females reported being drunk at least weekly in the twelve months prior to completing the survey.
- 84% males (568) and females (98) drank at risky levels. 30% males and 36% females were binge drinking on a weekly basis prior to completing the survey.

Table 22: Indicators of alcohol dependency (%)

Indicators	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Unable to stop drinking once started						
At least weekly:	8	18	6	35	7	19
Fortnightly or monthly:	7	4	9	12	8	5
Failed to do what was normally expected because of drinking						
At least weekly:	6	18	7	25	6	18
Fortnightly or monthly:	12	5	15	13	13	6
Needed an alcoholic drink in the morning to get going						
At least weekly:	3	6	2	12	2	7
Fortnightly or monthly:	1	1	3	6	2	1

a Males (range) = 635-672; Females (range) = 111-114; Total (range) = 746-786

b Males (range) = 204-206; Females (range) = 16-17; Total (range) = 221-222 [YPICHS: before custody]

53% (396) young people indicated that they had been under the influence of alcohol, drugs or both at the time of their offence [YPICHS 54% (131)].

Table 23: Offending behaviour and alcohol and other drug use (%)

Behaviour	Males		Females		Total		
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b	
Ever committed crime to get drugs or alcohol	44	61	48	76	44	62	
Affected by drugs	at time	33	47	33	47	33	47
Affected by alcohol	of last	35	37	36	41	36	38
Affected by either	offence	52	59	53	59	52	59

a Males = 641; Females = 113; Total = 754

b Males (range) = 204-206; Females (range) = 17; Total (range) = 221-223

Tobacco use

The 2004 National Drug Strategy Household Survey assessed the tobacco and illicit substance use of 30,000 people aged 12 years and over. 96% of 12- to 15-year-olds reported having never smoked a cigarette. Fewer than 1 in 12 persons aged 12-19 years reported smoking daily. Females aged between 16 and 17 years were almost twice as likely as males to smoke daily. Young people who do less well academically and who have a lower self-image are also more likely to smoke than other young people. According to the AIHW (2003), the mean age of initiation into tobacco smoking among

young people aged between 14-24 years was 14.5 years for males and 14.2 years for females. 16% young people (12-17 year olds) identified themselves as smokers.

In this sample of young people on community orders, the average age for commencing smoking was 12 years for both males and females, with 27% (199) reporting they had commenced smoking at ten years of age or younger. 81% (545) males and 81% (95) females were current smokers. 93% (597) smoked daily or almost daily; 36% males and 53% females smoked 10 or fewer cigarettes on the days that they smoked; 25% (156) young people felt that they required assistance to quit smoking.

53% young people indicated that they had been under the influence of alcohol, drugs or both at the time of their offence.

Average age for commencing smoking was 12 years for both sexes.

• 27% commenced smoking at 10 years of age or younger.

• 81% (545) males and 81% (95) females were current smokers.

• 93% (597) smoked daily or almost daily.

Substance use

In 2004, researchers from the Murdoch Children's Research Institute surveyed 2,900 Victorian children in Years 5, 7 and 9 for their substance use. One in 50 Australian teenagers in Years 7 and 9 reported using cannabis weekly. Figures on substance use in young offenders are compared with substance use in young people aged 16-24 years taken from the Premier's Drug Prevention Council (PDPC)(2003)³¹ in the tables below.

In a 2001 community sample of young people aged 14-24 years, Cannabis and inhalants were first used at mean age less than 16 years for both males and females, compared to amphetamines and speed, which were first used at 18 years for males and 17 years for females. The mean age of initiation into injecting drug use was 17 years for males and 18 years for females (Source: AIHW NDSHS 2001). Young offenders initiated illicit substance use on average two years earlier than community samples of young people as indicated in Table 25.

Table 24: Drugs ever used (other than alcohol or tobacco) (%)

Drug type*	Males			Females			Total	
	Community ^a	Custody ^b	PDPC [^]	Community ^a	Custody ^b	PDPC [^]	Community ^a	Custody ^b
Cannabis	89	88	57	89	88	49	89	88
Amphetamine	44	46	17	57	59	14	46	47
Ecstasy/ other amphetamine	38	34	21	45	35	18	39	34
Cocaine	17	20	-	23	29	-	18	21
Heroin	13	17	-	20	47	-	14	20
Benzodiazepines	11	12	-	26	12	-	13	12
Other (steroid/ opiate/anaesthetic)	11	14	-	17	35	-	12	15
Hallucinogens	11	13	-	13	18	-	11	13
Solvents or inhalants	7	10	5	10	29	3	7	12
Any drug (above)	88	90	-	87	100	-	88	91

a Males (range) = 671-673; Females (range) = 114-115; Total (range) = 677-678

b Males = 186; Females = 17; Total = 203

* multiple responses permitted

[^] Premiers Drug Prevention Council

[#] PDPC does not include methamphetamine

Cannabis (89%), amphetamine (46%) and ecstasy (39%) were the three most commonly used substances. 'Ever used' percentages were 1.5 times (Cannabis), 2.7 times (amphetamine) and 1.9 times (ecstasy) higher than substance use in the PDPC sample of 16-24 year olds.

Table 25: Mean age of initiation/onset of drug use (Standard Deviation)

Drug type	N ^a	Males		Females		Total	
		Community	Custody ^b	Community	Custody ^b	Community	Custody ^b
Tobacco	748	12.0 (2.7)	11.9 (2.5)	11.6 (2.6)	12.4 (1.1)	11.9 (2.7)	12.0 (2.5)
Alcohol	749	13.2 (2.5)	13.3 (2.6)	13.0 (2.1)	13.8 (1.3)	13.1 (2.4)	13.4 (2.5)
Cannabis	701	13.2 (2.3)	12.7 (2.5)	12.9 (2.1)	12.9 (1.7)	13.1 (2.3)	12.7 (2.5)
Amphetamine	363	15.0 (1.7)	15.0 (1.5)	14.0 (1.4)	15.0 (1.3)	14.8 (1.7)	15.0 (1.4)
Other amphetamines (e)	307	15.3 (1.5)	15.4 (1.3)	14.6 (1.4)	14.8 (0.8)	15.2 (1.5)	15.4 (1.2)
Cocaine	141	15.4 (1.8)	15.7 (1.1)	14.1 (1.4)	15.8 (0.8)	15.2 (1.8)	15.7 (1.1)
Heroin	110	15.2 (1.6)	14.8 (1.6)	13.5 (2.3)	15.0 (1.7)	14.9 (1.9)	14.8 (1.6)
Benzodiazepines	105	14.9 (1.7)	15.1 (1.4)	14.1 (1.3)	14.5 (2.1)	14.6 (1.6)	15.1 (1.4)
Hallucinogens	86	14.8 (1.9)	14.9 (1.3)	14.4 (1.1)	14.3 (1.2)	14.8 (1.8)	14.9 (1.2)
Solvents/inhalants	58	13.2 (2.3)	15.6 (1.0)	12.7 (1.8)	0	13.1 (2.2)	15.6 (1.0)
Other opiates	40	15.4 (2.0)	16.0 (.00)	14.7 (1.8)	17.0 (0.0)	15.2 (1.9)	16.5 (0.7)
Painkillers	36	14.8 (2.3)	14.3 (1.3)	14.3 (2.1)	16.0 (2.8)	14.6 (2.2)	14.8 (1.8)
Non-prescribed methadone	22	15.4 (1.9)	15.3 (1.3)	13.8 (2.2)	14.6 (1.3)	15.1 (2.0)	15.2 (1.3)
Other (specify)	13	15.3 (2.0)	12.4 (3.3)	15.0 (0.0)	15.5 (0.6)	15.3 (1.9)	13.0 (3.2)
Prescribed methadone	5	16.7 (0.6)	16.5 (1.3)	16.0 (1.4)	15.5 (0.7)	16.4 (0.9)	16.2 (1.2)
Steroids	5	16.5 (1.3)	16.0 (2.0)	13.0 (0.0)	0	15.8 (1.9)	16.0 (2.0)

a Numbers in the community sample

b Males (range) = 1-183; Females (range) = 2-15; Total (range) = 1-198

Young offenders initiated illicit substance use on average two years earlier than comparable community samples for whom the mean age of initiation into injecting drug use was 17-18 years.

8% (7% males, 17% females) had injected drugs in the twelve months prior to the survey. Heroin and amphetamine were the two most commonly injected drugs.

8% young people with histories of injecting drug use had shared needles or injecting equipment in the previous month.

12% (81) young people on community orders (10% males [YPiCHS 26%] and 18% females) used two or more illicit substances on a weekly or more frequent basis.

Injecting drug use and sharing contaminated injecting equipment pose additional risks to health such as exposure to blood borne viruses. Adult prisoner populations, particularly female prisoners, report high rates of injecting drug use.

Overall, 8% (64) (7% males, 17% females) [YPiCHS 19% combined] had injected drugs in the twelve months prior to the survey. Heroin and amphetamine (45% and 19% of injectors) were the two most commonly injected drugs.

Amphetamine (19%) (67) [YPiCHS 35%] and

heroin/amphetamine users, 45% (50) heroin users, and 14% (19) [YPiCHS 32%] cocaine users reported injection as the route of administration.

8% (7) young people with histories of injecting drug use (N = 86) had shared needles or injecting equipment in the previous month. 3% (3) [YPiCHS 29%] had shared injecting equipment between one and six months prior to interview, with 6% (7) [YPiCHS 33%] sharing injecting equipment between 6 months and 2 years ago.

The three main substances of choice were tobacco, cannabis, and alcohol. Table 26 presents self-reported preferences for substances.

Table 26: Self-reported substances of choice (%)

Drug type	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Tobacco	33	28	44	41	34	29
Cannabis	32	46	26	29	31	44
Alcohol	24	17	13	12	22	16
Ecstasy/Designer Drugs	4	2	5	0	4	1
Amphetamine	3	4	3	0	3	4
Heroin	2	2	6	18	3	3

a Males = 632; Females = 110; Total = 742

b Males = 191; Females = 17; Total = 208

Young people were asked about the factors that had influenced their decision to use illicit drugs (Table 27).

Table 27: Factors influencing decision to first use illicit drugs (%)

Influencing factors*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Curiosity	70	59	73	53	69	58
Friends used/ offered drugs	53	41	46	35	52	40
To do something exciting	17	10	16	6	17	10
Feel better / stop feeling unhappy	11	11	21	18	12	11
To take a risk	10	5	12	0	10	5
Family problems	7	8	9	6	7	8
Work/school/relationship probs	5	3	8	0	5	3
Don't know	3	2	4	6	3	3
Traumatic experience	4	2	8	0	5	2
To lose or gain weight	1	0	4	6	2	1
To relax or chill out	2	n/r	1	n/r	2	n/r
Family complicity	3	1	3	0	3	1

* multiple responses permitted

a Males = 576; Females = 101; Total = 677

b Males = 181; Females = 17; Total = 198

The three main substances of choice were tobacco, cannabis, and alcohol.

Curiosity and peer influence were the strongest influencing factors in illicit substance use initiation.

Table 28 examines relationships between three commonly reported symptoms (in the past month) and compares those who report no illicit drug use (i.e. excluding alcohol or tobacco) in the past month, with those who have used some of the main drug classes (in the past month).

Because polydrug use is common and carries additional risks compared to the use of one substance, Table 29 presents the same three commonly reported symptoms and compares those who report no illicit drug use with those who have used one illicit drug class and those who have used two or more illicit drug classes (i.e. polydrug users).

Table 28 Relationship between drug use and symptoms (in the past month) (%)

Drug use in past month ^a	n	Tiredness/energy loss ^b	Poor appetite ^c	Trouble sleeping ^d
No drug use	303	33	15	32
Cannabis	445	41	31	44
Amphetamine	104	50	42	51
Cocaine	29	38	35	59
Other amphetamine	93	44	38	52
Heroin	25	52	44	48
Benzodiazepines	18	89	61	72
Stimulants	154	51	41	53

a N = 792; b N = 301; c N = 197; d N = 308

Table 29: Relationship between no, single and polydrug use and symptoms (in the past month) (%)

Drug use in past month ^a	n	Tiredness/energy loss ^b	Poor appetite ^c	Trouble sleeping ^d
No drug use	303	33	15	32
One drug class	330	36	26	38
Two or more drug classes	155	52	43	56

a N = 792; b N = 301; c N = 197; d N = 308

Gambling

8% (54) males and 4% (5) females were classified as 'problem gamblers according to the DSM-IV-J

juvenile gambling screen developed by Fisher (based on DSM-IV criteria)^{32,33}. Table 30 presents problems associated with gambling in the past 12 months.

Table 30: Problems/behaviours associated with gambling in past 12 months (%)

Problems/ behaviours	Males		Females		Total	
	Com ^a	Cust ^b	Com ^a	Cust ^b	Com ^a	Cust ^b
Spent more money than planned on gambling	11	19	5	24	10	20
Felt bad or fed up when tried to stop gambling	5	7	2	18	5	8
Led to arguments with friends	4	8	10	12	4	8
Taken money from outside the family for gambling	3	8	1	0	2	8
Led to arguments with family	2	5	3	12	2	6
Taken money from family for gambling	2	4	2	6	2	4
Used school money/fare for gambling	2	3	2	6	2	3
Led to missing school	1	4	0	12	1	4

a Males = 673; Females = 118; Total = 791

b Males (range) = 202-204; Females (range) = 17; Total (range) = 219-221

Polydrug users were 1.5 times more likely to report tiredness/loss of energy; 2.9 times more likely to have poor appetite; 1.8 times more likely to have trouble sleeping than non-drug users.

Injury

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 NSW. Seventy per cent of all injury deaths and 56% of all injury hospitalisations in NSW between 1995 and 1999 occurred in males. Injury mortality and morbidity tends to be high among disadvantaged young men, who constitute the majority of incarcerated populations.

78% (523) males and 58% (68) females had sustained an injury at some time in the past

requiring them to see a doctor or nurse or to attend hospital. The three leading causes of injuries for males were: being struck by an object or person (a euphemism for assault) (21%), low falls (less than one metre) (20%), and cutting, piercing, stabbing (17%). The leading causes of injuries for females were low falls (23%), being struck by object or person (22%), and cutting, piercing, stabbing (20%). 20% males [YPiCHS 34%] and 30% females (combined n = 158) who had an injury said it caused a lasting disability. 28% also reported persisting pain as a result of their injury.

2% (18) young people had received injuries inflicted by partners (boyfriends and girlfriends).

Table 31: Persons causing injury in the past 12 months (%)

Persons causing injury*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Stranger	13	2	6	0	12	2
Other known person	10	3	6	0	10	3
Police	3	2	1	0	3	1
Partner	1	15	8	13	2	15
Other family member	2	5	4	13	2	5
Detainee	2	68	0	69	2	68
Mother	1	2	0	6	1	2
Father	<1	10	1	0	<1	9
No injury reported	31	n/r	25	n/r	21	n/r

*multiple responses permitted

a Males (range) = 643-646; Females = 116; Total (range) = 759-772.

b Males = 196; Females = 16; Total = 212

Head Injury

A number of studies suggest a link between traumatic brain injury (TBI) and offending behaviour. A recent study of incarcerated young offenders showed a significant relationship between head injury and the severity of head injury and severe violent offending.⁴⁴ In an important retrospective cohort study using data linkage, Timonen found that TBI before age 15 was associated with an increased risk of criminality, but among individuals who had both a past TBI and a psychiatric history (including personality disorder), the risk of criminal activity was four-fold.⁴⁵

41% (275) males and 29% (34) females had sustained a head injury in which they had become unconscious or "blacked out". Most were the result of being struck by an object or person (including fights) (50%), striking another object or person (12%), or low falls (19%).

Headaches (5%) [YPiCHS 25%], memory loss (4%) [YPiCHS 19%] and poor concentration (4%) [YPiCHS 18%] were the most common unresolved side effects of the head injuries. [YPiCHS: low N]. Proportions of sequelae from head injury were higher for young people in custody.

78% males and 58% females had sustained an injury at some time in the past requiring them to see a doctor or nurse or to attend hospital.

41% males and 29% females had sustained a head injury in which they had become unconscious or "blacked out".

Health service utilisation

20% [YPICHS 38%] young people (22% males [YPICHS 43%] and 11% females) had not seen a doctor in the community in the last twelve

months. [YPICHS: controlled environment] A small proportion of young people had never visited a doctor in the community (1% males; 0% females).

Table 32: Health service use (%)

Health professionals	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Doctor	99	80	99	81	99	80
Nurse	48	98	52	100	49	98
Alcohol & other drug counsellor	37	47	32	63	37	48
Psychiatrist	34	22	29	19	33	22
Psychologist	27	61	28	50	27	60
Sexual health worker	9	21	17	6	10	20
Dentist / dental therapist	n/r	40	n/r	25	n/r	39
Any health service (above)	99	99	99	100	99	99

a Males (range) = 626- 666; Females (range) = 108-117; Total (range) = 725-783

b Males = 202; Females = 16; Total = 218

21% (141) males and 20% (24) females believed they had a medical problem in the last twelve months but did not seek treatment. These young people reported a number of factors they perceived to be

barriers to accessing medical treatment in the community (Table 33). Of this group, 40% (66) [YPICHS 55%] believed that their health problem had worsened due to lack of medical treatment.

Table 33: Barriers to seeking medical treatment in the community (%)

Barriers*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Thought problem would go away	33	27	29	20	32	26
Didn't want /couldn't be bothered	30	12	21	0	28	10
Didn't have time	13	15	8	20	12	15
Afraid of what Dr would say/do	9	12	17	40	10	15
Couldn't pay	5	6	25	0	8	5
Didn't think Dr could help	7	12	13	0	7	10
Transportation problems	4	6	8	20	5	8
Difficult to make appointment	4	3	13	20	5	5
Too embarrassed	3	3	8	20	4	5
Didn't know who to go and see	4	6	0	0	3	5
Didn't want parents to know	2	0	4	0	3	0
No one available to go along	1	3	4	20	2	8
Parent would not go with you	2	9	0	0	2	8
Thought Dr would tell authorities	1	9	4	0	1	8

*multiple responses permitted

a Males = 138; Females = 24; Total = 162

b Males = 34; Females = 5; Total = 39

21% believed they had a medical problem in the last twelve months but did not seek treatment.

Most of those who had accessed health providers were satisfied with the service they received (Table 34)

Table 34: Satisfaction with service provided at last visit (visit rated 'good' or 'OK') (%)

Health professionals	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Nurse	97	93	96	94	97	93
Sexual health worker	98	95	94	100	97	95
Doctor	95	93	93	100	95	94
Alcohol & other drug counsellor	93	95	94	100	93	95
Psychologist	87	93	66	100	84	94
Psychiatrist	81	84	64	100	79	85
Dentist / dental therapist	n/r	94	n/r	100	n/r	94

a Males (range) = 56-639; Females (range) = 18-115; Total (range) = 74-754

b Males (range) = 40-197; Females (range) = 1-16; Total (range) = 41-213

Young people reported awareness of telephone-based help lines; however only a small percentage of young people on community orders reported using these (Table 35).

Table 35: Percentages of young people who are aware of (use) help lines available to young people

Help lines*	Males		Females		Total	
	Community ^a	Custody ^b	Community ^a	Custody ^b	Community ^a	Custody ^b
Kids Help line	90 (9)	84 (9)	98 (21)	84 (9)	91 (10)	84 (9)
Alcohol & Drug Information Service	70 (2)	56 (2)	77 (5)	56 (2)	71 (3)	56 (2)
Family Support	54 (1)	61 (2)	72 (3)	61 (2)	56 (1)	61 (2)
Life Line	52 (2)	51 (2)	59 (3)	51 (2)	53 (2)	51 (2)
G Line	30 (1)	31 (3)	44 (3)	31 (3)	32 (1)	31 (3)
Salvo's Line	20 (<1)	16 (<1)	29 (0)	16 (<1)	21 (<1)	16 (<1)
Quit Line	20 (<1)	15 (<1)	20 (0)	15 (<1)	20 (<1)	15 (<1)
1800 Mental Health Line [^]	13 (<1)	18 (<1)	21 (0)	18 (<1)	15 (<1)	18 (<1)
Internet Help lines	15 (1)	23 (<1)	18 (2)	23 (<1)	15 (1)	23 (<1)
Hep C Help line	13 (<1)	18 (2)	20 (0)	18 (2)	14 (<1)	18 (2)

* multiple responses permitted

[^] Only available to custodial clients

a Males (range) = 647-665; Females (range) = 114-117; Total (range) = 763-782

b Males = 200; Females = 16; Total = 216

Most of those who had accessed health providers were satisfied with the service they received.

Young people reported awareness of telephone-based help lines; however, only a very small percentage reported using these.

APPENDIX: MEASURES USED

1. Physical assessment

- Blood Pressure (Sitting), (mmHg)
- Waist Measurement (cm)
- Body Mass Index (Quetelet's Index: BMI=kg/m²)
- Visual Acuity (Snellen chart)

2. Blood and urine testing

- Hepatitis A antibody, hepatitis B core antibody, hepatitis B surface antigen, hepatitis C antibody
- Human Immunodeficiency Virus: HIV antibody
- Sexually Transmitted Infections: Syphilis, herpes simplex virus type 2
- General health: Cholesterol, creatinine, liver function tests (not presented in this report)

3. Physical health questionnaire and risk behaviours

The physical health questionnaire was modelled on a number of adolescent health surveys addressing health care needs, risk behaviours and service utilisation. So as to understand unique characteristics of this group of people, the steering committee adapted and added to some of the items.

The instrument included questions from the Youth Risk Behaviour Questionnaire (YRBQ)³⁴, Youth Risk Behavior Survey³⁵, Kessler Psychological Distress Scale (K-10)¹⁰, Western Australian Child Health Survey³⁶, National Longitudinal Survey of Children and Youth³⁷, Young Offender Risk and Protective Factor Survey³⁸, NSW Corrections Health's Inmate Health Surveys (1996³⁹ and 2001⁴⁰), National Household Drug Use Survey⁴¹, Adolescent Health and Wellbeing Survey⁴², Hepatitis Prevalence Study⁴³, Experience of Care and Health Outcomes Survey⁴⁴, The National Longitudinal Study of Adolescent Health⁴⁵, and the Child Use of Dental Health Services Study⁴⁶.

The questionnaire's 32 sections included: demographics; education/occupation; living environment; family history; health status; disability health problem; symptom checklist; medication; asthma; dental health; physical injury; head injury; SF-12 version one⁴⁷; smoking; alcohol; drug use; drug treatment; sexual health; women's health; gambling; tattooing and body piercing; health education; physical activity; sun protection; nutrition; lifestyle; body image; mental health; K-10; suicide and self-harm; community health services, and health services appraisal.

4. Mental health

- The Kessler Psychological Distress Scale (K-10)¹⁰ was used to assess general psychological distress.
- The Childhood Trauma Questionnaire (CTQ)⁹ assessed experience of childhood trauma and self-report of neglect and abuse history. The CTQ generates classification scales relating to five areas of maltreatment: emotional, physical and sexual abuse, and emotional and physical neglect. The CTQ also generates a Minimisation/Denial scale, for the detection of false-negative reports regarding trauma.
- The Adolescent Psychopathology Scale – Short Form (APS-SF)⁸ assesses a range of psychological and psychiatric symptoms warranting possible referral or intervention. The APS-SF, while not a diagnostic tool, is based on DSM-IV criteria. The 14 scales generated by the APS-SF are classified into five symptom levels: no symptoms; subclinical; mild; moderate; and severe. The APS-SF calculates 12 Clinical Scale scores based on DSM-IV Axis I Disorders (which incorporate all psychiatric or mental disorders except schizophrenia, personality disorders and developmental disorders/

delay). The scales correlate closely, but not exactly, with those from the Adolescent Psychopathology Scale (APS) used in the YPiCHS.

5. Cognitive functioning and intellectual ability

A battery of tests was administered to assess cognitive functioning, validity of cognitive test administration and educational achievement:

- Wechsler Abbreviated Scale of Intelligence (WASI)⁵ The WASI is a standard, brief and reliable test of verbal and non-verbal intelligence for individuals aged 6 to 89 years.
- Guide to Assessment of Test Session Behaviour (GATSB)⁶. The GATSB assesses participants' motivation and compliance with the testing process. This was applied to the WASI to determine whether participants' test session behaviour was valid.
- Wechsler Individual Achievement Test II - Abbreviated (WIAT-II-A)⁷. The WIAT-II-A was used to assess basic literacy and numeracy skills. The WASI and WIAT-II-A together provide a brief, reliable assessment of achievement and cognitive functioning.

REFERENCES

- 1 Weatherburn, D. & Lind, B. (2001). Street-level drug law enforcement and entry into methadone maintenance treatment. *Addiction*, 96(4):577-587.
- 2 Australian Institute of Health and Welfare (2003). *Australia's young people: their health and wellbeing 2003*. Cat. PHE 50. Canberra: AIHW.
- 3 Coffey C, Veit F, Wolfe R, Cini E, Patton G. (2003). Mortality in young offenders: retrospective cohort study. *British Medical Journal*, 326: 1064-1068.
- 4 2003 NSW Young People in Custody Health Survey. Key Findings Report. NSW Department of Juvenile Justice. ISBN 0 7347 65185.
- 5 The Psychological Corporation (1999). *Wechsler Abbreviated Scale of Intelligence*. San Antonio: Harcourt Brace and Company.
- 6 The Psychological Corporation (1993). *Guide to the Assessment of Test Session Behaviour*. San Antonio: Harcourt Brace and Company.
- 7 The Psychological Corporation (2001). *Wechsler Individual Achievement Test-Second Edition-Abbreviated*. San Antonio: Harcourt Brace and Company.
- 8 Reynolds, W.M. (2000). *Adolescent Psychopathology Scale-Short Form*. Florida: Psychological Assessment Resources Inc.
- 9 Bernstein, D. P. & Fink, L. (1998). *Childhood Trauma Questionnaire: A Retrospective Self-Report*. San Antonio: Harcourt Brace and Company.
- 10 Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.L.T., Walters, E.E. & Zaslavsky, A.M. (2002). Short screening scales to monitor population prevalence and trends in non-specific psychological distress. *Psychological Medicine*, 32: 959-976.
- 11 Ware, J.E., Kosinski, M., and Keller, S.D, (1996). A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34(3): 220-233.
- 12 McCallum, J., Shadbolt, B. & Wang, D. (1994). Self-rated health and survival: A 7-year follow-up study of Australian elderly. *American Journal of Public Health*, 84:1105.
- 13 Australian Bureau of Statistics (2006). *National Health Survey: Summary of Results, 2004-05*, Cat. no. 4364.0, ABS, Canberra.
- 14 Australian Bureau of Statistics (2002). *National Health Survey 2001*. Cat. 4364, ABS, Canberra.
- 15 Darke, S., Ward, J., Zador, D. & Swift, G. (1991). A scale for estimating the health status of opioid users. *British Journal of Addiction*, 86:1317-22.
- 16 Lindsay, J., Smith, A.M.A. and Rosenthal, D.A.(1997). *Secondary students, HIV/AIDS and sexual health*. Monograph Series No.3, Centre for the Study of Sexually Transmissible Diseases, Faculty of Health Sciences, La Trobe University, Melbourne. and Smith, A.M., Agius, P., Dyson, S., Mitchell, A., Pitts, M. (2003) *Secondary Students and Sexual Health: Results of the 3rd National Survey of Australian Secondary Students, HIV/AIDS and Sexual Health*, 2002. La Trobe University, Melbourne.
- 17 Centres for Disease Control and Prevention (2006). Hepatitis B Frequently Asked Questions. <http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.htm>
- 18 Post J, Dolan K, Whybin R, Carter I, Haber P, Lloyd A.(2001). Acute hepatitis C virus infection in an Australian prison inmate: tattooing as a possible transmission route. *Medical Journal of Australia*, 174:183-184.
- 19 Berkey, C, Rockett, HR, Field, AE, Gillman, MW, Frazier, AL, Camargo, CA, & Colditz, GA (2000). Activity, Dietary Intake, and Weight Changes in a Longitudinal Study of Preadolescent and Adolescent Boys and Girls. *Pediatrics*, 105, 4, p. e56.
- 20 Cole, T.J., Bellizzi, M.C., Flegal, K.M. & Dietz, W.H. (2000). Establishing a standard definition for child overweight and obesity worldwide: International survey. *British Medical Journal*, 320: 1240-1243.
- 21 Centres for Disease Control and Prevention (2006). *National Health and Nutrition Examination Survey: Growth Charts*. <http://www.cdc.gov/nchs/about/major/nhanes/growthcharts/charts.htm>
- 22 Booth, M., Okely, T., Denney-Wilson, E., Hardy, L., Dobbins, T., and Yang, B. (2004). *Schools Physical Activity and Nutrition Survey (SPANS)*. The University of Sydney

- 23 Drew, N. Psychological testing with Indigenous people in Australia. In Dudgeon, P. et al. (2000) *Working with Indigenous Australians: a handbook for psychologists*. Perth, Australia: Gunada Press. Pp.326.
- 24 Webster's Third New International Dictionary. <http://en.wikipedia.org/wiki/Merriam-Webster>.
- 25 American Psychiatric Association, (1994). *Diagnostic and Statistical Manual of Mental Disorder: Fourth Edition*. Washington DC: American Psychiatric Association.
- 26 Andrews, G. & Slade, T. (2001). Interpreting scores on the Kessler Psychological Distress Scale (K10). *Australian and New Zealand Journal of Public Health*, 25(6): 494-497.
- 27 Evans, E., Hawton, K., Rodham, K., & Deeks, J. (2005). The prevalence of suicidal phenomena in adolescents: A systematic review of population-based studies. *Suicide and Life-Threatening Behavior*, 35, 239-250.
- 28 De Leo, D., & Heller, T. S. (2004). Who are the kids who self-harm? An Australian self-report school survey. *Medical Journal of Australia*, 181, 140-144.
- 29 National Institute of Alcohol abuse and Alcoholism (National Institute of Health). <http://www.niaaa.nih.gov/publications/aa59.htm>
- 30 Australian Alcohol Guidelines (2003). <http://www.alcoholguidelines.gov.au>
- 31 Premier's Drug Prevention Council (2003), *Victorian Youth Alcohol and Drug Survey*. Melbourne. <http://www.health.vic.gov.au/pdpc/reports.htm>
- 32 Fisher, S. (1998). Gambling and problem gambling among young people in England and Wales. Plymouth: University of Plymouth.
- 33 Kossen, F. (2001). *Youth Gambling: A critical review of the Public Health Literature*. NZ: Centre for Gambling Studies, University of Auckland.
- 34 Brener, N.D. et al. (1995). *Youth Risk Behaviour Questionnaire (YRBQ)*. Centres for Disease Control and Prevention. <http://www.cdc.gov/HealthyYouth/YRBS/data/1995/yrbs1995.pdf>
- 35 Centres for Disease Control and Prevention (2001). *Youth Risk Behaviour Survey: Youth Risk Behaviour Surveillance System*. <http://www.cdc.gov/HealthyYouth/YRBS/data/2001/yrbs2001.pdf>
- 36 Zubrick, S.R., Garton, A.F. & Silburn, S.R. (1994). *Western Australian Child Health Survey*. Perth, Western Australia: Institute for Child Health Research.
- 37 Sprott, J.B., Jenkins, J.M., Doob, A.N. (2000). *National Longitudinal Survey of Children and Youth*. Quebec, Canada: Report prepared for the Applied Research Branch, Strategic Policy, Human Resources Development Canada.
- 38 Carroll, M. (2002). *Young Offender Risk and Protective Factor Survey*. Victoria: Department of Human Services.
- 39 Brown, P. & Butler, T. (1997). *Inmate Health Survey*. NSW: Corrections Health Service.
- 40 Butler, T. & Milner, L. (2003). *Inmate Health Survey*. NSW: Corrections Health Service.
- 41 Australian Institute of Health and Welfare (2002). *2001 National Drug Strategy Household Survey: First results*. AIHW Cat. No. PHE 35. Canberra: AIHW (Drug Statistics Series No. 9).
- 42 Bond, L., Thomas, L., Toumbourou, J. & Patton, G. (1998). *Adolescent Health and Wellbeing Survey Phase one report*. Victoria: Report prepared for the Division of Youth and Family Services, Victorian Department of Human Services.
- 43 Coffey, C. (2000). *Hepatitis Prevalence Study*. Victoria: Adolescent Forensic Health Service.
- 44 Kenny, D. T. & Lennings, C. (2006, in press). *The relationship between head injury and violent offending in juvenile offenders*. Crime and Justice Bulletin, NSW Bureau of Crime Statistics and Research.
- 45 Udry, J.R. (1998). *The National Longitudinal Study of Adolescent Health*. University of North Carolina: Carolina Population Centre. <http://www.cpc.unc.edu/projects/addhealth>
- 46 Spencer, J. & Gaughwin, A. (2000). *A study into the child use of Dental Health Services (Confidential questionnaire protocol)*. Adelaide: The University Of Adelaide/South Australian Dental Service.
- 47 Ware, J.E., Kosinski, M., Turner-Bowler, D.M. & Gandek, B. (2002). *How to score version 2 of the SF-12 Health Survey*. Lincoln, RI: QualityMetric Incorporated.

