CHAPTER 1
OVERVIEW OF RESEARCH AND METHODS

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1. OVERVIEW OF RESEARCH AND METHODS

1.1 Rationale and aims of the research

There are a number of reasons why it is important to focus research on juvenile offenders. Firstly, offending behaviour in childhood has been found to be a significant predictor of: subsequent offending;[1,2] offending in adulthood;[3] and chronic offending.[4] Secondly, intervention provided at a very early age and stage of offending appears more likely to be effective than that provided later in the offending history.[5] There is also evidence for the need to research juvenile offenders separately from adult offenders. This is due to the number of social[6] and neuro-cognitive differences[7] between juveniles and adults. Central to this neurological difference is the incomplete development of the frontal lobes and incomplete myelination of nerve fibres in the white matter in the brains of juveniles.[8] This has been shown to result in differences in impulsivity and attention span between juveniles and adults, factors that have been strongly linked to offending.[9] Juveniles have also been found to express different base rates for various offences, display different risk factors related to offending, express different behavioural norms and show less stable individual factors.[10]

Complex factors interact to determine offending, its trajectory and other associated risks, including health risk behaviours such as substance use, injecting drug use, psychological risks such as early emotional, physical or sexual abuse and dysfunctional families; psychosocial risks such as deviant peer associations, low cognitive capacity, weak school connectedness and low educational achievement; and geographic location and cultural affiliation. This research aimed to advance understanding of juvenile crime, its health and substance abuse patterns and offence trajectories, thereby facilitating effective policies and practices to reduce recidivism, improve health and create prosocial alternatives for young Australians at risk of a criminal career.

1.2 The partner organisations

Three organisations participated in this research – the University of Sydney, NSW Department of Juvenile Justice (DJJ) and Justice Health (JH).

"The main responsibilities of the Department are the administration of youth justice conferences and the supervision of young offenders on community-based or custodial orders made by the courts. The Department's work also includes: support for young offenders making applications for bail; supervision of young offenders who are on conditional bail; supervision of young offenders remanded in custody pending finalisation of their court matters; and the preparation of reports for the consideration of the courts in determining whether to make a control order. The Department also provides funding to a number of community agencies to assist juvenile offenders and their families.[11]"

Justice Health is a statutory health corporation established under the *Health Services Act* (NSW) 1997 and funded by NSW Health. Justice Health is a state wide service responsible for the provision of health services to adult and juvenile offenders in local courts, in custody and detention, and in the community. Justice Health also provides health services at locations across metropolitan, regional and remote NSW. Ongoing healthcare is provided through seven major clinical programs: Primary Health, Population Health, Mental Health, Drug and Alcohol, Women's Health, Aboriginal Health, and Adolescent Health. Justice Health provides services to young offenders in eight juvenile justice centres and one juvenile correction centre, the Youth Drug And Alcohol Court, the community through the adolescent community forensic mental health service and the Juvenile Justice Centre Release Treatment Scheme.

It is important to focus research on young offenders because offending behaviour in childhood is a significant predictor of:

- *subsequent offending*
- *offending in adulthood*
- *chronic offending*

Intervention provided at a very early age and stage of offending is more likely to be effective than that provided later in the offending history

This research aimed to advance understanding of juvenile crime, its health, substance abuse and offence patterns, thereby facilitating effective policies and practices to reduce recidivism, improve health and create prosocial alternatives for young Australians at risk of a criminal career

1.3 The report

This report presents detailed analyses of the data collected during the *Young People in Custody Health Survey*[12] (YPiCHS), funded by the Department of Juvenile Justice and the *Young People on Community Orders Health Survey*[13] (YPoCOHS), funded by an Australian Research Council (ARC) Linkage Grant (2003-2006) to Professor Dianna Kenny and Dr Christopher Lennings from the University of Sydney, NSW Department of Juvenile Justice (Mark Allerton) and Justice Health (Dr Tony Butler). A summary of results from these two studies was presented in *Young People on Community Orders Health Survey: Key Findings Report* 2003-2006.[13]

This extended report of findings from both of these studies represents the most comprehensive profile of the physical and mental health status and needs of young offenders available in Australia. It forms the basis for policy and strategic development, clinical and rehabilitative service planning and delivery and the provision of appropriate universal, selected and targeted interventions that will improve physical and mental health and reduce recidivism in Australia's young offenders.

Three organisations participated in this research:

- *University of Sydney*
- *NSW Department of Juvenile Justice*
- *Justice Health*

This report presents detailed analyses of the data collected during the Young People in Custody Health Survey (YPiCHS) and the Young People on Community Orders Health Survey (YPoCOHS)

This book provides the most comprehensive profile of the physical and mental health status and needs of young offenders available in Australia

1.4 Methods, procedures and protocols

1.4.1 Ethics

Ethics approval for the studies 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 at the time of study commencement), and the Aboriginal Health and Medical Research Council.

1.4.1.1 Consent

Written consent was required as a condition of participation. Parental consent was required for participants under the age of 14 years. Separate consent was obtained for the different forms of assessment: questionnaire, physical measurements, psychometric and educational testing, serology and urine testing. Young offenders could participate in all or some of the assessments. Separate consent was obtained, and pre and post test counselling was given for the HIV test.

Consent was also obtained to follow up young offenders if required and to seek further information from other departments such as Department of Community Services (DoCS) if necessary to obtain records of any of the following: notifications/reports regarding abuse or neglect; periods of out of home care (OOHC) and/or classification as a state ward, or supervision under guardianship conditions; number of foster placements.

1.4.2 Notifications and confidentiality

Information provided by participants was confidential, unless permission was obtained to release information. There were two exceptions, as outlined in the informed consent (2003):

> "I am assured that any information provided by me or relating to me or any personal details obtained in the course of this research are confidential and that my name or any other identifiable information will neither be used nor published without my written permission. However, if I tell you that I am at risk of harm from someone else, or at risk of injuring myself or someone else, or if I am diagnosed with a notifiable condition as a result of my involvement in the study (e.g. HIV/AIDS, hepatitis C), you must report this to the Department of Health. If you need to do this you will discuss it with me carefully beforehand. The law says you need to act on what I tell you, to protect my safety and security and that of others."

In the event that the participant disclosed information that required a mandatory notification[14] in relation to risk of child abuse or neglect, the interviewer reported to the YPoCOHS Project Manager for further instruction after consultation with the Principal Investigator.

1.4.2.1 Protocols for positive pathology and mental health testing

All positive serology and urine test results for sexually transmitted infections (STI) and blood

borne viruses (BBV) were followed up with referral to appropriate agencies for treatment. A protocol for duty of care with respect to concerns about mental health was also implemented for the duration of the study.

1.4.3 Terminology

Various terms are used throughout the report as follows:

Child[15] means a person aged less than 16 years.

Client[15] means any person (including any child or young person) who was under the supervision of the Department of Juvenile Justice during the study period and who participated in the health survey.

Young offender means any person (including any child or adolescent) who was under the supervision of the Department of Juvenile Justice during the study period and who participated in the health survey. The terms 'child', 'client', 'young offender' and 'young person' are used interchangeably in this book.

Parent[16] means a person having parental responsibility for the child or young person.

Department means the New South Wales Department of Juvenile Justice.

Interviewer means a person contracted by the research team and/or the Department to provide services to the Department or its participants in the conduct of the *Young People on Community Orders Health Survey*.

Neglect[17] means neglect by a responsible person to provide, without reasonable excuse, adequate and proper food, nursing, clothing, medical aid or lodging to a participant in the person's care.

Abuse[18] means any intentional act by a person that results in:

- Physical or sexual abuse
- Emotional or psychological harm
- Harm to physical development or health

At risk of harm[19] means a current concern for the safety, welfare or wellbeing of a child or young person (which in this case may include the sibling or child of the person who is under the supervision of the department).

Current Concern[20] means that at the time of making a report employees are worried about the safety, welfare or wellbeing of the child or young person.

Participant means any client who has consented to participate in the *Young People on Community Orders Health Survey.*

1.5 Participants

Participants for the community orders sample were all young offenders serving community orders with the NSW Department of Juvenile Justice during the study period, October 2003 and December 2005. Eligibility was limited to those on a supervised, community-based order, provided that they were seen during or within 2 months of order completion. Participants in the custody sample were young offenders serving custodial sentences in NSW Department of Juvenile Justice detention facilities between January and March 2002. Results for custody and community orders samples are compared for the majority of factors assessed. Where possible, comparisons with population data or general adolescent samples were made and have been included in relevant tables. Comparison data, where available, are presented in square brackets following YPoCOHS data; e.g. where 85% of YPoCOHS participants and 51% of the population are male, the data would be displayed as 85 [51]. Due to rounding, column and row totals may not sum to 100. Numbers used to derive percentages for table cells are presented as footnotes at the end of each table. All sources from which community based comparisons are taken are also indicated as footnotes to tables.

Sub group analyses that may have significance for policy and treatment planning are presented. Definitions of sub groups within each category are presented in relevant chapters. The sub groups are:

- **Gender**: Males and females
- **Ethnicity**:
  - ESB (English-speaking background),
  - Aboriginal (Aboriginal and Torres Strait Islander), and
  - CALD (Culturally and linguistically diverse)
- **Region** (in which client was interviewed):
  - Sydney (Greater Sydney),
  - Other metropolitan (Wollongong, Gosford, Newcastle), and
  - Regional (locations surrounding smaller

Participants in the community orders samples were all young offenders serving community orders with the NSW DJJ (October 2003 - December 2005)

Participants in the custody sample were young offenders serving custodial sentences in NSW DJJ detention facilities (January - March 2002)

Sub group analyses that may have significance for policy and treatment planning are presented for:

- *Gender*
- *Ethnicity (ESB, Aboriginal, CALD)*
- *Region (Sydney; regional; rural/ remote)*
- *IQ (<70; 70-84; >84)*
- *Age (<16; 16+)*

cities and towns, e.g., Albury, Dubbo, Lismore and rural/remote areas in NSW).

- **IQ** (WASI Full-scale IQ score):
  - Less than 70 (intellectually disabled)
  - 70-84 (borderline to low average), and
  - 85 or more (low average and above).
- **Age** (at time of testing):
  - Less than 16 years of age, and
  - 16 or more years of age

1.5.1.1 Cultural affiliation

Participants were classified based on country of birth, their parents' country of birth, the main language spoken at home and whether they identified with Aboriginal or Torres Strait Islander culture. On the basis of answers to these questions, young offenders were assigned to one of three ethnic groups – English Speaking Background (ESB); Culturally and Linguistically Diverse (CALD) or Aboriginal.

DJJ offending history records provided: age at first offence, total number of court dates attended, total number of offences committed, and most severe sentence received

1.5.1.2 Regional classification

Details of geographic classification are contained in Chapter 2.

1.5.1.3 Recruitment

Data collection took place at Sydney metropolitan and NSW regional and rural Juvenile Justice Community Services (JJCS). A list of prospective participants was provided by each office and forwarded to survey staff. In addition, eligible prospective participants were selected from the Juvenile Justice database. The survey was advertised through flyers posted throughout JJCS in NSW identified as participating centres. Prior to participation, eligible young offenders were either approached by Juvenile Justice Officers (JJO) (who distributed flyers and participant information sheets), or were contacted by one of the survey staff. Because the testing was involved and time consuming (on average four hours) young offenders were compensated for their participation. Young offenders also received permission from the Director General, DJJ to deduct eight hours from their community service order for participation in the survey.

Following the consent to participate, an appointment was arranged and contact details were collected. To ensure attendance, all young offenders received reminder calls, text messages or emails prior to the interview date. In addition, each provided contact details of at least three people most likely to be able to locate them if necessary. There was some variability in the degree of support and cooperation with the study across the JJCS. Those that contained enthusiastic JJOs recruited more participants than less involved centres. Once a young person agreed to participate, the interviewer liaised with their assigned JJO in order to schedule a time when the young person could attend for interview.

From the list of eligible participants, interviewers documented those who agreed to attend for interview and those who refused to participate. Reasons for refusal or exclusion from the study were recorded on the exclusion form. Refusals related to work or study commitments, travel difficulties, not interested, or not available at times proposed by field staff. Exclusion criteria included inability to comprehend spoken English and failure to obtain parental consent for young offenders <14 years. Young offenders who were on bail, or who were the subject of court reports (but not currently the subject of a community order) were also excluded. Although we attempted to recruit young offenders who had been 'filed down' (ie deemed to no longer need frequent contact) by their JJO but whose order was still current, the infrequency of contact with this sub group meant that few were recruited from this category. Other young offenders who were in substance withdrawal, had serious mental health concerns or deemed too aggressive or disruptive to participate by their JJOs were also excluded. Some results may therefore underestimate mental and physical health problems.

1.5.2 Offence history and offence classification

1.5.2.1 Criminal history variables

For all the young offenders who took part in the health survey, their offending history records were accessed from DJJ operational database to obtain information on the following variables: age at first offence, total number of court dates attended, total number of offences committed, and most severe penalty received. Sentences varied from fines, dismissal without penalty, suspended detention, community supervision orders and detention.

1.5.2.2 Offence classification

The classification system for determining the level of violence in the criminal offence history was based on the method for violence classification developed by Kenny and Press.[21] This categorisation standardises the severity of violence code by capturing both the "true" nature of the violent offence, as well as its legal classification. For example, common assault is classified as violent, but in practice common assault can be a minor altercation with minimal or no violence involved. Thus, according to our classification, a young person needed at least two convictions for common assault to receive a (low) violent rating. Other offences receiving a low violence rating were assault, robbery, two or more people threaten violence, cause fear. To receive a rating of moderate violence, the young offender had a conviction for assault occasioning actual bodily harm; aggravated sexual assault; robbery with an offensive weapon; and/or aggravated assault. To be classified as a seriously violent offender, the young person had one or more of the following convictions: Homicide, attempted homicide, discharge firearm with intent to murder, malicious infliction of grievous bodily harm, and aggravated robbery with wounding. Combining the index offence (i.e. the offence that resulted in the most recent incarceration for young offenders in custody or supervision order for young offenders on community orders) and data from the Juvenile Justice database to obtain criminal history, we were able to accurately classify all young offenders with respect to their offence history. All index offences and offence histories were coded according to the level of violence in their criminal history as absent, mild, moderate or severe. Cases were then coded on the most severe offence documented from either source. Using this classification, for the custody sample, 12.8% (n=31) young offenders were categorised as non-violent offenders, 30.6% (n=74) as low violent offenders, 43.8% (n=106) as moderately violent offenders, and 12.8% (n=31) as severe violent offenders. A second classification was developed in which absent, mild and moderate violence were combined and compared with serious violence to test the hypothesis that the relationship between head injury and violence was only significant for the most severe violent offences (see Chapter 5, section 5.7.3). A similar analysis could not be undertaken on the community orders sample because of the very small number of severely violent offenders.

1.6 Field staff

After completing intensive training in the administration of the survey protocol, nurses employed through Justice Health went into each of the participating Juvenile Justice Community Services to conduct the questionnaire, the physical examinations and take blood samples. Final year post graduate forensic psychology students on placement from University of New South Wales and Western Sydney administered the psychological and educational assessment protocol.

1.6.1 Training

Registered nurses and psychology students on placement received separate training sessions. Training sessions covered relevant aspects of the survey procedures, including working with young offenders, safety procedures with aggressive clients, child protection training and mandatory reporting requirements.

1.6.1.1 Child protection training

All staff working on the survey received child protection training and clearance in accordance with the *Children and Young Persons' (Care and Protection) Act 1998.*[15] The training covered:

- Recognising and reporting procedures when young offenders were suspected to be at risk of harm
- How to present the results of medical examinations and assessments and refer for ongoing counselling
- Provision of advocacy services for young offenders
- Provision of crisis counselling
- Informing the young offender about preventative programs and early intervention services.

1.6.2 Reporting/supervision

Mandatory notifications, both internal and external, were made if the interviewer had concerns for the participant's safety, welfare or wellbeing. Mandatory notifications were managed according to the DJJ Child Protection Policy.[14]

The classification system for determining the level of violence in the criminal offence history was based on the method for violence classification developed by Kenny and Press[21]

JH nurses conducted the physical assessments and final year post graduate forensic psychology students on placement from UNSW and UWS administered the psychological and educational assessment protocol

All staff working on the survey received child protection training and clearance in accordance with the Children and Young Persons' (Care and Protection) Act 1998

1.6.2.1 Abuse/neglect

An interviewer who believed a participant was at risk of harm or claimed to have suffered abuse or neglect was instructed to:

- Contact an appropriate person with the participant's consent
- Ensure the nurse examined the participant, in the case of apparent or suspected physical injury.

In cases where an incident or allegation of abuse was made to the interviewer, the YPoCOHS Clinical Coordinator was notified, who in turn notified the Manager of the JJCS responsible for supervision. The JJCS Manager then notified the Regional Director according to DJJ Child Protection Policy.[14] For ethical and legal reasons and to maintain the integrity of the data, interview staff were not permitted to carry out external reporting.

A protocol for reporting abuse and neglect was implemented

Information gathered through the interview process was not made available to JJCS without the young person's consent. All referrals made as a result of participation in the survey were also made with participants' consent. Any concerns about this process were directed to the Clinical Coordinator and resolved by the Project Manager or the Principal Investigator in consultation with relevant partner organisation personnel.

1.7 Measures and data collection

Testing comprised:

• standardised physical assessment

• serology

• urine sample

• health questionnaire

• standardised psychological tests

• psychometric tests

Testing comprised a standardised physical assessment, serology and urine samples, a health questionnaire and standardised psychological and psychometric tests.

1.7.1 Physical health assessment

Each nurse was provided with a kit that contained equipment and documentation to perform the required procedures. At each testing site a locked cabinet/cupboard was identified for the safe storage of all equipment and test protocols. The physical health assessment included the physical health check, serology test, and a Polymerase Chain Reaction (PCR) test. The completion of the physical health assessment took approximately 20 to 30 minutes.

1.7.1.1 Physical health check

To perform the required physical assessment nurses were provided with a portable sphygmomanometer, stethoscope, tape measure and set of scales. Measures included:

- Blood pressure (whilst sitting)
- Height (cm) with no shoes
- Weight (kg) with no shoes
- Waist measurement (cm)
- Visual acuity
- Blood sugar level
- Cholesterol (LDL and HDL)
- Triglycerides

Body Mass Index (BMI) was calculated based on weight and height measurements.

To evaluate visual acuity nurses were supplied with two eye charts - one for illiterate (marked E and used symbols rather than letters) and the standard eye chart for literate young offenders. Eye testing was carried out from a distance of 6 metres with the young person wearing glasses if they had them at the time of testing. Visual acuity was determined using vision at 6 metres as the reference point. For example, a person with R eye vision of 9.5/6 indicates vision loss, as respondents see a figure that the average person would see at a distance of 9.5 metres, at a distance of 6 metres. L eye – 6/6 indicates normal vision, as respondents see a figure that the average person would see at a distance of 6 metres).

Within the testing kit nurses were provided with a glucometer, testing strips, lancets and cotton wool to perform a Blood Sugar Level (BSL) test. Nurses recorded any client who was diabetic or in whom diabetes was suspected for possible follow up.

1.7.1.2 Serology testing

Serology tests and urine samples checked for sexually transmissible infections and blood borne viruses

Infectious diseases and blood borne viruses (BBV) were tested after separate consent of participants. All nurses were provided with a small sharps container, box of gloves, tourniquet and small pre-packaged bags of blood collecting equipment containing: 21g butterfly needle, Luer adapter and vacutainer holder, 2 blood tubes, bandaid, cotton ball and alcohol wipes to perform the venipuncture procedure. Tests are described in detail in Table

1.1. Additional to the list in Table 1.1, blood tests were carried out for cholesterol, electrolytes and liver functioning.

Pre-test counselling was provided to clients prior to screening for BBVs. Pre-test counselling included:

- A explanation of what the test measures
- Exploration of young offenders' knowledge of infections and perceptions of risk
- Level of young offenders' actual risk
- Implications of a positive result including:
  1. Implications for self and others
  2. Potential reactions
  3. Relationships of the young person with support networks
  4. Discussion of safer sex and safer injecting practices
  5. Informing current and potential partners
- Meaning of a negative result
- Confidentiality
- Mode of transmission
- Harm minimisation
- Natural history of infection
- Provision of written information (if appropriate)
- Response to individual concerns and questions

Table 1.1 Serology testing

Infection	Tests performed	Result value	Indicates
Hepatitis A	Antibody (IgM) Total Antibody (IgG)	Positive or negative	Positive IGM indicates current infection Positive IGG indicates past natural infection or previous immunisation
Hepatitis B	Surface Antigen, Surface Antibody and Core Antibody	Positive or negative for Surface Antigen or Core Antibody Numerical figure for Surface Antibody i.e. 0.7 or 30.	Surface Antigen: Current infection Core Antibody: If isolated, Hepatitis B core antibody invariably indicates prior infection (or co-infection with other viruses). Surface Antibody indicates level of immunity i.e. <10 no evidence of immunity and >30 good immune response
Hepatitis C	Antibody testing (Abbott Axsym HCV version 3.0) Antibody testing (Innogenetics-INNOTEST HCV Ab IV)	Positive, negative or indeterminate. If 1st test was positive a second test was completed to confirm diagnosis, if 2nd test was negative the result was indeterminate.	Positive indicates the client has come into contact with the Hepatitis C virus though current status is unknown and further testing is required. Indeterminate result requires additional testing in 1 month to confirm diagnosis
HIV	Antibody (antigen)	Positive or negative	HIV positive indicates a positive antibody response. HIV RNA (or viral load) indicates antigen
Syphilis	Antibody and the sample/cut off ratio for the antibodies	Reactive or non reactive for antibodies S/co was indicated by a numerical figure i.e. 0.18	A reactive (positive) syphilis test indicates current or past infection. Further testing and history is needed if reactive to determine if current or past treated. Reactive treponemal syphilis tests (e.g. FTA-ABS) do not always indicate infection, as they remain positive despite effective treatment.
Herpes type 2	IGG Antibody	Positive or Negative	Positive result indicates Infection, but not whether infection is past or current.

1.7.1.3 Polymerase Chain Reaction (PCR) test

As part of the physical health assessment, urine samples were collected from consenting participants to test for chlamydia (Chlamydia Trachomatis DNA) and gonorrhea (Neisseria Gonorrhea DNA). Nurses informed young offenders that no testing for illicit drug use was involved in the health assessment.

1.7.1.4 Pregnancy test

When a young woman expressed concern regarding a possible pregnancy or elicited a response of 'unsure' when asked: 'Are you currently pregnant?' in the women's health section of the questionnaire, the nurse offered a urine pregnancy test on site. If a client chose to proceed with a pregnancy test, participation and results were recorded on the nursing action sheet. Nurses used *Instant pregnancy testing* kits, supplied by the Pharmacy at Justice Health. Instruction sheet to use the pregnancy tests were included in the information folder. In case of positive results, nursing staff discussed follow up options and referral with client. Nurses discussed any additional concerns raised by participants with the study's Clinical Coordinator.

All young people were seen individually for follow up interview to deliver test results

The Physical Health Questionnaire (PHQ) comprised 387 self-report questions divided into 32 sections

1.7.1.5 Feedback of results to participants

All young people who consented to testing (serology and/or urine) were informed that test results would be available through one of the nurses on the study team or through a Justice Health registered nurse. Office appointments were arranged for those with positive results. In exceptional circumstances, results were discussed over the phone. If follow up contact with a client failed after several attempts, an email was sent to the JJO, and if this follow up failed, a letter was sent to the client to the last known address, advising them to contact the survey team. All clients with positive results who completed the release of information and referral forms were provided with a copy of blood results and a referral letter to a doctor or health care provider of their choice. If they did not have a health care provider, one was recommended in geographical proximity to the young person's place of residence. Great care was taken to ensure the follow-up and appropriate management of presenting health concerns.

Nurses working with the team followed a set of guidelines when providing positive results to young offenders, including:

- Adequate consultation time
- Identifying special needs
- Giving results directly and empathically
- Explaining what the results meant
- Discussing re-testing for confirmation
- Offering immediate support
- Discussing confidentiality and the limits of confidentiality
- Discussion of coping strategies (e.g., what was the young person planning to do when they left the consultation? What immediate support was needed and available? Who should be told?).

Nurses were also asked to address the following issues as needed:

- Partner notification
- Normalising grief reactions
- Discussing safer sex and legislative implications
- Follow up counselling
- Referring to specialist services
- Providing the young person with written material
- Arranging another appointment with the young person
- Giving the young person options for contacts in case of crisis, e.g., 24 hour hotlines.

No other person was permitted to provide participants with their results from the survey. It remained the legal responsibility of the nurse/interviewer to maintain confidentiality and provide the young person with the opportunity to ask questions of the health care professional, to seek confidential referral and follow up discussions.

1.7.2 Physical Health Questionnaire (PHQ)

The PHQ comprised 387 self-report questions divided into 32 sections as follows: demographics, education/occupation, living environment, family history, health status, disability/health problem, symptom checklist, medications, asthma, dental health, physical injury, head

injury, SF-12[44], smoking, alcohol, drug use, drug treatment, sexual health, women's health, gambling, tattooing and body piercing, health education, physical education, sun protection, nutrition, lifestyle, body image, mental health, K-10, suicide and self harm, community health services, and health service appraisal. As far as possible and where relevant, the questionnaire followed form and content of the YPiCHS PHQ to permit comparisons with young offenders in custody. The completion of the PHQ took approximately 30 to 40 minutes. A copy of the questionnaire is contained in Appendix 1.

The PHQ was modelled on a number of adolescent health surveys addressing health care needs, risk behaviours and service utilisation. To understand the unique characteristics of this group, we adapted and added items. The instrument included questions from the:

A. *Youth Risk Behaviour Questionnaire* (YRBQ)[22, 23]
B. *Kessler Psychological Distress Scale* (K-10)[24]
C. *Western Australian Child Health Survey*[25]
D. *National Longitudinal Survey of Children and Youth*[26]
E. *Young Offender Risk and Protective Factor Survey*[27]
F. *NSW Corrections Health's Inmate Health Surveys* (1996[28] and 2003[29])
G. *National Drug Strategy Household Survey*[30]
H. *Adolescent Health and Wellbeing Survey*[31] *Hepatitis Prevalence Study*[32]
I. *Experience of Care and Health Outcomes Survey*[33]
J. The *National Longitudinal Study of Adolescent Health*[34]
K. *Child Use of Dental Health Services Study*[35]
L. *SF-12* (version one)[36]
M. The *Health Behaviours of Secondary School Students in NSW* 2002.[37]

1.7.2.1 Section 1: Demographics

The demographic section comprised 11 questions, assessing participants' general background. The questions included suburb where young offenders spent most of their time, country of birth, ethnicity, parents' ethnicity, history of past arrests, custodial sentences, and community orders. The items were adapted from the *Young Offender Risk and Protective Factor Survey*,[27] the *1996 & 2001 Inmate Health Survey*[28,29] and the *Adolescent Health and Wellbeing Survey.*[20]

1.7.2.2 Section 2: Education/Occupation

The majority of questions were adapted from the *2001 Inmate Health Survey.*[29] Questions 2.5, 2.6 and 2.7 were also drawn from the *National Longitudinal Survey of Children and Youth.*[26] The section asked young offenders about school attendance and work activities. School attendance included questions about the number of schools attended, special schools and special programs, suspensions, expulsions, age left school, and trade school attendance (Technical and Further Education, TAFE). Work related questions included type of job and work arrangements (e.g., full-time, part-time).

1.7.2.3 Section 3: Living environment/ parenting

This section was modelled on selected questions from the *Young Offender Risk and Protective Factor Survey*[27] and the *1996 & 2001 Inmate Health Survey.*[28,29] Questions included information about primary care givers, family structure (including parental separation or deceased parents), custodial sentences of relatives, and current accommodation type. Young offenders were also asked about history of care, including foster care, adoption, or care by other family members. The parenting section asked about young offenders' own children and with whom their child (children) lived at the time of the survey.

1.7.2.4 Section 4: Family history

This section was modelled on the *National Longitudinal Survey of Children and Youth*[26] and assessed the physical, mental, and emotional health of the young person's immediate family, including questions about limitations of family members and how these limitations affected the young person.

1.7.2.5 Section 5: Health status

Parts of the health status section were based on the *1996 & 2001 Inmate Health Survey*[28,29] and on the *Adolescent Health and Wellbeing Survey.*[31] The questions asked young offenders about previous illnesses or health conditions.

The PHQ was modelled on a number of adolescent health surveys addressing health care needs, risk behaviours and service utilisation

Illnesses and health conditions were presented in a list and multiple responses were allowed. Additionally, the health status section assessed the history of immunisation and asked young offenders to indicate specific vaccinations they had within the past 5 years.

1.7.2.6 Section 6: Disability/health problems

The disability/health problem section was based on the *2001 Inmate Health Survey.*[29] Young offenders were asked to self-assess health related difficulties for the period of 6 months prior to the survey. Questions asked whether they felt limited in carrying out activities (e.g., exercise) due to disability or health problems, and whether they had to cut down on activities during the past 2 weeks because of disability or health related problems. To ensure accurate responses, probing about activities was incorporated into the section.

1.7.2.7 Section 7: Symptom checklist

This section was based on the *2001 Inmate Health Survey.*[29] The checklist contained a list of physical and psychological symptoms that young offenders may have experienced 4 weeks prior to the survey. Multiple responses were permitted.

1.7.2.8 Section 8: Medication

The medication section of the YPoCOHS asked young offenders about currently prescribed medications. All forms of medications prescribed by a practising doctor or a nurse were recorded, including pills, lotions, and creams. Young offenders were asked the names of medications prescribed during the 2 weeks prior to the survey and each medication was coded separately. When a young person was unsure of the medication he or she received, general categories were coded (e.g., antibiotics). The first two questions were modelled on the *2001 Inmate Health Survey.*[29] Question 8.3 was taken from the *Experience of Care and Health Outcomes Survey*.[33]

1.7.2.9 Section 9: Asthma

The asthma section was based on the *2001 Inmate Health Survey*[29] and the *Adolescent Health and Wellbeing Survey*.[31] Young offenders indicated the prevalence of asthma attacks within 1, 3, 6, and 12 months, and more than 12 months prior to completing the survey, asthma related hospitalisations, current and past asthma medication and the frequency of use ranging from daily to monthly. In line with the endorsement of the Australian Institute of Health and Welfare of written asthma action plans as part of individual care plans,[38] information was also collected regarding current asthma plans.

1.7.2.10 Section 10: Dental health

The dental health section of the YPoCOHS was adopted from the *Child Use of Dental Health Services Study*.[35] Information was collected about oral health behaviours, including brushing and frequency of brushing, toothpaste use, 12 months prevalence of toothaches, gum and other oral health problems. Dental health service utilisation was assessed for 2 weeks, 3 months, 6 months, 12 months, 2 years, and more than 2 years prior to the survey. Young offenders were asked about the last place of their dental visit and the frequency of dental visits for the 12 months prior to the survey. If a young person indicated no dental visit for 12 or more months, reasons for not visiting a dentist were probed from a list of options. Multiple responses were permitted and specific reasons were also recorded verbatim and later coded as "other."

1.7.2.11 Section 11: Physical injury

This section was adapted from the *2001 Inmate Health Survey*,[29] with the time period of reporting for the experience of accidents or injury altered from 3 months to 'ever'. Young offenders indicated any injuries for which they saw a doctor or went to hospital. A maximum four injuries were recorded in chronological order. Participants described the context and activity at the time of the injury, treatment, and lasting effects. Injuries were also assessed as deliberate or accidental. Question 11.3 and 11.4 were drawn from the *National Drug Strategy Household Survey*[30] and reported experiences of interactions with intoxicated people in the 12 months prior to the survey.

1.7.2.12 Section 12: Head injury

This section of the YPoCOHS was based on the *2001 Inmate Health Survey.*[29] A head injury describes a wide range of injuries that can occur to the scalp, skull, brain and underlying tissue and blood vessels in the head. When medical and hospital records are available, EEGs, CT scans, the *Glasgow Coma Scale*[39] or the *Westmead PTA scale*[40] are employed to provide checklists and threshold points that determine whether the head injury is mild, moderate or severe. When the injury data are self-reported in response to a survey questionnaire, as they are in the current study, the classification is developed by matching markers, derived from the literature on head injury, to participants' responses.

In this study, we relied on detailed retrospective self-report of head injuries that resulted in unconsciousness. Based on the literature and various scales developed and employed by those using self-report head injury data, the information provided in the health survey was coded on the basis of altered consciousness (i.e., a state of no memories even if awake and seemingly alert), into three categories: (a) mild (period of unconsciousness less than one hour); (b) moderate (period of unconsciousness between 1-24 hours) or severe (period of unconsciousness greater than 24 hours).[41] Young offenders were also asked if they had any behavioural or cognitive difficulties as a result of the injury such as mild dysphasia, memory loss or poor concentration, dizziness or changes in behavioural and emotional regulation. Young offenders were asked to provide information about any investigations that may have taken place.

The subsequent analysis of the relationship between head injury and violent offending used a dichotomous coding of head injury as other more complex or composite measures yielded essentially the same outcomes as the dichotomous classification.[42]

1.7.2.13 Section 13: SF-12 Health Survey (SF-12)

The SF-12 Health Survey was used in its original form *(ie Short-Form 12 Item Health Survey*[43]*)*. SF-12 scores are normed as T-scores (mean=50, SD=10) for the general population. It contains 12 questions from the SF-36 Health Survey (Version 1): 2 questions on physical functioning; 2 questions on role limitations because of physical health difficulties; 1 question on physical pain; 1 question on perception of general health; 1 question on vitality; 1 question on social functioning; 2 questions on role limitations as the result of emotional problems; and 2 questions on general mental health (e.g., psychological distress and psychological well-being). The SF-12 was developed using normative data from the United States;[43] however, SF-12 is suitable for use in Australia.[44] The SF-12 contains two subscales – one assessing physical health (Physical Component Summary: PCS) and the other mental health (Mental Component Summary: MCS). Mental and physical scale scores for the SF-12 items are rated on a Likert scale response format. Scores range from 0 to 100 with higher scores denoting better functioning. The test-retest reliability of the SF-12 is adequate (PCS = 0.89; MCS = 0.76)[45,46] and construct and criterion validity are high (r = 0.96 with SF-36).[45]

1.7.2.14 Section 14: Smoking

Questions for the section on tobacco use were taken from *2001 Inmate Health Survey*,[29] the *National Drug Strategy Household Survey*,[30] and the *Western Australian Child Health Survey.*[25] For the YPoCOHS, a shortened version was constructed omitting type of tobacco smoked and specific smoking behaviour questions. Information was collected on smoking status, including any tobacco related experiences, age of first smoking, current smoking status, and the frequency and number of cigarettes smoked. Intention to change smoking behaviour was assessed by asking young offenders whether they ever felt the need to quit smoking, and if they did, what assistance they required to quit. Information on parental smoking status was also collected.

1.7.2.15 Section 15: Alcohol

The alcohol section of the YPoCOHS was based on the *National Drug Strategy Household Survey*[30] and the *Young Offender Risk and Protective Factor Survey.*[27] Questions asked included frequency of alcohol consumption,

quantities (in standard drinks), what young offenders typically drank and how often they got drunk. There are no recommended safe drinking levels for people under 18 years of age. For this survey, hazardous/harmful levels were based on the *Australian Alcohol Guidelines* for adults.[47] Weekly and daily measures of alcohol use were coded. For males, the consumption of up to 28 standard drinks (1 SD=12gm alcohol) per week was coded 'Low risk', 29 to 42 per week was coded 'Risky', and 43 or more per week was coded as 'High risk'. For females the consumption of up to 14 standard drinks per week was coded 'Low risk', 15 to 28 per week was 'Risky', and 29 or more standard drinks per week was coded as 'High risk' drinking. Using daily measures of alcohol use, for men, drinking more than 4 standard drinks a day on average, and/or more than 6 standard drinks on any one day, and/or drinking every day, was classified as "Unsafe". For women, drinking more than 2 standard drinks a day on average, and/or more than 4 standard drinks on any one day, and/or drinking every day was classified as "Unsafe".

Alcohol coding

Coding of questions related to the amount of alcohol consumed was problematic. Young offenders were asked to indicate the number of drinks in standard drinks they consumed on a regular basis. To ensure the accuracy of answers, the concept of standard drinks was explained by using visual aids [cards issued by the National Health and Medical Research Council (NHMRC)[48]]. Despite attempts to standardise responses, there was great variation in the quality and detail of responses. If interviewers were in doubt about answers and when standard drink estimation was unclear, they were instructed to take down verbatim responses. These included statements such as *''Til I get drunk', 'til it's all gone'* and *'2 beers' or '20 Bourbons'*. Prompts to be more specific were often unsuccessful and elicited responses such as '*dunno*', '*whatever's in the bottle*', '*varies*', '*I lose track of how much I have drunk'* or '*I keep drinking 'til I pass out*', '*depends on how much we got*', '*depends on who's payin*''.

Where responses permitted, total alcohol consumption was converted to average daily consumption. To calculate the consumption of standard drinks on each occasion, the formula: standard drinks = units (of nominated drink) x volume (of unit) x alcohol volume (of nominated drink)/12, e.g., 3 cans "Woodstock" = 3 x 440mL x 5%vv = 66mL/12 = 5.5sd was used. Standard drink values were then used to calculate average daily alcohol consumption, based on the number of days young offenders indicated drinking, e.g., '*almost every day or every day (5-7x)*' and '*3-4 times per week'*. This procedure identified problem drinkers based on average daily number of standard drinks, recommended by the NHMRC to identify adult problem drinkers,[50] but ignored those respondents who drank infrequently and binged at least occasionally.

An alternative coding method was used to include binge drinkers, based on average number of weekly standard drinks. For males, 28 or more standard drinks per week, and for females, 15 or more standard drinks per week were identified as unsafe drinking.[50] Although this method was more inclusive of binge drinkers, it may still have failed to identify some problem drinkers. Respondents who indicated 'safe' weekly drinking levels, but were uncertain about the number of drinking days per week, e.g., '*whenever I go out*', may have consumed a large quantity of alcohol on at least one occasion and may have qualified as binge drinkers but could not be counted as such.

1.7.2.16 Section 16: Drug use

The drug section was adapted from the *Young Offender Risk and Protective Factor Survey*[27] and the *National Drug Strategy Household Survey.*[30] The drug section asked questions about age of onset of drug use, type of drug use, usual pattern of drug use and route of administration. Scales of alcohol and drug use were developed based on these questions, where higher scores represented greater alcohol and drug use.

1.7.2.17 Section 17: Drug treatment

The drug treatment section of the YPoCOHS was modelled on the *2001 Inmate Health Survey.*[29] The questions combined alcohol and illicit drug related information. Treatment seeking was assessed by questions asking whether young offenders had ever received treatment, what type of treatment, how referred, how often

they attended treatment, whether they had attended in the past 12 months and whether they had completed their treatment.

1.7.2.18 Section 18: Sexual health

Questions in the sexual health section were adopted from the *2001 Inmate Health Survey*[29] and the *Young Offender Risk and Protective Factor Survey*.[27] Questions about sexual activities included oral, vaginal, and anal sexual experiences. For each category, young offenders were asked to indicate age of first sexual experience, number of times engaged in the sexual activity, number of lifetime partners, number of sexual partners in the past 12 months and sex of partners. Reports of 6 or more lifetime sexual partners were coded as "Risky sexual behaviour." Condom use was assessed separately for sexual experiences with casual and regular partners. When a young person indicated limited or no condom use with either casual or regular partners, qualitative responses were collected to assess the reasons for limited or no use. Other contraceptive use was also assessed. Multiple responses were permitted from a list of common contraceptive methods. Young offenders were also asked to indicate whether they ever engaged in sexual activities in order to obtain drugs or money, and whether they had been a sex worker, length of time as a sex worker, places worked, and condom use during the time the young person worked as sex worker. Additionally, information was collected about diagnosed and suspected sexually transmitted diseases (STDs), STD symptoms and unwanted sexual experiences.

1.7.2.19 Section 19: Women's health

The women's health section was modelled on the *2001 Inmate Health Survey*[29] and asked young women about specific health behaviours associated with gynaecological awareness. Information was collected about the onset of menstrual cycle, regularity of menstrual periods, pain and discomfort associated with menstrual periods, and history of pregnancy. Young women were also asked whether they ever had a PAP smear, the frequency of tests, the time of the last test and results, and whether the test was completed in custody or in the community. Information was also collected about pregnancies, live children born, termination of unwanted pregnancies, age at first termination and number of terminations and miscarriages.

1.7.2.20 Section 20: Gambling

The gambling section of the YPoCOHS was based on the *Young People in Custody Health Survey* (YPiCHS).[12] That questionnaire was derived from the DSM-IV-J-R which is outlined therein. The DSM-IV-J-R is Fisher's revised version of the DSM-IV-J, later appearing as the more commonly referenced DSM-IV-MR-J.[49,50] For the YPoCOHS, the 12-item adolescent version of the DSM-IV (i.e. DSM-IV-J) was used. The scale includes such behaviours as: being preoccupied with gambling, being restless and irritable if unable to gamble, 'chasing' behaviour, spending lunch money, stealing money and social conflict. Questions had four response options: 'never', 'once or twice', 'sometimes' or 'often'. Psychometric tests suggest that this method of scoring improves reliability and validity.[51] In the community orders sample, the internal reliability was found to be high, [Cronbach's alpha = 0.91]. Some questions from the DSM-IV-J with several components were asked as separate questions, e.g. *In the past year has your gambling ever led to lies/ arguments with family/friends or others* was re-written as two questions, one about family and one about friends/others. In all cases, scoring was unaffected. A participant who had endorsed both questions was scored as a 'yes;' participants answering 'never' to both questions were scored as a 'no'. The items on the scale were then scored as follows. A 'yes' answer to DSM-IV-J-R items I and 7 was represented by the response 'often'. A 'yes' answer to items 2, 3, 4 and 5 was represented by 'sometimes' or 'often'. A 'yes' answer to items 6, 8 and 9 was represented by 'once or twice' 'sometimes' or 'often'. A respondent who scored four 'yes' answers was classified as a 'problem' gambler.

1.7.2.21 Section 21: Tattooing and body piercing

The tattooing and body piercing section was based on the *2001 Inmate Health Survey*[29] and on sections of the *Hepatitis Prevalence Study.*[32] Separate questions asked young offenders about professionally and non-professionally made tattoos and piercings, including ear, nose, tongue and other body locations, the number

of tattoos or piercings, whether the equipment used was cleaned and the reasons for not using clean equipment.

1.7.2.22 Section 22: Health education

The health education section was adopted from the *Young People in Custody Health Survey (YPiCHS)*[12] and asked young offenders to indicate ways in which they believed HIV, hepatitis B and hepatitis C were transmitted. The first three responses were recorded for each condition.

1.7.2.23 Section 23: Physical activity

The physical activity section was based on the *Health Behaviours of Secondary School Students in NSW*[37] survey and the *Young Offender Risk and Protective Factor Survey.*[27] Questions asked young offenders about the general frequency of engaging in sporting or physical activities, the length of time young offenders spent in these activities, and the frequency of physical activities for the 2 weeks prior to the survey. Further questions asked about participation in organised sports for the 12 months prior to the survey and about beliefs of the availability of recreational activities in young offenders' local area. Qualitative information was also collected about preferred recreational activities.

1.7.2.24 Section 24: Sun protection

The sun protection section was modelled on the *Health Behaviours of Secondary School Students in NSW*[37] survey. Young offenders were asked about their usual behaviour on sunny days in summer, including how often they wore a hat, clothes covering most of their body, deliberately wearing less clothing to obtain a tan, sunscreen use, wearing sunglasses, staying mainly in the shade and spending time indoors. Young offenders were also asked about sunscreen use, the sun protection factor (SPF) of the usually used sunscreen and sunburn experience including severe sunburn.

1.7.2.25 Section 25: Nutrition

The nutrition section was modelled on the *Western Australian Child Health Survey*[25] and the *National Longitudinal Survey of Children and Youth.*[34] Questions examined the number of times young offenders ate breakfast, fruit and vegetable intake (including fresh salad and juice), take away food, sweets, milk intake and other preferred beverages.

1.7.2.26 Section 26: Lifestyle

Parts of the lifestyle section were based on the *Young Offender Risk and Protective Factor Survey*[27] and on the *National Longitudinal Survey of Children and Youth.*[34] Questions examined various aspects of young offenders' lives, including peer relations, emotional support, physical fights and bullying. Peer relations included questions on substance use by close and trusted friends and their school related behaviour (e.g., suspension from school, drop out from school). Substance use by friends and school behaviour were scored by indicating whether 'none', 'few', 'most', or 'all' engaged in the behaviour; young offenders rated how influential peers were on four point scale ('true', 'mostly true', mostly false', 'false') (e.g., '*my friends sometimes push me to do foolish or stupid things*'). Emotional support was assessed by the frequency of talking to others about personal problems. Young offenders were asked to nominate individuals to whom they talked about personal difficulties and their relationship with that person. Young offenders also provided information on prevalence of physical fights for the 6 months prior to the survey, the person involved in the fight, and whether medical treatment was required. Young offenders were also asked to indicate whether they had been bullies or victims of bullies, or both, at school. For victims of bullying, additional questions examined the frequency, recency, timing (e.g., before school, in recess, after school), gender and age of the bully, and their emotional reaction to being bullied. For perpetrators of bullying, questions examined the frequency of bullying others, the gender and age of their victim(s), and their emotional reaction associated with bullying others.

1.7.2.27 Section 27: Body image

The body image section was modelled on components of the *Youth Risk Behaviour Questionnaire (YRBQ).*[22,23] Questions asked young offenders to describe their current weight at the time of the survey as either

'slightly' or 'very' underweight, 'slightly' or 'very' overweight, or 'about the right weight'. Questions about weight control examined whether, in the period of 4 weeks prior to the survey, young offenders engaged in dieting, fasting, or purging behaviour (e.g., use of laxatives, self induced vomiting).

1.7.2.28 Section 28: Mental health

The mental health section was modelled on the YPiCHS HealthSurvey, which was in part derived from the *2001 Inmate Health Survey.*[29] The section examined young offenders' previously diagnosed psychological and behavioural problems, including anxiety disorders, attention deficit hyperactivity disorder (ADHD), conduct disorder, depression, other mood disorders, intellectual or learning disability, schizophrenia or other forms of psychotic disorders and stress related disorders (e.g., acute stress disorder). If mentioned by the young person, additional disorders were also recorded. For each condition, young offenders were asked to indicate who provided the diagnosis, the treatment received, the last time help was received, and whether treatment was in custody or in the community. If young offenders did not seek assistance they were asked to provide reasons why services were not accessed. A detailed discussion of the concept of mental health and the preferred terminology for use with adolescents is presented in Chapter 7.

1.7.2.29 Section 29: Kessler Psychological Distress Scale (K-10 LM)

The *Kessler Psychological Distress Scale* (K-10 LM)[24] is a 10-item questionnaire yielding a global measure of psychosocial distress that was used to assess general psychological distress in both the YPiCHS and YPoCOHS. It examines level of anxiety and depressive symptoms in the previous four weeks and scores on the K-10 range from 10 (no distress) to 50 (severe distress). Scores are divided into four groups as follows:

10-15: The client or patient may currently not be experiencing significant feelings of distress

16-21: The client or patient may currently experience mild levels of distress consistent with a diagnosis of a mild depression and/or anxiety disorder.

22-29: The client or patient may currently experience moderate levels of distress consistent with a diagnosis of a moderate depression and/or anxiety disorder.

30-50: The client or patient may currently experience severe levels of distress consistent with a diagnosis of a severe depression and/or anxiety disorder.

Scores in the very high range are associated with a high probability of having an anxiety or depressive disorder.[52] Population norms suggest that between 11% and 12% of the general population have high to very high scores on the K-10.[52] Because this is the first time that the K-10 has been used in an adolescent sample, reliability was assessed using Cronbach's alpha=.835.

1.7.2.30 Section 30: Suicide and self harm

The Physical Health Questionnaire was modelled on a number of adolescent health surveys addressing health care needs, risk behaviours and service utilisation. These included the *Youth Risk Behaviour Questionnaire* (YRBQ),[22,23] *Western Australian Child Health Survey*,[25] *National Longitudinal Survey of Children and Youth*,[34] *Young Offender Risk and Protective Factor Survey*,[27] *NSW Corrections Health's Inmate Health Surveys*,[28,29] *National Drug Strategy Household Survey*,[30] *Adolescent Health and Wellbeing Survey*,[31] and *The National Longitudinal Study of Adolescent Health*.[34] Some items were adapted for the community orders sample. The questions differentiated between self-harm and suicide and asked young offenders about ideation, thoughts and past attempts. Additionally, questions assessed family history of suicide and exposure to suicide through school incidents.

1.7.2.31 Section 31: Community health services

Questions were modelled on the *National Longitudinal Study of Adolescent Health*.[34] Information was obtained on health services accessed by the young person, the frequency and reasons for medical visits, problems experienced at the time of accessing medical care and reasons for not seeking health care or for not accessing health services. Additionally, questions were asked regarding young offenders' knowledge of available health

services and the use of these services (e.g., 1800 mental health line, Life Line).

1.7.2.32 Section 32: Health services

The health services section was adapted from the *Experience of Care and Health Outcomes Survey.*[33] The questions asked about experiences with various health professionals and for a self assessment of health status.

1.7.3 Tests of cognitive function, educational achievement and psychological adjustment

Formal training in test administration and scoring was a mandatory requirement for students wishing to undertake their placement with the survey team. Students were supervised by the team's clinical and forensic psychologist (Dr Chris Lennings). To ensure consistency in scoring procedures, regular supervision sessions were held and inter-rater reliability checks were carried out.

Formal training in test administration and scoring was a mandatory requirement for students wishing to undertake their placement with the survey team

1.7.3.1 Wechsler Abbreviated Scale of Intelligence (WASI)

The *Wechsler Abbreviated Scale of Intelligence* (WASI)[57] is a 15-30 minute test that reliably assesses cognitive functioning, and yields verbal, performance and full scale IQ scores for those aged 6 – 89 years. Four subtests in the *Wechsler Abbreviated Scale of Intelligence* (WASI) combine to provide the Full Scale IQ Score (FSIQ-4). The subtests are: Vocabulary; Block Design; Similarities and Matrix Reasoning. The Vocabulary and Similarities subtests combine to provide the Verbal IQ score (VIQ); the subtests of Block Design and Matrix Reasoning combine to give a Performance IQ score (PIQ). The FSIQ-4 provides an estimate of an individual's general level of intellectual functioning. The VIQ provides a measure of acquired knowledge, verbal reasoning and attention to verbal information. The PIQ provides a measure of fluid reasoning, spatial processing, attentiveness to detail, and visual-motor integration. Differences between VIQ and PIQ scores can be diagnostic. Hence, a *difference score* can be calculated and compared against critical value tables within the WASI manual, to determine whether this difference is statistically or clinically significant.

The Wechsler Abbreviated Scale of Intelligence (WASI) was used to assess cognitive ability (IQ)

Items on each subtest are scored and summed to provide a subtest Raw Score total which is converted to a *T*-score, a standardised score with a mean of 50 and a standard deviation of 10, based on standardised norms developed specifically for the WASI. The WASI has a normal distribution and has excellent psychometric properties.[58] The distribution of IQ scores for each of the WASI scales has a mean of 100 and a standard deviation of 15. The WASI standardisation sample included 2,245 children and adults from a wide spectrum of intellectual ability. The test-retest reliability for the children's sample ranged between 0.88 to 0.93 for the IQ scales; for adults the range was 0.87 to 0.92. Below is a table (Table 1.2) reproduced from the WASI Manual[53] indicating the qualitative interpretation of IQ scores for the WASI and the expected proportions of test-takers to score within each category.

Table 1.2 Qualitative descriptions of WASI IQ scores (The Psychological Corporation, 1999, p. 156).

		Percent included	
IQ Score	**Classification**	**Theoretical normal curve**	**Actual sample [a]**
130 and above	Very superior	2.2	2
120-129	Superior	6.7	7.3
110-119	High average	16.1	15.6
90-109	Average	50.0	50.0
80-89	Low average	16.1	15.8
70-79	Borderline	6.7	6.8
69 and below	Extremely low	2.2	2.5

[a] The percentages shown are for the FSIQ-4 and are based on the total standardisation sample (*N*=2245). The percentages obtained for the VIQ and PIQ are very similar.

1.7.3.1.1 Assessment of Intellectual Disability (ID) using the WASI

For this study, ID was defined as a Full-scale IQ score below 70 on the WASI. Although two adaptive functioning deficits are required to formally diagnose ID[54,55] no specific adaptive functioning measure was administered in the study. However, contact with the criminal justice system could be construed as evidence of social maladaptation and was therefore considered to be an adaptive functioning deficit in line with the American Association for Mental Retardation definition of social adaptive functioning deficit.[55] This, combined with an IQ below 70, was deemed a valid way to classify the community orders sample into ID and non-ID categories. It also closely reflected criteria for eligibility into disability services in NSW.[56] To assess the presence of intellectual disability in this population in a manner that provided a culturally fair assessment of the different cultural sub groups, the following criteria were used: for CALD and Aboriginal, a WASI PIQ<70 and for ESB WASI FIQ<70 identified those with an intellectual disability. Further discussion can be found in Chapter 6 (Section 6.4).

1.7.3.2 Wechsler Individual Achievement Test II-Abbreviated (WIAT-II-A)

The *Wechsler Individual Achievement Test – Second Edition – Abbreviated* (WIAT-II-A)[57] is a 15 to 25 minute test designed to briefly screen targeted skills in basic reading, mathematical calculation and spelling. The WIAT II-A has three subtests - Word Reading; Numerical Operations and Spelling - which combined yield a Composite Standard Score. It is a revision of the full Wechsler Individual Achievement Test. The WIAT-II-A includes an Australian adaptation of language and metrics.

The component skills assessed by each subtest are as follows:

	Component skills
• Word reading	Letter identification and phonological awareness; Word reading accuracy and automaticity
• Numerical operations	Identification and writing of numbers; counting; Solving calculation problems and simple equations involving the basic operations
• Spelling	Spelling dictated letters; letter blends and words.

Each item is scored and summed for each subtest to provide a subtest Raw Score total, which are converted to Subtest Standard Scores. These scores, in the WIAT manual, are based on standardised norms developed specifically for this test. The three Subtest Standard Scores are added to obtain the Composite Standard Score. Subtest Standard Scores and the Composite Standard Score all have a mean of 100 and a standard deviation of 15. Each subtest score may be converted from Total Raw Scores to Age Equivalent and Grade Equivalent Scores. Conversion to age equivalent scores provides an indication of the age, in years and months, at which a given raw score is average or typical.

1.7.3.3 Test Reliability

Inter-rater reliability for the WASI and WIAT-II-A was assessed on two occasions 12 months apart during the study by randomly selecting 20 test protocols on each occasion (a total of 40 protocols). Protocols were examined by two experienced clinical psychologists. No protocol differed by the standard error of measurement and a high reliability was observed. The reliability review was undertaken by Dr Chris Lennings and Mark Allerton. There was high agreement between the two reviewers. The reviewers disagreed about scoring on only two protocols. The vocabulary scale on the WASI had the greatest number of discrepancies.

1.7.3.4 Guide to the Assessment of Test Session Behaviour (GATSB)

The *Guide to the Assessment of Test Session Behaviour (GATSB)*[58] is a 29-item three point

Culture fair IQ testing identified intellectual disability

The Wechsler Individual Achievement Test – Second Edition – Abbreviated (WIAT-II-A) assessed educational achievement

behavioral rating scale: 'usually applies', 'sometimes applies', and 'doesn't apply' that provides a framework for recording a child's behaviour during testing. The GATSB yields three individual scores and an overall Total Score. High scores indicate inappropriate behaviour (e.g., 2='usually applies') and low scores indicate the absence of inappropriate behaviour (e.g., 0='doesn't apply'). For appropriate test behaviour, the scoring is reversed (0='usually applies').

Item ratings of the GATSB (0-1-2) are summed to obtain scores for each scale and the Total Score. Scores are in T scores (mean=50; SD=10) and percentiles for each scale within three age groups: 6-8, 9-12, and 13-16. The GATSB has good test-retest reliability, with average *r*s from .71 to .77 for the three scales and .87 for the Total Score. Internal consistencies ranged from .84 to .88 for the three GATSB scales and .92 for the Total Score, averaged across the age groups.[58] Scores on the GATSB provided guidance to both field and research staff regarding whether a test protocol was valid.

Young offenders' behaviour during test administration of the WASI was recorded using the *Guide to the Assessment of Test Session Behaviour (GATSB).*[58] The completion of the psychological test battery took 90 - 120 minutes.

Psychological functioning was assessed using the:

- *Adolescent Psychopathology Scale (APS) (custody)*
- *Adolescent Psychopathology Scale - Short Form (community)*
- *Childhood Trauma Questionnaire (CTQ)*
- *Kessler-10*

1.7.4 Psychological assessment

Current psychological functioning, using the *Adolescent Psychopathology Scale* (APS)[59] (custody) and *Adolescent Psychopathology Scale - Short Form*[60] (community) and past risk for psychopathology [Childhood Trauma Questionnaire (CTQ)[61]] were undertaken. The *Kessler 10,* used to assess current psychological distress, was included in the PHQ and discussed in section 1.6.2.29.

1.7.4.1 Adolescent Psychopathology Scale (APS)

The APS was used for YPiCHS. It assesses a range of psychological and psychiatric symptoms warranting possible referral or intervention. Whilst not a diagnostic tool the scales are based on DSM-IV criteria.[62] The APS generates 40 scales, which are organised according to clinical disorders (20 scales), personality disorders (5 scales), psychosocial problems (11 scales) and response style indicators (4 scales). In addition, three broad indicator scores (internalising, externalising and personality) can be obtained by combining various scales. The APS has mean T score=50 (Standard deviation=10). Scores are categorised into five symptom classifications; no symptoms (below 50T), sub clinical (60T–64T), mild (65T–69T), moderate (70T–79T) and severe (80T and above). Scores above sixty-four are considered an indication of possible disorder, but not a formal diagnosis. The APS has been extensively standardised on a US population.[59] The APS Response Style indicators (lie response scale, a consistency response scale and an infrequency response scale) serve as an internal check on the validity of responses.

1.7.4.2 Adolescent Psychopathology Scale (APS-SF)

The *Adolescent Psychopathology Scale – Short Form* (APS-SF)[59] was used for YPoCOHS. It is a multidimensional measure, derived from the APS, which generates 12 clinical scales to assess a range of psychological and psychiatric symptoms and two validity scales to assess the consistency of responding and the degree of defensiveness in responding to the items on the test. It is derived from the *Adolescent Psychopathology Scale* (APS),[59] has been extensively standardised on a USA population, and demonstrates significant correlations with scales from the MMPI and other psychosocial measures.[59] Six clinical scales focus on DSM-IV symptomatology associated with Conduct Disorder, Oppositional Defiant Disorder, Post-Traumatic Stress Disorder, Generalised Anxiety Disorder, Major Depressive Disorder and Substance Abuse Disorder.[59] Conduct Disorder and Oppositional Defiant Disorder are the most commonly reported externalising disorders in conjunction with adolescent substance abuse in the literature; depression and anxiety are the most commonly reported internalising disorders. The other six clinical scales assess domains of adolescent psychosocial problems and competencies.[59]

Cronbach's alpha demonstrated high internal consistency of the APS-SF clinical scales (range: =.80 to .91; CND=.80, SUB=.85). High test-retest

reliability is not typically expected of measures of adolescent psychopathology over extended time frames due, for example, to routine fluctuations in mood-based symptoms.[59] Reasonable short-term reliability is desirable, however, to demonstrate that scores are not purely related to external factors. Test–retest reliability measures were conducted on 64 adolescents, at a 2-week interval. R_{tt} for the APS-SF was moderately high to high, ranging from .76 to .91 (CND=.76; SUB=.86).

The APS-SF mean T score is 50 [Standard Deviation (SD) =10]; T scores are divided into four symptom ranges as follows:

- Subclinical Symptom Range (60T to 64T)
- Mild Clinical Symptom Range (65T to 69T)
- Moderate Clinical Symptom Range (70T to 79T)
- Severe Clinical Symptom Range (80T and above)

Elevated scores (T=65 and above) are not diagnostic of DSM-IV disorders but provide an indication of possible disorders that may require referral or intervention.[59]

Prior to interpretation of the scores on the APS–SF, an assessment of consistency and defensiveness of responding was conducted for the key subgroups of the sample (gender, region, ethnicity, IQ, age). Ninety-six percent (96%) of APS-SF protocols were responded to consistently according to the APS-SF consistency scale. Inconsistency was not related to any of the grouping variables. The most inconsistent protocols were removed prior to analysis of the APS-SF results. An analysis of the defensiveness scale of the APS-SF by key subgroups indicated that CALD were more likely to score in the moderate or severe range for Defensiveness on the APS-SF than either of the other ethnic subgroups. No other subgroup differences in defensiveness were found. Given the higher CALD defensiveness pattern, CALD results on the APS-SF may represent an under-reporting of psychopathology for this group.

1.7.4.3 Childhood Trauma Questionnaire (CTQ)

The *Childhood Trauma Questionnaire* (CTQ)[61] is a 28-item retrospective self-report measure of childhood abuse and neglect experiences. The CTQ generates classification scales for five areas of maltreatment: emotional, physical and sexual abuse, and emotional and physical neglect. Each scale contains five items that are summed to produce the Scale Total Score, which ranges from 5 to 25; the higher the score, the greater the severity of maltreatment. There are four levels of maltreatment for each type of trauma: None (minimal); Low (to Moderate); Moderate (to Severe); and Severe (to Extreme). The CTQ also generates a minimisation/denial scale, scored either none (0) or possible (1 to 3), for the detection of false-negative reports regarding trauma. Internal consistency is in the satisfactory to excellent range (.66 to .92), with the total scale achieving a Cronbach's alpha of 0.95. Test-retest reliabilities were high (.79 to .86); and construct validity is generally robust, with psychiatrically referred groups reporting higher levels of abuse and neglect than non clinical samples.[63,64] Table 1.3 presents the cut-off scores for each of the CTQ's scales.

Table 1.3 CTQ Cut off scores

Level of abuse	Emotional Abuse	Physical Abuse	Sexual Abuse	Emotional Neglect	Physical Neglect
No	8	7	5	9	7
Low	12	9	7	14	9
Medium	15	12	12	17	12
High	16+	13+	13+	18+	13+

1.7.4.4 Youth Level of Service/Case Management Inventory: Australian Adaptation (YLS/CMI: AA)

The YLS/CMI: AA[65] is a 47 item instrument used to assess risk in eight domains. Three additional items address individual strengths (see Table 1.4). The tool is based on the LS/CMI[66] and provides a broad measure of risk of recidivism, criminogenic needs, responsivity and protective factors related to offending behaviour in juveniles. The YLS/CMI: AA has been adapted for the Australian socio-legal

The YLS/CMI: AA was used to provide a measure of risk of recidivism, criminogenic needs, and responsivity and protective factors related to offending behaviour in juveniles

environment[67] and has been normed on 250 Australian juveniles.[67] As for the LS/CMI[68] it was found to be sufficiently reliable (Cronbach alpha of .91) and valid. However, Thompson and Pope (2003)[69] found a low correlation of .28 and area under the operating characteristic curve of 0.67 for the total score for a sample of juvenile males (*n* = 174) who were followed for recidivism between 6 and 32 months, indicating that it may not accurately predict risk of recidivism.

The YLS/CMI: AA was administered by JJO. Due to DJJ policy, a number of participants was administered the tool more than once over the course of the study. The YLS/CMI: AA administered closest in time to the completion of the *Mental and Physical Health Questionnaire* (MPHQ) was used. Mean administration time of the YLS/CMI: AA was 31 days before the MPHQ. Court and offence data were obtained from participants' official criminal record.

Table 1.4 Domain Content of the YLS/CMI: AA

Domain	Strength
Prior and current offences (8 items)	Individual level (1 item)
Education / Employment (7 items)	Family level (1 item)
Family and living circumstances (7 items)	Social level (1 item)
Peer relations (4 items)	
Substance abuse (6 items)	
Leisure / Recreation (3 items)	
Personality / Behaviour (7 items)	
Attitudes and beliefs (5 items)	

1.8 Reporting results

Findings are presented in text, tabular and graphical form

Data for YPiCHS are presented with results for community based participants. 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, which vary for different factors. These numbers are indicated below each table and along the x-axis in graphs

Findings are presented in text, tabular and graphical form. Where appropriate, statistical tests of significance were conducted to identify whether subgroups within the sample of young offenders differed significantly from each other on some measures used in the survey. Chi square is a non-parametric test of statistical significance for bivariate tabular analysis. Chi square tests the hypothesis that samples differ sufficiently in some characteristic such that one can generalise from the sample to the population from which the sample was drawn and conclude that the population is also likely to produce the same pattern of results as those obtained within the sample. For each cell in the table, the chi square calculates both the observed and the expected frequencies for the characteristic. An examination of the adjusted standardised residuals for the table matrix indicates the degree of difference between observed and expected frequencies. In this report, because multiple Chi square tests are reported, a stringent p value (.001), which represents a probability of error threshold of 1 in 1000 was adopted to avoid the identification of spuriously significant results. Although the numerial calculations for the Chi square tests are not presented, text that identifies differences between sub groups met the probability threshold for reporting sub group differences. Theoretically significant findings that did not reach this threshold were, in some cases, identified and discussed in the text. Data were not weighted according to baseline population proportions (which in some breakdowns was not available), so interpretation of the chi square analyses needs to be undertaken with this in mind. Other statistical tests were carried out on some aspects of the data. These are explained in the relevant chapters.

Data for the young offenders in custody (YPiCHS) are presented, where appropriate, alongside the results for community based participants. Some questions in the YPiCHS related to young offenders' experiences before entering custody and others while in custody and are indicated in the text as: [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 custody health survey, the total number was only 19. Comparisons between in custody and community based females must therefore 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 and therefore

vary for different factors. These numbers are indicated below each table and along the x-axis in graphs.

Reliable comparisons between custody and community orders samples could not be made for some factors (e.g. 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 data were not recorded (n/r). Where appropriate, comparisons with population-based surveys conducted in the community are included for comparison with custody and community samples of young offenders. These are indicated by their acronym in the table title but identified in full in text before each table and in footnotes to tables where appropriate.

1.8.1 Information dissemination

Dissemination of the results of this research included a media launch of the Key Findings Report (July, 2006), media releases of information arising from the report, public statements to the media, placement of the reports onto the Justice Health and Department of Juvenile Justice Intranets, presentation of findings to strategic planning groups of the partner organisations, regional, national and international conferences, and publication in scholarly journals. A list of publications arising from the two surveys at the time of printing of this book are contained in Appendix 2. Copies of the full papers are available from the first author and the partner organisations.

1.9 Young offenders' view of the health survey

Although no formal evaluation of the survey experience from the participants' perspective was undertaken, anecdotal accounts from field staff indicated a high level of satisfaction. All participants were offered individual sessions to discuss their serology and psychological test results. There was a high uptake of this offer of post test feedback interviews. Nursing staff noted that young offenders, particularly females, asked additional questions about their health and were keen to discuss and understand their test results. On occasion, survey staff reported that young offenders attended the survey intending to pay. Although there was no charge for any of the procedures, the preparedness to pay for them indicated the importance that young offenders placed on the opportunity to receive this service. While incentives to participate were clearly important in the recruitment phase of the study, involvement with the survey provided these young offenders with a valued opportunity to discuss issues regarding their physical and mental health that they stated they did not feel comfortable discussing with their JJOs or other community based health workers.

1.10 Follow up assessment (Time 2)

About one quarter (n=212) of the participants were followed up 12 months after the initial assessment. All young offenders who completed the Health Survey at Time 1 were eligible to participate at Time 2. Contact was established based on previously collected information on location of participants, including contact details of significant others and peers. Phase 2 consisted of a shortened version of the health questionnaire and repeat serology testing. Due to the high mobility of the sample, establishing contact with young offenders after 12 months was difficult. The main barriers to re-contacting young offenders included: A significant proportion of young offenders who were on community orders at the time of the initial assessment had completed their orders and were no longer in contact with DJJ. Hence DJJ could not provide contact details and could not help survey staff to locate their ex-clients; some relatives or peers could not provide current contact details; employment or study commitments; currently serving a custodial sentence, either in a juvenile or adult correctional facility. A separate report of the findings of the follow up survey will be presented at a later date.

Comparisons with population-based surveys conducted in the community are included for comparison with custody and community samples of young offenders

Young offenders were very satisfied with the service provided as part of the study

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CHAPTER 2
DEMOGRAPHICS

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2. DEMOGRAPHICS

The sample comprised young offenders serving community orders with the New South Wales Department of Juvenile Justice (DJJ) between October 2003 and December 2005. Eligibility was limited to those on a supervised, community-based order during the study period, provided that they were seen during or within 2 months of order completion.

The Young Offenders Act 1997 provides Police with the option of giving young offenders a Warning, Caution, or referral to a Youth Justice Conference to divert these young people from formal court processes. Police or Authorised Officers (STA Officers, Rangers, etc) can issue Infringement Notices to young people observed committing minor offences or violations of regulations. Figures derived from the NSW Bureau of Crime Statistics and Research (BOCSAR) show that in 2005-06 young people aged 10-17 years in NSW were issued with 68,009 Infringement Notices, 19,349 Warnings, 9,449 Cautions and police referred 978 matters to Youth Justice Conferencing. These are largely diversionary measures that may place conditions on the young person's behaviour, but do not require that they attend for supervision. Supervised orders issued by the courts are either custodial or community-based. Custodial orders confine a young person to detention for a specified period of time. The large majority of supervised orders, however, are served in the community, and the Department supervises young offenders who receive supervised good behaviour bonds and probation orders, community service work orders, parole orders and suspended sentences. The Department also supervises young offenders on conditional bail and those remanded in custody pending finalisation of their court matters.[1]

2.1 Sample characteristics: Gender, ethnicity, region, IQ and age

DJJ records show that in 2005-2006, for every 1,000 people aged 10-17 years resident in NSW:

- 10.6 had a criminal matter finalised in the Children's Court;
- 6.8 were convicted and/or sentenced in these finalised matters;
- 1.9 were given sentences requiring the Department to supervise them in their community;
- 0.6 were sentenced to detention.

Approximately 4036 young offenders were serving a community based supervision order with DJJ during the study period. They were supervised in one of the JJCS offices located throughout the state of New South Wales. NSW covers an area of 800,642 km^2 and is Australia's most populous state, with approximately 6.75 million residents. Participants were interviewed in locations across NSW that were stratified into three main areas: Sydney, Other metropolitan and Regional. 'Sydney' includes the Greater Sydney metropolitan area (excluding Gosford, to be consistent with DJJ's regional boundaries). 'Other metropolitan' includes Wollongong, Newcastle and Gosford (the other major cities in NSW, each with populations of more than 100,000). 'Regional' includes other smaller cities and towns (e.g. Albury, Dubbo, and Lismore). Young offenders were classified according to the DJJ office responsible for supervision of their community order; hence, some of those interviewed in regional DJJ offices may have been from remote areas supervised by that office. This method applies adapted classification rules from the RRMA (Rural, Remote and Metropolitan Areas),[2] and ASGC (Australian Standard Geographical Classification)[3] systems. Remoteness, according to these classifications, describes areas in terms of relative distance from, and population size of Australia's major cities and regional areas.

Clients from 22 Juvenile Justice offices were seen at 39 sites during the study period. Some sites were visited on multiple occasions and some were visited only once due to geographical distance and cost. Sixteen offices were not visited. There were 745 young offenders in sites not visited. Clients on custody and/or bail orders only or who were dealt with under Section 32 or 33 of the *Mental Health (Criminal Procedure) Act 1990* (amended via the *Crimes Legislation Amendment Act 2002*) were not included in the sampling frame. Approximately 50% (469) of the clients in sites visited once only were either not eligible to participate because they were not on orders at the time of assessment or were not available on the day the assessment team arrived. The sample frame therefore comprised 2,822 young offenders, of whom 800 were included as participants in the study. Of the 2,022 who did not participate, approximately 1,000 either did not respond to several attempts

Sample comprised 800 young offenders from 22 Juvenile Justice Community Services throughout NSW

Further detail on sampling is presented in chapter 1

to contact them or failed to attend after several bookings were made; approximately 500 were approached but refused to participate; 400 had no current contact details; 100 (90 males and 10 females) were excluded because of serious mental health problems, substance withdrawal or excessively disruptive behaviour on the day of testing. (These exclusions may have resulted in an underestimation of some conditions, particularly mental health indicators, substance abuse, offence and violence characteristics). Precise numbers for each category were difficult to ascertain; it was not unusual for clients to initially refuse, then later consent, fail to attend for interview, and ultimately not respond to contact efforts. Other details on sampling were presented in chapter 1.

Table 2.1 shows the sample (YPoCOHS), DJJ population on community orders during the study period (CO), custody sample (YPiCHS) and young offenders aged 12-21 in NSW (NSW) by gender, ethnicity, region, IQ and age.

Table 2.1 Sample and comparative population characteristics

	YPoCOHS		CO population[i]		YPiCHS		NSW	
	N	%	N	%	N	%	N	%
Male	682	85.3	3429	85.0	221	92.1	430,000	51[ii]
Female	118	14.8	607	15.0	19	7.9	414,000	49[ii]
ESB	527	65.9	2154*	55.8	102	42.5	n/a	78[iii]
Indigenous	155	19.4	1275**	33.0	102	42.5		2[iii]
CALD	118	14.8	253*	6.5	36	15.0		20[iii]
Sydney	603	75.4	1809	44.8	84	35.0	-	68[iv]
Other metro	95	11.9	572	14.2	96	40.0	-	32 [iv]
Regional	102	12.8	1413	41.0^	60	25.0	-	
IQ <70	119	15.2	n/a		40	17.5	n/a	2[v]
IQ 70-84	307	39.3			91	39.9		13[v]
IQ 85+	355	45.5			97	42.5		85[v]
<16 years	176	22.0	606	15	44	18.3	-	-
16+ years	624	78.0	3430	85	196	81.7	-	-

i Data extracted from NSW Department of Juvenile Justice Client Information Management System; ii & iii Australian Bureau of Statistics Cdata01. ii: young people aged 15-24; iii: all ages; iv Australian Bureau of Statistics: Australian Social Trends 2006 Table 2.1: NSW; v Wechsler Abbreviated Scale of Intelligence Full Scale IQ tables; * 181 (4.5%) non-Aboriginal young offenders had no recorded ethnicity data; ** 173 (4.3%) young offenders had no recorded Aboriginal status or ethnicity data; ^ Includes 242 (6%) from rural and remote areas not visited by YPoCOHS

Sample characteristics included:

85% Male

66% ESB
19% Aboriginal
15% CALD

75% Sydney
12% Other metropolitan
13% Regional

15% IQ<70

Mean age 17 years
22% < 16 years

2.2 Gender and age

Table 2.2 shows gender distributions for the YPoCOHS sample by ethnicity, region, IQ and age.

Table 2.2 Ethnicity, region, IQ & age by gender

	Males		Females	
	n	%	n	%
ESB	450	66	77	65
Indigenous	118	17	37	31
CALD	114	17	4	3
Sydney	510	75	93	79
Other metro	86	13	9	8
Regional	86	13	16	14
IQ <70	100	15	19	17
IQ 70-84	266	40	41	36
IQ >84	302	45	53	47
<16 years	139	20	37	31
16+ years	543	80	81	69

The gender distribution, 682 (85%) males and 118 (15%) females matched the population gender distribution during the study period. ESB, region, IQ and age had the expected distributions by gender. However, there were more males in the CALD group and more females in the Aboriginal group. This was due to purposeful sampling of young Aboriginal females.

The mean age of the sample was 17 years 0 months (SD 1.3; range 12-21), 17 years 1 month (SD 1.3; range: 12-21) for males and 16 years 8 months (SD 1.3; range: 13-20) for females. Data extracted from NSW DJJ's Client Information Management System (CIMS) indicated that the average age of community based young offenders was 17 years, 11 months (SD 1.8; range 11-25), 17 years 11 months (SD 1.8; range: 11-25) for males and 17 years 6 months (SD 1.7; range: 11-22) for females. The younger mean age of our sample reflects the lower availability of DJJ's older clients.

Figure 2.1 shows the age distribution of the community orders sample by gender.

Figure 2.1 Age of community orders sample (%)

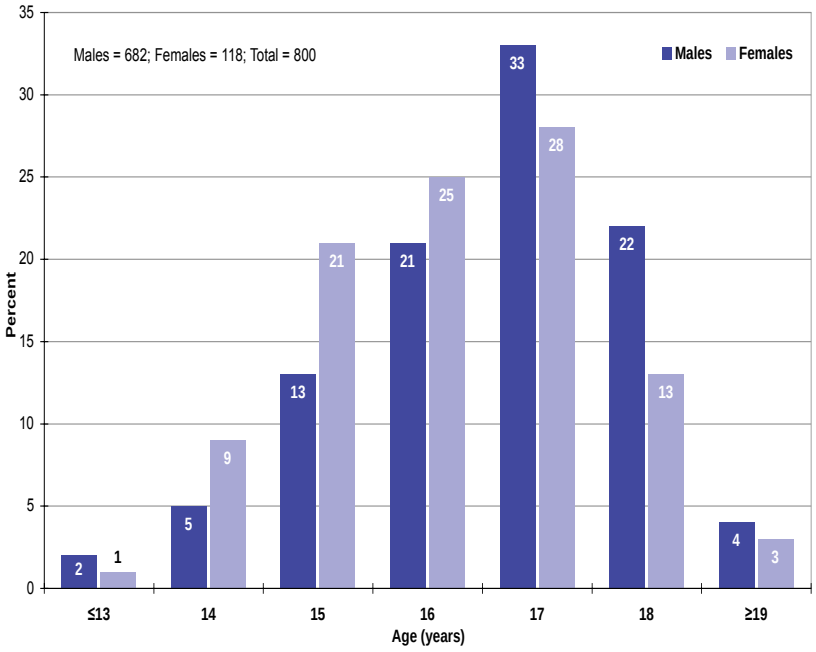


Table 2.3 shows distributions by gender, ethnicity, region and IQ for those younger than 16 years and those 16 years and older.

Table 2.3 Gender, ethnicity, region and IQ by age category

	<16 years		16+ years	
	n	%	n	%
Male	139	79	543	87
Female	37	21	81	13
ESB	109	62	418	67
Indigenous	46	26	109	18
CALD	21	12	97	16
Sydney	113	64	490	79
Other metro	28	16	67	11
Regional	35	20	67	11
IQ <70	36	21	83	14
IQ 70-84	65	39	242	39
IQ >84	68	40	287	47

Young offenders under 16 years of age were more likely to live in regional areas; young offenders 16 years and older were more likely to live in Sydney. This distribution reflects the same, but stronger, trend in the eligible population.

2.3 Ethnicity

Young Aboriginal offenders comprised 33% of the total population of young offenders on community orders [males (32%), females (40%)] during the study period, and 19% (155; 18% males, 30% females) in the study sample [YPiCHS 40%]. Aboriginal under-representation was due to limited sampling of regional (and remote) areas, a higher refusal rate in urban areas and greater difficulty making contact.

While the proportions of male and female offenders reflected population proportions for the ESB group, there were more females in the Aboriginal group and fewer females in the CALD group. CALD offenders were also more likely to be from Sydney and less likely to be from other metropolitan or regional areas. Aboriginal were less likely to be from Sydney and more likely to be from regional areas. ESB offenders were more likely to be from other metropolitan areas. ESB offenders were more likely to have IQ>84 and less likely to be in the other IQ categories. Aboriginal offenders were more likely to be IQ<70 and less likely to have IQ>84. CALD offenders were more likely to have IQ 70-84.

Young offenders under 16 years of age were more likely to live in regional areas

Young offenders 16 years and older were more likely to live in Sydney

Aboriginal young offenders were under-represented (33% in community orders population, 19% in sample)

Aboriginal young offenders were more likely to have IQ<70 than ESB or CALD young offenders

Table 2.4 shows ethnicity distributions for ESB, Aboriginal and CALD young offenders. Table 2.5 presents regions of birth by gender.

Table 2.4 Gender, region, IQ and age by ethnicity

	ESB		Indigenous		CALD	
	n	%	n	%	n	%
Male	450	85	118	76	114	97
Female	77	15	37	24	4	3
Sydney	391	74	95	61	117	99
Other metropolitan	75	14	19	12	1	1
Regional	61	12	41	27	0	0
IQ <70	64	12	42	28	13	11
IQ 70-84	184	36	66	45	57	50
IQ >84	271	52	40	27	44	39
<16 years	109	21	46	30	21	18
16+ years	418	79	109	70	97	82

Table 2.5 Region of birth by gender (%)

Region of birth	Males		Females		Total	
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]	Custody[b]
Australia	83	84	85	95	83 [75][1]	85
Other Oceania	8	7	13	0	8 [2]	6
Asia	4	5	3	5	4 [7]	5
Middle East	2	2	0	0	2 [2]	2
Europe	<1	1	0	0	<1 [10]	1
Americas	<1	1	0	0	<1 [1]	1
Africa	<1	<1	0	0	<1 [1]	<1

a Males = 672, Females = 118, Total = 800; b Males = 223, Females = 19, Total = 242
[1]Comparison: 2001 Census, Population and housing NSW B07A & BO7B (ages 15-19)

The majority of young offenders were born in Australia (83%)

Other regions of birth were Oceania (8%) and Asia (4%)

38% mothers and 41% fathers of young offenders were born overseas

Table 2.6 shows the countries of birth for young offenders and their biological parents.

Table 2.6 Country of birth for young offenders and their parents (%) [2001 Census]

Country	Participant		Mother		Father	
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]	Custody[b]
Australia	83 [75]	85	62 [58]	70	59 [56]	62
ALL OTHER	17 [25]	15	38 [42]	30	41 [44]	38
New Zealand	7 [2]	5	6	2	7	4
Samoa	.7	0	3	3	4	3
Tonga	.1	1	4	3	4	4
Lebanon	.5 [.5]	<1	3	5	3	5
Vietnam	.5 [1]	1	2	2	3	2
England	.4 [1]	<1	3	0	2	3
Philippines	1 [1]	<1	2	0	2	<1
Thailand	.6	<1	1	<1	1	<1
Iraq	.5	<1	1	<1	1	<1
Fiji	.6 [.6]	<1	1	1	1	1
Cook Islands	.4	0	1	0	1	0

a Participant = 799, Mother = 770, Father = 721; b Participant = 240, Mother = 240, Father = 235
Comparison: 2001 Census, Population and housing NSW, B05A & B05B
Other countries of birth not included in table include Cambodia, Russia, Myanmar (formerly Burma)

Table 2.7 shows the primary language spoken; 29 young offenders spoke two or more languages at home, including 12 who did not speak English at home.

Table 2.7 Language spoken by gender (%) [2001 Census]

Language	Male		Female		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
English	83 [74]	84	97 [75]	90	85 [75]	84
ALL OTHER	17 [26]	16	3 [25]	10	15 [25]	16
MIDDLE EASTERN						
Arabic	2 [2]	3	2 [2]	5	2 [2]	3
Lebanese	1	<1	0	0	0	<1
Turkish	<1	1	0	0	<1	1
Persian	<1	1	0	0	<1	1
ASIAN						
Vietnamese	2 [1]	1	1 [1]	0	1 [1]	1
Filipino/Tagalog	1	1	1	5	1	1
Cambodian	<1	1	0	0	1	1
Burmese	<1	0	0	0	1	0
Thai	<1	0	0	0	1	0
Chinese dialect	<1	1	0	0	<1	<1
Cantonese	1	1	0	0	0	<1
Korean	1	1	0	0	0	<1
EUROPEAN						
Spanish	1	1	0	0	0	1
Russian	<1	0	0	0	<1	0
Greek	1	0	0	0	<1	0
OCEANIC						
Tongan	2	2	0	0	0	2
Samoan	2 [<1]	1	0 [<1]	0	0 [<1]	1
Maori	1	1	0	0	0	<1

a Males = 680, Females = 118, Total = 798; b Males = 221, Females = 19, Total = 240
Comparison: 2001 Census, Population and housing, NSW (all ages)

85% of young offenders spoke English as their first language

Young offenders from Regional areas were more likely to have IQ<70

2.4 Geographic region and socioeconomic status

Table 2.8 presents the young offender on community orders sample by region. Young offenders from Sydney were more likely to be IQ>84 and less likely to be IQ<70. By contrast, young offenders from Regional areas were more likely to be IQ<70 and less likely to be IQ>84 (see Table 2.4).

Table 2.8 Gender, ethnicity, IQ and age by region

	Sydney		Other metropolitan		Regional	
	n	**%**	**n**	**%**	**n**	**%**
Male	510	85	86	91	86	84
Female	93	15	9	10	16	16
ESB	391	65	75	79	61	60
Indigenous	95	16	19	20	41	40
CALD	117	19	1	1	0	0
IQ <70	75	13	17	18	27	27
IQ 70-84	225	38	38	40	44	44
IQ >84	288	49	39	42	28	28
<16 years	113	19	28	30	35	34
16+ years	490	81	67	71	67	66

Table 2.9 presents the sample by socioeconomic (SES) tertiles. SES tertiles were determined by dividing the scores on the SEIFA (Socio-Economic Indexes for Areas) disadvantage index.[4] This index was derived from 2001 Census data by the Australian Bureau of Statistics and measures disadvantage in a local area using factors including income, education and occupation.

Young offenders' placement on the index was determined by the postcode in which they reported spending most of their time. Selected postcodes were given an index score. The Australia-wide average has been fixed at around 1,000, so that generally speaking, an area with a score below 1,000 can be considered relatively disadvantaged and an area with a score above 1,000 can be considered relatively advantaged. The further away from 1,000 the scores are, the more or less disadvantaged the given area is.

Young offenders from high SES were: more likely to be ESB, Sydney, IQ>84; less likely to be Aboriginal, Regional, IQ 70-84. Young offenders from mid SES were: more likely to be Regional, IQ 70-84; less likely to be Sydney, CALD, IQ>84. Young offenders from low SES were: more likely to be Sydney, CALD; less likely to be ESB, Regional.

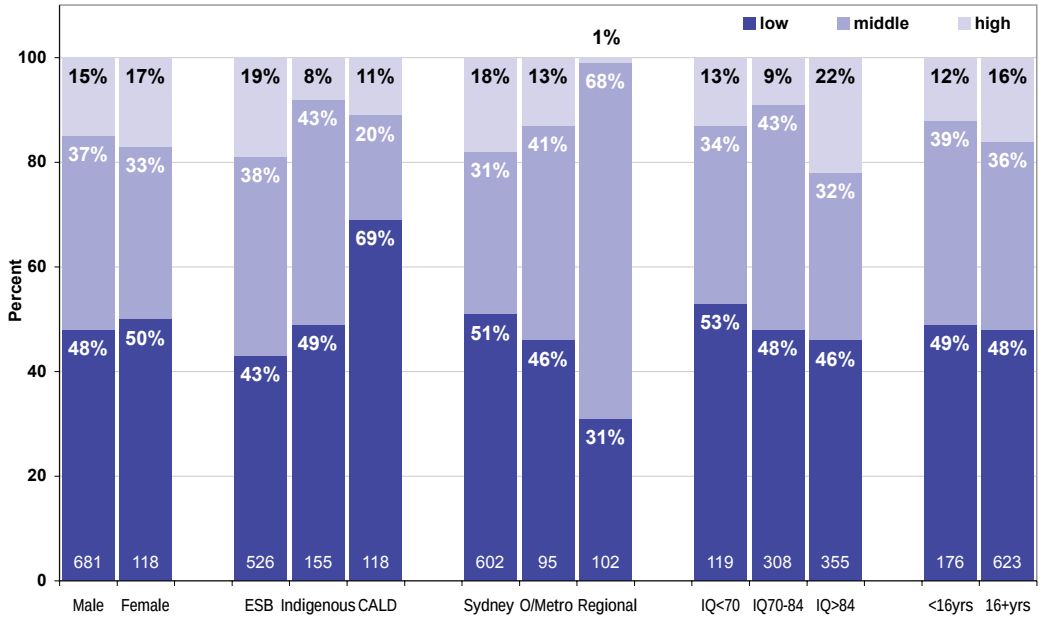
Young offenders from high SES were more likely to be ESB, from Sydney region and have IQ>84

Young offenders from low SES were more likely to be from Sydney region and CALD

Table 2.9 Gender, ethnicity, region, IQ and age by SES tertiles

	Low		Middle		High	
	n	%	n	%	n	%
Male	325	85	253	87	103	84
Female	59	15	39	13	20	16
ESB	227	59	201	69	98	80
Indigenous	76	20	67	23	12	10
CALD	81	21	24	8	13	11
Sydney	308	80	184	63	110	89
Outer metropolitan	44	12	39	13	12	10
Regional	32	8	69	24	1	1
IQ <70	63	17	41	14	15	12
IQ 70-84	149	40	130	46	28	23
IQ >84	164	44	113	40	77	65
<16 years	86	22	69	24	21	17
16+ years	298	78	223	76	102	123

Figure 2.2 Proportions of sample in each of the three socio-economic tertiles by gender, ethnicity, region, IQ and age (%)



2.5 Criminal history

Studies in the United Kingdom[5] and the United States[6] are instructive for comparative purposes. In the UK, in 2005, of approximately 1.6 million convicted offenders aged 10 to 17 years old, 48% had committed violent offences, 20% were convicted for selling drugs and 29% for theft and related crimes. In the US, of 1.6 million cases (for a total of 2.4 million arrests), 41% were convicted for property offences, 23% for person offences (mainly involving violence) and 22.5% for public order offences, including some acts of minor violence. Thirteen percent (13.5%) were liquor law and drug violations. Unfortunately, data collections from each country do not follow similar reporting conventions, making direct comparisons of individual offence types difficult. This is especially so since there are 51 separate juvenile justice jurisdictions in the United States and there are no uniform reporting rules. In addition, not all States contributed offence data after 2003.

In the current sample of community based offenders, those with recorded offence data (n=692, 86.5%) had on average 5.1 (SD=6.0) offences. Violent offences were the most common form of recorded offence (63.8%). Those participants who committed violent offences were charged on average 2.4 times (SD=2.1) for such offences. Property offences were recorded for 18.5% of the sample and those who committed such offences were charged on average 3.7 times (SD=3.2). Those who committed traffic offences (8.6%) committed 2.4 (SD=1.8) such offences; 11% of participants committed 'other' offences. The most common court outcomes were bonds or suspended sentences (84.9%) followed by supervision orders (80.3%) and control orders (10.6%). Courts may issue young offenders with more than one type of order at sentencing.

The current offence, incarceration history and duration of custody and community orders of both the community and custody samples and the incarceration history of parents and other relatives are presented in Tables 2.10 – 2.15.

The most serious current offence for which young offenders had been charged at the time of interview is presented in Table 2.10.

The three most serious current offences for which young offenders had been charged were 'Other assault', robbery and aggravated assault

82% young offenders on community orders reported histories of incarceration (including juvenile detention and remand in police stations)

Table 2.10 Offence type by gender (%)

Most serious offence[i]	Male		Female		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

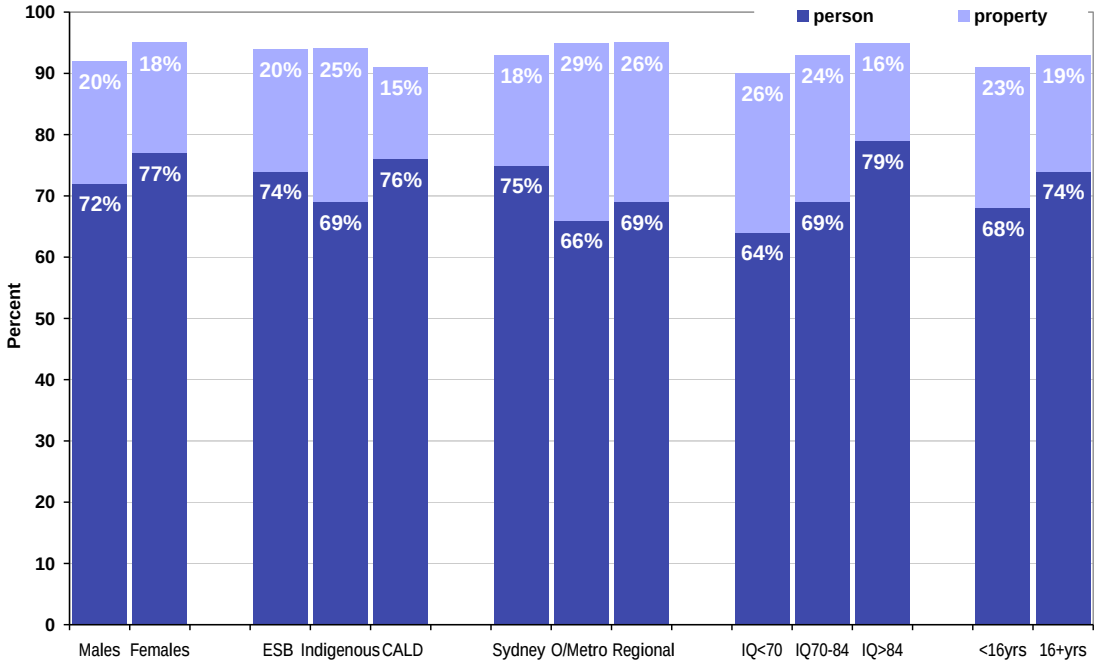
Figure 2.3 displays the percentages charged with crimes against persons (assaults, robbery, homicide) and property offences (theft and break and enter) by gender, ethnicity, region, IQ and age.

The pattern of offending i.e. the distribution of crimes against persons and property offences was not related to gender, ethnicity, region, IQ or age category.

Eighty-two percent (82%, n=655) of young offenders on community orders reported histories of incarceration (including juvenile detention and remand in police stations).

Fourteen percent (14%, n=102) [YPiCHS 65%] estimated that they had spent six months or more in custody during their lifetime. Table 2.11 (overleaf), presents the numbers of incarcerations and community orders for both samples.

Figure 2.3 Most serious current offence against persons and property by gender, ethnicity, region, IQ and age (%)



The pattern and distribution of crimes against persons and property offences were not significantly related to gender, ethnicity, region, IQ or age

56% young offenders on community orders had been in custody more than three times

Table 2.11 History of custody and community orders by gender (%)

Times in custody (if been in custody)[i]	Male		Female		Total	
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]	Custody[b]
1-3	44	55	41	42	44	54
>3	56	45	59	58	56	46
Number of community orders[ii]						
None	3	43	5	32	4	42
1	47	27	39	37	46	28
2	20	12	21	10	20	12
3	9	4	16	5	10	4
4-6	13	7	9	0	12	7
7-9	3	1	2	5	3	1
>10	5	6	8	11	5	6

a (i) Males=565, Females=90, Total=655; (ii) Males=656, Females=116, Total=772
b (i)&(ii) Males=221, Females=19, Total=240. *'Times in custody' Includes detention, remand, lock-up.
[1] DJJ records

Self-reported time spent in custody for both samples is presented in Table 2.12.

Table 2.12 Self-reported total time spent in custody in lifetime by gender (%)

Times in custody[i]	Male		Female		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

Sixty-two percent (62%, n=475) young offenders estimated that they had spent six months or more on community orders during their lifetime (Table 2.13).

Table 2.13 Self-reported total time spent on community orders in lifetime by gender (%)

Time	Male	Female	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

Males = 655, Females = 116, Total = 771

In the United Kingdom, 52% of a sample of 1.6 million offenders reported at least one parent having been in trouble with the police. No data were reported specifically on incarceration.[5] In the United States, a study of a sub-sample of the CASA dataset[7] showed that 39% of offenders reported at least one parent with a criminal conviction.

"Being in trouble with police," having a criminal conviction and having been incarcerated represent different levels of contact with the criminal justice system. Available frequencies from other studies are presented here as indicative of comparable figures in other samples of offenders and are not intended for direct comparison with the figures obtained for the current study.

In this sample, 27% had parents with a history of incarceration [YPiCHS 43%] and 61% had either parents or other relatives with a history of incarceration [YPiCHS n/a]. Table 2.14 shows the percentages of young offenders by ethnicity, region and IQ whose parents and other relatives (including step-parents, grandparents, siblings and step-siblings, aunts, uncles and cousins) had a history of incarceration.

Aboriginal young offenders were more likely to have relatives with a history of incarceration compared with non-Aboriginal young offenders.

27% young offenders on community orders had parents with a history of incarceration [YPiCHS 43%]

61% had either parents or other relatives with a history of incarceration

Aboriginal young offenders were more likely to have relatives with a history of incarceration compared with non-Aboriginal young offenders

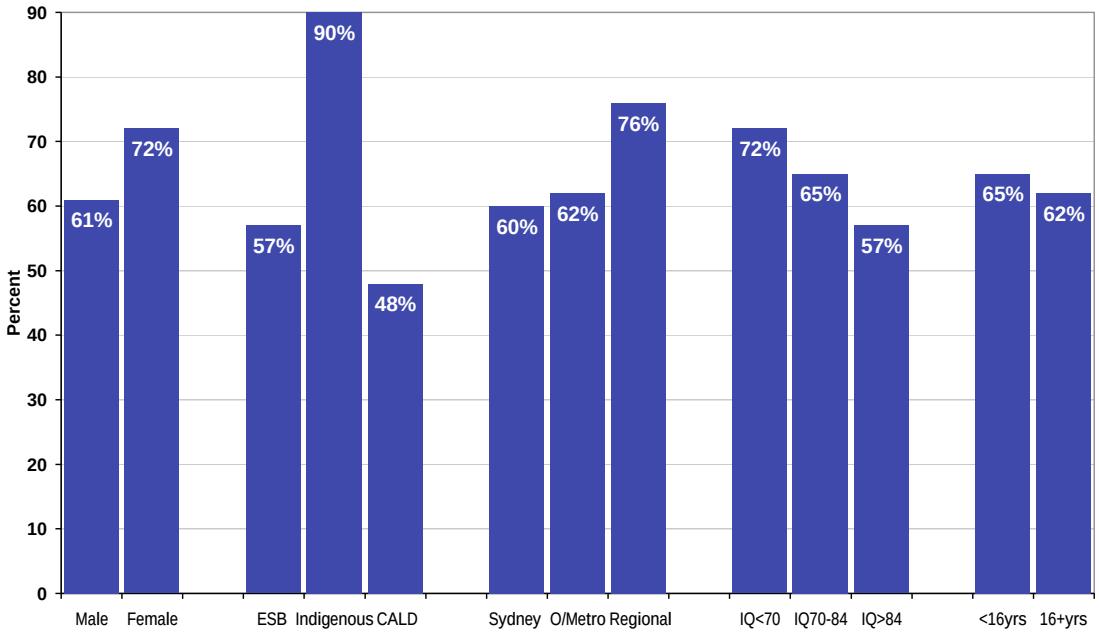
Table 2.14 History of incarceration: mothers, fathers and other relatives (%)[1]

Ethnicity[i]	Mother		Father		Other relatives*
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]
Indigenous	13	17	36	64	81
Non-Indigenous	5	13	21	24	44
Region[ii*]					
Urban	6	-	21	-	50
Non-urban	10	-	32	-	55
IQ[iii]					
IQ <85	6	16	25	43	55
IQ >84	7	11	22	33	46

a (i)&(ii) Mother=777, Father=777, Other=761; (iii) Mother=761, Father=761, Other relatives=746
b (i)&(ii) Mother=225, Father=225; (iii) Mother=214, Father=214; *Data not collected for custody sample
* Comparison by region of custody and community samples could not be undertaken because location of detention centre does not reflect residential location of young people in custody.

Figure 2.4 (overleaf) shows the distribution of relatives with a history of incarceration by gender, ethnicity, region, IQ and age.

Figure 2.4 Relatives' history of incarceration by gender, ethnicity, region, IQ and age (%)



The sample as a whole scored in the 'Medium Risk' category of the YLS/CMI: AA

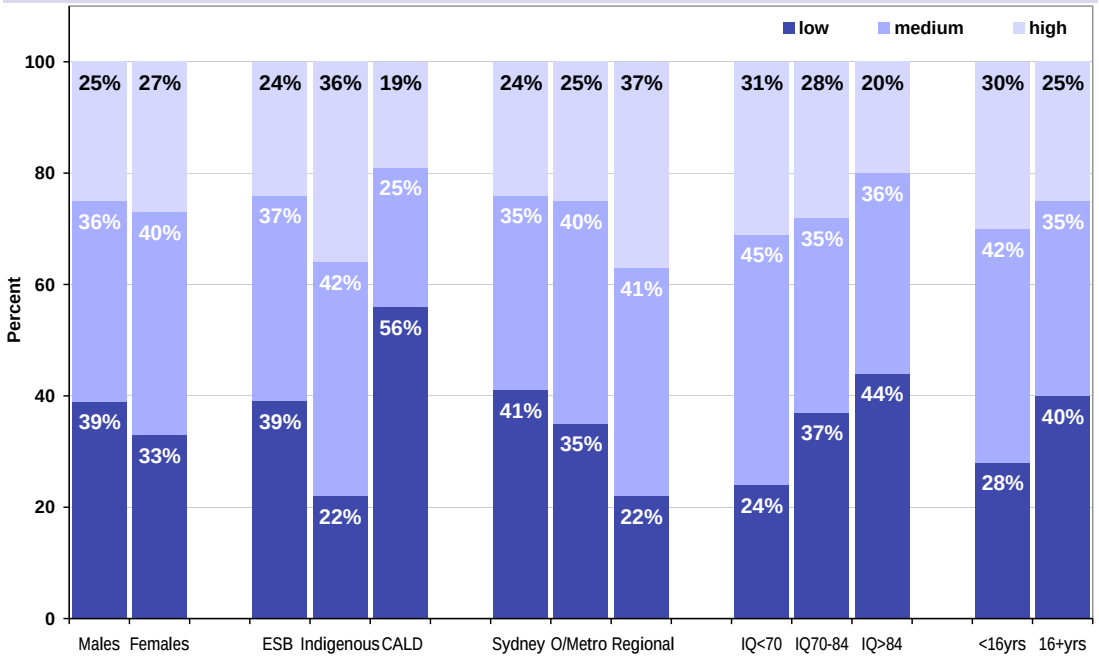
More Aboriginal young offenders (36%) had high risk scores than either ESB (24%) or CALD (19%)

Regional young offenders (37%) were more likely to have high risk scores compared with Sydney (24%) and Other metropolitan (25%). IQ<84 (30%) were more likely to be high risk than IQ>84 (20%)

2.6 Youth Level of Service / Case Management Inventory: Australian Adaptation (YLS/CMI: AA)

The YLS/CMI: AA is a 47 item instrument used to assess risk factors in eight domains. Three items address individual strengths. The YLS/CMI: AA is based on the LS/CMI[8] and provides a broad measure of risk of recidivism, criminogenic need, responsivity and protective factors related to offending behaviour in juveniles. The YLS/CMI: AA has been adapted for the Australian socio-legal environment[9] and has been normed on 290 Australian juveniles.[10] Like the LS/CMI[11] the YLS/CMI: AA is reliable (Cronbach alpha of .91 for this sample). Figure 2.5 shows the breakdown of the three risk categories (low, medium and high) by sub groups.

Figure 2.5 YLSI severity by tertiles by gender, ethnicity, region, IQ and age (%)



Mean YLS/CMI: AA total score was 17.18 (SD=9.35) for the total sample, placing participants, on average, in the 'Medium Risk' category of the YLS/CMI: AA. More Aboriginal young offenders (38%) had high risk scores than either ESB (24%) or CALD (19%).

Regional young offenders (37%) were more likely to have high risk scores compared with Sydney (24%) and Other metropolitan (25%). IQ<84 (30%) were more likely to be high risk than IQ>84 (20%).

2.7 Social Background

Many young offenders on community orders had characteristics indicating highly unstable backgrounds (Table 2.15).

Of particular concern was the proportion of young women not living in the family home and those with a history of out of home care (OOHC). A higher proportion of those in custody had a parental history of imprisonment and reported that they had no close friends with whom they could talk compared with those in the community.

Table 2.15 Social indicators by gender (%)

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

* [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

36% young offenders were not living in the family home during the study period

21% were living with a person with a physical or mental health problem

24% [28% YPiCHS] young offenders had a history of having been placed in care, compared with 0.6% of the general NSW population

Table 2.16 (overleaf) summarises the patterns of care giving received by young offenders, relationship status of their biological parents, and gender of their primary care giver(s).

2.8 Out of Home Care (OOHC) history

People who have been in the care of the State as children comprise between 0.135% and 0.2% of the general population. In contrast, in the adult prison system they make up one in five non-Indigenous prisoners and one in three Indigenous prisoners, constituting approximately 38% of all prisoners in NSW. Children currently in care now comprise 0.6% of the general NSW population.[12]

Twenty-four percent (24%) [28% YPiCHS] young offenders had a history of having been placed in care (i.e. they had spent part of their childhood living away from their natural parents).

A comparison of those young offenders who had been placed in OOHC with those who had not showed that OOHC young offenders were significantly more likely to: have received special education (49% vs 36%); have relative(s) who had been in prison (69% vs 60%); have experienced a physical injury requiring medical treatment (37% vs 28%); report having no close friends (11% vs 6%); be living in unsettled accommodation at the time of the survey (23% vs 8%); report having treatment for substance abuse (25% vs 17%); and to have experienced unwanted sex (14% vs 6%). OOHC young offenders were less likely to be working at the time of the survey (19% vs 27%) and more likely to be receiving some form of government allowance or benefit (62% vs 42%) compared with non OOHC young offenders.

Table 2.16 Primary and other caregiver(s) and associated factors by gender (%)

Biological parents[i]	Male		Female		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Mother AND father	37	36	26	33	36	36
Mother only	47	43	50	44	48	44
Father only	7	5	6	6	7	5
Neither mother NOR father	8	16	18	17	10	16
Status of biological parents[ii]						
Separated or divorced	52	56	57	56	53	56
Living together	30	30	23	33	29	30
Father deceased	8	7	4	0	7	7
Never lived together	6	5	14	0	7	4
Mother deceased	3	2	2	0	3	2
Don't know who parents are	1	0	0	6	1	<1
Other primary caregivers[iii*]						
Grandmother	12	22	19	22	13	22
Grandfather	5	12	10	17	6	12
Aunt	5	11	3	6	5	11
Sister(s)	3	4	6	0	4	4
Uncle	3	8	4	0	3	8
Brother(s)	3	7	5	0	3	7
Stepfather	2	4	5	11	3	5
Stepmother	<1	1	1	6	1	2
Foster family	1	2	3	0	1	2
Self	1	0	3	0	1	0
Step brother(s)/Sister(s)	0	0	1	0	1	0
Friends	<1	1	2	0	<1	1
Cousin	<1	1	0	0	<1	1
DOCS	<1	1	0	0	<1	<1
Refuges	0	1	0	0	0	<1
Gender of primary caregiver(s)[iv]						
No male caregiver	49		50		49	
No female caregiver	8		16		9	

a (i) Males=673 Females=117 Total=790; (ii) Males=671 Females=116 Total=787; *Multiple responses permitted
b (ii) Males=208 Females=18 Total=226 (iii) Males=207 Females=18 Total=225; *Multiple responses permitted

36% young offenders in both community and custody samples reported having both their mother and father as primary caregivers

48% [44% YPiCHS] had mother only

7% [5% YPiCHS] had father only

10% [16% YPiCHS] had neither parent (as their primary caregivers)

Parents of 53% young offenders [56% YPiCHS] were separated or divorced

49% had no male caregiver

Five males (2 ESB, 2 Aboriginal, and 1 CALD) and no females indicated that both of their parents were deceased.

Figure 2.6 (overleaf) shows the proportions of young offenders with at least one biological parent deceased.

Parental deceased status was not related to gender, ethnicity, region, IQ or age category.

Figure 2.7 (overleaf) shows the proportions of young offenders who were living with a person with physical, mental, or emotional limitations.

Limitations of people living in the same accommodation as the young person was not related to gender, ethnicity, region, IQ or age category.

There are no comparable figures internationally indicating accommodation needs of young offenders. The UK study did not find accommodation stress to be a risk factor after controlling for other factors but did not report any specific data. The CASA study comments on the importance of stable accommodation but presents no data on the subject in its report.

Figure 2.6 One or more biological parents deceased by gender, ethnicity, region, IQ & age (%)

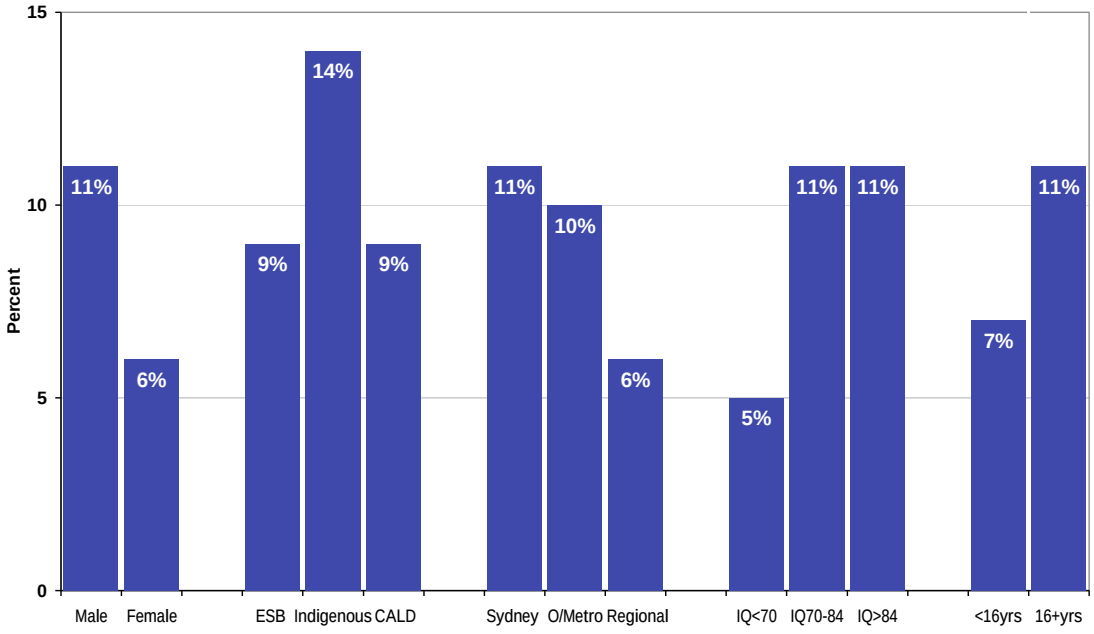


Figure 2.7 Physical, mental and emotional limitations of people in same accommodation by gender, ethnicity, region, IQ and age (%)

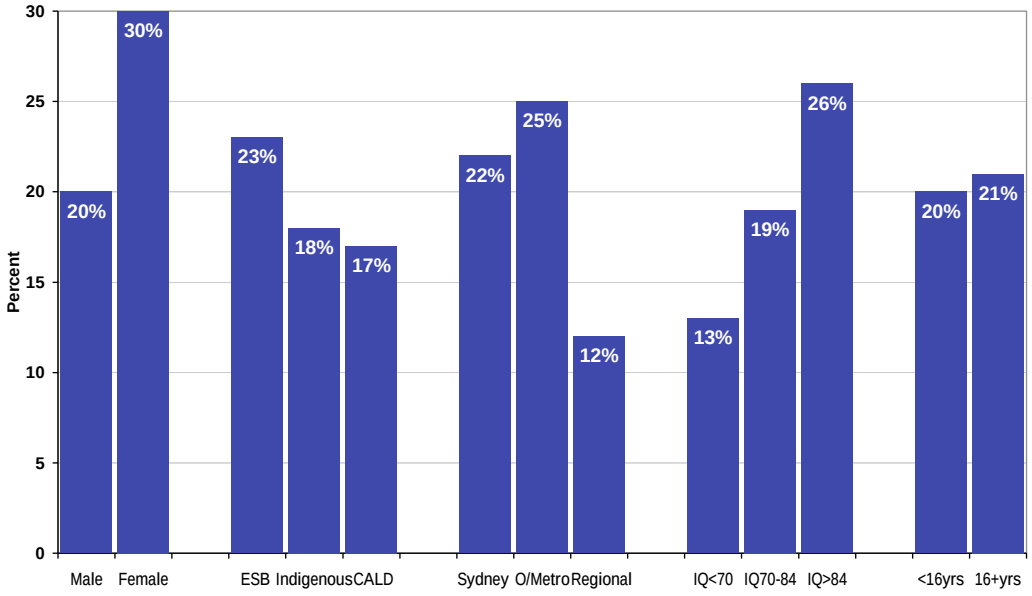


Figure 2.8 (overleaf) shows the proportions of young offenders who were living in unsettled accommodation (homeless, in a refuge, or in a hostel) at the time of the survey (total: 11%, n=86).

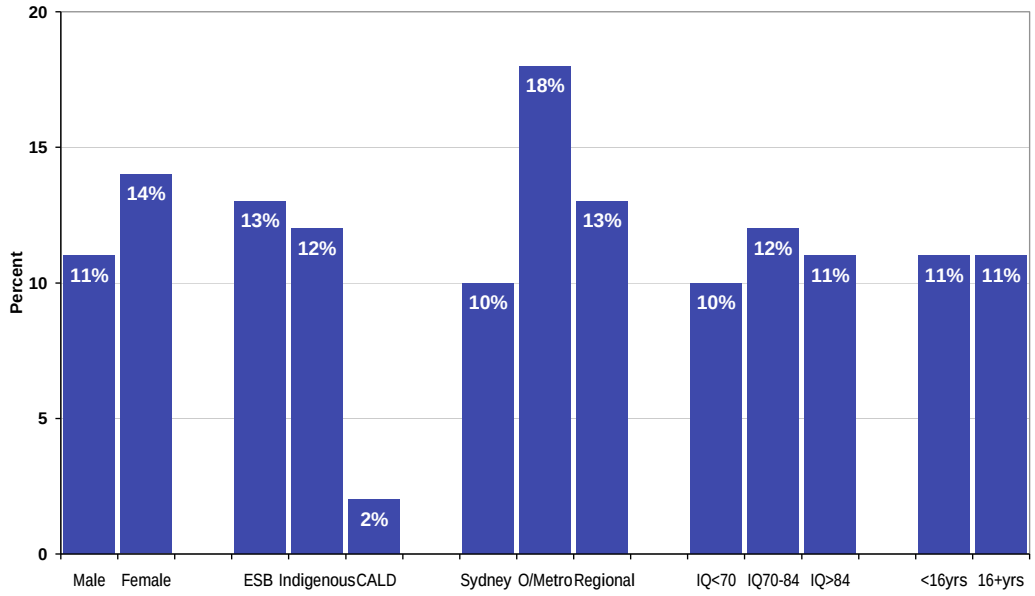
Unsettled accommodation was not related to gender, ethnicity, region, IQ or age category, although CALD were less likely to be in unsettled accommodation.

Between 5% (IQ<70) and 14% (Aboriginal) young offenders on community orders had at least one of their biological parents deceased

11% young offenders were living in unsettled accommodation at time of survey

Unsettled accommodation was not related to gender, ethnicity, region, IQ or age, although CALD were less likely to be in unsettled accommodation

Figure 2.8 Living in unsettled accommodation at time of survey (homeless, refuge, hostel) by gender, ethnicity, region, IQ and age (%)



5% young offenders [10% YPiCHS] were parents of one or more children

There were 46 children born to 42 parents (four young offenders had two children)

Young mothers were aged 13-17 years when their first child was born

Young fathers were aged 14-20 years when their first child was born

76% children were born to parents aged 14-16 years

2.9 Adolescent parenthood

Family circumstances at the time of birth are strong predictors of later developmental outcomes. Adolescent parenthood is a risk factor that is associated with social disadvantage, such as lower socioeconomic status for both the parent and child, low occupational status and job instability. These in turn affect the physical, social and neuro-cognitive development of the child born to an adolescent parent.[13] Having an adolescent mother has been associated with poorer educational, financial, mental and physical health outcomes and criminality in both male and female offspring and with persistent antisocial behaviours in the sons of adolescent mothers.[14] Five percent (5%) young offenders [10% YPiCHS] were parents to one or more children. There were 46 children born to 42 parents (4 young offenders had two children). Of the 40 young parents with available data, 50% (18 males and 2 females) stated that their child(ren) had never lived with them; 16 of the children born to males were living with their partners (i.e. child's mother); three were living with the young person's parent(s); and one had been placed in foster care. There were no reported adoptions. Table 2.17 summarises the parenting status of these young offenders.

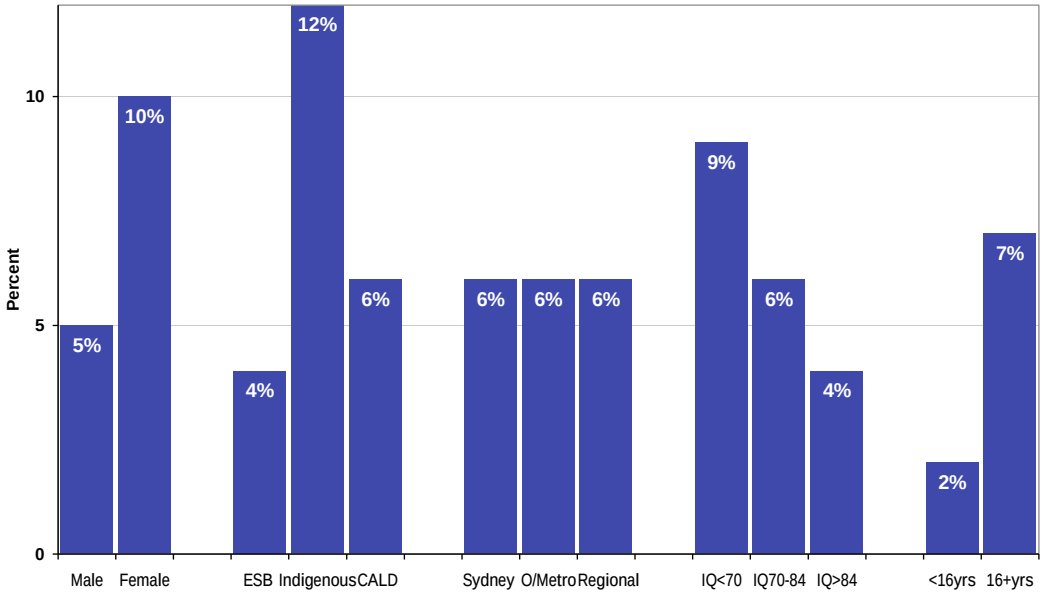
Table 2.17 Number of children and age at which child was born by gender (%)

	Male		Female		Total	
Have children[i]	**Community[a]**	Custody[b]	**Community[a]**	Custody[b]	**Community[a]**	Custody[b]
None	95	89	90	94	95	89
1 child	5	10	9	0	5	10
2 or more children	<1	1	1	6	<1	1
Age first child born[ii]						
13	0	9	0	100	11	14
14	12	5	9	0	22	4
15	12	29	50	0	39	27
16	44	28	25	0	15	27
17	15	24	17	0	11	24
18	15	0	0	0	2	0
19	0	5	0	0	0	4
20	3	0	0	0	2	0

a (i) Males=671, Females=117, Total=788; (ii) Males=34, Females=12, Total=46 [low n]
b (i) Males=208, Females=18, Total=226; (ii) Males=21, Females=1, Total=22 [low n]

Figure 2.9 shows the proportions of young offenders with children. Young offenders' parental status was not related to gender, ethnicity, region, IQ or age category, although trends indicate higher proportions for females, Aboriginal, IQ<70 and age >16 years.

Figure 2.9 Young parents by gender, ethnicity, region, IQ and age (%)



2.10 Employment history

This report is the first to present detailed data on employment history of young offenders. Both the UK and the CASA studies indicate its importance, but neither reports any specific data. Table 2.18 summarises the employment and benefit status of young offenders at the time of the survey.

Table 2.18 Employment status and benefits by gender (%) [ABS 2001]

Currently working[i]	Males		Females		Total	
	Community[a]	Custody[b]	**Community[a]**	Custody[b]	**Community[a]**	Custody[b]
Yes[i]	**27 [92]**	**40**	**16 [93]**	**17**	**25 [92]**	**38**
Full time[ii]	36 [41]	41	22 [24]	0	35 [32]	40
Part time[ii]	24 [53]	24	22 [71]	33	23 [62]	24
Casual[ii]	37	27	50	67	38	28
CDEP[ii]	3	6	0	0	3	6
Volunteer work[ii]	<1	2	6	0	1	2
Receiving any benefit[i]						
Yes[i]	**45**	**45**	**53**	**61**	**46**	**46**
Youth allowance[iii]	75	70	71	73	74	70
Newstart[iii]	6	9	0	0	4	8
Centrelink (unspecified) [iii]	3	1	6	0	4	1
Disability support pension[iii]	4	4	0	0	4	4
Live away from home[iii]	3	3	3	0	3	3
Jobseeker[iii]	3	0	3	0	3	0
Parenting allowance[iii]	1	0	13	0	3	0
Austudy[iii]	2	3	2	0	2	2
Abstudy[iii]	2	10	2	27	2	12
Carer allowance (adult)[iii]	1	0	0	0	1	0

a (i) Males=667-672,Females=117, Total=784-789; (ii) M=175, F=18, T=193, (iii) M=298, F=62, T=360.
b (i) Males=206, Females=18, Total=224; (ii) Males=82, Females=3, Total=85; (iii) M=92, F=11, T=103
Source: ABS (2001). 2001 Census Population and housing, NSW, Table B25, Age group: 15-19 years

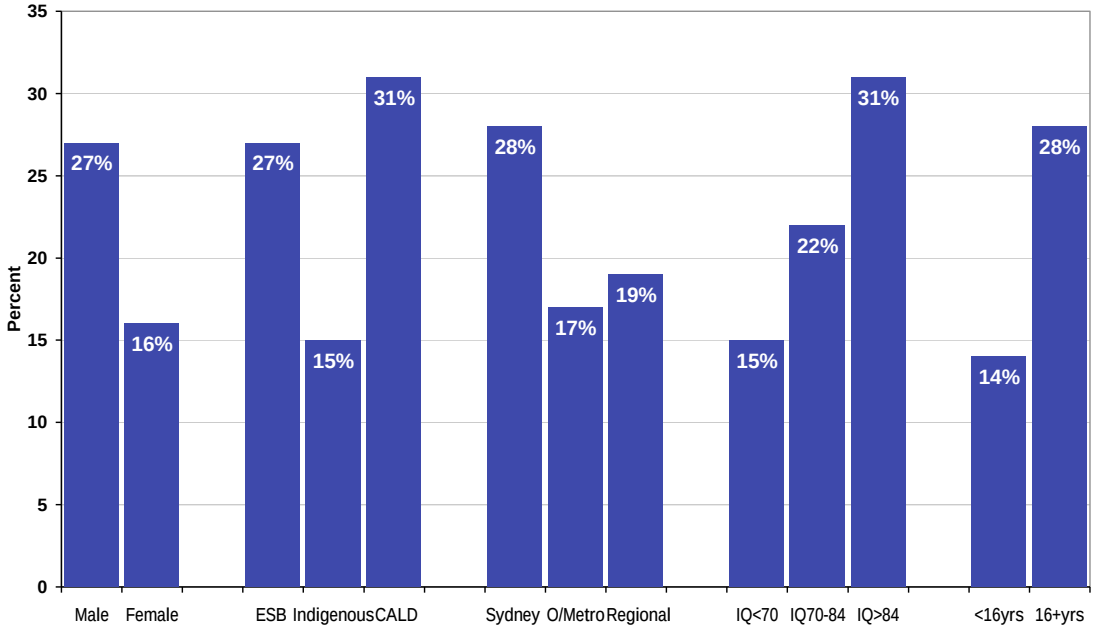
Young offenders' parental status was not significantly related to gender, ethnicity, region, IQ or age category, although trends indicate higher proportions for females, Aboriginal, IQ<70 and age >16 years

25% young offenders [38% YPiCHS] were working full or part time or casual at the time of the survey

Sixty-eight percent (68%; n=42) young offenders who were both working and receiving benefits were receiving Youth Allowance. One percent (1%; n=10) young offenders were receiving more than one benefit. Of the 42 young parents, 20 were receiving youth allowance, 10 parenting benefits, and 5 other benefits.

Figure 2.10 shows the proportions of young offenders working at the time of the survey.

Figure 2.10 Employment by gender, ethnicity, region, IQ and age (%)



Young offenders in Sydney, those with IQ>84 and 16+ years were more likely to be employed, while young offenders in regional areas and those with IQ<70 were less likely to be employed

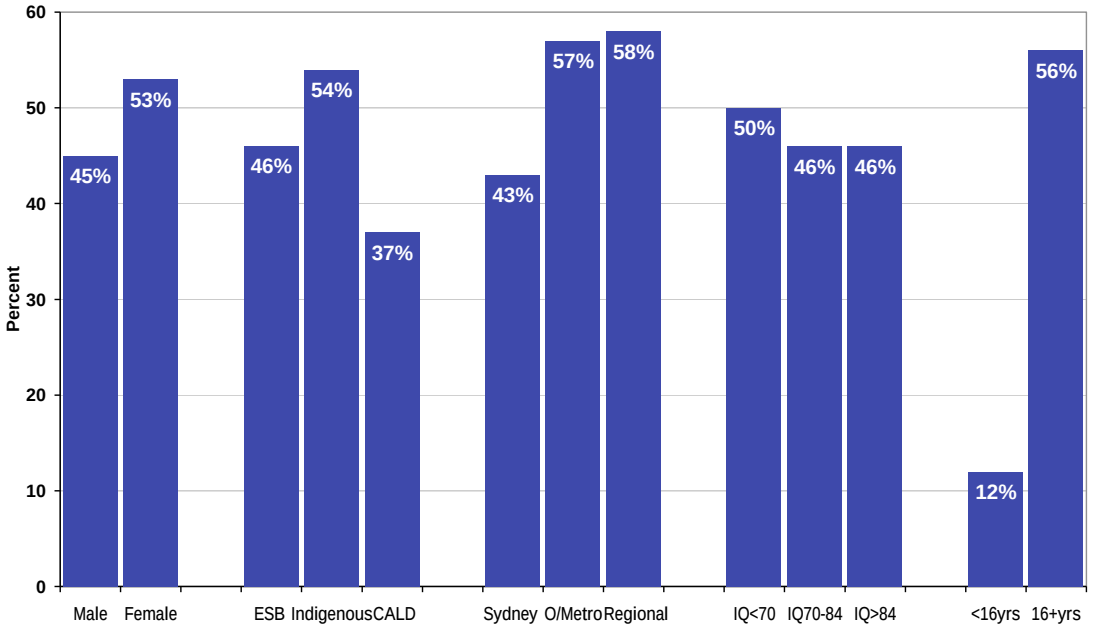
More young offenders aged 16+ years were employed at the time of the study. Young offenders in Sydney and those with IQ>84 were more likely to be employed, while young offenders in Regional areas and those with IQ<70 were less likely to be employed.

Young offenders 16+ years were more likely to be receiving benefits than young offenders <16 years

Males and young offenders from Sydney and those who were 16+ years were less likely to be in receipt of benefits than Other metropolitan and Regional young offenders.

Figure 2.11 shows the proportions of young offenders who were receiving benefits.

Figure 2.11 Benefit receipt by gender, ethnicity, region, IQ and age (%)



2.11 Life plans

Of the 85% (n=668) young offenders who provided detail on their plans for the future, 84% (n=626) planned to work and/or study at school or TAFE; 20% indicated plans to reform or settle down (stop crime, complete drug rehabilitation, help others, work on relationships, buy a house or move to a better area). A small number had other plans including travel and 'getting rich'.

2.12 Summary and conclusions

Eight hundred young offenders on community orders from 22 Juvenile Justice Offices across the state of New South Wales, Australia were assessed. The mean age of the sample was 17 years (22% were younger than 16 years); 85% were male, 66% ESB, 19% Aboriginal and 15% CALD; 75% lived in Sydney, 15% had IQ<70 with regional offenders more likely to have IQs in this range.

The majority of young offenders (83%) were born in Australia and spoke English as their first language (85%). However, 38% of offenders' mothers and 41% of offenders' fathers were born overseas. The majority were from Oceania (New Zealand, Samoa, Tonga) and Asia (Vietnam, Philippines).

The most frequent offences for which this sample were charged were assault, robbery, car and other theft, and break and enter. Young offenders had been charged with an average of five offences; 64% were charged with a violent offence. The most common court outcomes were bonds or suspended sentences (85%) and supervision orders (80%). Ninety percent (90%) had histories of incarceration. Sixty-one percent (61%) had parents or other relatives with a history of incarceration; 90% Aboriginal young offenders had relatives with a history of incarceration.

Many young offenders had unstable backgrounds: only 36% were living with both their parents at the time of the survey; parents of 53% had separated or divorced; 36% were not living in the family home; 24% had a history of OOHC; 21% lived with a person with a physical or mental health problem; 11% were living in unsettled accommodation. Five percent (5%) young offenders were parents of one or more children. Mothers were aged between 13-17 years at the time of the birth of their first child.

Twenty-five percent (25%) young offenders were working in some capacity at the time of the survey; 46% were receiving some form of benefit, the most common of which was youth allowance (74%). Young offenders living in Sydney and those with IQ>84 were more likely to be employed.

Most young offenders showed evidence of the capacity for future planning and most expressed prosocial goals and aspirations

2.13 References

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CHAPTER 3
PHYSICAL HEALTH

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3.2

3. PHYSICAL HEALTH

Studies on the physical health of young offenders indicate an early engagement in health risk behaviours affecting physical health.[1,2,3,4,5,6] One UK study of 590 16-20 year old detainees found that 25% of the young men and 30% of the young women reported a long standing physical health problem.[7] Respiratory illness was the most frequently reported chronic health condition in both males and females, followed by musculoskeletal problems for men and nervous system complaints for women.

Fasher et al (1997) examined the health reception records of juvenile offenders in NSW and found high levels of respiratory conditions, injuries, illicit drug use, suicidal ideation, and tobacco smoking.[8] Another recent study conducted in Victoria found that the standardised mortality rate was 9.4 for young male offenders and 41 for young female offenders, indicating that similar poor health exists among Australian juvenile offenders as that reported overseas.[9]

The survey questionnaire comprised a comprehensive physical health assessment that included self-report questionnaires, blood and urine tests, tests of visual acuity and assessment of treatment utilisation patterns.

3.1 Self-reported health status

The *Young People in Custody Health Survey*[10] assessed self-reported health of 242 young offenders in custody in NSW using the 12-item Short-Form Health Survey (SF-12). Overall ratings of physical and mental health of young offenders revealed that most young offenders rated their health positively on the SF-12.

The SF-12 was again used to examine general physical and mental health and role limitations due to physical and mental health problems in the four weeks prior to assessment of young people on community orders.[11] 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]. The median scores at the 50th percentile on the US standardisation sample of 18-24 year olds were 55.16 and 46.39 respectively. Females and males had equivalent scores on the PCS: males, 53 and females, 52 [YPiCHS both males and females 54], and MCS: males, 48 and females, 48 [YPiCHS males 48 and females 43].

Question one of the SF-12 asks for a self-rating of health on a scale ranging from 'poor' to 'excellent'. According to the *National Health Survey* (2004-05),[12] 82% young Australians aged 15-17 years rated their health as excellent or very good, 13% rated their health as good, and 4% rated their health as either fair or poor. Young offenders' ratings were much lower.

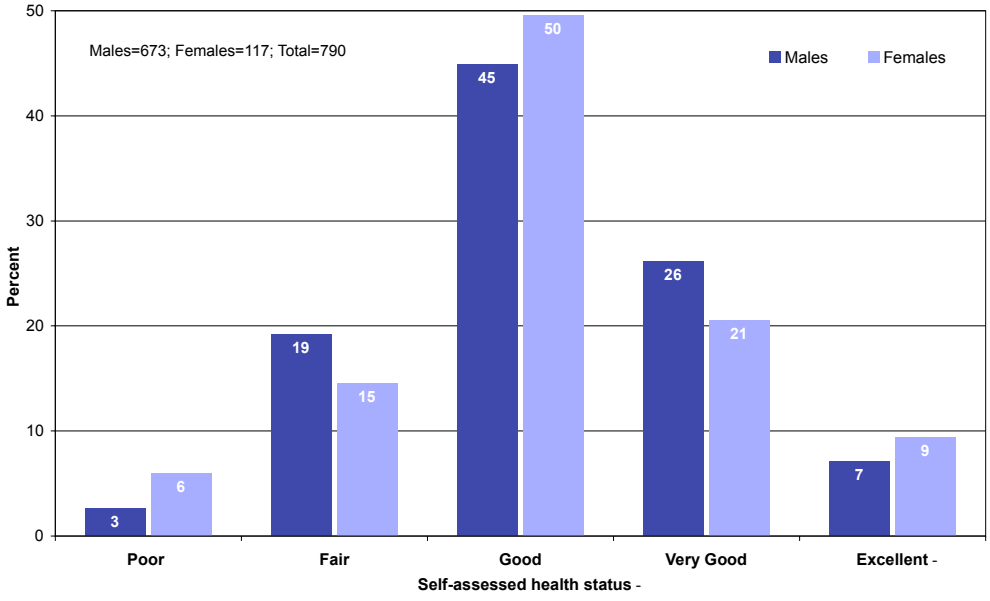
Figure 3.1 presents these ratings by gender.

There were no gender differences in self-ratings of physical and mental health

Young offenders' self-ratings were lower than the National Health Survey of Young Australians[12]

33% males and 30% females rated their health as very good or excellent compared with 82% young Australians aged 15-17 years

Figure 3.1 Self-assessed health status from SF-12 (%)



Self-rated health status has been found to agree with objective measures of health.[13] Most males (78%) [YPiCHS 91%] and females (79%) rated their health as 'good', 'very good' or 'excellent'. Given the poor health detected using other objective and self-reported health measures (e.g. smoking status, illicit drug use, alcohol use, poor diet), it appears that young people in this survey have an unrealistic view of their health, or that the adverse effects of these risk behaviours are not yet evident. The former is perhaps the more likely explanation given that 70% of adult offenders also rate their health as 'good', 'very good' or 'excellent' but have a high level of physical health morbidity.

3.2 Health conditions

The most common reasons for medical visits to health professionals by Australian young people in 2003 were respiratory conditions, including colds, asthma and bronchitis.[14] Other frequent causes were prescriptions for contraception, sporting injuries, tonsillitis and acne. Participants were asked to self-report whether they had been diagnosed by a health professional with a range of physical health problems (Table 3.1). The most commonly reported medical conditions in both samples were chicken pox, asthma, ear infections and tonsillitis. Arthritis, meningitis, appendicitis and sinusitus had all been diagnosed in less than 1% of both samples, and there were no reported diagnoses of HIV.

3.3 Recent symptoms and health complaints

Recent health complaints (occurring in the past four weeks) were assessed using a modified version of an instrument developed for drug users.[15] Although developed for opioid users, this instrument provides insight into recent ailments and symptoms covering cardio-respiratory, genito-urinary, psychological and neurological, gastrointestinal, injection related, general, and women's health issues. Symptoms relating to possible hepatitis C seroconversion

78% young offenders rated their health as 'good' or better

The most frequently diagnosed medical conditions were chicken pox, asthma, ear and chest infections and tonsilitis

Table 3.1 Medical conditions reported to be diagnosed by a health professional (%)

Medical conditions	Males		Females		Total	
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]	Custody[b]
Chicken pox	60	55	32	44	61	54
Asthma	33	28	34	56	33	30
Ear infection	26	28	39	39	28	29
Tonsillitis	23	27	35	39	25	28
Chest infections	20	15	29	17	22	15
Back problems	17	20	20	33	17	21
Allergy	15	11	15	11	15	11
Skin condition	12	11	18	17	13	11
Measles	10	12	8	17	10	13
Parasitic infections	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	9	6	7	4
Mumps	2	3	3	6	3	3
Epilepsy	1	2	4	6	2	2
Heart problems	2	5	3	6	2	5
German measles	2	2	5	6	2	3
Hepatitis C	1	2	6	22	1	4
Cancer	1	1	1	0	1	1
Pneumonia	1	n/a	3	n/a	1	n/a
Diabetes	<1	0	<1	11	<1	1
Hepatitis A	<1	<1	0	0	<1	<1
Hepatitis B	<1	1	0	11	<1	2

a Males=673, Females=117, Total=790; b M=208, F=18, T=226; Multiple responses permitted

and self-harm were added. Table 3.2 shows the most common symptoms and health complaints occurring in the four weeks prior to the survey. Tiredness/energy loss and trouble sleeping were the most common recent complaints in both males and females followed by memory problems and headaches.

Table 3.2 Most common recent symptoms and health complaints in last 4 weeks (%)

Symptom/health complaint	Males		Females		Total	
	Community[a]	Custody[b]	Community[a]	Custody[b]	Community[a]	Custody[b]
Tiredness / energy loss	36	34	51	33	39	34
Trouble sleeping	38	40	46	67	39	42
Forgetting things	31	25	37	33	32	26
Headaches	26	23	39	39	28	24
Poor appetite	25	17	26	17	25	17
Sore throat	18	18	26	17	19	18
Teeth problems	14	21	30	28	18	21
Shortness of breath	16	11	25	22	18	12
Weight loss / underweight	17	10	20	11	17	10
Night sweat	17	22	20	28	17	22
Dizziness	15	11	25	17	17	12
Persistent cough	15	7	24	0	16	6
Muscle pain	14	20	18	17	15	20
Chest pain	12	11	18	11	13	11
Stomach / abdominal pains	10	8	26	6	12	8
Swollen glands	8	7	20	11	10	7
Wheezing	9	7	18	6	10	7
Joint pains / stiffness	10	7	10	6	10	7
Vision troubles	8	11	13	17	9	11
Heart racing	9	5	11	6	9	5
Fever	7	7	15	6	8	7
Nose bleeds	8	10	8	0	8	9
Vomiting	7	4	18	6	8	4
Bruising easily	4	3	25	17	7	4
Hearing troubles	6	9	11	6	7	9
Eye problems	6	7	8	11	7	7
Blackouts	6	3	12	0	7	3
Tremors / shakes	6	2	11	0	7	2
Itchiness	6	3	10	6	7	4
Prominent bruising / scarring	5	5	11	17	6	6
Abscesses/skin infections	4	6	7	17	5	7
Numbness/tingling	4	6	8	6	5	6
Nausea	4	3	11	11	5	4
Ear problems	4	11	5	17	4	11
Hearing voices	3	4	6	6	4	4
Wanting to harm self	3	7	8	6	3	7
Bleeding easily	1	2	4	0	2	2
Diarrhoea	5	6	6	6	2	6
Dark urine	2	5	3	6	2	5
Jaundice / yellowish skin	1	1	2	0	1	1
Painful urination	<1	1	3	0	1	1
Discharge from genitals	0	1	7	0	1	1
Rash on / around genitals	1	2	1	0	1	2
Constipation	1	1	3	11	1	2

a Males=673, Females=117, Total=790; b M=208, F=16, T=226

Health complaints and symptoms of young offenders in the community were associated with drug use and drug of choice. Those abusing amphetamines and multiple substances were more likely to report tiredness/energy loss and trouble sleeping than those not using any drugs.

The most frequently reported health complaints in the four weeks prior to the survey were
- tiredness/energy loss
- trouble sleeping
- memory problems
- headaches
- poor appetite

Health complaints were associated with substance use

Polydrug users were also more likely to report pain symptoms. Of the 32% who reported memory problems, 73% were cannabis users.

Table 3.3 displays symptoms according to type and amount of substances used.

Table 3.3 Most common recent symptoms and health complaints by drug use in last 4 weeks (%)

Symptoms and complaints	No drugs	Cannabis	Amphetamine	Polydrug
Trouble sleeping	32	44	51	56
Tiredness / energy loss	33	41	50	52
Pain (chest/stomach/joint/muscle)	29	33	37	44
Poor appetite	15	31	42	43
Headaches	27	28	37	37
Forgetting things	25	73	37	33

Total=104-445; Multiple responses permitted

3.4 Health complaints in past 6 months

Amphetamine and polydrug use were associated with trouble sleeping, tiredness/energy loss

The Australian Bureau of Statistics (ABS) defines a disability as a limitation, restriction, or impairment, which has lasted or is likely to last, for at least six months and restricts everyday activities. Examples of everyday or 'core' activities may include: self-care, mobility and communication. The degree of impairment ranges in severity from profound to mild. Table 3.4 presents young offenders' self-reported health problems and disabilities lasting six months or more, and detail on the type of problem or disability for the sub-group reporting difficulties in the last six months.

Cannabis use was strongly associated with memory problems

While most young offenders reported that their disability did not limit their daily activities, 57% custody and 26% community-based offenders reported that it caused them to cut down on activities.

Table 3.4 Health problems lasting 6 months or more (%)

	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Health-related difficulties in last six months[i]						
Yes	**19**	**21**	**19**	**11**	**19**	**20**
Health problem/disability[ii]						
Musculoskeletal	38	37	18	50	35	38
Psychological	18	9	18	50	18	11
Respiratory	12	16	18	0	13	16
General and unspecified	5	7	5	0	6	7
Neurological	6	9	5	0	5	9
Skin	6	2	0	0	5	2
Endocrine/metabolic/nutrition	4	0	5	0	4	0
Digestive	2	5	9	0	3	4
Eye	3	0	0	0	3	0
Ear	2	2	9	0	3	2
Cardiovascular	2	5	0	0	2	4
Blood, blood forming	2	0	0	0	1	0
Urological	0	0	9	0	1	0
genital	0	5	4	0	1	4
Daily activities limited	**1**	**13**	**1**	**10**	**1**	**14**
Reduced activities	**27**	**58**	**19**	**50**	**26**	**57**

a (i) Males=669, Females=117, Total=786 (ii) M=125, F=22, T=147; b (i) M=207, F=18, T=225 (ii) M=43, F=2 T=45

19% young offenders reported health problems in the past 6 months; the most frequently reported were musculoskeletal, psychological and respiratory

1% experienced limitations to daily activities associated with their health problems and 26% reduced their activities

The most frequently reported activities reduced due to disability or health problems in the community sample were sports/exercise (50%, n=18) and school/work/juvenile justice supervision (19%, n=7).

3.5 Medications

Information about prescription medicine in the community is provided by Medicare Australia. Use of non-subsidised prescription medicines is estimated from surveys of community based pharmacies. However, data are not available for prescription medicine used in private and public hospitals or for non-prescription medicine. The most frequently (recorded) prescribed medications for all adults in 2004-05 were blood cholesterol lowering medications and antibiotics. Table 3.5 shows the proportion of the sample of young offenders who reported taking medication at the time of the survey and the type of medication taken for the sub-sample who were currently on medication.

Table 3.5 Current medication use (%) [YPiCHS]

	Males	Females	Total
Currently taking any medications[i]			
Yes	**14 [39]**	**23 [56]**	**16 [40]**
Respiratory system (preventive inhalations and relaxants)[ii]			
Ventolin	18	17	17 [24]
Flixotide / Seretide	2	0	2
Pulmicort	1	0	1
Central nervous system (sedatives, antipsychotics, antidepressants)[ii]			
Dexamphetamine	9	0	7
Ritalin	9	0	7
Zoloft	5	4	5 [6]
Temazepam	3	0	3
Respiradone	4	0	3
Mirtazapine	2	0	2
Valium	0	8	2
Tegretol	2	0	2
Epilim	0	8	2
Zyprexa	0	4	1
Luvox, Aropax, Zolpidem	1	0	1
Infections and infestations (Penicillin, tetracyclines)[ii]			
Antibiotics – unspecified	5	4	5 [19]
Amoxycillin	3	4	3
Keflex / Ibilex	2	4	3
Flucloxacillin	0	4	1
Akamin, Doxycycline (each)	1	0	1
Non-steroidal anti-inflammatory (musculoskeletal system)[ii]			
Brufen	1	0	1 [6]
Naprosyn	0	4	1
Voltaren, Feldene, Celebrex (each)	1	0	1
Narcotic analgesics (painkillers)			
Panadeine Forte (and Panadeine)	7	4	6 [7]
Morphine	1	0	1
Agents used in drug dependence[ii]			
Buprenorphine	3	4	3
Methadone	1	4	2
Naltrexone	1	0	1
Skin (including acne, corticosteroids, antifungals)[ii]			
Roaccutane	3	4	3
Diprosone	1	0	1
Clonea	0	4	1
Endocrine and metabolic disorders (including hormonal agents)[ii]			
Cyproterone	0	13	3
Somatropin	1	1	1
Other (incl. migraines, ulcers, allergies)[ii]			
Catapres	3	0	3
Losec	0	4	1
Phenergan	1	0	1

Multiple response data
a (i) Males=668, Females=114, Total=782; (ii) M=91, F=24, T=115; b M=206, F=18, T=224 (top 5 reported)

16% young offenders were currently taking medication

Ventolin (asthma) was the most frequently reported medication, followed by ritalin and dexamphetamine (ADHD), Zoloft (depression), panadeine forte (pain) and antibiotics (infection)

Young people in custody reported higher levels of medication consumption than those in the community, possibly due to greater access to health services

3.6 Allergies and asthma

3.6.1 Allergies

Allergies are common in the general population. A survey conducted by the Australian Institute of Health and Welfare in 2003 revealed that 5 per 100 medical consultations by 12-24 year olds concerned skin problems, allergies and immune system problems.[14] In the current sample, 15% (n=118) young offenders reported that they had been diagnosed with an allergy by a health professional.

Table 3.6 presents the types of allergens diagnosed by a health professional for the subgroup of 90 (out of of 118) young offenders who provided detail. Allergies to stings and bites and food were the most common allergies reported by this group.

15% young offenders had been diagnosed with an allergy

13% had been diagnosed with a skin condition

Boils and abscesses constituted 54% of reported skin conditions

Table 3.6 Allergens diagnosed by a health professional (%)

Allergen	Males	Females	Total
Stings / bites	27	23	27
Food	18	23	19
Dust mites	13	23	14
Drugs / medications	14	15	14
Pollen / other flora	12	0	10
Animals / animal hair	5	8	6
Harsh chemicals/metal	2	0	2
Other	8	8	8

Males=77, Females=13, T=90; YPiCHS not recorded

Thirteen percent (13%, n=103) young offenders had been diagnosed with a skin condition by a health professional.

Table 3.7 presents the types of skin conditions diagnosed by a health professional for the sub group of 78 (out of 103) young offenders who provided detail.

Table 3.7 Skin conditions diagnosed by a health professional (%)

Skin conditions	Males	Females	Total
Boils / abscesses	62	30	54
Eczema / Dermatitis	21	50	28
Rash	5	5	5
Scabies	0	10	3
Sensitivity / irritation	3	0	3
Ringworm	3	0	3
Fungal infection	0	5	1
Psoriasis	2	0	1
Acne	2	0	1

Males=58, Females=20, T=78

3.6.2 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.

Thirty-three percent (33%, n=222) males and 34% (n=40) females reported having been diagnosed with asthma at some time. The *2001 National Health Survey* (NHS)[12] (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 NHS[12] reported that 12% of young people aged 15-24 years had been diagnosed with asthma.

Sixty-one percent (61%, n=159) had their last attack over one year ago; 17% (n=45) had an attack in the one month prior to the survey.

Table 3.8 (overleaf) summarises the asthma history and recency of last asthma attack.

Thirteen percent (13%, n=103) of those with asthma had been hospitalised for the condition. Thirty-one percent (31%, n=32) of those who had attended hospital for asthma had done so only once; 16% (n=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 the survey.

In 2004-05, hospitalisation rates for asthma were higher for young females (131 per 100,000) than for young males (88 per 100,000). This represents a decrease of 54% since 1996-97 which may be due to reduced severity and improved management.[16] The hospitalisation rate for young people aged 12-24 years was 0.17% for males and 0.23% for females.[16]

Table 3.9 (overleaf) shows the number of young offenders who had ever been hospitalised for asthma and the frequency of hospitalisation. No difference was reported between males and females for overall hospitalisation for asthma and only females in the very frequent category spent more time in hospital.

Table 3.8 Asthma history and recency of last asthma attack (%)

	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
History of asthma[i]						
Yes	33	28	34	56	33	31
Last asthma attack or difficulty breathing[ii]						
Less than 4 weeks ago	14	28	37	29	17	28
1 to 3 months ago	10	8	6	14	9	9
3 to 6 months ago	7	8	4	14	7	9
6 to 12 months ago	5	5	9	0	6	4
More than 1 year ago	64	53	44	43	61	51

a (i) Males=673, Females=117, T=790; (ii) M=197, F=32, T=229; b (i) M=208, F=18, T=226; (ii) M=40, F=7, T=47

Table 3.9 Hospitalisation for asthma and number of times in hospital for asthma (%)

Hospitalisation	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Been to hospital for asthma[i]						
Yes	13	12	13	22	13	13
Number of times in hospital for asthma[ii]						
Once	31	52	33	67	31	54
Twice	32	13	27	0	31	12
3 to 10 times	29	30	27	33	29	31
11 to 30 times	7	4	7	0	7	4
More than 30 times	1	0	6	0	2	0

a (i) Males=672, Females=117, Total=789; (ii) M=82, F=15, T=97; b (i) M=202, F=18, T=222; (ii) M=23, F=3, T=36

Self reports in the 2001 *National Health Survey*[12] showed that 36% young people aged 15-24 years used prevention and relief medication for asthma. Table 3.10 presents data on asthma medication use by young offenders for the whole sample, and type of medications for asthma and medication frequency for the sub-sample reporting asthma medication use. Other medications reported were Salmeterol / Serevent (1%), Bricanyl (1%) and Pulmicort (1%). A very small proportion of young offenders erroneously nominated Celebrex and Ritalin (2% and 1%) as medications for treatment of their asthma.

Five percent (5%, n=12) young offenders who had an asthma diagnosis reported having an asthma plan at the time of the survey.

Table 3.10 Asthma medication use, type of medications, and medication frequency (%)

Asthma medication	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Ever been prescribed medication for asthma[i]						
Yes	28	23	29	39	28	24
Currently taking medication[i]						
Yes	11	13	16	29	12	14
Type of medication[ii]						
Ventolin	82	92	83	100	82	93
Flixotide / Seretide	10	4	11	0	10	3
Becotide / Becloforte	3	4	0	0	3	3
Asthma medication frequency[iii]						
Daily or more often	52	-	50	-	52	-
Weekly or more often	13	-	25	-	15	-
Monthly	13	-	0	-	11	-
Less than monthly	22	-	25	-	22	-

a (i) Males=671, Females=117, Total=789 (ii) M=73, F=18, T=91; (iii) a M=23, F=4, T=27
b (i) M=205, F=18, T=223 (ii) M=25, F=5, T=20

33% young offenders had been diagnosed with asthma, consistent with the 2001 National Health Survey, but three times higher than the NHS report (2006)

Of those with asthma, 39% had had an asthma attack in the previous year

13% had been hospitalised for asthma, rates far in excess of the AIHW 2003 sample

28% young offenders had been prescribed medication for asthma, of whom 12% were currently using medication

5% of those with asthma reported having an asthma plan

3.7 Immunisation

Since the introduction of mass immunisation the impact of infectious diseases has been reduced across Australia. Despite various incentives for immunisation and widespread education programs, young people still report diseases such as pertussis, measles, rubella and mumps.[14,15] Young offenders in both the community orders and custody samples reported an overall high rate of immunisations. Table 3.11 presents immunisation histories for both samples (hepatitis A data not available for custody sample). There was almost complete reported coverage among this group for mandated childhood immunisations, although many did not recall/report which specific immunisations they had received.

Almost all young offenders reported having received childhood immunisations

Table 3.11 Self-reported immunisations (%)

	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Have had childhood immunisations[i]						
Yes	98	97	98	100	98	97
Type of immunisation[ii]						
Tetanus booster	56	77	50	56	55	75
Meningococcal	41	n/a	45	n/a	42	n/a
Hepatitis B	31	67	40	47	32	66
Rubella (MMR)	17	56	35	43	20	54
Chicken Pox	8	17	19	7	10	16
Hepatitis A	9	n/a	17	n/a	10	n/a
Polio	5	27	13	0	6	24
Meningitis	5	4	9	0	5	3
Whooping cough	5	18	8	7	5	17

a (i) Males=502, Females=78, Total=580; (ii) T=443-580; b (i) M=169, F=15, T=184; (ii) T=121-196

3.8 Oral health

77% young offenders brushed their teeth on the day before the survey and all used toothpaste

Oral health refers to the health of tissues in the mouth, including mucous membranes, connective tissue, jaw muscles, bone, teeth and gums. It can also include immunological, physiological, sensory and digestive system functioning, but most often refers to the health of teeth and gums. Oral health is fundamental to overall health, wellbeing and quality of life. A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment. Good oral health can have positive benefits for young people. However, oral diseases and disorders during childhood can negatively affect quality of life. Most young offenders had brushed their teeth at least once in the previous day; this was more common in custody than in the community (Table 3.12). Almost all of those who brushed their teeth used toothpaste.

Table 3.12 Dental health: Frequency of teeth brushing and toothpaste use (%)

Dental health	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Brushed teeth on previous day[i]						
Yes	76	87	85	94	77	88
Number of times brushed teeth[i]						
Once	39	27	39	12	39	26
Twice	34	41	38	59	34	42
Three or four times	3	14	8	24	4	14
Five or more times	<1	1	0	0	<1	1
Used toothpaste[ii]	99	98	99	100	99	99

a (i) Males=671, F=117, T=788; (ii) M=508, F=98, T=606; b (i) M=207, F=18, T=225 (ii) M=181, F=17, T=198

The oral health of young people is usually measured in terms of dental health decay.[17] Dental caries are the single most prevalent health problem in Australia. Dental caries is the second most costly diet-related disease in Australia, with an economic impact comparable with that of heart disease and diabetes.[16] Poor oral health in Australia is most evident among Indigenous peoples, those on low incomes, rural and remote populations, prisoners, and some immigrants from CALD backgrounds, particularly refugees.[17]

Self reports of young Australians in 1999 show that around 88% of 12-17 year olds rated their oral health as excellent, very good or good, and a similar proportion (85%) of young people aged 18-24 years also rated their oral health as excellent, very good or good. The prevalence of toothaches is a good indicator of problems with teeth or gums. In an Australian sample of young people, 10% of those aged 12-17 years and 18% of 18-24 year olds reported experiencing toothache in the last 12 months. A further 12% of those aged 12-24 years reported avoiding eating some foods because of problems with teeth or gums.[16] Table 3.13 shows the frequency of toothache for the offender samples in the last 12 months.

Table 3.13 Frequency of toothache in the last 12 months.

Frequency of toothache	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Very often	2	4	11	17	3	5
Often	3	4	11	6	4	5
Sometimes	13	15	16	22	14	15
Hardly ever	23	26	16	11	22	25
Never	59	51	46	44	57	50

a Males=661, Females=117, Total=778; b M=199, F=18, T=217

Table 3.14 presents detail on problems other than toothache with teeth or gums (whole sample) and the type of problems experienced (sub-sample who reported such problems).

Table 3.14 Problems other than toothache with teeth or gums in last 12 months (%)

Dental problems	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Any problem other than toothache[i]						
Yes	17	31	28	28	18	30
Type of problem (if any problem)[ii]						
Bleeding gums	27	0	23	0	27	0
Broken teeth	20	11	20	20	20	11
Decay	16	19	30	0	19	18
Wisdom teeth/gums	6	0	20	0	9	0
Mouth ulcers	6	0	0	0	5	0
Orthodontic maintenance	5	0	0	0	5	0
Infection	4	5	0	0	3	5
Loose tooth	4	0	0	0	3	0
Teeth knocked out	3	0	3	0	3	0
Discoloured teeth	1	0	4	0	2	0
Extraction	2	5	0	20	1	7
Poor alignment	2	9	0	0	1	8
Periodontal disease	2	49	0	60	1	50
Nerve problem/crown	2	0	0	0	1	0
Sore jaw	0	2	0	0	0	2
Seen dental professional about problem[iii]						
Yes	41	68	41	60	41	67

a (i) Males=658, Females=115, Total=773; (ii) M=109, F=30, T=139; (iii) M=111, F=32, T=143
b (i) Males=206, Females=18, Total=224; (ii) M=57, F=5, T=62; (iii) M=59, F=5, T=64

A 2003 health survey of Australian young people reported that 79% young Australians aged 12-17 years and 52% young people aged 18-24 years had visited a dentist in the previous 12 months.[14] In terms of locations of dental visits, one-third of 12-17 year olds had used the school dental service on their last dental visit and 59% had consulted a private dentist. Among 18-24 year olds, 81% used private dental services and 15% visited a public clinic.

Table 3.15 (overleaf) displays the frequency and location of visits to dental professionals for young offenders in both samples.

7% experienced toothache very often or often

79% experienced toothache rarely or never

18% reported some problem with teeth or gums in the past 12 months

The most frequently reported problems were bleeding gums (27%), broken teeth (20%) and tooth decay (19%)

Only 41% had seen a dental professional about their dental problem

Table 3.15 Time of last visit and location of visits to dental professionals (%)

Time of last visit[i]	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
2 weeks or less	2	13	6	6	2	13
>2 weeks <3 mths	11	17	6	17	10	17
>3 mths <6 mths	12	15	12	11	13	14
>6 mths <12 mths	13	14	15	11	13	14
>12 mths <2 years	16	6	16	6	16	6
>2 years	46	31	45	44	46	32
Never	0	5	0	6	0	5
Place of last visit (for those who had visited a dentist)[ii]						
Private dentist	34	18	23	7	32	17
School dental clinic	22	11	22	40	22	13
Dental hospital/service	15	5	22	13	16	6
Dentist in custody	13	50	7	27	12	48
Area health service	11	7	10	0	11	7
Aboriginal Medical Service	3	7	13	13	4	8
Orthodontist	2	2	3	0	2	2

a (i) Males=592, Females=101, T=693; (ii) M=563, F=99, T=662; b (i) M=206, F=18, T=224; (ii) M=186 F=15 T=201

46% young offenders had not visited a dentist for more than two years prior to the survey

Table 3.16 displays frequency of dental visits in the last 12 months and reasons for not visiting a dental practice given by young offenders in custody and the community.

Table 3.16 Frequency of dental visits in last 12 mths and reasons preventing visits (%)

	Males		Females		Total	
	Community[a]	Custody[b]	**Community**[a]	Custody[b]	**Community**[a]	Custody[b]
Number of times visited a dental professional in last 12 months[i]						
None	62	42	64	56	62	43
Once	25	29	22	28	25	29
Twice	6	14	6	11	6	14
Three times	3	7	4	0	3	6
Four or more times	4	8	4	6	4	8
Reasons for not visiting a dental professional (multiple responses permitted)						
Believed no treatment needed	64	72	38	70	60	72
Cost	11	10	17	13	12	10
Thought it wasn't important	13	19	7	0	12	18
Too busy	8	15	13	0	9	13
Didn't care/think about it	11	11	11	25	11	12
Nervous	7	2	8	0	7	1
Difficulty getting appointment	3	2	10	0	4	1
Problems with transport	3	2	3	0	3	1
Given up going to dentist	3	3	0	0	2	3
Did not know where to go	3	2	1	0	2	1

a (i) Males=604, F=106, T=710; (ii) M=114 F=76 T=490; b (i) M=206 F=18 T=224; (ii) M=66-78 F=8-10 T=74-88

62% had not visited a dentist within the last 12 months

The most frequent reason for not visiting a dentist was that no treatment was needed (60%)

3.9 Visual acuity

Participants were tested for distance visual acuity using the Snellen eyesight chart. Three percent (3%) young offenders (17/623) had visual acuity below the normal limits suggesting they required referral for further examination. This proportion is lower than the 18% of young people aged 15-24 years reported to be short-sighted by the Australian Bureau of Statistics (2006).[12]

For a more detailed discussion of the methods of assessment for visual acuity, refer to chapter 1 (section 1.7.1.1).

3.10 Health service utilisation

Twenty percent (20%) [YPiCHS 38%] young offenders (22% males and 11% females) had not seen a doctor in the community in the past 12 months. The greater rate of health service utlilisation in young offenders in custody may be attributed to the presence of health professional staff in juvenile detention centres. A small proportion of young offenders had never visited a doctor in the community (1% males; 0% females). Table 3.17 presents information regarding contact of young offenders with health professionals in the community in the past 12 months.

Table 3.17 Health service utilisation (past 12 months) (%)

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/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*	-	40	-	25	-	39
Any service (above)	**99**	**99**	**99**	**100**	**99**	**99**

a Males=626-666, Females=108-117, Total=725-783; b M=202, F=16, T=218; *YPoCOHS not available

Twenty-one percent (21%, n=141) males and 20% (n=24) females believed they had a medical problem in the past 12 months but did not seek treatment. These young offenders reported a number of perceived barriers to accessing medical treatment in the community (Table 3.18). Of this group, 40% (n=66) [YPiCHS 55%] believed that their health problem had worsened due to lack of medical treatment.

Most of those who accessed health providers were satisfied with the service received (Table 3.19, overleaf).

Table 3.18 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 to / didn't care	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
Difficulty making appointment	4	3	13	20	5	5
Too embarrassed	3	3	8	20	4	5
Didn't know who to 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 them	2	9	0	0	2	8
Thought Dr would tell authorities	1	9	4	0	1	8

a Males=138; Females=24; Total=162; b Males=34; Females=5; Total=39; Multiple responses permitted

3.11 Health information awareness

Young offenders reported awareness of telephone-based help lines; however only a small percentage of young offenders on community orders reported using these (Table 3.20, overleaf).

All young offenders had used at least one health service

Most were satisfied with the service

37% young offenders had ever seen an alcohol or drug counsellor

Only 10% young offenders had ever consulted a sexual health worker

Table 3.19 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[i]	97	93	96	94	97	93
Sexual health worker[ii]	98	95	94	100	97	95
Doctor[iii]	95	93	93	100	95	94
Alcohol/drug counsellor[iv]	93	95	94	100	93	95
Psychologist[v]	87	93	66	100	84	94
Psychiatrist[vi]	81	84	64	100	79	85
Dentist/dental therapist*	-	94	-	100	-	94

a (i) M=294 F=56 T=350; (ii) M=56 F=18; (iii) M=638 F=114; (iv) M=231 F=34; (v) M=161 F=29; (vi) M=205 F=31
b (i) M=196 F=16 T=212; (ii) M=40 F=1; (iii) M=160 F=13; (iv) M=94 F=10; (v) M=121 F=8; (vi) M=44 F=3 *M78 F7

Table 3.20 Young offenders' awareness [utilisation] of available help lines (%)

Multiple responses permitted	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 Info. Service	70 [2]	56 [2]	77 [5]	56 [2]	71 [3]	56 [2]
Family Support line	54 [1]	61 [2]	72 [3]	61 [2]	56 [1]	61 [2]
LifeLine	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**	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]

a Males=647-665, Females=114-117, Total=763-782; b M=200; F=16, T=216; *Available to custody clients only

Health helpline information awareness was high but utilisation of these services was very low

Kids Help Line was most frequently used (10%)

All other services had an uptake of 3% or less

3.12 Summary and conclusions

Chicken pox (61%), asthma (33%), ear infections (28%), tonsillitis (25%), chest infections (22%) and back problems (17%) were the most commonly reported health conditions by young offenders for which medical attention was sought. The most frequently reported health concerns four weeks prior to the survey were tiredness/energy loss (39%), trouble sleeping (39%), memory problems (32%), headaches (28%) and poor appetite (25%). Health complaints were associated with substance use. Polydrug users reported more health complaints than single and non drug users.

Sixteen percent (16%) young offenders were taking prescribed medication at the time of the survey. The most frequently reported were medications acting on the central nervous system (35%), of which 14% were medications for ADHD, asthma (20%), antibiotics (13%), and agents used to combat drug dependence (6%).

Most (98%) young offenders reported having received at least some of the major childhood immunisations.

Seventy-seven percent (77%) young offenders reported brushing their teeth with toothpaste on the day before the survey; 79% reported hardly ever or never having a toothache in the past 12 months. Eighteen percent (18%) had experienced an oral health problem other than toothache (eg bleeding gums, broken teeth, decay without toothache) in the past 12 months. Sixty-two percent (62%) had not visited a dentist in the past 12 months.

All young offenders had used at least one health service at some time; only 10% young offenders had ever consulted a sexual health worker; 37% reported having seen an alcohol and drug counsellor. Young offenders had high awareness but low utilisation of helpline services.

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