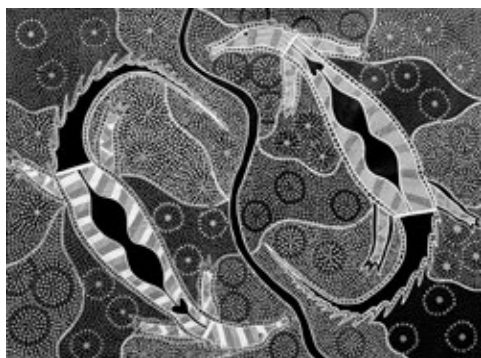


2015 Young People in Custody Health Survey: Full Report

Justice Health & Forensic Mental Health Network and Juvenile Justice NSW





Front cover illustration: *"Crocodile Dreaming"*, painted by a young person at Frank Baxter Juvenile Justice Centre.

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Abbreviations

<i>ABAS-3</i>	Adaptive Behaviour Assessment System – Third Edition
<i>ABS</i>	Australian Bureau of Statistics
<i>ADHD</i>	Attention deficit hyperactivity disorder
<i>AIC</i>	Australian Institute of Criminology
<i>AIHW</i>	Australian Institute of Health and Welfare
<i>ANZSOC</i>	Australian and New Zealand Standard Offence Classification
<i>AOD</i>	Alcohol and other drug
<i>APSD</i>	Antisocial Process Screening Device
<i>AUDIT</i>	Alcohol Use Disorders Identification Test
<i>AVO</i>	Apprehended violence order
<i>BMI</i>	Body mass index
<i>CAIDS-Q</i>	Children and Adolescent Intellectual Disability Screening Questionnaire
<i>CCPA</i>	Children (Criminal Proceedings) Act
<i>CELF-4</i>	Clinical Evaluation of Language Fundamentals – Fourth Edition
<i>CHQ</i>	Criminal History Questionnaire
<i>CIMS</i>	Client Information Management System
<i>CIT</i>	Community Integration Team
<i>CLS</i>	Core Language Score
<i>CTQ</i>	Childhood Trauma Questionnaire
<i>DSM</i>	Diagnostic and Statistical Manual of Mental Disorders
<i>DUCO</i>	Drug Use Careers of Offenders
<i>ED</i>	Emergency department
<i>EUC</i>	Electrolytes, urea, creatinine
<i>FACS</i>	Family and Community Services
<i>FSIQ</i>	Full Scale Intelligence Quotient
<i>GAC</i>	General Adaptive Composite
<i>GHB</i>	Gamma-hydroxybutyrate
<i>GP</i>	General practitioner
<i>HbA1c</i>	Glycated haemoglobin
<i>HBcAb</i>	Hepatitis B core antibody
<i>HBsAb</i>	Hepatitis B surface antibody
<i>HBsAg</i>	Hepatitis B surface antigen
<i>HBV</i>	Hepatitis B
<i>HCV</i>	Hepatitis C
<i>Hib</i>	Haemophilus influenza type B
<i>HIV</i>	Human immunodeficiency virus
<i>HPV</i>	Human papilloma virus
<i>ICU</i>	Inventory of Callous Unemotional Traits, Youth Self-Report Version
<i>ID</i>	Intellectual disability
<i>IQ</i>	Intelligence quotient
<i>IUD</i>	Intrauterine device
<i>JH&FMHN/the Network</i>	Justice Health & Forensic Mental Health Network
<i>JJNMDS</i>	Juvenile Justice National Minimum Data Set
<i>JJNSW</i>	Juvenile Justice New South Wales
<i>K-SADS-PL</i>	Kiddie Schedule for Affective Disorders and Schizophrenia – Present and Lifetime Version
<i>LOC</i>	Loss of consciousness
<i>LSD</i>	Lysergic acid diethylamide
<i>MAPA</i>	Managing Actual Potential Aggression

<i>MDE</i>	Major depressive episode
<i>MSO</i>	Most serious offence
<i>NDIA</i>	National Disability Insurance Agency
<i>NDIS</i>	National Disability Insurance Scheme
<i>NDSHS</i>	National Drug Strategy Household Survey
<i>NHMRC</i>	National Health & Medical Research Council
<i>NOS</i>	Not otherwise specified
<i>NSMHWB</i>	National Survey of Mental Health and Well-Being
<i>NSPs</i>	Needle and syringe programs
<i>NSW</i>	New South Wales
<i>OOHC</i>	Out-of-home care
<i>Polio</i>	Poliomyelitis
<i>PRI</i>	Perceptual Reasoning Index
<i>PSI</i>	Processing Speed Index
<i>PTSD</i>	Post-traumatic stress disorder
<i>RES</i>	Research and Evaluation Service
<i>SD</i>	Standard deviation
<i>SDQ</i>	Strengths & Difficulties Questionnaire
<i>SDS</i>	Severity of Dependence Scale
<i>SMP</i>	Supervision management period
<i>SMS</i>	Short message service
<i>STI</i>	Sexually transmitted infection
<i>TBI</i>	Traumatic brain injury
<i>TSCC</i>	Trauma Symptom Checklist for Children
<i>US-CDC</i>	United States Centers for Disease Control and Prevention
<i>US</i>	United States
<i>UV</i>	Ultraviolet
<i>VCI</i>	Verbal Comprehension Index
<i>WAIS-IV</i>	Wechsler Adult Intelligence Scale – Fourth Edition
<i>WASI</i>	Wechsler Abbreviated Scale of Intelligence
<i>WHO</i>	World Health Organization
<i>WHtR</i>	Waist-to-height ratio
<i>WISC-IV</i>	Wechsler Intelligence Scale for Children – Fourth Edition
<i>WMI</i>	Working Memory Index
<i>YARC</i>	York Assessment of Reading and Comprehension, Australian
<i>YJC</i>	Youth Justice Conference
<i>YPICHS</i>	Young People in Custody Health Survey

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Participants

Most importantly, we gratefully acknowledge the young people in NSW Juvenile Detention Centres who participated in the YPICHS and without whom the survey would not have been possible.

Foreword

The 2015 Young People in Custody Health Survey (YPICHS) represents the latest instalment in collaboration between the Justice Health and Forensic Mental Health Network and Juvenile Justice New South Wales that spans 14 years. It reflects the dedication of both organisations to provide high-quality, evidence-based care to young people in custody. This report, produced by two separate though closely allied organisations, provides information essential to the successful execution of our mandates. It is a valuable resource that provides clear insight into the social disadvantage, support and healthcare needs of the population of young people in custody.

The 2015 survey confirms that young people in custody come from highly disadvantaged backgrounds, with family disruption and experiences of trauma, neglect and abuse commonplace and levels of education low. The misuse of drugs and alcohol remains a major concern, in particular the dramatic increase in the use of methamphetamine, as do findings which indicate more than three quarters of participants were intoxicated at the time of their offence. The high prevalence of smoking is also concerning.

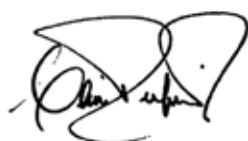
Despite these areas of concern, our hope is that contact with the criminal justice system will have a positive impact on the lives of young people. The results provide an important resource for both organisations that will inform targeted interventions designed to enhance the lives of the young people in our care by improving their overall health and reducing their risk of recidivism.

Since 2011, the number of young people in juvenile detention in New South Wales (NSW) has decreased by approximately 25%. However, with approximately 300 people in custody at any one time, the provision of care to this population poses a unique set of challenges, not least of all the relatively short period that young people typically spend in detention. For example, those in detention while on remand spend less than two weeks on average in custody. With 55% of survey participants being Aboriginal young people, the data showed a higher proportion of this group had been incarcerated previously than non-Aboriginal participants. Data from the Bureau of Crime Statistics and Research indicate that between 2011 and June 2017, the proportion of young people in detention who are Aboriginal has never fallen below 45% and at times has been as high as 57%, while the juvenile Aboriginal population of NSW over the same period has not exceeded 5% of the State's entire juvenile population. The enduring trend of Aboriginal over-representation in juvenile detention poses questions for the criminal justice system and public policy more broadly, including those involved in the provision of health care in custodial and community settings. It is hoped this report will contribute to a better understanding of the causes and consequences of this issue.

A research collaboration of this length enables examination of changes in the characteristics of the juvenile custodial population over time. Hence, many of the measures included in the survey have remained constant to facilitate comparison. However, both organisations remain committed to the continuous improvement of the survey and readers familiar with previous iterations will see that the scope and breadth of the 2015 survey has grown to support the ongoing utility of the report. For example, for the first time we report on trauma exposure and speech and language deficiencies, as well as a comprehensive examination of Aboriginal identity and cultural connectedness. In addition, the surveying of disability has been improved and expanded to include intellectual disability. These new and improved sections will provide a strong baseline to examine future needs.



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Executive Summary

Introduction

In 2003, the NSW Department of Juvenile Justice (now Juvenile Justice NSW), in collaboration with Justice Health (now the Justice Health & Forensic Mental Health Network), conducted the first Young People in Custody Health Survey (YPICHS), a comprehensive assessment of the physical and mental health of young offenders in custody in NSW 1. The survey was repeated in 2009 2, with the addition of a diagnostic instrument for mental illness and a longitudinal component entailing 3-, 6- and 12-month follow-ups of participants.

The 2003 and 2009 surveys revealed that young people in custody experience greater social disadvantage, poorer physical and mental health, and higher rates of alcohol and illicit drug use than their counterparts in the community and that this is especially the case for Aboriginal young people. These findings have been used to inform policy development, service enhancements and improvements in clinical practice, and have been disseminated via numerous peer-reviewed articles on a wide range of topics, including smoking, overweight and obesity, oral health, traumatic brain injury, intellectual disability and childhood trauma.

The current report presents the findings of the 2015 YPICHS. Results are presented by gender and Aboriginality and, where possible, comparisons are made with findings from 2003 and 2009.

Background

On an average day over 2015/16, there were 299 young people – predominantly young men – in detention in NSW, representing a third of the Australian juvenile justice population 3. Despite a decrease in overall detention numbers and rates since 2009/10, when there were approximately 444 young people in detention on an average day, the level of over-representation of Aboriginal young people in custody since the 2009 YPICHS has increased. Although Aboriginal young people comprise less than 6% of the NSW population aged 10–17, they represent over half of 10–17-year-olds in detention in NSW (54.2%), a 6.2% increase since 2009/10 3.

Justice Health & Forensic Mental Health Network (JH&FMHN/the Network) is responsible for providing health care to adults and juveniles in the criminal justice system. For young people, this encompasses four key areas:

- **Pre-custody:** including diversion for young people with mental illness and/or drug and alcohol problems in the juvenile court system away from custody into appropriate treatment through the Adolescent Court and Community Team (in 19 Children's Courts).

- **Custody:** for juvenile detainees (in six juvenile justice centres). The care provided includes screening, triage, treatment and monitoring in areas such as primary health, population health, mental health, drug and alcohol, women's health, Aboriginal health, and school linkage.
- **Inpatient:** inpatient healthcare services provided by the Forensic Hospital, which includes an adolescent ward.
- **Post-release:** including the Community Integration Team, which assists in integrating people with a drug and alcohol problem and/or mental health issues into community-based services.

Juvenile Justice NSW (JJNSW) is responsible for providing services to young offenders to decrease their offending and increase their capacity to successfully integrate into their communities. Examples of these services include:

- assessment and intervention services for young offenders remanded into custody or sentenced to community-based or custodial orders;
- supervision and rehabilitation of young offenders on bail or sentenced to community-based or custodial orders;
- administration of youth justice conferences and programs to assist young people to integrate into their communities;
- support for young offenders to meet the conditions of bail;
- psychological assessment and treatment of young people with mental health disorders, alcohol and other drug abuse and/or intellectual disability. These services can be provided before, during and after custody; and
- the Youth on Track program, which is an early intervention scheme for 10–17-year-olds that allows police and education providers to refer young people for case management and targeted services that respond to the underlying causes of their offending.

JJNSW and the Network have a strong commitment to working collaboratively to ensure that young people in contact with the criminal justice system are offered the highest standard of health care and to assist them to expand their opportunities for engagement with their communities. This commitment is facilitated by extensive partnerships with government and non-government health and human service agencies to support the needs of these young people.

Methodology

The 2015 YPICHS was conducted between September and December 2015 across seven Juvenile Justice Centres operated by JNSW. One of these centres (Juniperina) has since closed. A total of 227 young people participated in the survey, representing 59.3% of all young people in custody during the recruitment period and 90.4% of those invited to participate.

The survey involved several components: face-to-face interviews; physical, mental health and cognitive assessments; and pathology testing of blood and urine specimens. Participation in the study was voluntary and participants were able to opt out of any parts of the study.

Ethical approval for the study was received from the Justice Health Human Research Ethics Committee, the JNSW Research and Evaluation Steering Committee, and the Aboriginal Health and Medical Research Council Ethics Committee.

Key Findings

Socio-economic disadvantage

One in five participants (21.1%) reported that they had been placed in out-of-home care before the age of 16 years and 38.1% had been placed in care three or more times. Rates of out-of-home care among young people in custody far exceed those among the general population, especially for young females. Levels of educational attainment were low. Only one quarter (27.0%) of participants were in school prior to custody and the median age of leaving school was 15 years, with female and Aboriginal participants leaving school earlier than other participants. While most participants were in stable accommodation prior to custody, the number of young females entering custody from unstable accommodation (21.1%) is at its highest since the inception of the survey. Over half (53.6%) of participants had at least one parent who had been incarcerated, with Aboriginal young people more than twice as likely to have a parent who had been incarcerated (67.5% vs. 36.6%).

Head injury

One in four participants (25.0%) had a past head injury resulting in loss of consciousness, with females more likely than males to have sustained a head injury (52.6% vs. 22.5%). Almost half (42.9%) of head injuries were caused by an assault, most commonly inflicted by a family member, and 25.0% reported lasting health effects, typically poor concentration.

Overweight and obesity

Almost half (45.9%) of participants were either overweight or obese and 40.0% had a waist-to-height ratio ≥ 0.5 , indicating increased metabolic risk. Over three quarters (79.7%) perceived their weight to have increased since entering custody.

Sexual health

The overwhelming majority (96.9%) of participants, and 92.2% of those under the age of 16, reported having previously had sex. Unsafe sexual practices were common. Among participants who were sexually active in the year preceding custody, only one in four (27.7%) reported always using condoms or dental dams and 27.7% never did so. One in ten (10.1%) young people had been diagnosed with an STI, most frequently chlamydia (9.6%). Chlamydia was more common among female than male participants (33.3% vs. 7.5%).

Smoking

The prevalence of tobacco smoking remains high, with 92.0% of participants having ever smoked and 85.4% having smoked in the 12 months preceding custody. Although a decrease in smoking among Aboriginal participants from 2009 to 2015 was observed (98.7% vs. 90.3%), those that did smoke began smoking at an earlier age than non-Aboriginal participants (11.7 vs. 12.7 years).

Alcohol

The overwhelming majority (96.7%) of participants who had ever consumed alcohol had experienced being "drunk". The average age of first getting drunk was 13.6 years, with Aboriginal participants' first experience of becoming drunk occurring earlier than for non-Aboriginal participants (13.3 vs. 13.9 years). Over two fifths (41.8%) of those who had consumed alcohol in the year before custody reported being drunk at least weekly, and 51.6% admitted that their alcohol consumption had caused them problems with school, friends, health, police, and/or parents. The majority (86.5%) of participants aged 18 or over, and 97.8% of participants under the age of 18, engaged in hazardous and/or harmful drinking according to the Alcohol Use Disorders Identification Test criteria during this period.

Drugs

Lifetime illicit drug use remains common, with 92.5% of participants reporting this behaviour. Cannabis had the highest prevalence of lifetime use (90.2%), followed by crystal methamphetamine (55.1%), ecstasy (41.8%) and cocaine (31.6%). These findings indicate a notable change in the patterns of illicit drug use among young people in custody, with

a significant increase in the lifetime prevalence of use of crystal methamphetamine, which has tripled since 2009 (17.7%), reflecting an increase in the use of crystal methamphetamine in the community. Frequent (i.e. at least weekly) illicit drug use in the year prior to custody was reported by 81.5% of participants, an increase from 2009 (65%). The majority (88.7%) of those who had used crystal methamphetamine and 60.1% of those who had used cannabis at this level of frequency met Severity of Dependence Scale (SDS) criteria for dependence. More than three quarters (77.6%) of participants reported that they were intoxicated at the time of their offence, and 65.4% reported committing crime to obtain alcohol or drugs.

Offending behaviour

Most young people (83.9%) had a history of previous juvenile custody, with an average age of first entry into custody of 15.1 years. Aboriginal young people were significantly younger than non-Aboriginal participants at their first entry (14.6 years vs. 15.6 years). Participants had been in custody an average of 5.3 times.

Young people had an average of 1.5 supervised community orders, and one experience of a youth justice conference (YJC). Aboriginal young people had experienced significantly higher numbers of both of these.

Just under half (49.6%) of the young people were currently on sentenced control or appeal orders, and 50.4% were on remand. The average length of custody at the time of the survey was 142 days, but around a third of participants had been in custody for less than four weeks (32.6%).

The participants' most serious offences (MSOs) were acts intended to cause injury (44.3%), robbery, extortion and related offences (21.7%), and unlawful entry with intent (19.6%).

Participants also reported all of the specific offence types they had ever committed, with the most common offences being buying illegal drugs (91.2%), followed by stealing from a place or person (89.1%), and breaking into somewhere to steal (77.2%).

The most common first offence type committed was graffiti, at 11.8 years of age. The average number of crime types committed was 7.9, with significantly more crimes for males than females (8.0 vs. 5.5). The most frequently given reasons for starting to commit crime related to friends and peers (52.0%), followed by feeling good/stop being bored or angry (25.3%), the procurement and use of alcohol or other drugs (25.3%), and the desire for money and material items (22.0%).

Anti-social processes and traits

Three factors (callous/unemotional; narcissism; and impulsivity) which indicate the risk of a young person developing antisocial behaviour were measured. Between 2009 and 2015, there was a significant reduction in average score on the narcissism subscale for males and Aboriginal young people (males, 4.2 vs. 3.7; Aboriginal, 4.4 vs. 3.7). This was also the case for the impulsivity subscale for Aboriginal young people (5.5 vs. 5.0).

Mental health

Mental health concerns are among the most essential needs of young people in contact with the juvenile justice system, especially for those entering custody. An average of 2.5 psychological disorders occurred in the past 12 months for each participant. Most participants (83.3%) met the threshold criteria for at least one psychological disorder, and 63.0% for two or more. The population prevalence of psychological disorders for young people is estimated to be 13.9%, so young people in the YPICHS sample were nearly six times as likely to experience them.

Well over half (57.8%) of young people surveyed were found to meet the threshold for at least one substance-related disorder. An estimate of population prevalence for substance-related disorders is not available, but research indicates that 18.1% of young Australians self-report drinking alcohol, 5.0% using cannabis, and 1.6% using other drugs at least once in the previous 30 days.

Well over half of young people in the 2015 YPICHS met the threshold criteria for an attention or behavioural disorder (59.4%). This was the most common category of disorders in the study, as it was in the 2009 YPICHS. The rate of Attention Deficit Hyperactivity Disorder was three times higher than the general population prevalence (6.3%). The rate of conduct disorder in the YPICHS sample is more than 20 times higher than the population prevalence (45.3% vs. 2.1%).

In 2015, 11.5% of participants met the threshold criteria for any mood disorder, which is more than double the population prevalence (5.0%). Close to one-quarter of young people were found to have at least one anxiety disorder (24.5%), which is more than three times the population prevalence (7.0%). The majority of anxiety disorders were post-traumatic stress disorder (PTSD) (13.5% of the sample). The high prevalence of PTSD in young people in juvenile custody correlates with their high prevalence of childhood abuse or trauma.

Of young people in the 2015 YPICHS, 4.2% met the threshold criteria for schizophrenia or another psychotic disorder. Schizophrenia (3.1%) was the most common condition. The population prevalence is estimated to be 3.1 cases in every 1000 people in this age group, so there are considerably more young

people with schizophrenia in the YPICHS sample (6 cases in 192 people) than in the general population.

Young people were also asked five questions about suicide and self-harm. One in 10 of the young people who responded reported threshold levels of recurrent thoughts of death (10.6%), suicidal acts with intent (10.1%), suicidal acts with medical lethality (7.4%), self-harm behaviour (5.4%), and suicidal ideation (3.2%) over the past 12 months. The estimated population prevalence of self-harm in the previous 12 months is 8.0% of young people aged 12–17, which is higher than the proportion of YPICHS participants (5.4%). The estimated population prevalence of suicidal ideation in the previous 12 months is 7.5% (compared to 3.2% for YPICHS); of suicide attempts, 2.4% (10.2% for YPICHS); and of suicide attempts requiring medical intervention, 0.6% (compared to 7.5% for YPICHS). These figures suggest that YPICHS participants are less likely to report self-harm and ideation, and more likely to perform serious suicidal acts.

Since coming into custody, 9.3% of young people had thought about suicide and 1.8% had made a suicide attempt. Self-harm during the current custodial period was reported by 10.2% of young people, with females significantly more likely than males to report self-harm (26.3% vs. 8.7%).

Childhood abuse and the impact of trauma

Overall, 68.2% of young people in the 2015 YPICHS reported experiencing at least one form of childhood abuse or neglect, with over one-quarter (28.1%) experiencing some form of severe abuse or neglect. Minimisation and Denial scales were also used to detect the likelihood that the young person is under-reporting their experience of abuse and neglect, and indicated that approximately 49% of young people were doing so. No significant differences were found between Aboriginal and non-Aboriginal young people in custody in the reporting of experiences of any type of abuse or neglect. As in previous years, a significantly higher proportion of young females than young males reported experiencing sexual abuse (45.5% vs. 8.3%).

The impact of trauma was investigated using the Trauma Symptom Checklist for Children (TSCC), a self-report measure of post-traumatic distress and psychological symptomology resulting from exposure to trauma. Close to a third of participants (29.8%) reported at least one clinically significant trauma symptom and 18.0% reported experiencing two or more symptoms. Of the young people surveyed, many experienced significant trauma symptomology, such as anxiety (3.4%), depression (7.9%), anger (5.1%), post-traumatic stress (9.6%), overt disassociation (10.7%), fantasy (3.4%), sexual preoccupation (6.2%) and sexual distress (6.7%).

Almost half (47.8%) of the young people had been exposed to at least one traumatic event. Of those who reported trauma

exposure, 37.5% had experienced more than one type of event. Females reported more traumatic event types than males (3 vs. 1). Of those with a history of trauma exposure, 5.7% screened positive for recent (i.e. past two weeks) symptoms consistent with PTSD.

Intellectual ability

The mean Full Scale Intelligence Quotient (FSIQ) score for the 2015 YPICHS participants was 78.7, which falls in the borderline range of ability. There were no significant differences by gender; however, non-Aboriginal young people had a significantly higher mean FSIQ than Aboriginal young people (81.2 vs. 76.7). One in six (16.6%) 2015 YPICHS participants obtained an FSIQ score in the extremely low range (below 70), indicating a potential intellectual disability. For the 31 young people who scored in this extremely low range, an adaptive functioning assessment was required to ascertain whether deficits were also present in daily activities.

The 2015 YPICHS trialled the Children and Adolescent Intellectual Disability Screening Questionnaire (CAIDS-Q) as a non-clinical screener. The instrument is a 7-item screener used to quickly identify young people who may have an intellectual disability. Overall, the CAIDS-Q identified 12 young people as potentially having an intellectual disability.

Language and reading comprehension

Using standardised assessments, high rates of oral language and reading difficulties among the 2015 YPICHS participants were identified. A clear majority (80.3%) of the young people assessed performed below the average range for their age on core receptive and expressive language measures, with almost half (48.7%) of the participants scoring in the range that indicates severe difficulties. Almost three quarters (73.2%) of the young people demonstrated difficulties in reading single words, with just over half (51.1%) demonstrating severe difficulties. Nearly all the young people demonstrated reading comprehension difficulties, with 94.1% scoring below the average range, and over three quarters (77.8%) exhibiting severe difficulties. Aboriginal young people were significantly more likely than non-Aboriginal young people to perform more poorly than expected for their age on most of the measures.

Conclusions

The 2015 YPICHS demonstrates the complex physical and psychosocial health needs of young people in custody in NSW. Indicators and correlates of social disadvantage, such as poor literacy skills, low levels of intellectual ability and educational attainment, experience of out-of-home-care, and parental incarceration were observed in the sample as a whole, but were generally more prevalent among Aboriginal young people. Aboriginal young people also had significantly earlier and more frequent contact with the criminal justice system. In comparison to young people in the community, young people in custody have poorer physical and mental health and are more likely to have a history of alcohol and illicit drug use and dependence. The custodial environment provides a unique opportunity to assess and manage the needs of young people who may not otherwise have access to services where these needs can be identified and met. The Network and JJNSW are committed to ensuring that the results from this survey will make an important contribution to the planning and delivery of services to improve the health and wellbeing of this vulnerable population.



Introduction

Young people in contact with the juvenile justice system are among the most vulnerable youth in our society. By the time they enter custody, many have long and complex histories of trauma, neglect, poor physical and mental health, behavioural problems, and substance use problems.

The importance of addressing such physical and mental health issues – many of which contribute to juvenile offending – in order to reduce recidivism and offset the trajectory towards adult offending and incarceration is well-recognised. Identification of their health status and related needs is critical to providing services and programs designed to improve the health and social outcomes of young people in custody.

In order to provide optimal health care to young people while they were in custody, Juvenile Justice NSW (JJNSW) (formerly NSW Department of Juvenile Justice), in collaboration with the Justice Health & Forensic Mental Health Network (JH&FMHN/the Network) (formerly Justice Health), carried out the first survey of the physical and mental health of young offenders in custody in NSW. The Young People in Custody Health Survey (YPICHS) was first conducted in 2003, and again in 2009. To date, YPICHS is the most comprehensive assessment of adolescent detainee health, in Australia and elsewhere, and has been used to inform policy development and service enhancements.

Key findings of the 2003 and 2009 surveys included high levels of social disadvantage, poor physical and mental health, and a high prevalence of alcohol and illicit drug use. Based on the findings of the 2003 YPICHS, funding to extend the adult Court Liaison Scheme (which diverts those with a mental illness into mental health treatment under the *Mental Health (Forensic Provisions) Act*, rather than custody) into some NSW Children's Courts was successfully obtained. It also supported enhanced mental health services in juvenile custodial settings and the development of the Community Integration Team, which assists young people leaving custody to engage with health, drug and alcohol, and social services when they re-enter the community. The 2009 YPICHS results informed and supported further development and expansion of the Adolescent Court and Community Team and the development of the School-Link initiative, and have led to improvements in clinical practice, including the creation of Aboriginal Sexual Health Education Officer positions and the introduction of the Antenatal Care and Parenting Program. Findings from the 2009 YPICHS have also translated into further enhancements of mental health services, such as the improvement of early identification and treatment of mental health conditions, including the practice of assessing all young people within 48 hours of entering custody, and the widespread implementation of a Metabolic Monitoring Program for young people treated with psychotropic medications.

This report presents the main findings of the 2015 YPICHS survey, including comparisons with the 2003 and 2009 YPICHS, where data is comparable. This snapshot of young people in custody provides evidence to guide policies and programs designed to improve the health of this particularly vulnerable subpopulation. It provides the information broken down by gender and Aboriginality and assesses the statistical significance of differences between these groups, where feasible. In accordance with NSW Health Guidelines, the term 'Aboriginal' is used in this report in preference to 'Aboriginal and Torres Strait Islander' in recognition that Aboriginal people are the original inhabitants of NSW.



Methods

1. Aim and Study Design

The aim of the YPICHS was to describe the physical and mental health status of young people in NSW custodial facilities in order to provide an evidence base to inform the planning of clinical services and policy development. The project was part of a wider research program covering the total patient population to which the Network provides health services. This report relates to young people in custody only; findings for other population groups, including adults in correctional centres and forensic mental health patients, are presented in separate reports.

A cross-sectional survey of the NSW juvenile justice population was conducted. The survey involved several components: face-to-face interviews; physical, mental health and cognitive assessments; and pathology testing of blood and urine specimens. Participants were also asked to allow researchers to access their medical records and to link data to other health and justice records held by the NSW Government. Participation in the study was voluntary and participants were able to opt out of any part of the survey. Participants were compensated for any inconvenience by a payment of \$10, to be held for them until release.

Patients were excluded from the survey if a relevant Network clinician advised that they lacked capacity to consent due to acute mental illness, severe cognitive impairment or severe intellectual disability; if the data collector assessed their English fluency as insufficient to understand the participant information sheet, consent form and survey questions; or if they were unable to be seen due to operational restrictions imposed by the Juvenile Justice Centre. Some young people were unable to participate because they were unavailable at the time the survey was conducted, as detailed in the Recruitment section.

Data collectors were required to complete local security awareness training, hold a valid Working with Children Check, and to have completed the Network's Respecting the Difference cultural awareness course. Prior to data collection, data collectors took part in project-specific training sessions covering security awareness, research ethics, interview techniques, referring patients of concern and culturally appropriate research skills. The Network research team conducted health questionnaire interviews with assistance from other Network staff. Network registered nurses undertook physical health measurements and collected blood and urine specimens. Nurses undertaking specimen collection were required to have a current accreditation for venepuncture and cannulation. Registered psychologists, employed by JJNSW, conducted mental health and cognitive assessments, and speech pathologists contracted by JJNSW performed speech and language assessments. A one-day training course was conducted with psychologists and speech pathologists for the project.

A process was developed for JH&FMHN data collectors to refer participants to clinical staff using a formal correspondence template to highlight concerns arising from participants' interviews or from results of the physical health assessment. The collection of specimens for pathology testing followed procedures set out in the Network policy *Early Detection Program for Blood Borne Viruses and Sexually Transmissible Infections*, including a requirement for the nurse to undertake sufficient pre – and post-test discussions with the participant to explain the implications of a positive result and discussion of risk factors. Network clinical staff fed results back to participants under the procedures governing normal clinical treatment.

Some of the questions contained in the questionnaire explored sensitive issues such as sexual assault, violence and drug use. The potential for distress to participants was minimised by reminders during potentially sensitive sections that participation was voluntary and that participants could skip any questions that they found uncomfortable. Data collectors had access to an Employee Assistance Program for confidential support, as well as scheduled peer debriefing sessions.

Data was collected from September to December 2015 from seven Juvenile Justice Centres in NSW (six male centres and one female centre). Data collection at the centres was completed without any safety or security incidents.

Data collectors identified 14 (6%) participants of concern and referred them for further treatment. All referrals were made to primary health. There was one semi-urgent referral and no urgent referrals. The research team followed up referrals following data collection to ensure that a relevant clinician had assessed participants of concern.

Similarly, where psychological concerns were identified, the JJNSW data collectors referred the young person to JJNSW Psychological Services within their Juvenile Justice Centre for further psychological assessment and follow up.

The Justice Health Human Research Ethics Committee (Ref: G365/14), the JJNSW Research and Evaluation Steering Committee (Ref: 15/03200–17/01403), and the Aboriginal Health and Medical Research Council Ethics Committee (Ref: 1080/15) provided ethical approval to conduct this study.

2. Sampling

The sampling methodology for the 2015 YPICHS was consistent with that used in 2003 and 2009. Due to the relatively small number of young people in NSW Juvenile Justice Centres (approximately 300 on an average day in 2015) in comparison to the number of adults in custody (approximately 11,000), a total population sampling approach was employed such that all young people detained in NSW Juvenile Justice Centres were identified as potential participants.

A list of eligible participants was drawn from JNSW Client Information Management System (CIMS) at the beginning of each week of the data collection period.

3. Recruitment

A total of 284 young people in custody were invited to take part in the 2015 YPICHS, of whom 227 consented to participate (Figure 1), representing 74% of all young people in custody during the recruitment period, and 80% of those approached to participate in the survey.

For young people under the age of 14, parental consent was a requisite for participation. Those under Family and Community Services (FACS) orders, regardless of age, were unable to participate without FACS consent.

Participation numbers and response rates are set out by centre in Table 1. Response rates were calculated from the number of participants divided by the number of eligible patients invited to take part in the survey. Young people who could not be seen in order to be invited to participate, or for whom consent was unable to be obtained, were not included in the response rate calculation. Reasons why data collectors could not access patients (see Figure 1) included release, transfer, court visits, attending behavioural programs or work, under high risk management, and inability to complete the interview during the time interviewers were at the centre.

Response rates refer to young people who agreed to participate in any part of the study. Participants could refuse to answer specific questions, skip sections, refuse the physical measures, refuse to give pathology samples, or terminate the interview at any point. Interviews could also be terminated by Juvenile Justice Youth Officers requiring the patient to return to their unit or by centre clinicians requiring the interview room to deliver treatment.

As illustrated in Table 1, response rates across centres ranged from 74% (Juniperina) to 100% (Cobham). Possible reasons for variations in centre response rates include data collector expertise, cultural factors, and conflict between data collection

times and centre routines. The response rate (90%) for the 2015 YPICHS is slightly lower than in 2009 (95%), but much higher than in 2003 (76%).

Statistical analysis of the relationship between response rates and demographic variables (i.e. gender, Aboriginality) revealed that males were significantly less likely to agree to participate if they were Aboriginal than if they were non-Aboriginal (89% vs. 97%, $p < 0.05$). Response rates among Aboriginal and non-Aboriginal females, however, did not differ significantly (71% vs. 80%).

Participants were asked whether they identified as being of Aboriginal and/or Torres Strait Islander origin. This self-report information was compared with data in the CIMS database. For 13 (6%) participants, CIMS data did not match self-reported Aboriginality. This included three young males who reported that they were not Aboriginal but whose CIMS data indicated Aboriginality, and eight young males who reported Aboriginality but whose CIMS data indicated they were not Aboriginal. The participant's self-identified Aboriginality has been used in this report.

Figure 1 Flowchart for 2015 NSW YPICHS sample

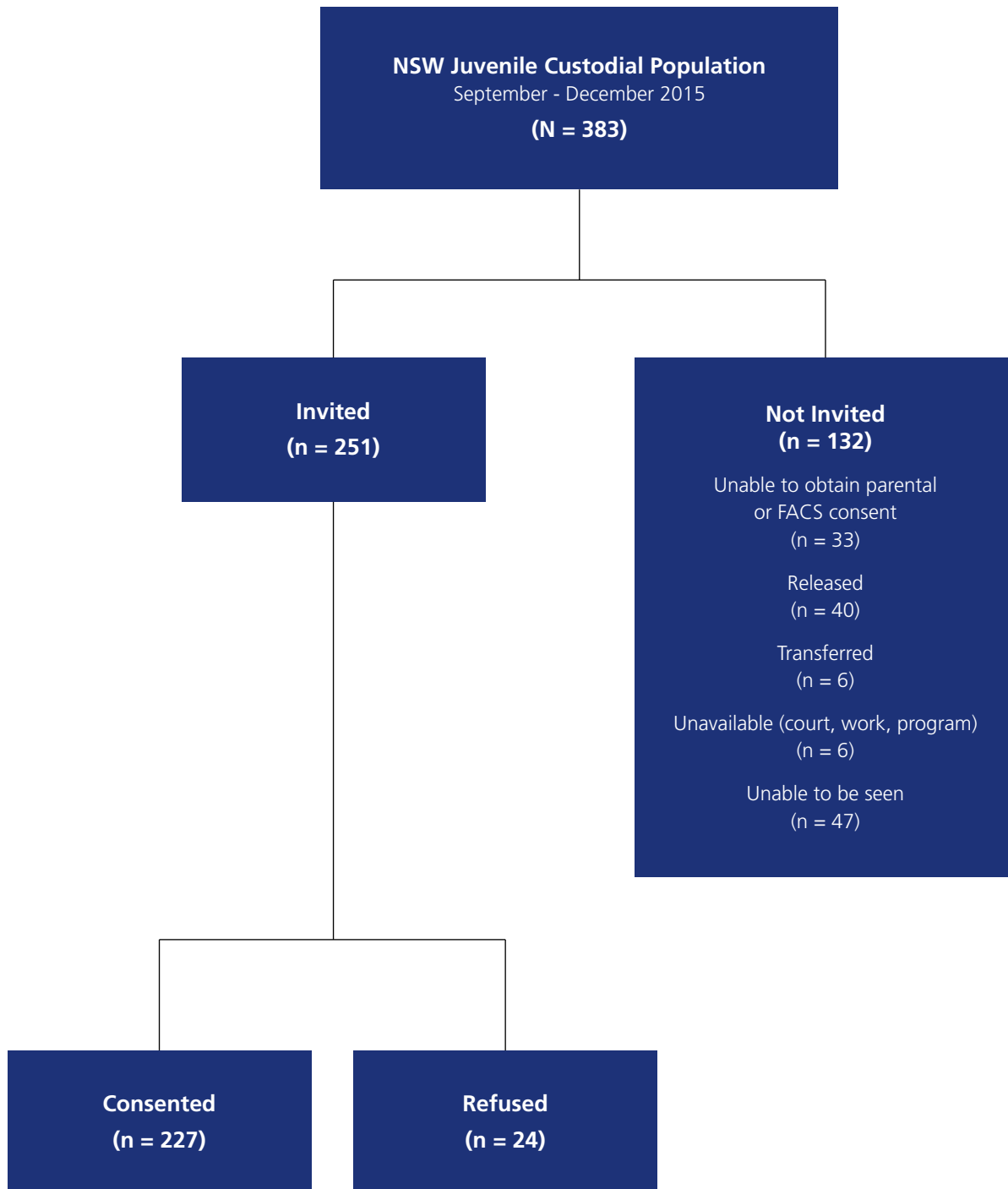


Table 1 Number and response rate (%) of participants by gender, Aboriginality group and centre

	Aboriginal Males		Non-Aboriginal Males		Aboriginal Females		Non-Aboriginal Females		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
	Acmena	17	(94)	3	(100)	—	—	—	—	20
Baxter	33	(89)	38	(93)	—	—	—	—	71	(91)
Cobham	18	(100)	39	(100)	—	—	—	—	57	(100)
Juniperina	—	—	—	—	12	(71)	8	(80)	20	(74)
Orana	18	(95)	—	—	—	—	—	—	18	(95)
Reiby	16	(80)	7	(100)	—	—	—	—	23	(85)
Riverina	11	(73)	7	(100)	—	—	—	—	18	(82)
Total	113	(89)	94	(97)	12	(71)	8	(80)	227	(90)

Participation in the 2015 YPICHs, as in previous surveys, varied according to the survey component, with not all young people participating in all components. Tables 2 and 3 show the number who took part in each survey component, broken down by gender and Aboriginality. In addition to the 227 participants who were administered the health questionnaire, three young people in custody (one Aboriginal male and two non-Aboriginal males) participated in the mental health and cognitive assessments only. As such, response rates for components of the health questionnaire and physical examination are based on a sample size of 227 (Figure 1 & Table 2), while response rates for components of the mental health and cognitive assessments are based on a sample size of 230 (Table 3).

Table 2 Number and response rate (%) of participants by survey component (health questionnaire and physical assessments)

	Males (n=207)		Females (n=19)		Aboriginal (n=125)		Non-Aboriginal (n=102)		Total (N=227)	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
	Health questionnaire	207	(100)	19	(100)	125	(100)	102	(100)	227
Physical health examination	186	(90)	18	(95)	117	(94)	88	(86)	205	(90)
Fingerprick testing	176	(85)	13	(68)	108	(86)	82	(80)	190	(84)
Urine testing	120	(58)	14	(74)	70	(56)	65	(64)	135	(59)
Blood testing	100	(48)	12	(63)	66	(53)	47	(46)	113	(50)

* Reporting and statistical analysis of variables by gender throughout this report were limited to those identifying as male or female.

Table 3 Number and response rate (%) of participants by survey component (mental health and cognitive assessments)

	Males (n=210)		Females (n=19)		Aboriginal (n=126)		Non-Aboriginal (n=104)		Total (N=230)	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
	Psychological assessment	188	(90)	16	(84)	108	(86)	97	(93)	205
K-SADS-PL	180	(86)	11	(58)	100	(79)	92	(88)	192	(83)
Cognitive assessment (IQ)	173	(82)	13	(68)	101	(80)	86	(83)	187	(81)
Intellectual disability (CAIDS-Q)	181	(86)	11	(58)	102	(81)	91	(87)	193	(84)
Adaptive functioning (ABAS-3)*	15	(54)	2	(67)	13	(54)	4	(57)	17	(55)
Oral language skills (CELF-4)	177	(84)	16	(84)	104	(83)	90	(87)	194	(84)
Literacy and reading comprehension (YARC)	175	(83)	14	(74)	100	(79)	90	(87)	190	(83)
Criminal history questionnaire	181	(86)	11	(58)	102	(81)	91	(87)	193	(84)
Antisocial Process Screening Device (APSD)	182	(87)	11	(58)	102	(81)	92	(88)	194	(84)
Inventory of Callous and Emotional Traits	182	(87)	10	(53)	102	(81)	91	(87)	193	(84)
Childhood Trauma Questionnaire	180	(86)	11	(58)	100	(79)	92	(88)	192	(83)
Trauma Symptom Checklist for Children	181	(86)	11	(58)	102	(81)	91	(87)	193	(84)

* As the ABAS-3 was only applicable to those with a Full Scale IQ under 70, response rates (%) are calculated using the 31 young people asked to complete this assessment as the denominator.

4. Measures

Questionnaire content and health measures were agreed following a collaborative consultation process. The Network Executive Team nominated key individuals with clinical and/or research expertise to form a steering committee. The questionnaire used in the 2015 YPICHs was based on that used in the 2009 and 2003 YPICHs, with modifications where necessary or suggested by the steering committee.

Changes to the 2015 questionnaire included the addition or expansion of sections as a result of key findings from 2009. The over-representation of Aboriginal young people in custody, low rates of educational attainment, and high prevalence of intellectual disability, trauma, and mental health problems identified in the 2009 YPICHs led to the following inclusions in 2015:

- a specific section on Aboriginal identity and cultural connectedness;
- a more comprehensive assessment of disability;
- an intellectual disability screening tool;

- assessments to identify young people with language disorders and emerging and developing skills in reading and comprehension;
- a comprehensive assessment of callous and unemotional traits (important for designating antisocial and aggressive youth);
- a brief behavioural screening questionnaire; and
- an assessment of trauma exposure, including a screening for symptoms of post-traumatic stress disorder (PTSD).

The steering committee nominated internal subject matter experts for each section of the questionnaire, in particular key staff members involved in service planning and with direct patient-facing experience. The research team undertook a series of discussions with nominated subject matter experts to review questionnaire content and health measures for clinical and research value. Where possible, self-reported health information was replaced with validated screening tools. Decisions in different areas reflect the competing priorities of continuity with previous questionnaires to allow for longitudinal comparisons, comparability with community studies, and current clinical or research priorities. An Aboriginal research consultation group, comprised of Aboriginal staff members and community representatives, gave advice on the cultural appropriateness of the questionnaire.

The questionnaire content was tested between members of the research team, and then piloted with one female Aboriginal and one male non-Aboriginal patient from two Juvenile Justice Centres. This process resulted in changes to improve the flow of survey sections and questions.

The draft questionnaire content and health measures were submitted to JH&FHMN ethics, JJNSW ethics, and Aboriginal Health & Medical Research Council ethics. Further changes were made following comments received from these committees.

Full participation in the 2015 YPICHS involved the following measures:

Health Questionnaire

- Demographics
- Detention history
- Education/occupation
- Living environment
- Health status
- Asthma
- Mental health
- Disability & illness

- Dental health
- Injury
- Head injury
- Cultural identity (Aboriginal participants)
- Smoking
- Alcohol use
- Drug use and treatment
- Sexual health
- Women's health
- Men's health
- Tattooing and piercing
- Sun protection
- Physical activity
- Nutrition
- Weight and body image
- Social support
- Bullying
- Health service utilisation

Physical Health Examination

- Height, weight, hip, waist measurements
- Test of Visual Acuity (Snellen chart)
- Hearing assessment
- Blood pressure (mmHg)
- Random (non-fasting) blood glucose level (mmol/L) – (fingerprick)

Urine Tests

- General – urinalysis
- Renal – microalbumin
- Chlamydia
- Gonorrhoea

Blood Tests

- Full blood count
- Electrolytes (EUC)
- Liver functioning
- Glycated haemoglobin (HbA1c)
- Human Immunodeficiency Virus (HIV) – antibody and antigen screen (HIV Ag/Ab)
- Hepatitis C (HCV) antibody

- Hepatitis B (HBV) – including hepatitis B core and surface antibodies (HBcAb, HBsAb) and surface antigen (HBsAg)
- Syphilis

Criminal History

- Criminal History Questionnaire

Psychological Assessment

- Antisocial Process Screening Device (APSD)
- Inventory of Callous and Unemotional Traits, Youth Self-Report Version (ICU)
- Kiddie Schedule for Affective Disorders and Schizophrenia – Present and Lifetime Version (K-SADS-PL)
- Childhood Trauma Questionnaire (CTQ)
- Trauma Symptom Checklist for Children (TSCC)

Cognitive Assessment

- Wechsler Intelligence Scale for Children (WISC-IV Australian Standardised Version)
- Wechsler Adult Intelligence Scale (WAIS-IV Australian and New Zealand Language Adapted Edition)

Intellectual Disability

- Adaptive Behaviour Assessment System (ABAS-3)
- Children and Adolescent Intellectual Disability Screening Questionnaire (CAIDSQ)

Speech and Language Assessment

- Clinical Evaluation of Language Fundamentals, Fourth Edition, Australian Standardised Edition (CELF4)
- York Assessment of Reading and Comprehension, Australian (YARC)

5. Data Management

Data collectors recorded interview responses and physical measures on paper questionnaires. Questionnaire cover sheets recorded identifiable information, including date of birth and participants' JJNSW CIMS number. Questionnaires were transported to the JH&FMHN Research and Evaluation Service (RES) Data Manager under medical records conditions using the locked bag system or hand-delivered by the data collector. No incidents resulting in potential breaches of privacy or confidentiality took place during data collection.

During data entry each participant was assigned a random project identification code. The code was recorded on the questionnaire, cover sheet and consent form. These documents are stored separately in secure conditions with restricted access; re-identification of the information on the questionnaire is impossible without access to the cover sheets and consent forms. Paper documents will eventually be destroyed in line with legislative and policy requirements. Electronic data records are stored on the Network's servers with restricted access and contain the project identification code but no identifiable data. An encrypted master electronic file linking the participant CIMS number and project participation code is held separately and securely by the RES Data Manager. This file will be used to enable future data linkage projects, to which participants have given consent.

Data from the physical health questionnaire and physical health assessments were entered into an SPSS database created by the RES Data Manager. The blood and urine test results were entered into an SPSS database which was merged into the physical health questionnaire and assessment database using the JJNSW CIMS number and date of birth.

The JJNSW Data Manager entered psychological assessment results into an SPSS database and forwarded it to the RES Data Manager for merging with the physical health database. Extensive data cleaning was undertaken, including checking against the CIMS system where possible. JJNSW administrative data, such as offences committed, current status in custody and number of previous admissions were also extracted.

6. Data Analysis

For continuous measures (e.g. age, number of episodes, scale scores), means are reported if the variables are normally distributed and medians reported if the variables have a non-normal distribution. For categorical measures (e.g. gender, Aboriginality, past diagnosis of health conditions), proportions are reported. Where the survey incorporates established multi-question research tools rather than sets of individual questions, results are scored and reported in aggregate form according to the appropriate methodology for each tool.

To ensure that the findings presented in this report do not contain any information that could lead to the identification of individual participants, the reporting and statistical analysis of variables by gender throughout this report were limited to those identifying as male or female. All participants, however, have been retained for analyses by Aboriginality. As such, the total number of males and females may differ from the total number of Aboriginal and non-Aboriginal participants and the total sample size.

Some questions did not require a response from all participants. For example, participants who had never had a head injury with a loss of consciousness were not asked the remaining questions in the head injury section. As such, data presented in the head injury section is based on analyses of the sub-sample of participants who had sustained a head injury. For all data tables, the number of participants included in the analysis is denoted by *n*. For example, if 200 participants had sustained a head injury with loss of consciousness, this would be indicated in the tables as *n*=200.

Similarly, where sample size varies according to the survey component completed (i.e. health questionnaire, mental health assessments, cognitive assessments) the number of participants on which analyses are based are denoted by *n* in all data tables.

Where comparisons between males and females and between Aboriginal and non-Aboriginal participants were possible and of clinical interest, significance testing was conducted. Continuous data were compared using t-tests for normal distributions, and the Mann-Whitney U test for other distributions. Categorical data were compared using chi-square tests, with Fisher's Exact Test used for comparisons involving small cell sizes. Analysis of the relationship between specific variables has not been undertaken, and will be the subject of future publications. All statistical analyses were conducted using IBM SPSS Statistics 23⁴.

7. Limitations

The findings presented in this report are subject to the following caveats and limitations.

While the design of the 2015 YPICHS was based on previous surveys, the methodology used was not identical to that used in 2003 and 2009. Accordingly, the 2015 YPICHS results may not be directly comparable to previous iterations. Where comparisons between the finding in 2015 and those in previous YPICHS are possible, they have been reported.

Consent was unable to be obtained for young people in custody under the age of 14, and for some young people under FACS orders. As such, the survey findings may not be generalisable to the entire NSW juvenile justice population.

The sample was overwhelmingly male, with only 19 females recruited into the study. While comparisons by gender were conducted using statistical methods designed to account for small sample sizes, such results should be interpreted with caution. Given the small number of females, non-significant findings may reflect insufficient power to detect clinically meaningful differences rather than the absence of real gender differences. Moreover, the results for female participants may not be generalisable to young females in custody more broadly.

A survey of this nature relies heavily on self-report data that is unlikely to be 100% accurate, particularly with regard to health data. This may lead to under-reporting or (less likely) over-reporting, such as where an individual believes they do not have a particular disease but in fact they do. In addition, retrospective data collection may be subject to recall bias and other distortions of memory^{5,6}. While objective measurement of health status is ideal, comprehensive medical assessment and medical record review to ascertain all past and present health conditions would have been logistically and financially impracticable in a study of this size. Moreover, several studies have demonstrated the reliability and validity of self-reported health data⁷.

Previous iterations of the YPICHS have shown lower levels of participation in the physical health questionnaire components relative to other components, and this remained the case in 2015. As such, the data presented in Section 4 may not be representative of the physical health of the broader juvenile detention population. Planning for future surveys will consider strategies to improve response rates in this section as a matter of priority.

Conditions in juvenile detention centres are not ideal for psychometric testing. Administration of Full Scale IQ (FSIQ) tests is recommended in a quiet location with as little distraction or interruption as possible. Testing conditions varied over the seven detention centre sites. Most of the centres generally met the recommended conditions. However, in one setting the conditions were poor, with both visual and noise distractions. Despite these conditions, the overall distributions of FSIQ scores were consistent with previous studies. For future studies, use of quiet rooms for psychometric testing will be a priority.

Results

1. Social determinants

The social, economic and environmental conditions in which people live and work have a major influence on their health status. Factors such as housing, education, food availability, employment, social support, health services, and early childhood development can favourably or adversely affect health outcomes, with people in the most disadvantaged socioeconomic groups more likely than those in higher socioeconomic groups to have poorer physical and mental health ⁸.

1.1 Demographics

Demographic factors, such as age, gender, ethnicity, level of education, and residential proximity to major cities account for much of the health inequality in Australia. Among young Australians, being male, living in areas of lowest socioeconomic status, and being of Aboriginal origin are associated with greater levels of illness and disability. These factors, in addition to living in regional or remote areas, are also associated with poorer health status and increased childhood mortality ⁹.

On an average day in 2015/16, there were 914 young people, predominantly young males (90.8%), in detention across Australia. NSW had the largest number of detainees (n=299; 92.3% male), representing a third of the juvenile justice population ³.

Detention numbers and rates decreased between 2009/10 and 2015/16, although rates of detention of non-Aboriginal young people declined further than those among Aboriginal young people, resulting in an increase in the level of over-representation of Aboriginal young people ³. On an average day in 2009/10, Aboriginal young people in NSW were 19 times more likely to be in detention than other young people. In 2015/16, however, they were 24 times more likely to be in detention. Although Aboriginal young people comprise less than 6% of the Australian population aged 10–17, they represent over half of 10–17-year-olds in detention in NSW (54.2%) ³.

The demographic findings in this section indicate that the demographic profile of the 2015 YPICHS sample is consistent with that of the NSW juvenile justice population reported in other data sources, such as the Juvenile Justice National Minimum Data Set (JJNMDs) ¹⁰.

1.1.1 Age

A young person can be charged with a criminal offence from the age of 10. While the upper age limit in the juvenile justice system is typically 17 years, it is possible for older youth to be under juvenile justice supervision. This may be due to the young person being aged 17 or younger when the offence was committed, continuity of juvenile justice supervision once they turn 18, or their vulnerability or immaturity warranting treatment as a

young person. In 2014/15, 95% of those under juvenile justice supervision in NSW were aged 10–17 years ¹¹.

The average age of 2015 YPICHS participants was 17.2 years (range: 14–21 years). Females in custody were significantly younger than males (16.33 vs. 17.25 years, p<0.01) and Aboriginal participants were significantly younger than non-Aboriginal participants (16.9 vs. 17.5 years, p<0.001).

Table 4 presents the proportion of participants within each of four age categories and shows that three quarters (74.8%) of all participants were between 16 and 19 years of age. While the distribution of age across categories among young males and non-Aboriginal young people was similar to the overall sample, the majority of young females and Aboriginal young people were aged between 14 and 17.

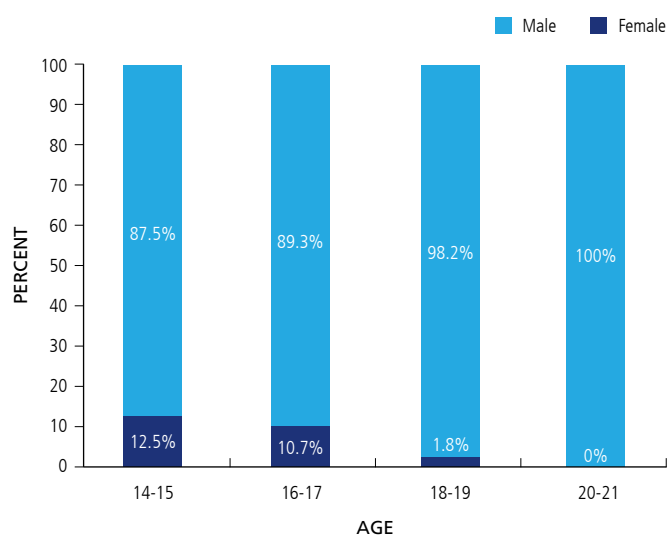
Table 4 Participant age-by-age groups

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non- Aboriginal (n=102) %	Total (N=227) %
14–15	20.3	31.6	28.8	11.8	21.2
16–17	48.3	63.2	47.2	52.0	49.3
18–19	27.1	5.3	22.4	29.4	25.6
20–21	4.3	0.0	1.6	6.9	4.0

1.1.2 Gender

Consistent with the 2014/15 JJNMDs data for NSW, and Australia more broadly, the majority of YPICHS participants were male (91.2%). In order to determine whether there were any differences in the gender profile of participants according to age, the proportion of males and females in each of four age categories was examined. Figure 2 illustrates that the proportion of females decreased as participants' ages increased.

Figure 2 Gender by age group

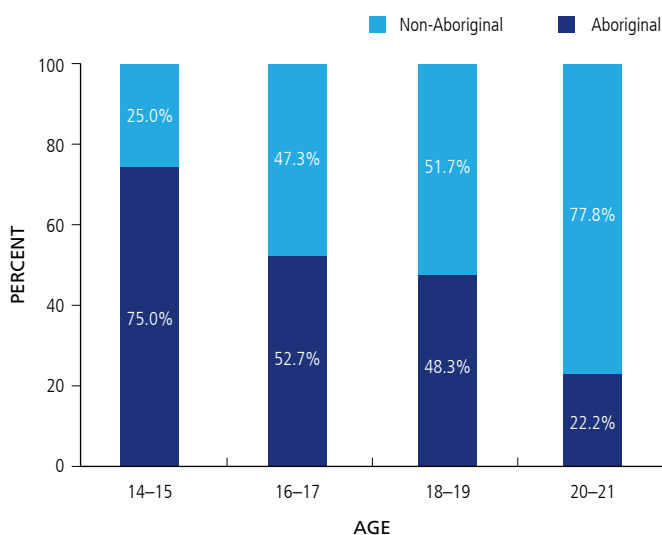


1.1.3 Aboriginal young people

In accordance with the over-representation of Aboriginal young people in the juvenile justice system, 55.1% of YPICHS participants identified as being of Aboriginal origin. There was no significant difference in the gender profiles of Aboriginal and non-Aboriginal participants (90.4% vs. 93.1% male).

Analysis of the proportion of Aboriginal and non-Aboriginal participants according to age revealed that, although Aboriginal young people were over-represented in each age group, this was most evident among the youngest participants (i.e. 14–15 years), three quarters of whom were of Aboriginal origin (Figure 3). In contrast, less than one quarter of participants aged 20–21 years were of Aboriginal origin.

Figure 3 Aboriginality by age group



1.1.4 Participants' country of birth

The majority of participants (91.6%) were born in Australia. Among those born outside of Australia (n=19), New Zealand was the most commonly reported country of birth (n=6), followed by the Middle East (n=4), other Oceania (n=4), Africa (n=3), Asia (n=1) and the Americas (n=1).

The average age at which participants born in other countries arrived in Australia was 9.4 years and the average length of time they had lived in Australia was 8.4 years.

1.1.5 Parents' country of birth

Approximately two thirds (65.2%) of participants reported that both of their parents were born in Australia, with 21.1% reporting that both parents were born overseas, 10.1% reporting that one parent was born overseas, and 3.5% unsure of their parents' place of birth.

The most common regions of birth for parents born outside of Australia were other Oceania (29.1%), the Middle East (10.1%), Asia (5.3%), Europe (4.8%), the Americas (2.2%), and Africa (1.8%).

1.1.6 Languages spoken

English was the primary language spoken at home for the majority of participants (89.4%). The main languages spoken in the home other than English are shown in Figure 4.

Figure 4 Main language spoken at home

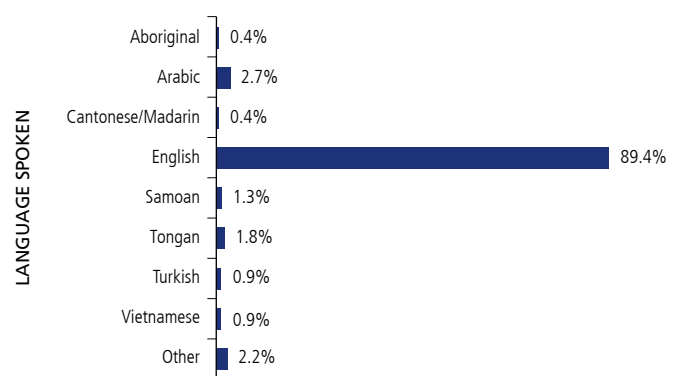
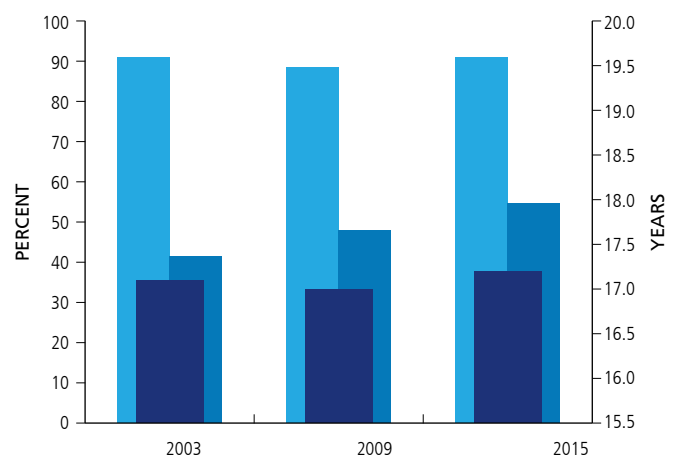


Figure 5 illustrates the demographic profiles of YPICHS participants surveyed in 2003, 2009 and 2015. The average ages and gender proportions of the samples are similar across surveys. Although the proportion of Aboriginal young people in custody increased by 15% between 2009 and 2015, this difference is not statistically significant.

Figure 5 Sample characteristics, YPICHS 2003–2015



	2003	2009	2015
Male (%)	92.1	88.4	91.2
Aboriginal (%)	41.7	47.8	55.1
Mean age (years)	17.1	17.0	17.2

1.2 Childhood care experiences

At 30 June 2015, 43,399 Australian children aged 0–17 years were in out-of-home care (OOHC) (8.1 per 1,000 children): predominantly relative/kinship care (47%) and foster care (40%)¹². Aboriginal children are more likely than non-Aboriginal to be in OOHC. The national rate of Aboriginal children in care at the end of the June quarter in 2015 (52.5 per 1,000 children) was 9.5 times higher than that of non-Aboriginal children (5.5 per 1,000 children)¹².

Young people may be placed in OOHC for a variety of reasons. These include, but are not limited to, protection from maltreatment and family violence, parental mental or physical illness, incarceration of a parent, and the death of one or both parents. Young people placed in OOHC often have a history of abuse and neglect, poor in-care experiences and an absence of ongoing support once they leave care, rendering them vulnerable to poor psychosocial and behavioural outcomes, in particular juvenile and adult offending. As such, young people who have been placed in OOHC are significantly over-represented in the criminal justice system^{13, 14}.

One in five participants (21.1%) reported that they had been placed in care before the age of 16 years: 12.8% with a foster family, 3.5% with a child welfare agency, 4.4% in kinship care, and 2.2% in other types of care outside the family. Consistent with the high prevalence of OOHC among young offenders that has been observed in previous YPICHs surveys and reported in the broader literature^{13, 14}, YPICHs participants were 26 times more likely to have been placed in OOHC during their childhood than a child in the general Australian population (211.5 per 1,000 vs. 8.1 per 1,000 children). As illustrated in Figure 6, OOHC rates (number in care per 1,000 persons) were universally high in comparison to the general population across all demographic groups of participants; however, they were highest among young females, who were 40 times more likely than other Australian females to have been placed in care.

Figure 6 Rates of out-of-home care

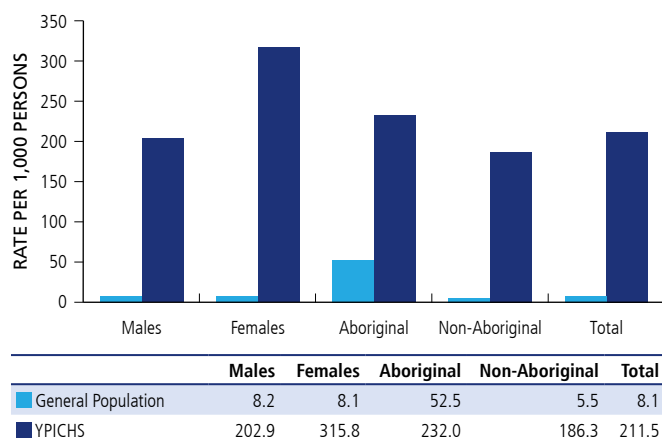


Table 5 presents the proportion of participants placed in care, the type of care placement and the agency that authorised their care placement. There were no statistically significant differences in the proportion of participants that were placed in care by gender or Aboriginality.

Table 5 Out-of-home care

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non- Aboriginal (n=102) %	Total (N=227) %
Placed in care before age 16	20.3	31.6	23.2	18.6	21.1
Type of care placement:					
Foster family	59.5	66.7	62.1	57.9	60.4
Adopted family	0.0	0.0	0.0	0.0	0.0
Child welfare agency	19.0	0.0	24.1	5.3	16.7
Kinship care	21.4	16.7	17.2	26.3	20.8
Other outside family care	9.5	16.7	6.9	15.8	10.4
Care placement authority:					
Family & community services	64.3	83.3	75.9	52.6	66.7
Court order	14.3	16.7	10.3	21.1	14.6
Other	9.5	0.0	6.9	10.5	8.3
Unsure	11.9	0.0	6.9	15.8	10.4

Of those who were placed in care before the age of 16, most (72.9%) had first entered care before the age of 12 (Table 6) and two thirds (66.7%) were under the age of 10 (median age: 7 years). Over half of those placed in care had experienced one care placement; 38.1% had been placed in care three or more times (Table 7).

Table 6 Age first placed in care (if ever placed in care)

	Males (n=42) %	Females (n=6) %	Aboriginal (n=29) %	Non- Aboriginal (n=19) %	Total (N=48) %
0–3	23.7	33.4	20.6	31.6	25.0
4–7	33.3	16.7	34.4	26.3	31.3
8–11	19.1	0.0	20.6	10.5	16.6
12–15	19.1	50.0	20.5	26.4	22.9
16+	2.4	0.0	0.0	5.3	2.1
Don't know	2.4	0.0	3.4	0.0	2.1

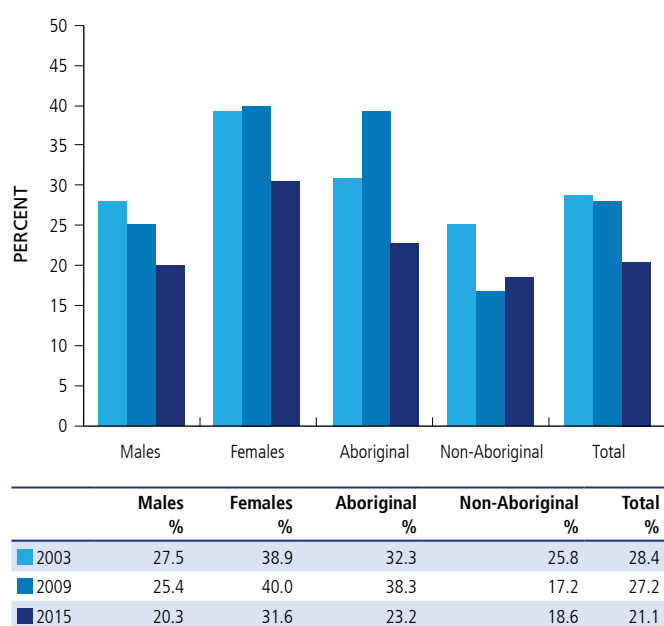
Table 7 Number of times placed in care (if ever placed in care)

	Males (n=42) %	Females (n=6) %	Aboriginal (n=29) %	Non-Aboriginal (n=19) %	Total (N=48) %
Once	66.7	16.7	64.0	52.9	59.5
Twice	0.0	16.7	0.0	5.9	2.4
Three or more times	33.3	66.7	36.0	41.2	38.1

In comparison to the proportion of young people in care revealed by previous YPICHs surveys (2003: 28%, 2009: 27%), participants in the 2015 survey were less likely to have

been placed in care before the age of 16. An examination of OOHc placements across the primary demographic groups found that among males, females and Aboriginal participants, the proportion in care had decreased from previous surveys, particularly among young females and Aboriginal youth, while among non-Aboriginal youth it remained relatively stable (Figure 7).

Figure 7 Participants placed in care by gender and Aboriginality, YPICHs 2003–2015



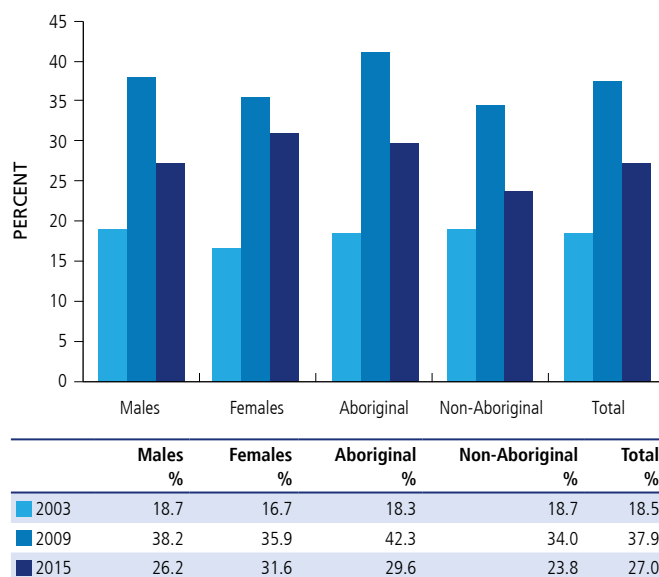
1.3 Education

Education plays a critical role in a child's health and wellbeing, with low levels of education associated with a range of adverse psychosocial and health outcomes¹⁵. Moreover, poor school attendance and engagement is a well-documented risk factor for childhood and adolescent antisocial behaviour, offending and contact with the criminal justice system, and further recidivism¹⁶⁻¹⁸.

1.3.1 School attendance prior to entering custody

Approximately one quarter (27.0%) of participants reported that they had attended school in the six months prior to entering custody, a significantly lower proportion than in 2009 (37.9%) ($p < 0.01$) (Figure 8).

Figure 8 Attending school prior to custody, YPICHs 2003–2015

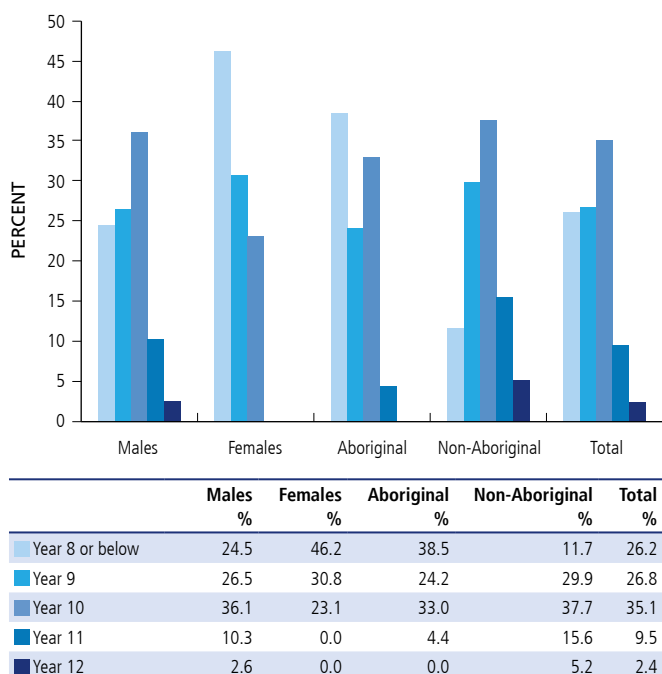


In NSW, the minimum school leaving age is 17 and all students must complete Year 10¹⁹. At the time of interview, 77.6% of participants had left school. The median age of leaving school was 15 years, ranging from seven years to 18 years. The median age at which young females left school was significantly earlier than that of young males (14 years vs. 15 years, $p < 0.05$), while Aboriginal young people left school earlier than non-Aboriginal young people (14 years vs. 15.5 years, $p < 0.001$).

1.3.2 Level of educational attainment

Figure 9 presents the highest level of primary or secondary schooling completed (i.e. highest year of school completed) for participants that had left school. Over half (53.0%) of these young people reported their highest level of educational attainment as Year 9 or below. In contrast, only 8.6% of people aged 15–74 years living in NSW in 2016 reported that their highest level of educational attainment was Year 9 or below²⁰.

Figure 9 Level of educational attainment



1.3.3 Truancy

Of those who had attended school in the six months prior to entering custody, 67.9% had missed class without permission and 58.9% had done so on multiple (three or more) occasions (Table 8). There were no differences by gender or Aboriginality with respect to the prevalence or frequency of truancy in the preceding six months.

Table 8 Truancy (among those in school during six months preceding custody)

	Males (n=49) %	Females (n=6) %	Aboriginal (n=34) %	Non-Aboriginal (n=22) %	Total (N=56) %
Truanted in past 6 months	71.4	33.3	61.8	77.3	67.9
Repeated truancy (3+ occasions) in preceding 6 months	63.3	16.7	52.9	68.2	58.9

1.3.4 Suspension

As illustrated in Table 9, 93.8% of participants had been suspended from school on at least one occasion and 78.1% had been suspended three or more times. There were no differences in the prevalence or frequency of suspension according to gender or Aboriginality.

1.3.5 Expulsion

Over half of young people surveyed (55.6%) had been expelled from school at least once, with 7.6% having been expelled on three or more occasions (Table 9). There were no significant

differences in the likelihood of ever being expelled, or being expelled multiple times, according to gender or Aboriginality.

Table 9 School suspension and expulsion history

	Males (n=206) %	Females (n=18) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Ever suspended	94.3	88.2	93.6	94.0	93.8
Repeated suspension (≥3 occasions)	79.9	58.8	76.1	80.7	78.1
Ever expelled	54.9	61.1	53.7	57.8	55.6
Repeated expulsion (≥3 occasions)	7.3	5.6	4.9	10.8	7.6

1.3.6 Special school/classes

The questionnaire asked for information regarding attendance at a special school, or special classes within a mainstream school. A special school was defined as a school for specific purposes, including intellectual disability and behavioural disorders. Tutorial centres or alternative community-based programs were included in this category.

Over half (52.7%) attended a special class within a mainstream school or a special school. This is a marked increase since the 2009 YPICHS (40.5%), possibly reflecting an increase in the number of special classes in NSW schools over recent years. Between 2012 and 2015, the number of specialist support classes has risen from 2,383 to 2,760 and the number of students enrolled in such classes from 17,802 to 20,473²¹.

1.4 Employment history

In the 30 days preceding entry into custody, 26.9% of participants had worked in some capacity: 26.0% had been in full-time and/or part-time/casual employment and 0.9% had been involved in voluntary work. Over one quarter (29.5%) were in full or part-time education and 47.1% were unemployed (Table 10). While there were no gender differences with respect to the proportion of participants in paid employment (27.1% vs. 10.5%), non-Aboriginal participants were more likely to report working in paid employment than Aboriginal participants (39.2% vs. 15.2%, $p < 0.001$). As illustrated in Table 10, this difference is driven by a significantly greater proportion of non-Aboriginal participants in part-time/casual employment.

Table 10 Employment before custody

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Full-time	10.1	0.0	6.4	13.7	9.7
Part-time/casual	17.4	10.5	8.8	26.5 ^{###}	16.7
Volunteer work	1.0	0.0	0.8	1.0	0.9
Studying	30.4	21.1	32.8	25.5	29.5
Unemployed	45.4	68.4	54.4	38.2 [#]	47.1
Unable to work	0.5	0.0	0.8	0.0	0.4

[#] Statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal participants; ^{###} Statistically significant difference (p<0.001) between Aboriginal and non-Aboriginal participants.

Approximately a third (32.6%) of participants were receiving government benefits before entering custody. Among those receiving benefits, the most common type of benefit was Youth Allowance (79.7%), followed by Abstudy (8.1%), Living Away from Home Allowance (5.4%), Disability Support Pension (5.4%), and Newstart (4.1%).

1.5 Accommodation and living situation

The overwhelming majority of participants (97.8%) had spent most of the 12 months before entering custody residing in NSW, with small proportions residing in Victoria (1.8%) and Queensland (0.4%).

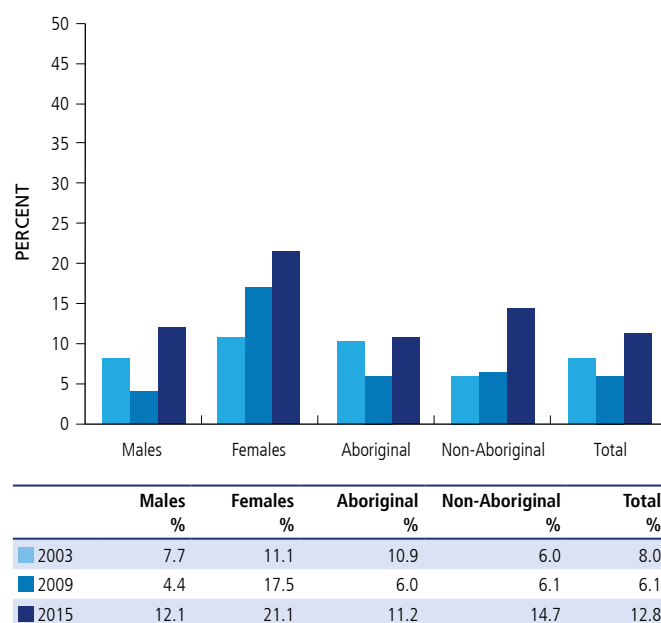
1.5.1 Accommodation and living situation four weeks before custody

In the four weeks before entering custody, three quarters of participants (75.3%) were living in their family home (i.e. owned or rented by family) or their own home (i.e. owned or rented), although 12.8% of young people reported having unsettled lodgings (i.e. squat, bed and breakfast, hostel, caravan) or no fixed place of abode during this period (Table 11). While the proportion of participants who reported unsettled or no fixed accommodation before custody was 12.8% overall, this was most commonly reported among young females (21.1%).

Table 11 Type of accommodation in the four weeks before custody

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Family home	68.1	52.6	64.8	68.6	66.5
Own home	8.2	10.5	6.4	11.8	8.8
Housing NSW	7.7	5.3	12.8	1.0	7.5
Boarding house	1.0	0.0	0.8	1.0	0.9
Unsettled lodgings	1.4	5.3	1.6	2.0	1.8
No fixed accommodation	10.6	15.8	9.6	12.7	11.0
Supported accommodation	2.9	5.3	3.2	2.9	3.1
Other	0.0	5.3	0.8	0.0	0.4

Figure 10 presents the prevalence of unstable housing among participants across successive YPICHs surveys which, in 2015, increased twofold from 2009 (12.8% vs. 6.1%). The proportion of young females reporting unsettled or no fixed accommodation in 2015 was consistent with a trend observed across the two previous YPICHs surveys, in that there appears to be an increasing number of young females entering custody from unstable accommodation (Figure 10).

Figure 10 Unsettled or no fixed accommodation prior to custody by gender and Aboriginality, YPICHs 2003–2015

1.5.2 Accommodation and living situation six months preceding custody

In the six months preceding custody, most participants (71.8%) were in stable accommodation, having remained in the same location or moving once only (Table 12). Young females were more likely than young males to have moved on more than one occasion (i.e. two or more times) (57.9% vs. 22.2%, p<0.01).

Table 12 Number of moves during six months preceding custody

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
No moves	57.5	26.3	52.8	56.9	54.6
Moved once	17.4	15.8	21.6	11.8	17.2
Moved 2–3 times	15.9	21.1	13.6	20.6	16.7
Moved 4–5 times	4.8	15.8	4.0	7.8	5.7
Moved 6 or more times	1.4	21.1	3.2	2.9	3.1
No fixed accommodation	2.9	0.0	4.8	0.0	2.6

1.5.3 Accommodation difficulties after custody

Of participants who had previously been released from custody, 10.5% reported difficulty finding accommodation within six months of being released (Table 13).

Table 13 Accommodation during six months following most recent release (if ever previously in custody)

	Males (n=158) %	Females (n=14) %	Aboriginal (n=109) %	Non-Aboriginal (n=63) %	Total (N=172) %
Difficulty finding accommodation within 6 months of release	10.8	7.1	9.2	12.7	10.5
Family home	74.7	57.1	73.4	73.0	73.3
Own home	4.4	14.3	9.5	2.8	5.2
Housing NSW	8.9	0.0	12.8	0.0	8.1
Boarding house	0.6	0.0	0.0	1.6	0.6
Unsettled lodgings	2.5	7.1	1.8	4.8	2.9
Supported accommodation	5.1	14.3	4.6	7.9	5.8
No fixed accommodation	3.8	0.0	3.7	3.2	3.5
Other	0.0	7.1	0.9	0.0	0.6

1.6 Family history

The family environment in which a child is raised is an important determinant of their health and wellbeing⁹. Those who experience early childhood adversity as a result of maladaptive family functioning (e.g. child abuse or neglect, parental mental illness, substance abuse or criminality) or parental loss through death or divorce are at increased risk of poorer physical and mental health^{22–24}. Moreover, these factors have been associated with antisocial and criminal behaviour in adolescence and adulthood^{25, 26}.

Participants were asked about their family structure and primary carers during their childhood and were given the option of providing more than one response. As shown in Figure 11, most participants were raised primarily by one or both of their biological parents, although 15.0% of those raised by a biological parent also reported having at least one other primary carer.

Figure 11 Primary carer during childhood

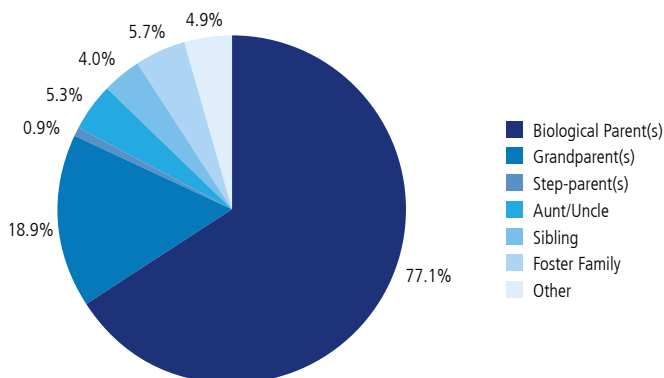


Table 14 presents the data for primary carers by gender and Aboriginality and shows that Aboriginal young people were more likely to have been raised by an aunt or uncle.

Table 14 Primary carer during childhood by gender and Aboriginality

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (N=102) %
Biological parent(s)	77.8	73.7	72.8	82.4
Grandparent(s)	18.8	21.1	24.0	12.7
Step-parent(s)	0.5	5.3	0.0	2.0
Aunt/uncle	4.8	10.5	8.0	2.0 [#]
Sibling	4.3	0.0	4.8	2.9
Foster family	5.3	10.5	7.2	3.9
Other	4.9	5.3	2.4	8.0

[#] Statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal participants.

In the majority of cases, the participant's family structure had been disrupted due to parental separation, divorce or death. When asked about the status of their biological parents, more than half (57.1%) of participants reported that their parents were separated or divorced (Table 15). In 13.3% of cases, one or both of the young person's parents had died: 8.4% had lost their father, 4.0% their mother, and 1.3% both parents. In comparison, the Australian Bureau of Statistics (ABS) 2012–13 Family Characteristics and Transitions Survey found that 6% of 18–24-year-olds in the general population had lost one or both parents in childhood²⁷.

Table 15 Status of biological parents

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Living together	24.6	22.2	21.8	27.5	24.3
Separated/divorced	55.1	77.8	54.8	59.8	57.1
Never lived together	4.3	0.0	4.8	2.9	4.0
One or both parents deceased	14.5	0.0	16.9	8.8	13.3
Parents unknown	1.4	0.0	1.6	1.0	1.3

1.7 Parental incarceration

The incarceration of a parent significantly increases the risk of antisocial behaviour and criminality in their children²⁸. Parental incarceration was common among participants, with 53.6% reporting that at least one of their parents (i.e. mother, father or step-parent) had been incarcerated in the past, and 7.1% that both parents had been incarcerated.

A greater proportion of female than male participants had a parent who had been incarcerated (73.7% vs. 51.5%), although this difference was not statistically significant. Aboriginal young people, however, were significantly more likely to have a parent

who had been incarcerated (67.5% vs. 36.6%, $p<0.001$). A minority of participants (7.6%) had a parent incarcerated at the time of interview, with no significant differences according to gender (females: 15.8%; males 6.9%) or Aboriginality (Aboriginal: 8.9%; non-Aboriginal 5.9%).

Among all demographic subgroups, the parent that had been, or was currently, incarcerated was most commonly the participant's father (Table 16). Young females and Aboriginal young people, however, were more likely than other participants to have had a father incarcerated in the past. There were otherwise no differences in the type of parent incarcerated with regard to gender or Aboriginality.

Table 16 Parental incarceration

	Males (n=204) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=101) %	Total (N=224) %
Past parental incarceration (ever)					
No parent	42.6	26.3	26.8	58.4 ^{###}	41.1
Mother	13.2	21.1	17.9	9.9	14.3
Father	44.1	68.4*	56.1	33.7 ^{##}	46.0
Both parents	6.4	15.8	7.3	6.9	7.1
Step-parent	0.5	0.0	0.8	0.0	0.4
Not known	5.9	0.0	5.7	5.0	5.4
Parental incarceration (current)					
No parent	88.7	78.9	85.4	91.1	87.9
Mother	1.5	5.3	2.4	1.0	1.8
Father	6.4	10.5	7.3	5.9	6.7
Both parents	1.0	0.0	0.8	1.0	0.9
Step-parent	0.0	0.0	0.0	0.0	0.0
Not known	4.4	5.3	5.7	3.0	4.5

* Statistically significant difference ($p<0.05$) between males and females; ^{##} statistically significant difference ($p<0.01$) between Aboriginal and non-Aboriginal participants; ^{###} statistically significant difference ($p<0.001$) between Aboriginal and non-Aboriginal participants.

1.8 Children of participants

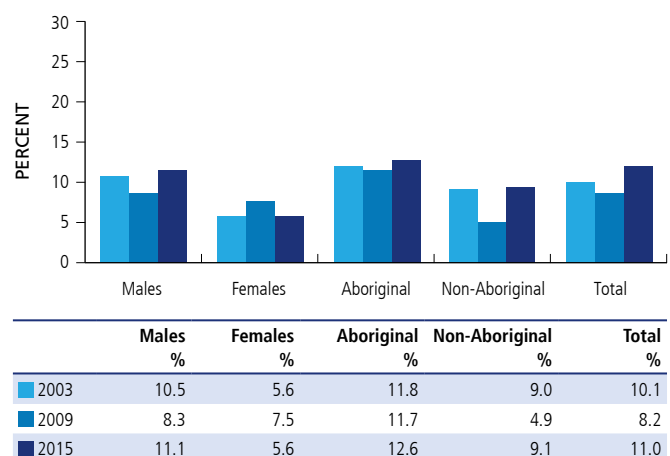
Teenage pregnancy and parenthood can have long-term negative consequences for the parent(s) and their children, often resulting in poorer health and socioeconomic disadvantage which can persist well into adulthood. Teenage mothers are more likely than other pregnant women to delay seeking antenatal care, particularly if they are Aboriginal or reside in rural or remote regions, and engage in risk behaviours during pregnancy, such as smoking and drinking, thereby increasing the risk of obstetric complications, such as miscarriage, premature labour, low birthweight, and perinatal mortality (i.e. stillbirth and neonatal death) ^{15, 29}.

The number of births to Australian women under 20 years decreased by 20.7% from 11,766 (4.0% of all births) in 2009 to 9,332 (3.0%) in 2014 and 8,574 (2.8%) in 2015. The proportion of teenage (<20 years of age) mothers declined from 4.6% (11,541) in 2004 to 3.0% (9,332) in 2014. Nevertheless,

teenage birth rates are disproportionately high among particular population groups: Aboriginal peoples, those living in rural and remote areas, and those living in areas with the greatest social disadvantage. In 2015, the national teenage fertility rate was 12 births per 1,000 females aged 15–19 years. The fertility rate for Aboriginal females aged 15–19 years, however, was almost six times higher than that for non-Aboriginal females (59.3 vs. 10.3 births per 1,000 females). Similarly, the fertility rate among teenage women residing in remote and very remote areas of Australia was sixfold that among those living in major cities (56.2 vs. 9.2 births per 1,000 females) ³⁰.

In 2015, 11% of participants (22 males; 1 female) had children of their own, a slight increase from the proportion of participants with children in 2009 (Figure 12). In the majority (75%) of cases, participants had one child only. The average age at which participants first had a child was 16.1 years (range: 14–18 years).

Figure 12 Participants with children by gender and Aboriginality, YPICHS 2003–2015



Participants and/or their partners were usually the primary carer(s) for their children before detention (79.2%), while their partners were most commonly the primary carer (75.0%) during the participant's time in detention (Table 17). Half (50.5%) of those with children reported that they had received parenting education.

Table 17 Children of participants

	Males (n=199) %	Females (n=18) %	Aboriginal (n=119) %	Non- Aboriginal (n=99) %	Total (N=218) %
No. of children					
None	88.9	94.4	87.3	90.9	89.0
One	8.1	5.6	9.3	7.1	8.3
Two	3.0	0.0	3.4	2.0	2.8
	(n=22)	(n=1)	(n=15)	(n=9)	(n=24)
Age when first child was born					
14	9.1	100.0	20.0	11.1	16.7
15	13.6	0.0	13.3	11.1	12.5
16	36.4	0.0	33.3	33.3	33.3
17	27.3	0.0	20.0	33.3	25.0
18	13.6	0.0	13.3	11.1	12.5
Primary carer/s before detention					
Participant and partner	16.7	0.0	12.5	20.0	15.4
Partner	58.3	0.0	62.5	50.0	57.7
Participant's grandparent(s)	8.3	0.0	6.3	10.0	7.7
Other family member	0.0	100.0	6.3	0.0	3.8
N/A	16.7	0.0	12.6	20.0	15.3
Primary carer/s while in detention					
Partner	70.8	0.0	75.0	60.0	69.2
Partner + participant's parent	4.2	0.0	0.0	10.0	3.8
Participant's grandparent(s)	8.3	0.0	6.3	10.0	7.7
Other family member	0.0	0.0	6.3	0.0	3.8
N/A	16.6	100.0	12.5	20.0	15.4
Received parenting education					
	45.5	100.0	53.3	44.4	50.0

1.9 Social support

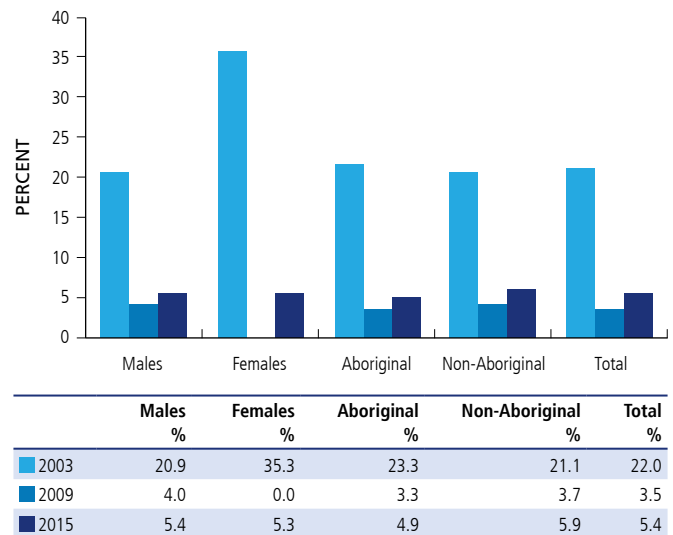
Support from others in times of difficulty or crisis is an important contributor to child and adolescent health, development and wellbeing, with low levels of social support associated with poorer physical and mental health¹⁵. General population surveys suggest that most young people have adequate social support outside of the household they live in, with 98.7% of 2014 General Social Survey respondents aged 15–17 years, and 96.5% of respondents aged 18–24 years, able to obtain support from others in times of crisis. Similarly, the majority of 15–17-year-olds (93.6%) and 18–24-year-olds (91.2%) have friends or family members outside the household in whom they can confide³¹.

Participants were asked about people that they considered close friends, that is, people who they could trust and confide in. The majority (94.6%) reported that they had one or more close friends, with a median of four close friends identified. Of these participants, 59.1% included a relative as their close friend. The proportion of participants that had at least one close friend was similar for males and females (94.6% vs. 94.7%) and for Aboriginal and non-Aboriginal participants (95.1% vs. 94.1%).

As illustrated in Figure 13, the overall proportion of participants in 2015 who reported having no close friends (5.4%) was slightly

higher than in 2009 (3.5%), in marked contrast to 2003, when 22% of participants reported having no close friends.

Figure 13 Participants with no close friends by gender and Aboriginality, YPICHs 2003–2015



The quality of young peoples' social support networks is enhanced through social and community engagement, which promotes a sense of belonging and overall wellbeing^{15,32}. When asked about the social and community participation of their close friends, participants reporting that "most" or "all" of their close friends played organised sports (35.7%), had steady jobs (23.9%), or belonged to community organisations or clubs (15.6%) were in the minority (Table 18). The engagement of participants' close friends in risk behaviours, however, was far more prevalent, with 81.7% reporting that most or all of their close friends had used illicit drugs, 72.8% that their friends smoke cigarettes, and 44.1% that their friends break the law (Table 19). Aboriginal young people were significantly less likely than non-Aboriginal young people to report that most or all of their close friends had steady jobs ($p<0.05$) but more likely to have most or all of their friends belonging to community organisations or clubs ($p<0.05$).

Table 18 Social/community engagement of close friends

	Males (n=194) %	Females (n=18) %	Aboriginal (n=117) %	Non- Aboriginal (n=96) %	Total (N=213) %
Most/all close friends play organised sports	36.1	33.3	39.3	31.3	35.7
Most/all close friends have steady jobs	25.3	11.1	17.9	31.3*	23.9
Most/all close friends belong to community organisations or clubs	16.1	11.1	21.4	8.4*	15.6

* Statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

Table 19 Risk behaviours of close friends

	Males (n=194) %	Females (n=18) %	Aboriginal (n=117) %	Non- Aboriginal (n=96) %	Total (N=213) %
Most/all close friends smoke cigarettes	73.2	66.7	75.2	69.8	72.8
Most/all close friends drink alcohol	67.5	77.8	69.2	66.7	68.1
Most/all close friends have tried cannabis	79.8	88.9	78.6	82.3	80.2
Most/all close friends have tried drugs other than cannabis	50.0	33.4	40.1	58.3	48.4
Most/all close friends break the law	43.8	50.0	46.2	41.7	44.1
Most/all close friends have been in detention	28.5	27.8	32.5	23.2	28.3
Most/all close friends have dropped out of school	49.0	66.7	53.8	45.8	50.2
Most/all close friends are gang members	23.7	0.0	18.8	26.0	22.1

The close friends of young people in custody appear to play a major role in their lives. When asked how true it was that their close friends pushed them to succeed and engage in interesting activities, over two thirds (68.7%) responded that this was true or mostly true, while more than three quarters (78.5%) indicated that they take their close friends' opinions into account when they make a decision (Table 20).

Table 20 Influence of close friends

	Males (n=195) %	Females (n=18) %	Aboriginal (n=118) %	Non- Aboriginal (n=96) %	Total (N=214) %
My close friends push me to succeed and to do interesting things that I would not do by myself (true/mostly true)	69.7	61.1	63.6	75.0	68.7
When I make a decision, I take my close friends' opinion into account (true/mostly true)	79.0	77.8	79.7	77.1	78.5
My close friends sometimes push me to do foolish or stupid things (true/mostly true)	44.6	22.2	46.6	37.5	42.5

Participants most commonly spoke to their close friends weekly or more often. One in five (19.6%), however, never spoke to their close friends (Table 21).

Table 21 How often participants talk to close friends

	Males (n=195) %	Females (n=18) %	Aboriginal (n=118) %	Non-Aboriginal (n=96) %	Total (N=214) %
Never	19.5	22.2	22.9	15.6	19.6
Once in a while (1–2 times/month)	37.4	27.8	35.6	37.5	36.4
Often (1–2 times/week)	23.6	5.6	18.6	26.0	22.0
Nearly every day	19.5	44.4	22.9	20.8	22.0

In addition to close friends, 70% of participants were able to talk to someone else about themselves or their problems. Other than close friends, participants were most likely to nominate their mother (40.4%) as the person they could turn to for support (Table 22). Young males were significantly more likely than young females to confide in a sibling, while Aboriginal young people were more likely than non-Aboriginal young people to nominate a grandparent or other relative.

Table 22 People to talk to or confide in other than close friends

	Males (n=142) %	Females (n=13) %	Aboriginal (n=84) %	Non- Aboriginal (n=72) %	Total (N=156) %
Other people to talk to/ confide in?	70.0	68.4	68.9	71.3	70.0
Relationship to participant:					
Mother	41.5	30.8	33.3	48.6	40.4
Father	13.4	0.0	14.3	9.7	12.2
Stepmother/stepfather	3.5	7.7	4.8	2.8	3.8
Brother/sister	31.0	0.0*	21.4	36.1	28.2
Grandparent/other relative	31.7	38.5	41.7	20.8**	32.1
Other person (non-related)	35.2	46.2	31.0	43.1	36.5

* Statistically significant difference ($p < 0.05$) between males and females; ** statistically significant difference ($p < 0.01$) between Aboriginal and non-Aboriginal young people.

1.10 Bullying

Bullying is widely regarded as a systematic misuse of power with an intention to cause some form of distress to the victim. Although varying definitions have been documented in the literature, there has been recent consensus as to the core features of bullying, such that bullying is evidenced by intentional aggressive behaviours that are typically repetitive and that usually involved an imbalance of power³³. People involved in bullying include the victims, the perpetrators (i.e. bullies) and those who are both a victim and a perpetrator (bully-victims).

Bullying in childhood is associated with a range of adverse long-term outcomes, with increased psychopathology, suicidality and

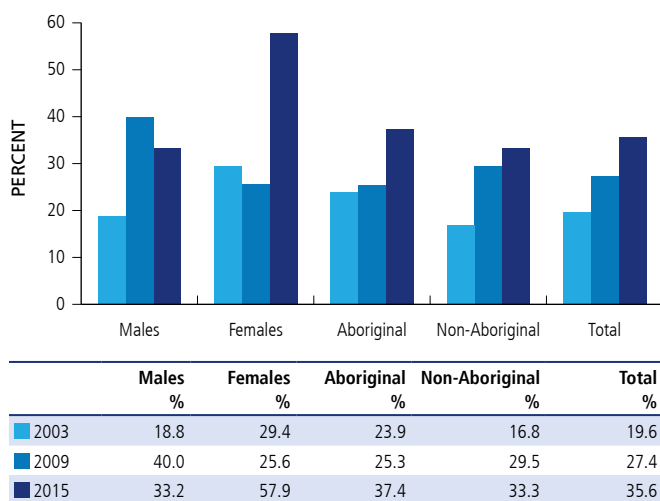
criminality demonstrated among both victims and perpetrators of bullying³⁴⁻³⁶. People who are bullied throughout childhood and adolescence are at greater risk of anxiety, depression and suicidality^{35, 37} and have an increased likelihood of engaging in aggression, violence and criminal behaviour in later years^{36, 38}. Those who bully others, many of whom have been victims of bullying themselves, have higher rates of depression and substance use, lower levels of academic achievement, and are more likely than non-bullies and victims of bullying to engage in antisocial behaviour, aggression, violence and criminality in adulthood, even after other childhood risk factors are taken into account^{35, 38}.

Over one third (35.6%) of participants had been a victim of bullying, half (50.2%) had bullied others and 19.7% had been both a victim and a perpetrator of bullying (bully-victim). Of those participants who had ever been bullied, 31.1% had last been bullied within the preceding 12 months and, in 50.6% of cases, the most recent bullying occurred on repeated occasions.

Young females were more likely than young males to have been bullied (57.9% vs. 33.2%; $p < 0.05$), and to have been bullied within the past 12 months (70% vs. 25.0%; $p < 0.01$). There was no significant difference between Aboriginal and non-Aboriginal participants with regard to having ever been the victim of bullying (37.4% vs. 33.3%) or having been the victim of recent bullying (37.8% vs. 20.7%).

The proportion of participants in 2015 that had been bullied increased significantly from that in 2009 (36% vs. 27%, $p < 0.05$). Figure 14 illustrates that the increase in bullying across the 2003, 2009 and 2015 surveys is most evident among young females and Aboriginal participants.

Figure 14 Prevalence of being bullied across surveys



Bullying was most commonly experienced in the school environment (Table 23), and this was the case across all four demographic groups. Females, however, were significantly more likely to have been bullied via social media.

Table 23 Location where bullying occurred

	Males (n=68) %	Females (n=11) %	Aboriginal (n=46) %	Non-Aboriginal (n=34) %	Total (N=80) %
School	83.8	72.7	76.1	88.2	81.3
Home	8.8	9.1	10.9	5.9	8.8
On the street	11.8	36.4	19.6	8.8	15.0
In detention	16.2	18.2	17.4	17.6	17.5
On social media	2.9	45.5*	13.0	2.9	8.8
By phone/SMS	0.0	9.1	2.2	0.0	1.3

* Statistically significant difference ($p < 0.05$) between males and females.

The bullying experienced by participants was typically perpetrated by their peers and/or friends (76.3%) and by people of similar age (46.3%) or older (60.0%) than the participant. While females were more likely to have been bullied by people other than family members or peers/friends, there were no other differences according to gender or Aboriginality (Table 24). Of those who had been bullied, 25.0% reported that they had been bullied because of their culture.

Table 24 Relationship of perpetrator of bullying to participant

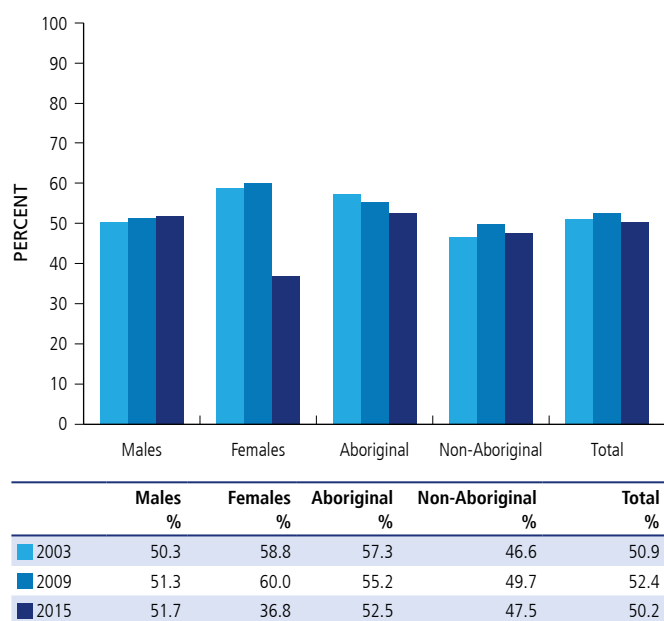
	Males (n=68) %	Females (n=11) %	Aboriginal (n=46) %	Non-Aboriginal (n=34) %	Total (N=80) %
Parents	4.4	0.0	2.2	5.9	3.8
Sibling	7.4	0.0	8.7	2.9	6.3
Other family member	2.9	0.0	2.2	2.9	2.5
Peers/friends	79.4	54.5	76.1	76.5	76.3
Others	17.6	54.5*	23.9	20.6	22.5

* Statistically significant difference ($p < 0.05$) between males and females.

Bullying others was also prevalent, with 50.5% of young people reporting that they had bullied others, although there were no significant differences according to gender (males: 51.7%; females: 36.8%) or Aboriginality (Aboriginal: 52.5%; non-Aboriginal: 47.5%).

In contrast to the increase in the number of young people in custody being victims of bullying observed across successive YPICHS surveys, the proportion that had bullied others remained stable across all demographic groups (Figure 15).

Figure 15 Prevalence of bullying others across surveys



Consistent with the experience of those who had been victims of bullying, the bullying of others predominantly occurred in the school environment (87.4%) (Table 25). Although there were no statistically significant gender differences, a higher proportion of males than females (43.8% vs. 28.6%) had bullied others on the street and in detention, while almost half (42.9%) of females had bullied others via social media, compared to 15.4% of males.

Table 25 Where bullying others occurred (if ever bullied others)

	Males (n=104) %	Females (n=7) %	Aboriginal (n=64) %	Non-Aboriginal (n=47) %	Total (N=111) %
School	88.5	71.4	85.9	89.4	87.4
Home	12.5	14.3	17.2	6.4	12.6
On the street	43.8	28.6	43.1	42.6	42.9
In detention	41.3	28.6	43.8	36.2	40.5
On social media	15.4	42.9	14.1	21.3	17.1
By phone/SMS	14.4	14.3	12.5	17.0	14.4

1.11 Violence

Two thirds (66.7%) of participants had been in a physical fight in the six months preceding interview, reporting an average of two fights during this period, and one in three (31.1%) had been involved in a fight on four or more occasions (Table 26). Levels of violence were similar in 2009, with 64.0% of participants reporting involvement in a fight, and 25.5% in four or more fights in the previous six months.

Table 26 Violence in past six months

	Males (n=203) %	Females (n=18) %	Aboriginal (n=122) %	Non-Aboriginal (n=100) %	Total (N=222) %
Physical fight in last 6 months:					
Never	31.5	50.0	35.2	31.0	33.3
Once	14.8	16.7	17.2	12.0	14.9
2-3 times	21.7	11.1	19.7	22.0	20.7
4-5 times	15.8	5.6	13.9	16.0	14.9
6+ times	16.3	16.7	13.9	19.0	16.2
	(n=139)	(n=9)	(n=79)	(n=69)	(N=148)
Person last fought with:					
Stranger	32.4	11.1	26.6	36.2	31.1
Friend/acquaintance	46.8	44.4	51.9	40.6	46.6
Family member	1.4	11.1	3.8	0.0	2.0
Boyfriend/girlfriend	1.4	11.1	2.5	1.4	2.0
Unspecified	18.0	22.2	15.2	21.7	18.2
Medical treatment required					
	10.8	11.1	10.1	11.6	10.8
Part of a gang					
	32.4	0.0	34.6	25.4	30.3
Ever taken out an AVO					
	7.2	44.4**	13.9	4.3*	9.5
Ever had AVO taken out against you					
	51.1	66.7	48.1	56.5	52.0

AVO = Apprehended Violence Order; ** statistically significant difference (p<0.01) between males and females; * Statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people.

Those involved in a fight were asked who they had fought with on the most recent occasion and if they needed medical treatment as a consequence. Almost half (46.6%) reported that they had fought with a friend or acquaintance, and 31.1% with a stranger. Medical treatment was required in 10.8% of cases. Approximately one third of males (32.4%) involved in a fight in the preceding six months reported that they were involved with a gang, with no differences according to Aboriginality; however, there were no reports of gang involvement among females. Although fewer than 10% of those involved in a fight had taken out an AVO against another person, females were significantly more likely to do so (44.4% vs. 7.2%), as were Aboriginal young people (13.9% vs. 4.3%). In contrast, more than half reported having had an AVO taken out against them, with no differences according to gender or Aboriginality.

1.12 Cultural Identity

The elevated morbidity and mortality among Aboriginal peoples is well documented, with Aboriginal life expectancy estimated to be 10 years less than that of other Australians³⁹. This health gap is evident from childhood and continues throughout the lifespan, with Aboriginal young people experiencing a higher burden of disease, much of which is preventable and treatable, than their non-Aboriginal peers^{15, 40, 41}. Factors that contribute to the health disparity between Aboriginal and non-Aboriginal peoples include comparatively poor nutrition, higher rates of

overweight and obesity, injury and substance use, and lower health service utilisation³⁹.

In addition to the determinants of health discussed in previous sections, cultural identity is an important determinant of Aboriginal health. Research suggests that a strong sense of cultural identity is integral to good health and wellbeing and improves Aboriginal physical and mental health outcomes^{15, 42}. Key components of cultural identity identified among Aboriginal children include a strong sense of self, connection to family and kinship, Aboriginal language and culture, and connection to community and country⁴³. As over three quarters of Aboriginal peoples live in urban or regional areas⁴⁴, facing racism, hostility and marginalisation as a minority group, cultural identity may be threatened by a weakened or lost connection to family, country and culture⁴².

Given the over-representation of Aboriginal young people in the juvenile justice system, a section on cultural identity was administered to Aboriginal participants in the 2015 YPICHS survey. A large majority (85.8%) of Aboriginal young people identified with a particular Aboriginal people, language or nation group. Similarly, most (81.1%) recognised a location or area as their homeland or traditional country, 52.0% of whom had lived in this location/area before entering custody. Of those living elsewhere, 4.3% had visited their homeland or traditional country at least weekly, 8.5% at least monthly, 51.1% at least yearly, and 21.3% less than yearly. The remaining 14.9% had never visited their homeland or country. The longest visit to homeland or country in the 12 months before custody was a median of 14 days.

Over half (59.3%) of Aboriginal participants could not understand or speak any Aboriginal languages, with only 3.3% reporting that they could understand and speak Aboriginal languages well. Others reported that they could only understand or speak a few words (26.8%) or could understand Aboriginal languages but not speak them fluently (10.6%).

The majority (86.2%) of Aboriginal participants reported that most or all of the people that they mixed with knew that they were Aboriginal, and 49.6% stated that most or all of the people they met for the first time knew that they were Aboriginal. Almost two thirds (63.4%) of Aboriginal young people felt that being recognised as a person of Aboriginal descent was important or very important to them. The overwhelming majority (95.9%) felt accepted by other Aboriginal people and 99.2% felt proud of being Aboriginal. In the 12 months preceding custody, 17.2% of young people were actively involved in an Aboriginal community group or organisation, half (52.4%) of whom had used this group or organisation for support.

More than three quarters (82.0%) of Aboriginal young people had been given the opportunity to learn about Aboriginal culture at school: either in custody (27.9%), in the community

(18.9%), or in both settings (35.2%) (Table 27). Exposure to culture through Aboriginal media in the 12 months preceding custody (i.e. television and/or radio shows) was reported by 61.0%. Nevertheless, the level of knowledge of Aboriginal culture was low overall, with only 18.7% reporting that they knew a lot about Aboriginal culture and 43.9% reporting that they knew very little or nothing about their culture. More than half (55.3%), however, stated that they wanted to learn a lot more about their culture.

Table 27 Knowledge of Aboriginal culture

	Males (n=111) %	Females (n=12) %	Total (N=123) %
Level of knowledge about Aboriginal culture			
Nothing	4.5	0.0	4.1
Very little	39.6	41.7	39.8
Some	36.0	50.0	37.4
A lot	19.8	8.3	18.7
Desire to learn more about culture			
No	13.5	8.3	13.0
Yes – a little	32.4	25.0	31.7
Yes – a lot more	54.1	66.7	55.3
Opportunities to learn about culture in school			
No	18.0	18.2	18.0
Yes – in detention	29.7	9.1	27.9
Yes – in community	18.9	18.2	18.9
Yes – in both	33.3	54.5	35.2
Exposure to Aboriginal media (12 months before custody)			
No	38.7	41.7	39.0
Yes – television	26.1	16.7	25.2
Yes – radio	2.7	0.0	2.4
Yes – both	32.4	41.7	33.3

Trust in others was investigated by asking participants about the degree to which they trusted people in a particular category (Table 28). Young people had the greatest amount of trust in their Aboriginal Elders and extended family, with 81.2% of participants trusting most or all Elders, and 71.5% trusting most or all of their extended family. Conversely, participants had the least amount of trust in strangers, with the majority (85.0%) reporting that they did not trust anyone they considered a stranger, and police, with 71.2% reporting that they did not trust any police.

Table 28 Extent of trust in others

		Males (n=110) %	Females (n=12) %	Total (N=122) %
Strangers:	None	84.3	91.7	85.0
	Some	13.0	8.3	12.5
	Most	2.8	0.0	2.5
	All	0.0	0.0	0.0
Teachers/counsellors at school:	None	28.8	16.7	27.6
	Some	47.7	50.0	48.0
	Most	15.3	33.3	17.1
	All	8.1	0.0	7.3
Police:	None	74.5	41.7	71.2
	Some	17.9	33.3	19.5
	Most	4.7	8.3	5.1
	All	2.8	16.7	4.2
Lawyers:	None	22.7	8.3	21.3
	Some	40.0	66.7	42.6
	Most	23.6	25.0	23.8
	All	13.6	0.0	12.3
Juvenile Justice staff:	None	18.9	16.7	18.7
	Some	47.7	41.7	47.2
	Most	19.8	33.3	21.1
	All	13.5	8.3	13.0
Justice Health staff:	None	13.8	8.3	13.2
	Some	33.9	33.3	33.9
	Most	26.6	25.0	26.4
	All	25.7	33.3	26.4
Hospital staff:	None	20.2	8.3	19.0
	Some	28.4	33.3	28.9
	Most	29.4	33.3	29.8
	All	22.0	25.0	22.3
Doctors in the community:	None	18.5	16.7	18.3
	Some	38.0	25.0	36.7
	Most	27.8	41.7	29.2
	All	15.7	16.7	15.8
Nurses in the community:	None	17.5	16.7	17.4
	Some	45.6	25.0	43.5
	Most	21.4	41.7	23.5
	All	15.5	16.7	15.7
Elders:	None	3.6	16.7	4.9
	Some	13.6	16.7	13.9
	Most	37.3	33.3	36.9
	All	45.5	33.3	44.3
Extended family:	None	11.7	8.3	11.4
	Some	18.0	8.3	17.1
	Most	24.3	41.7	26.0
	All	45.9	41.7	45.5
Friends:	None	8.1	8.3	8.1
	Some	40.5	50.0	41.5
	Most	30.6	33.3	30.9
	All	20.7	8.3	19.5

In the previous 12 months, 61.2% of Aboriginal people in custody had experienced some form of racism. The most common experience of racism was hearing others talk about Aboriginal people in a racist way, which was reported by more than half (54.2%) of participants, although one in four (25.6%) had been the target of name-calling, verbal abuse, or gestures (Table 29).

Table 29 Experience of racism in the past 12 months

	Males (n=111) %	Females (n=11) %	Total (N=121) %
Heard people talk about Aboriginal people in a racist or abusive way	52.3	72.7	54.2
Been a target of racist names, verbal abuse, or gestures because of being Aboriginal	26.4	18.2	25.6
Been treated as inferior because of being Aboriginal	20.0	9.1	19.0
Had someone spit, hit or throw something or been threatened because of being Aboriginal	12.8	9.1	12.5

In the majority of cases, racism was experienced by the participant while in the community. Among those who had been treated as inferior because they were Aboriginal, for example, 91.3% reported that this treatment had occurred in the community. Similarly, 86.7% of instances in which a participant had someone spit at them, hit them, throw something at them or threaten them had occurred in the community. Nevertheless, each form of racism measured had also been experienced while in custody. Racism experienced in custody included being threatened, spat at, hit and having something thrown at them (13.3%), and having heard Aboriginal people spoken about in a racist or abusive way (47.7%).

2. Offending behaviour

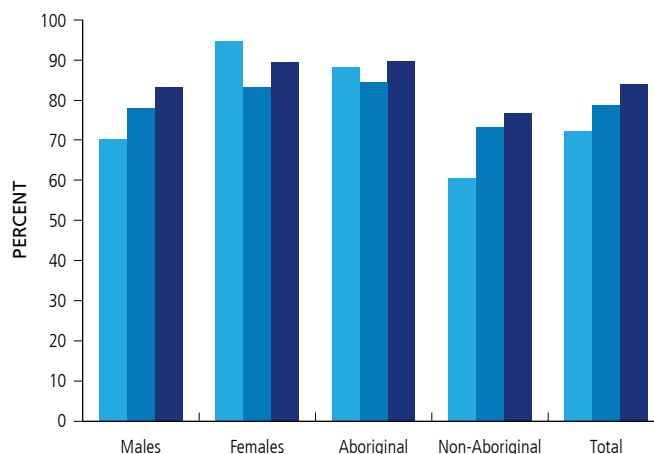
Information reported in this section relates to the offending behaviour of young people, including previous and current orders, most serious offences, amount of time spent in custody, and criminal history. It includes both self-reported data (obtained from the physical health questionnaire and the criminal history questionnaire), and information extracted from the JNSW Client Information System (CIMS). CIMS is the operational database for JNSW, holding verified information from the police, court and internal sources. The results in this section specify whether the data is self-reported by young people, or verified information from CIMS, and participant numbers vary based on the data available.

2.1 Previous juvenile custody

2.1.1 Previous juvenile custody

CIMS was used to determine whether young people in the 2003, 2009 and 2015 YPICHS had previous history of juvenile custody. There has been a year-on-year increase in the rate of previous custody, from 72.3% of young people in 2003, 78.7% of young people in 2009, to 83.9% of young people in 2015. In 2015, there was no significant difference between the number of young females (89.5%) and young males (83.3%) who had any previous history of being in custody. However, Aboriginal young people were significantly more likely than non-Aboriginal young people to have a history of custody (89.7% vs. 76.9%, $p < 0.01$) (Figure 16). YPICHS participants in 2015 were also asked to self-report whether they had spent any previous time in juvenile custody. Only two participants misreported having had no previous custody.

Figure 16 Any previous juvenile custody (CIMS: 2003, 2009, 2015)



	Males %	Females %	Aboriginal %	Non-Aboriginal %	Total %
2003	70.4	94.7	88.2	60.7	72.3
2009	78.1	83.3	84.5	73.3	78.7
2015	83.3	89.5	89.7	76.9	83.9

2.1.2 Age at first juvenile custody

CIMS was used to determine the age that young people were first admitted into a juvenile justice centre. The average age of first entry into custody was 15.1 years (Table 30). Almost half of the participants had their first entry into custody at 14 years or younger (47.4%). There were no significant differences between males and females. Aboriginal young people were significantly younger on average at their first entry to custody than non-Aboriginal young people (14.6 years vs. 15.6 years, $p < 0.001$). The proportion of Aboriginal young people experiencing their first entry into custody at 14 years or younger was nearly double that of non-Aboriginal young people (59.5% vs. 32.7%).

Table 30 Age at first time in juvenile custody (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
13 years and under	27.1	21.1	34.1	17.3	26.5
14	20.5	26.3	25.4	15.4	20.9
15	21.0	31.6	18.3	26.0	21.7
16	15.2	10.5	12.7	18.3	15.2
17	15.7	10.5	9.5	22.1	15.2
18–19 years	0.5	0.0	0.0	1.0	0.4
Average age (CIMS)	15.1	15.0	14.6	15.6	15.1

Participants were asked the age at which they experienced their first admission into custody. The average age of self-reported first admission to custody was 14.2 years (Table 31). A paired samples t-test found that the age that young people self-reported and the age they were in CIMS at first admission into custody were

significantly different. All groups of young people tended to significantly under-estimate their age at first entry into custody (14.2 vs. 15.1, $p < 0.001$).

Table 31 Age at first time in juvenile custody (self-report, 2015)

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
13 years and under	35.3	42.1	44.8	24.5	35.7
14	17.4	21.1	20.8	13.7	17.6
15	17.4	15.8	16.8	17.6	17.2
16	15.0	10.5	10.4	20.6	15.0
17	13.0	10.5	6.4	20.6	12.8
18–19 years	1.9	0.0	0.8	2.9	1.8
Average age (self-report)	14.2	14.1	13.7	14.9	14.2
Average age (CIMS)	15.1	15.0	14.6	15.6	15.1

2.1.3 Number of times in juvenile custody

CIMS was used to determine how many times each young person had been in juvenile custody. For 37 young people, when the YPICHS was being administered it was their first time in custody. The remaining 193 had been in custody at least one time previously (Table 32). On average, the 2015 YPICHS participants had been in juvenile custody 5.3 times previously (range: 0–29 times). There was no significant difference in the average number of previous custody admissions for Aboriginal young people (5.8 times) and non-Aboriginal young people (4.6 times). Young females tended to have had more prior custody admissions than young males, but this difference was not statistically significant (7.1 vs. 5.1). However, a significantly higher proportion of young females than young males had been in custody 10 or more times (36.8% vs. 15.7%, $p < 0.05$).

Table 32 Number of times in juvenile custody (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
0 (first time)	16.7	10.5	10.3	23.1	16.1
1	15.2	21.1	14.3	18.3	16.1
2	11.0	5.3	9.5	11.5	10.4
3–4	15.7	10.5	18.2	11.5	15.2
5–9	25.7	15.8	31.0	17.3	24.8
10 +	15.7	36.8	16.6	18.3	17.4
Average	5.1	7.1	5.8	4.6	5.3

2.1.4 Juvenile community and control orders

Young people who are charged with an offence and found guilty are subject to the following outcomes as defined under Section 33 (1) Children (Criminal Proceedings) Act, 1987 (CCPA)⁴⁵:

- Direct that the charge be dismissed, or dismissed with a caution;
- Release the young person on a good behaviour bond not exceeding two years;
- Impose a fine not exceeding the maximum prescribed for the offence, or ten penalty units (\$1000), whichever is less;
- (c1) Make an order releasing the young person on the condition that the young person complies with a youth justice conference outcome plan determined at a conference held under the Young Offenders Act, 1997;
- (c2) Make an order to adjourn the proceedings against a young person for up to 12 months from the finding of guilt to assess the child's rehabilitation prospects or progress, or for any other purpose the Court considers appropriate in the circumstances, but only if bail has been granted for the offence;
- Impose a bond and a fine (b and c);
- Release the young person on probation not exceeding two years, with or without a fine (c and e);
- Impose a community service order up to 250 hours (up to 100 hours if the young person is under 16 years of age), subject to the Children (Community Service Orders) Act 1987⁴⁶ (e and f);
- Impose a control order in a detention centre for a period not exceeding two years.

The options set out in the CCPA allow for a range of non-custodial options to be tried in order to assist young people to rehabilitate and cease offending. It is important to note that there are some offences that are unable to be heard in a Children's Court. These are: serious indictable offences (see s17 of the CCPA); indictable offences, or those offences elected to be committed to a higher court (see s18 of the CCPA); and some driving offences (see s28 of the CCPA).

The receipt of a control order is the most serious finalised outcome that can be received in the Children's Court. A control order is the term given to a fixed period to which a young person is sentenced by the Children's Court after being found guilty of an offence. A control order functions similarly to a sentence (the adult term for imprisonment). There are some differences between the children's and adult orders, including that:

- a control order can only be given for a period of up to two years (three years for cumulative orders);
- a control order of six months or less must be served in full;
- a young person serving a control order may be eligible for leave; and
- there are provisions for early release under certain sections of the CCPA.

2.1.5 Number of control episodes

The table below outlines the number of times the 2015 YPICHS participants had been in custody with a control order (control episodes). The young person may receive a control order from the Court and serve their sentence in custody having either:

- been on remand in custody, and then remained in custody, or
- been in the community, and then taken into custody.

The majority (64.8%) of young people had never received a control order (Table 33). The average number was 0.8 control episodes, with a range of 0 to 7. There were no statistically significant differences between groups in the number of control episodes, either by gender or by Aboriginality.

Table 33 Number of juvenile control episodes (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
None	63.8	73.7	61.9	68.3	64.8
1	11.0	10.5	12.7	8.7	10.9
2	7.6	10.5	7.9	7.7	7.8
3–4	16.2	5.3	15.9	14.4	15.2
5–9	1.4	0.0	1.6	1.0	1.3
Average	0.9	0.5	0.9	0.8	0.8

2.1.6 Number of community supervision management periods

A community order includes orders such as a bond, probation or parole, which allows the young person to serve their sentence in the community. These orders are periods of time during which the young person must exhibit good behaviour and obey conditions as set out by the Court. These may include a period of supervision such as reporting to police or to JJNSW staff, counselling, drug testing and/or attending drug and alcohol rehabilitation centres, attending school, or any other condition that may be ordered by the Court. A young person may be sentenced to a community-based order on its own, or to a control order plus a period of probation or parole.

The table below outlines the number of times the 2015 YPICHS participants had been on a supervised community order with a Juvenile Justice Officer taking responsibility for case management while the young person is in the community – known as a supervision management period (SMP). The young person may be serving multiple concurrent or consecutive community orders, may go in and out of custody on new charges, but remain on one ongoing SMP during this time.

In the 2015 YPICHS, one in five young people (20.4%) had never had an SMP (Table 34). Over one third (34.8%) had only ever had one SMP, and a further quarter (24.8%) had received two SMPs. One in five (20%) had received three to six SMPs. There was no significant difference in the number of SMPs received by young males and young females, but Aboriginal young people received significantly more SMPs than non-Aboriginal young people (1.8 vs. 1.3, $p < 0.01$). The average number of community orders received by the 2015 YPICHS sample was 1.5, with a range of 0 to 6.

Table 34 Number of juvenile community supervision management periods (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
None	21.4	10.5	13.5	28.8	20.4
1	34.3	36.8	33.3	36.5	34.8
2	25.2	21.1	31.0	17.3	24.8
3–4	17.6	31.6	19.8	17.3	18.7
5–6	1.4	0.0	2.4	0.0	1.3
Average	1.5	1.7	1.8	1.3	1.5

2.1.7 Number of Youth Justice Conferences

JJNSW administers Youth Justice Conferences (YJCs) under Part 5 of the Young Offenders Act 1997⁴⁷. Police and courts refer young people for YJCs when they have committed eligible offences that are too serious for warnings or cautions or have exceeded the maximum number of cautions available to them.

Youth Justice Conferences bring young offenders, their families and supporters face to face with victims, their supporters and police to discuss how people have been affected by the crime. Other respected members of the community and experts may also be invited to participate. Together, they agree on an appropriate outcome that may include an apology, reasonable reparation to victims, and steps to reconnect the young person with their community to prevent them from reoffending.

The purpose of YJCs is to provide a diversionary legal process, which holds young people accountable for their behaviour while also enhancing the rights and place of victims in the juvenile justice process. They empower victims and families, and provide young people with developmental and support services, whether

these are support services for victims or community services which enable offenders to overcome their offending behaviour. A further objective is to address the over-representation of Aboriginal young people in the criminal justice system. Table 35 shows the distribution of YJC numbers by demographic groups.

Table 35 Number of Youth Justice Conferences (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
None	47.6	42.1	42.1	53.8	47.4
1	25.7	36.8	24.6	28.8	26.5
2	13.3	10.5	17.5	7.7	13.0
3-4	12.4	5.3	15.1	7.7	11.7
5	1.0	5.3	0.8	1.9	1.3
Average	1.0	1.0	1.1	0.8	1.0

In the 2015 YPICHHS, the average number of YJCs was one, with a range of 0 to 5 (Table 35). Almost half of all young people had never had a YJC. Over one quarter had only ever had one YJC. A further 13.0% had experienced two YJCs, and the remaining 13.0% between three and five YJCs. There were no significant differences in the number of YJCs experienced by males or females, but Aboriginal young people had experienced more YJCs on average than non-Aboriginal young people (1.1 vs. 0.8, $p < 0.05$).

2.2 Current custody

2.2.1 Legal status: Remand or control

At the time of the survey, CIMS data regarding the legal status of the 2015 YPICHHS participants was accessed. Young people's legal status in custody can either be classified as sentenced control (found guilty by the Children's Court and sentenced to a fixed period in custody) or on remand (in custody while they await trial or further investigation).

Just under half of young people (49.6%) were on sentenced control or appeal orders, compared to 50.4% on remand (Table 36). There was no significant difference by gender or Aboriginality relating to whether the young person was sentenced or on remand. Participants were also asked their current legal status in custody. Most were able to correctly determine if they were sentenced or on remand, with only four young people saying that they didn't know.

Table 36 Current legal status in custody (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
Sentenced control	50.5	36.8	51.6	47.1	49.6
Remand	49.5	63.2	48.4	52.9	50.4

2.2.2 Most serious offence

CIMS database records the most serious offence (MSO) for each admission to custody. There are 16 higher order categories which comprise the MSO categories in the database. These categories are based on the ABS classification system of the National Offence Index, 2009⁴⁸ and the Australian and New Zealand Standard Offence Classification (ANZSOC)⁴⁹. Table 37 shows the most serious offences for the 2015 YPICHHS participants. Please note that each participant may have been charged with or convicted of more than one offence for this admission to custody, and this should be considered when interpreting these figures.

The offence category of "acts intended to cause injury" was the most frequently occurring MSO category among the 2015 YPICHHS participants (44.3%). The second most frequently occurring MSO was "robbery, extortion and related offences" (21.7%), followed by "unlawful entry with intent/burglary, break and enter" (19.6%). In 2015, males committed all of the sexual assault, homicide and related offences, dangerous acts endangering persons, abduction, harassment and property damage MSOs. Aboriginal young people were more likely to have an "unlawful entry with intent/ burglary, break and enter" offence as their MSO (23.8% vs. 14.4%), whereas non-Aboriginal young people were more likely to have "robbery, extortion and related offences" as their MSO (25.0% vs. 19.0%).

Table 37 Most serious offence for current juvenile custody (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
Acts intended to cause injury	43.3	57.9	42.1	47.1	44.3
Robbery, extortion and related offences	22.4	15.8	19.0	25.0	21.7
Unlawful entry with intent/ burglary, break and enter	19.5	21.1	23.8	14.4	19.6
Sexual assault and related offences	5.2	0.0	6.3	2.9	4.8
Dangerous or negligent acts endangering persons	3.3	0.0	4.0	1.9	3.0
Theft and related offences	2.4	5.3	2.4	2.9	2.6
Homicide and related offences	2.4	0.0	0.8	3.8	2.2
Abduction, harassment and other offences against the person	1.0	0.0	1.6	0.0	0.9
Illicit drug offences	0.0	0.0	0.0	1.0	0.4
Property damage and environmental pollution	0.5	0.0	0.0	1.0	0.4

2.2.3 Amount of time in custody

The amount of time in custody for the current admission was measured in days at the time of the first interview of YPICHS, rounded to the nearest 24 hours. The average time that had been spent in custody at the time of the first interview of YPICHS was 142 days for all 2015 YPICHS participants (Table 38). Around a third of participants (32.6%) had been in custody for less than four weeks at the time of their baseline interview. On average, there was no significant difference in the amount of time served by Aboriginal and non-Aboriginal young people (120 days vs. 168 days). Young males had spent significantly more time in custody than had young females (148 days vs. 57 days, $p < 0.001$). There were also much larger variations in sentences, in terms of standard deviation from the mean, for males ($SD = 217$ days vs. 79 days for females) and for non-Aboriginal young people ($SD = 257$ days vs. 161 days for Aboriginal young people).

Table 38 Amount of time served for current juvenile custody (CIMS, 2015)

	Males (n=210) %	Females (n=19) %	Aboriginal (n=126) %	Non-Aboriginal (n=104) %	Total (N=230) %
< 1 week	10.5	26.3	8.8	15.2	11.7
1 – < 2 weeks	7.6	15.8	9.6	6.7	8.3
2 – < 4 weeks	12.4	15.8	14.4	10.5	12.6
1 – < 3 months	28.1	21.1	27.2	27.6	27.4
3 – < 6 months	18.6	10.5	19.2	16.2	17.8
6 – < 12 months	11.0	10.5	12.0	9.5	10.9
1 year or more	11.9	0.0	8.8	14.3	11.3
Average	148 days	57 days	120 days	168 days	142 days

Among young people who had received a sentence, the vast majority (91.2%) were serving a sentence for six months or more (Table 39). On average, non-Aboriginal young people had significantly longer sentences than Aboriginal young people (958 days vs. 576 days, $p < 0.05$), and young males had significantly longer sentences than young females (766 days vs. 227 days, $p < 0.001$).

Table 39 Sentence length for current juvenile custody (CIMS, 2015)

	Males (n=106) %	Females (n=7) %	Aboriginal (n=65) %	Non-Aboriginal (n=49) %	Total (N=114) %
1 – < 3 months	0.9	14.3	1.5	2.0	1.8
3 – < 6 months	7.5	0.0	10.8	2.0	7.0
6 – < 12 months	20.8	71.4	21.5	26.5	23.7
1 year or more	70.8	14.3	66.2	69.4	67.5
Average (if sentenced)	766 days	227 days	576 days	958 days	741 days

2.3 Self-reported offending history

Participants were asked about specific offence types in order to gain a better picture of the origins of offending and the developmental pathways for offending behaviour. The Criminal History Questionnaire (CHQ) was first used in the YPICHS in 2009. It was adapted with the permission of the Australian Institute of Criminology (AIC), who developed the questionnaire for the national research programs Juvenile Drug Use Careers of Offenders (DUCO)^{50, 51} and Drug Use Monitoring in Australia⁵².

The questions in the criminal history questionnaire did not require participants to disclose details of undetected offending that would need to be reported to the police. Questions were amended in order to ensure that neither the young person nor the interviewer was placed in such a position. The questionnaire was administered by a JNSW staff member who was experienced in asking questions in this area in order to further minimise the potential for ethical issues to arise in the administration of the questionnaire, and 193 young people agreed to take part. Participants were first asked if they had ever committed any of 11 different types of offences. If they answered “yes”, they were then asked at what age they first committed the offence type, how many times they had ever committed the offence, and the frequency of committing the offence in the six months before their current period of custody.

2.3.1 Offences ever committed

Every participant who chose to take part in this part of the YPICHHS admitted to committing at least one type of crime (Table 40).

Table 40 Offences ever committed (self-report, 2015)

	Males (n=181) %	Females (n=11) %	Aboriginal (n=102) %	Non-Aboriginal (n=91) %	Total (N=193) %
Bought illegal drugs	92.3	72.7	94.1	87.9	91.2
Stolen from a person or place	89.5	81.8	89.2	89.0	89.1
Broke into somewhere to steal	80.7	18.2	83.3	70.3	77.2
Vandalised/damaged property	75.1	72.7	77.5	71.4	74.6
Assaulted someone	75.7	54.5	69.6	80.2	74.6
Sold, bought or traded stolen goods	74.6	45.5	74.5	71.4	73.1
Stolen a motor vehicle	70.2	45.5	79.4	56.0	68.4
Sold illegal drugs	68.5	36.4	62.7	71.4	66.8
Robbed someone	66.9	36.4	64.7	65.9	65.3
Done graffiti	58.6	54.5	63.7	51.6	58.0
Used stolen credit cards or cheques	49.7	45.5	52.0	47.3	49.7

In 2015, buying illegal drugs was the most common offence participants admitted (91.2%). This prevalence increased from 2009, when only 77.0% of the young people surveyed admitted to buying drugs. The second most common offence admitted to was stealing from a place or person (89.1%), which was the most common in 2009 (84.0%). The next most common offence admitted to was breaking into somewhere to steal (77.2%), followed by vandalising or damaging property (74.6%) and assaulting someone (74.6%).

In 2015, there were two categories of crime with significant differences between Aboriginal and non-Aboriginal young people. Aboriginal young people were significantly more likely to admit to breaking and entering to steal (83.3% vs. 70.3%, $p<0.05$) and stealing a motor vehicle (79.4% vs. 56.0%, $p<0.001$). Males were significantly more likely than females to admit to breaking and entering to steal (80.7% vs. 18.2%, $p<0.001$).

2.3.2 Age first committed offence types

The first offence type committed was, on average, graffiti at 11.8 years of age (Table 41). Most offence types had a mean age of commencement of 14 years or below. Only robbery, selling illegal drugs, and using stolen credit cards or cheques had a mean commencement age of above 14 years. On examining age of first offence by offence type, significant differences were found by gender and Aboriginality. Aboriginal young people were, on average, significantly younger than non-Aboriginal

young people when they first committed the following five offences: stealing a motor vehicle (13.2 vs. 14.5, $p<0.001$), stealing from a person or place (12.5 vs. 13.5, $p<0.01$), breaking and entering to steal (13.0 vs. 13.9, $p<0.05$), robbery (14.0 vs. 14.8, $p<0.05$), and buying or selling stolen goods (13.5 vs. 14.3, $p<0.05$). There was only one offence which differed by gender, with males significantly younger than females for vandalism/damaging property (12.6 vs. 14.3, $p<0.05$).

Table 41 Average age offences first committed (if ever committed an offence) (self-report, 2015)

	Males (n=181) Mean age	Females (n=11) Mean age	Aboriginal (n=102) Mean age	Non-Aboriginal (n=91) Mean age	Total (N=193) Mean age
Done graffiti	11.7	13.4	11.4	12.3	11.8
Vandalised/damaged property	12.6	14.3	12.5	13.0	12.7
Stolen from a person or place	12.9	13.8	12.5	13.5	12.9
Bought illegal drugs	13.1	13.9	12.9	13.4	13.1
Assaulted someone	13.4	13.8	13.0	13.7	13.4
Broke into somewhere to steal	13.4	13.0	13.0	13.9	13.4
Stolen a motor vehicle	13.6	15.0	13.2	14.5	13.7
Sold, bought or traded stolen goods	13.9	14.6	13.5	14.3	13.9
Robbed someone	14.4	14.5	14.0	14.8	14.4
Sold illegal drugs	14.5	13.8	14.3	14.6	14.4
Used stolen credit cards or cheques	14.6	14.8	14.5	14.7	14.6

2.3.3 Offences in the past six months (prior to custody)

Each young person was also asked if they had committed the offence in the six months before entering custody. For example, among 144 participants who indicated that they had ever committed vandalism/damaged property (Table 42), 85 did so in the six months prior to custody (59.0%). The most common types of crime that participants reported committing in the six months prior to custody were buying illegal drugs (91.5%), selling illegal drugs (83.7%), selling or buying stolen goods (75.9%), and assault (75.7%). There were no significant differences by gender for any of the crime categories. There was only one significant difference between Aboriginal and non-Aboriginal young people, with Aboriginal young people being more likely to have sold illegal drugs in the six months prior to custody (93.8% vs. 73.8%, $p=0.01$).

Table 42 Offences committed at least once in six months prior to custody (if ever committed an offence) (self-report, 2015)

	Males (n=167) %	Females (n=6) %	Aboriginal (n=95) %	Non- Aboriginal (n=78) %	Total (N=173) %
Bought illegal drugs	92.8	75.0	92.7	90.0	91.5
Sold illegal drugs	84.7	75.0	93.8	73.8	83.7
Sold, bought or traded stolen goods	77.8	40.0	78.9	72.3	75.9
Assaulted someone	76.6	66.7	77.5	74.0	75.7
Stolen from a person or place	74.7	66.7	78.0	69.1	73.8
Broke into somewhere to steal	73.3	50.0	78.8	64.1	72.5
Robbed someone	72.7	50.0	68.2	75.0	71.4
Stolen a motor vehicle	68.5	40.0	70.4	62.7	67.4
Done graffiti	67.0	50.0	69.2	61.7	66.1
Used stolen credit cards or cheques	65.6	40.0	60.4	67.4	63.5
Vandalised/damaged property	59.6	50.0	62.0	55.4	59.0
Total (six months)	92.3	54.5	93.1	85.7	89.6

2.3.4 Number of crime types ever committed

Of the 11 offence categories that participants were asked about, most young people reported committing a range of offences, with little evidence of specialisation. This is consistent with the findings of the Juvenile DUCO research outlined earlier in this section of the report⁵¹.

In 2015, participants admitted to having ever committed an average of 7.9 types of crime, which is an increase from 7.0 in 2009 (Table 43). There were no significant differences in the average number of crimes committed by Aboriginal and non-Aboriginal young people (8.1 vs. 7.6). There was a significant difference between genders, with significantly more crimes admitted to on average by males (8.0) than females (5.5, $p < 0.01$).

Table 43 Average number of crimes ever committed (self-report, 2015)

	Males (n=181)	Females (n=11)	Aboriginal (n=102)	Non-Aboriginal (n=91)	Total (N=193)
Mean	8.0	5.5	8.1	7.6	7.9
SD	2.6	3.1	2.5	2.8	2.7
Range	1–11	1–10	1–11	1–11	1–11

2.3.5 Reason for first committing crime

At the end of the 2015 YPICHS questionnaire, young people were asked an open-ended question to explore the reasons why they first started to commit crime (Table 44). Responses were categorised into nine overarching themes. The 150 participants who provided a response to this question gave 244 reasons. Forty-three young people (22.3%) did not provide a response to this question, an increase in non-response from 2009, when only 8% did not participate in this section.

The most frequently given reason for first starting to commit crime related to friends and peers (identified by 52.0% of participants), consistent with the 2009 results (identified by 38.0%). Some examples of the friends and peers theme are: "hanging out with the wrong crowd", "peer pressure, wanting to fit in with other people", "all of my friends were doing it" and "wanted admiration and respect" (Table 45). Young females were less likely to give this response than other groups (16.7%).

Table 44 Themes describing reasons for first committing crime (self-report, 2015)

	Males (n=144) %	Females (n=6) %	Aboriginal (n=78) %	Non-Aboriginal (n=72) %	Total (N=150) %
Friends and peers	53.5	16.7	44.9	59.7	52.0
To feel good/stop being bored or angry	24.3	50.0	26.9	23.6	25.3
Procurement/use of alcohol and/or other drugs	24.3	50.0	24.4	26.4	25.3
Desire for money and material items	22.9	0.0	25.6	18.1	22.0
Family reasons	16.0	50.0	23.1	11.1	17.3
Survival or protection reasons	8.3	0.0	2.6	13.9	8.0
Don't know why just happened	7.6	0.0	9.0	5.6	7.3
Made mistakes/developmental phase	3.5	0.0	3.8	2.8	3.3
Denial of offending	2.1	0.0	3.8	0.0	2.0

Two reasons ranked second: to feel good/stop being bored or angry and the procurement and use of alcohol or other drugs (each reason was identified by 25.3% of participants). Some examples of reasons relating to feeling good/stopping being bored or angry included "boredom", "it was fun/easy", and for the "adrenaline rush" (Table 45). With regards to procuring alcohol and other drugs, the responses were that they committed crime in order to buy these. These two themes were also in the top three reasons in 2009, at about the same rate of responses. A higher proportion (50.0%) of young females provided these reasons than any other group.

The next most common theme was desire for money or material things (22.0%). Examples included: "wanting what other people had", and "getting stuff for free, not wanting to pay" (Table 45). Young males and non-Aboriginal young people provided the highest proportions of responses in this category.

The next most common theme was family reasons (17.3%). Examples included: "family or significant other died", "crime runs in my family", and "violent or bad childhood". The remaining themes were reasonably infrequent, including for survival reasons, not knowing why/it just happened, making mistakes/going through a developmental phase, and denial of offending.

Table 45 Reasons given for first committing crime (self-report, 2015)

	Males (n=144) %	Females (n=6) %	Aboriginal (n=78) %	Non-Aboriginal (n=72) %	Total (N=150) %
Hanging out with wrong crowd	22.9	16.7	21.8	23.6	22.7
Drug use/needed money for drugs	21.5	50.0	21.8	23.6	22.7
Wanted own money to get things I wanted	16.7	0.0	16.7	15.3	16.0
Peer pressure/wanted to fit in with older people	15.3	0.0	12.8	16.7	14.7
All my friends were doing it	13.9	0.0	7.7	19.4	13.3
Boredom	8.3	16.7	9.0	8.3	8.7
It was fun/ was easy	8.3	0.0	6.4	9.7	8.0
Runs in my family/my family all do crime	7.6	0.0	11.5	2.8	7.3
Don't know why/just happened	7.6	0.0	9.0	5.6	7.3
Violent or bad childhood/ family problems	3.5	33.3	5.1	4.2	4.7
Had no money/ poor	4.2	0.0	6.4	1.4	4.0
Lived on streets/kicked out of home/had to support self	3.5	0.0	1.3	5.6	3.3
Alcohol use/needed money to buy	2.8	0.0	2.6	2.8	2.7
Adrenaline rush/feels good	2.8	0.0	1.3	4.2	2.7
Anger	2.1	16.7	5.1	0.0	2.7
Parent or caregiver left home	2.8	0.0	1.3	4.2	2.7
No school/ no job	2.8	0.0	1.3	4.2	2.7
Thought crime was cool/a good idea	2.1	0.0	2.6	1.4	2.0
Wanted admiration/ respect/good name	1.4	0.0	2.6	0.0	1.3
Get stuff for free/didn't want to pay	1.4	0.0	1.3	1.4	1.3
Feel comfortable doing it/ felt like it	0.7	16.7	2.6	0.0	1.3
Family member/significant other passed away	0.7	16.7	2.6	0.0	1.3
To protect family and friends	1.4	0.0	0.0	2.8	1.3
Brought up in area full of crime	1.4	0.0	2.6	0.0	1.3
Didn't want to say	1.4	0.0	2.6	0.0	1.3
Hobby/learned process	0.7	0.0	1.3	0.0	0.7
To get back at the world	0.7	0.0	1.3	0.0	0.7
To support my family – doing it tough	0.7	0.0	0.0	1.4	0.7
Wrong place at wrong time/not my fault	0.7	0.0	1.3	0.0	0.7
Cause I was stupid	0.7	0.0	1.3	0.0	0.7
Lost control of self/don't know own actions	0.7	0.0	0.0	1.4	0.7
Jealousy of what others had and wanted it	0.7	0.0	1.3	0.0	0.7
Something different to do	0.7	0.0	0.0	1.4	0.7

2.4 Antisocial Process Screening Device

Societal concerns over the rise in juvenile violent crime have reaffirmed the importance of research in the area of screening for antisocial tendencies in young people. Antisocial traits, such as callousness and shallow emotionality, have been associated with distinct patterns of violence and offending behaviour. According to formative research by Kruh, Frick and Clements⁵³, those who lack the empathy, fear of consequences, and remorse that prevent violence in most people have been found to rely on violence to attain their goals. Kruh and colleagues⁵³ further stated that “the ability of the juvenile justice system to identify the subpopulation of chronically violent juvenile offenders early in their criminal careers would facilitate appropriate management and intervention approaches” (p.70).

The APSD measures three factors (callous/unemotional; narcissism; and impulsivity) which indicate risk of a young person developing antisocial behaviour⁵⁴. The APSD gives a total score (0–40) and a score for each of the three factors. Higher scores on these factors indicate higher levels of these traits.

The youth self-report version was first used in the 2009 YPICHHS. Although the APSD was originally designed to assess antisocial traits in youth aged 6–13 years, with scores based on ratings from parents and teachers, the self-report format used in this study has proven to be useful in assessing these traits in adolescent offender samples^{53, 55}. Munoz & Frick⁵⁶ demonstrated that the self-report version of the APSD showed moderate correlations with parent ratings of traits, and significant correlations with measures of antisocial behaviour.

In the 2015 YPICHHS, the youth self-report version of the APSD was administered by JNSW Psychologists. There were no statistically significant differences in the total APSD score by gender or Aboriginality (Table 46). All three traits (callous/unemotional; narcissism; and impulsivity) are present in this population, but the self-report version of the APSD does not have community norms for comparison. Though non-Aboriginal young people scored higher on the callous/unemotional and impulsivity subscales compared with Aboriginal young people, and females scored higher on impulsivity than males, none of these differences were significant (Table 47).

Between 2009 and 2015, there was a significant reduction in average score on the narcissism sub-scale for males and Aboriginal young people (males, 4.2 vs. 3.7, $p<0.05$; Aboriginal, 4.4 vs. 3.7, $p<0.05$). This was also the case for the impulsivity subscale for Aboriginal young people (5.5 vs. 5.0, $p<0.05$).

Table 46 APSD score characteristics

	Males		Females		Aboriginal		Non-Aboriginal		Totals	
	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015
	N	267	182	41	11	151	102	157	92	308
Mean	16.2	15.8	17.3	15.6	16.8	15.6	15.9	16.1	16.3	15.8
SD	5.3	5.0	4.6	5.4	5.3	5.1	5.1	4.9	5.2	5.0
Median	16.0	16.0	17.0	16.0	17.0	15.0	16.0	16.0	16.0	16.0
Range	2–31	6–32	8–28	6–24	5–31	6–31	2–28	6–32	2–31	6–32

Table 47 Mean APSD subscale score

	Males		Females		Aboriginal		Non-Aboriginal		Totals	
	2009	2015	2009	2015	2009	2015	2009	2015	2009	2015
	Callousness/unemotional	4.4	4.8	5.0	4.8	4.5	4.6	4.5	4.9	4.5
Narcissism	4.2	3.7	4.7	3.6	4.4	3.7	4.2	3.7	4.3	3.7
Impulsivity	5.3	5.0	5.8	5.4	5.5	5.0	5.3	5.2	5.4	5.1

2.5 Inventory of Callous and Unemotional Traits

Callous and unemotional traits are persistent behaviours that display disregard for others, lack of empathy and a generally deficient affect. These traits can be present in children and adolescents due to genetic and environmental risk factors. A callous and unemotional specifier has been included as a feature of conduct disorder in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)⁵⁷. The Inventory of Callous and Unemotional traits (ICU) is a 24-item questionnaire designed to provide a comprehensive assessment of callous and unemotional traits. These traits have proven to be important for designating a distinct subgroup of antisocial and aggressive youth. The assessment is designed for young people aged 13–17 years. There are five versions of the scale: Youth Self-Report, Parent Report, Teacher Report, Parent Report (Preschool Version), and Teacher Report (Preschool Version).

The ICU was developed from questions in the APSD for the callous and unemotional subscale as a more comprehensive assessment of these traits⁵⁸. The ICU has been validated with young offenders⁵⁹. Young people with high levels of these traits do not respond well to time-out or other punishments⁶⁰. These young people respond well to reward-based schemes. Thus, identification of young people with these traits within adolescent custodial settings is important for proper treatment and behavioural management.

The ICU has three subscales: Callousness, Uncaring, and Unemotional. Adolescent participants are asked to indicate how well each statement describes them on a 4-point scale: 0 – not true at all, 1 – somewhat true, 2 – very true, 3 – definitely true. In the 2015 YPICHHS, the ICU Youth Self-Report Version was administered by JNSW psychologists and researchers (Table 48).

Table 48 ICU score characteristics

	Males (n=182)	Females (n=10)	Aboriginal (n=102)	Non-Aboriginal (n=91)	Total (N=193)
Mean	29.5	27.1	29.6	29.1	29.4
SD	8.5	9.4	9.0	8.0	8.5
Median	29	28	29	28	29
Range	12–53	7–39	7–53	13–53	7–53

All groups scored highest on the uncaring subscale (Table 49). Young males scored higher on the callous subscale than young females. Overall, there were no significant differences for gender or Aboriginality.

Table 49 Mean ICU subscale score

	Males (n=182)	Females (n=10)	Aboriginal (n=102)	Non-Aboriginal (n=91)	Total (N=193)
Callous	9.2	8.6	9.5	8.8	9.2
Uncaring	11.6	9.8	11.4	11.7	11.5
Unemotional	8.6	8.7	8.7	8.6	8.6

3. Health status

3.1 Self-reported health status

Participants were asked if they had ever been diagnosed with a range of health conditions. If so, they were then asked whether they currently had the condition and whether they had been prescribed medication for it prior to entering custody and while in custody during the preceding month. There was no limit to the number of conditions participants were able to report.

As self-report measures of hepatitis B (HBV) and hepatitis C (HCV) have been found to be unreliable indicators of actual serostatus^{61, 62}, they were not included in the 2009 YPICHS report. Studies demonstrating a lack of concordance between self-reported and actual status, however, show that people are more likely to report that they are HBV and HCV negative, or unaware of their status, when they are, in fact, positive than they are to falsely report that they are positive^{61, 63}. While the figures reported in the following tables are likely to provide conservative estimates of the prevalence of hepatitis among young people in custody, they are nonetheless of clinical interest, particularly given the young age of the participants.

The most commonly reported health conditions participants had ever been diagnosed with were chicken pox, acne/pimples, tonsillitis and asthma (Table 50). Health conditions other than those specified included attention deficit hyperactivity disorder (ADHD) (0.9%), cataracts (0.4%), liver problems (0.4%), shingles (0.4%), staphylococcus infections (0.4%) and cerebral palsy (0.4%). Although the self-reported prevalence of HCV was low relative to other health conditions at 1.3%, females were significantly more likely than males to have been diagnosed with HCV. Non-Aboriginal participants were more likely to have suffered with acne/pimples in the past, although there were no other differences according to Aboriginality.

In comparison to the 2009 YPICHS survey, a greater proportion of the 2015 sample reported having been diagnosed with tonsillitis (28.2% vs. 14.8%), gastroenteritis (22.0% vs. 2.5%), acne (42.3% vs. 26.7%), parasitic infections (19.8% vs. 7.9%), and glandular fever (6.2% vs. 0.6%). It should be noted that, of those who reported a past diagnosis of gastroenteritis, 52% were from a juvenile justice centre which had an outbreak of gastroenteritis during the recruitment period.

Table 50 Ever diagnosed with a health condition

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Allergies	15.5	21.1	14.4	17.6	15.9
Asthma	27.5	26.3	28.8	25.5	27.3
Diabetes	0.0	0.0	0.0	0.0	0.0
Epilepsy	2.4	10.5	2.4	3.9	3.1
Heart problems	4.8	5.3	7.2	2.0	4.8
Kidney problems	1.4	5.3	1.6	2.0	1.8
Cancer/tumours	1.0	0.0	1.6	0.0	0.9
Hepatitis A	0.0	0.0	0.0	0.0	0.0
Hepatitis B	0.0	0.0	0.0	0.0	0.0
Hepatitis C	0.5	10.5*	1.6	1.0	1.3
Tonsillitis	28.5	26.3	29.6	26.5	28.2
Gastroenteritis	22.7	15.8	20.8	23.5	22.0
Ear infections	24.6	31.6	26.4	23.5	25.1
Acne/pimples	42.0	42.1	36.0	50.0#	42.3
Parasitic infections	19.3	26.3	22.4	16.7	19.8
Chicken pox	40.6	47.4	43.2	38.2	41.0
Glandular fever	5.8	10.5	8.0	3.9	6.2
Other	2.4	5.3	3.2	2.0	2.6

* Statistically significant difference ($p < 0.05$) between males and females; # statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

Compared to young people in the general population surveyed for the 2014–15 National Health Survey, YPICHS participants reported higher rates of asthma (27.3% vs. 10.8%) and epilepsy (3.1% vs. 0.4%), but similarly low rates of diabetes (0.0% vs. 0.6%), kidney disease (1.8% vs. 0.3%), and cancer (0.9% vs. 0.5%)⁶⁴. The prevalence of self-reported heart problems among YPICHS participants (3.5%) was not directly comparable to that among National Health Survey participants (3.1%) due to differences in the methods of assessing cardiovascular conditions. While the YPICHS questionnaire asked if participants had ever been diagnosed with “heart problems”, with clarification provided upon demand, the National Health Survey prompted participants with a range of heart and circulatory conditions that YPICHS participants may not have considered, and thus reported, as cardiovascular conditions (e.g. fluid retention/oedema, high cholesterol, and haemorrhoids).

In 2015, YPICHS participants who reported a lifetime diagnosis of a health condition were asked if they still had the condition. Asthma, allergies and acne/pimples were the most common current conditions (Table 51). Females were significantly more likely than males to currently have tonsillitis and/or acne/pimples.

Table 51 Current health conditions

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Allergies	12.7	21.1	13.7	13.0	13.2
Asthma	19.3	26.3	24.0	14.6	19.8
Epilepsy	1.9	10.5	2.4	3.0	2.7
Heart problems	3.9	0.0	5.6	1.0	3.5
Kidney problems	0.5	5.3	0.8	1.0	0.9
Cancer/tumours	0.0	0.0	0.0	0.0	0.0
Hepatitis C	0.0	10.5**	0.8	1.0	0.9
Tonsillitis	1.0	10.5*	2.4	1.0	1.8
Gastroenteritis	0.5	0.0	0.8	0.0	0.4
Ear infections	4.4	0.0	4.8	2.9	4.0
Acne/pimples	9.2	26.3*	8.9	13.7	11.1
Parasitic infections	0.0	0.0	0.0	0.0	0.0
Chicken pox	0.0	0.0	0.0	0.0	0.0
Glandular fever	0.0	0.0	0.0	0.0	0.0
Other	1.0	0.0	0.8	1.0	0.9

* Statistically significant difference ($p < 0.05$) between males and females; ** statistically significant difference ($p < 0.01$) between males and females.

Table 52 presents the proportions of participants who were prescribed medication for their health condition in the community before entering custody and during the past month in custody. There were no statistically significant differences between male and female participants or Aboriginal and non-Aboriginal participants with respect to past or recent medication history.

Table 52 Prescription of medication for self-reported lifetime health conditions

	Prescribed medication in community before detention %	Prescribed medication in detention in past month %
Allergies (n=36)*	8.3	8.3
Asthma (n=62)	38.7	37.1
Epilepsy (n=7)	57.1	42.9
Heart problems (n=11)	18.2	0.0
Kidney problems (n=4)	25.0	25.0
Cancer/tumours (n=2)	0.0	0.0
Hepatitis C (n=3)	0.0	0.0
Tonsillitis (n=64)	14.1	1.6
Gastroenteritis (n=50)	0.0	2.0
Ear infections (n=57)	10.5	8.8
Acne/pimples (n=96)	1.0	3.1
Parasitic infections (n=45)	8.9	0.0
Chicken pox (n=93)	2.2	1.1
Glandular fever (n=14)	7.1	7.1
Other (n=6)	0.4	0.9

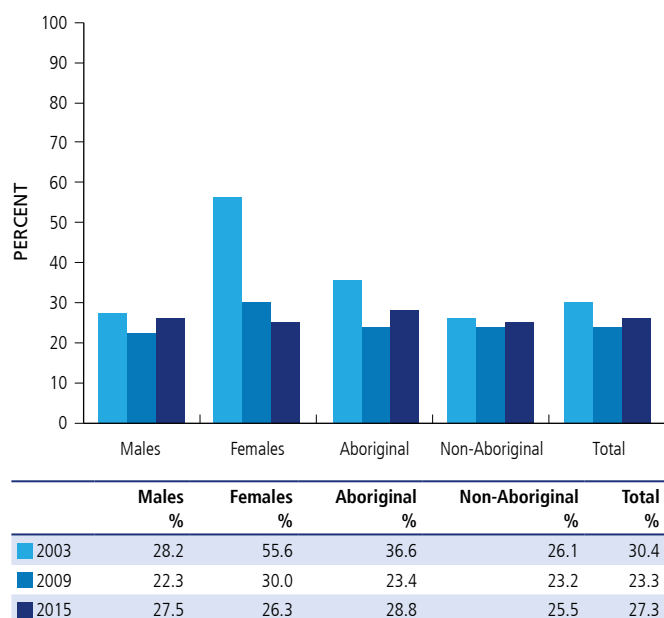
* n denotes the total number of participants reporting each lifetime health condition.

3.2 Asthma

Asthma is one of the most common chronic health conditions among young people in Australia and accounts for a significant portion of the burden of disease⁶⁵. In comparison to other countries, Australia has a high rate of mortality due to asthma, with asthma being an underlying cause of death in 0.3% of all Australian deaths in 2011⁶⁶.

According to national health surveys, Aboriginal peoples are almost twice as likely to have asthma as non-Aboriginal people. After adjusting for differences in the age distribution between the Aboriginal and non-Aboriginal populations participating in these surveys (i.e. the 2011–13 Australian Health Survey; the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey), asthma rates overall (i.e. aggregated across age groups) were found to be 1.9 times higher among Aboriginal peoples. Among 15–24-year-olds, the asthma rate was 1.6 times higher among those who were Aboriginal⁶⁷. Moreover, Aboriginal people are more likely than non-Aboriginal people to die from asthma, with mortality rates due to asthma 2.3 times higher over 2007–2011⁶⁶.

Although the self-reported lifetime prevalence of asthma among YPICHS participants in 2015 (27.3%) is lower than in 2003 (30.4%), as illustrated in Figure 17, it has increased since 2009 (23.3%) and remains consistently higher than in the general population (10.8%)⁶⁴. In contrast to the disparity in the prevalence of asthma between Aboriginal and non-Aboriginal people in the general population, there was no significant difference in the prevalence of asthma among Aboriginal and non-Aboriginal young people participating in the 2015 YPICHS survey.

Figure 17 Ever been diagnosed with asthma

Participants who reported that they had been diagnosed with asthma were asked further questions about the recency, severity and management of their asthma. More than one third (40.4%) of these participants reported having had an asthma attack or breathing difficulties in the preceding 12 months, and 27.7% in the preceding three months. Participants who had an asthma attack or breathing difficulties in the previous three months reported a mean number of 2.6 episodes (range: 1–6 episodes) during this period. Over a quarter (28%) of participants with a history of asthma had been hospitalised due to asthma, with young females significantly more likely to have been hospitalised than young males (80% vs. 23.1%, $p < 0.05$).

Australian guidelines for the management of asthma, developed by the National Asthma Council Australia, recommend that every adult and child with asthma have a written plan for ongoing asthma management (an Asthma Action Plan), as such plans reduce asthma-related mortality and improve health outcomes. Despite these recommendations, the 2011–12 Australian Health Survey found that only 18.6% of 15–24-year-olds with asthma, and 24% of all people with asthma, had a written asthma action plan, with children aged 0–14 years most likely to have a plan (41%)⁶⁸. Similarly, among the 2015 YPICHS participants, fewer than one in five young people who had been diagnosed with asthma (18.2%) had a current asthma management plan.

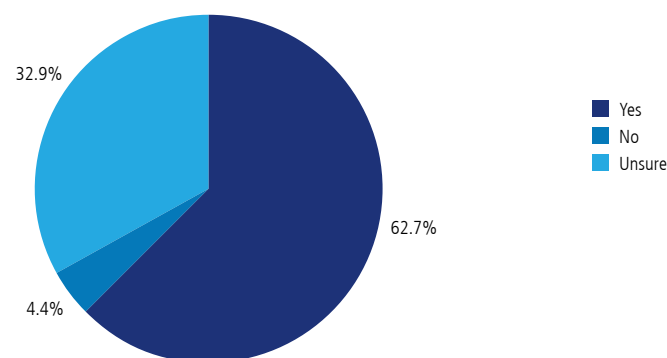
The overwhelming majority (93%) of those with a history of asthma had been prescribed medication in the past and 78.9% were currently using asthma medication, typically salbutamol (e.g. Ventolin, Asmol) (93.3%). Approximately a third of those currently using asthma medication were using more than one

type of medication (33.3%) and were using medication daily (34.9%).

3.3 Childhood immunisation

Large-scale immunisation programs, resulting in increased immunisation coverage, have greatly reduced the contraction and transmission of a range of communicable diseases that can cause serious illness or even death. The National Immunisation Program Schedule includes vaccinations against the following diseases: tetanus, diphtheria, acellular pertussis (whooping cough), hepatitis B, haemophilus influenza type B (Hib), poliomyelitis (polio), measles, mumps, and rubella. Following the introduction of childhood vaccination in Australia in 1932, mortality from vaccine-preventable diseases has decreased by 99%, even though the Australian population has tripled over this period. Global estimates suggest that immunisation programs prevent approximately three million deaths each year⁶⁹.

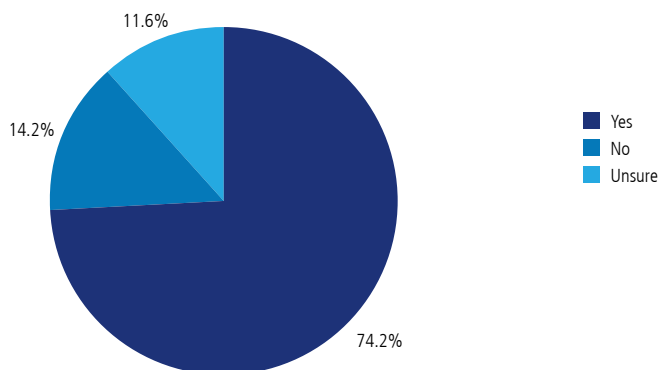
Data from the Australian Childhood Immunisation Register show that, in 2015, 92.6% of children in Australia (93.1% in NSW) had been fully immunised by 5 years of age⁷⁰. While 62.7% of 2015 YPICHS participants reported that they had received their early childhood (3–6 years of age) immunisations, 4.4% reported that they hadn't, and 32.9% were unsure (Figure 18).

Figure 18 Early childhood vaccinations

As part of the National Immunisation Program, there are school immunisation programs in each Australian state and territory, which routinely administer vaccinations against varicella (chickenpox), human papillomavirus (HPV), diphtheria, tetanus, and whooping cough to children aged 10–15 years. In NSW, these vaccinations are typically given in the first year of high school.

Almost three quarters (74.2%) of YPICHS participants reported receiving their high school immunisations, with 14.2% reporting that they hadn't received them and 11.6% unsure (Figure 19).

Figure 19 Adolescent vaccinations



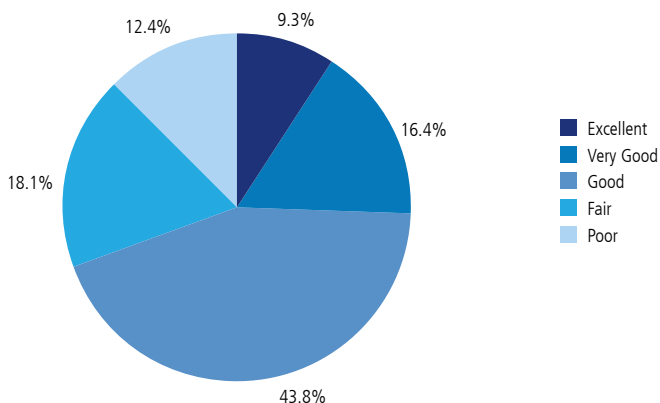
3.4 Dental health

Oral health has an important role in general health. Good oral health impacts positively on psychosocial and physical functioning, and quality of life. Poor oral health is associated with poor general health, pain and discomfort, impairment of daily functioning and consequent reduced quality of life ⁷¹. Oral diseases and conditions can increase the risk of developing chronic diseases, such as diabetes and cardiovascular disease, later in life ^{72, 73}. Conversely, chronic disease can have adverse effects on oral health, such as diabetes-related periodontal disease and tooth loss ⁷².

Rates of dental disease are higher among Aboriginal people, with Aboriginal adults having more untreated dental caries and missing teeth, fewer teeth that have been restored (i.e. filled), and a higher prevalence of self-rated “fair” or “poor” dental health ⁷⁴. Similarly, Aboriginal children in Australia have higher rates of dental caries, particularly among pre-school-aged children and those living in remote areas ⁷⁵.

Over two-thirds (69.5%) of YPICHs participants rated the general condition of their teeth as “good” to “excellent” (Figure 20). There were no significant differences between the proportions of males and females (70.4% vs. 57.9%) or Aboriginal and non-Aboriginal participants (67.7% vs. 71.6%) who rated their dental health as “good” to “excellent”.

Figure 20 Self-reported condition of teeth



The vast majority of participants (94.2%) had brushed their teeth at least once on the day preceding the interview and over three quarters (77.4%) had brushed their teeth two or more times. Nearly all participants who had brushed their teeth on the previous day had used toothpaste (99.1%). There were no significant differences according to gender (males: 93.7% vs. females: 100.0%) or Aboriginality (Aboriginal: 92.7% vs. non-Aboriginal: 96.1%) in the prevalence of toothbrushing or use of toothpaste (males: 99.5% vs. females: 100.0%; Aboriginal: 99.1% vs. non-Aboriginal: 100.0%) on the preceding day. Approximately half (51.8%) of participants reported that they had problems with their teeth and/or gums in the preceding 12 months (Table 53), most commonly tooth decay (28.3%), toothache (18.1%) and bleeding gums (13.3%). Young females were significantly more likely than young males to report tooth decay (57.9% vs. 25.7%, $p < 0.01$); otherwise, there were no differences according to gender or Aboriginality.

Table 53 Past-year problems with teeth or gums

	Males (n=206) %	Females (n=19) %	Aboriginal (n=124) %	Non- Aboriginal (n=102) %	Total (N=226) %
No problems	49.5	36.8	47.6	49.0	48.2
Occasional toothache	8.7	15.8	10.5	8.8	9.7
Frequent toothache	8.7	5.3	8.9	7.8	8.4
Tooth decay	25.7	57.9**	27.4	29.4	28.3
Tooth sensitivity	6.8	10.5	8.9	4.9	7.1
Aching gums	4.4	10.5	4.0	5.9	4.9
Bleeding gums	13.6	10.5	12.1	14.7	13.3
Denture problems	0.5	0.0	0.8	0.0	0.4
Broken/chipped teeth	2.4	0.0	0.8	2.9	2.2
Wisdom teeth problems	1.9	0.0	2.4	1.0	1.8
Other	4.3	0.0	4.0	3.9	4.0

** Statistically significant difference ($p < 0.01$) between males and females.

Participants were asked to recall the last time they had seen a dental health professional. Approximately one third (35%) had not seen a dental health professional within the preceding 12 months and 3.5% had never seen anyone about their dental health (Table 54).

Among those who hadn’t seen a dental professional for 12 months or more, 41.3% reported that the “main reason” for not seeing anyone was that they did not believe that any treatment was necessary. The next most frequently reported reasons for not visiting a dental professional were that they didn’t think dental visits were very important (17.4%); they forgot, didn’t think about it, or weren’t given a reminder (14.1%); they were too busy (8.7%); cost (5.4%); transport issues (2.2%); they were nervous (2.2%); or “other” reasons (8.7%).

Table 54 Last time saw anyone about teeth, dentures or gums

	Males (n=206) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=102) %	Total (N=226) %
Never	2.9	10.5	2.4	4.9	3.5
More than 2 years ago	20.4	21.1	25.8	13.7	20.4
1–2 years ago	15.5	5.3	11.3	18.6	14.6
6–12 months ago	13.1	21.1	10.5	17.6	13.7
3–6 months ago	14.1	0.0	9.7	17.6	13.3
2 weeks–3 months ago	23.8	36.8	33.1	14.7	24.8
Within last 2 weeks	6.3	5.3	4.8	7.8	6.2
Don't know	3.9	0.0	2.4	4.9	3.5

When participants were asked about the types of dental treatment, if any, that they had received in the preceding 12 months, almost half (43.8%) responded that they had not received any dental treatment during this period (Table 55). Of those that had received treatment during this period, the most common types of treatment received were check-ups/examinations (30.5%) and having fillings or crowns (20.8%). While orthodontic treatment in the previous 12 months was uncommon overall (2.2%), non-Aboriginal participants were more likely than Aboriginal participants to have had such treatment in the previous 12 months (4.9% vs. 0%, $p < 0.05$).

Table 55 Dental treatment received in preceding 12 months

	Males (n=206) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=102) %	Total (N=226) %
None	44.7	36.8	43.5	44.1	43.8
Cleaning	17.5	10.5	15.3	18.6	16.8
Check-up/examination	31.6	21.1	32.3	28.4	30.5
Teeth removed	10.7	10.5	12.9	7.8	10.6
Filling or crown	19.4	31.6	19.4	22.5	20.8
Gum treatment	0.0	0.0	0.0	0.0	0.0
Fluoride treatment	1.0	5.3	1.6	1.0	1.3
X-ray	5.3	0.0	3.2	6.9	4.9
Orthodontic treatment	2.4	0.0	0.0	4.9 [#]	2.2
Denture construction/ maintenance	0.5	0.0	1.0	0.0	0.4
Other	2.4	5.3	3.2	2.0	2.7

[#] Statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

3.5 Disability

Disability is typically defined as the impairments, activity limitations and participation restrictions arising from the interaction between the health condition of an individual, environmental factors and personal factors (e.g. age, gender, ethnicity, education)⁷⁶. Disability can adversely affect an individual's ability to participate in many activities: e.g., social and recreational activities, education, and employment⁷⁷. Moreover, disability is

associated with poorer health^{77, 78}. National survey data show that Australians with a profound or severe level of disability are more likely to rate their health as "fair" or "poor", have three or more chronic physical and/or mental health conditions, and have higher rates of risk factors for poor health (e.g. overweight and obesity, physical inactivity, smoking)⁷⁸.

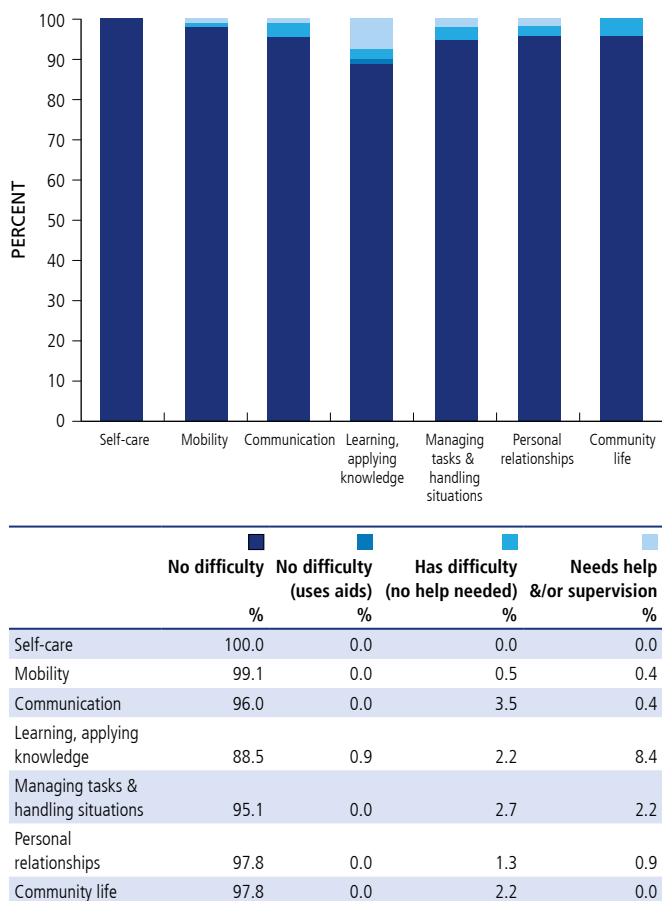
In 2015, the Survey of Disability, Ageing and Carers found that 18.3% of Australians reported living with disability: defined as "any limitation, restriction or impairment which restricts everyday activities and has lasted, or is likely to last, for at least six months". One third of those with disability (5.8% of all survey respondents) had "severe" (sometimes need help and/or have difficulty) or "profound" (unable to do an activity or always needs help) limitations with core activities (i.e. communication, mobility, self-care). Among the 15–24 year age group, 8.2% reported living with disability and 2.6% had disability associated with profound or severe limitations. Most (78.5%) of those with disability reported a physical condition, most commonly back problems (13.8%), as their main long-term health condition. Mental and behavioural disorders were the main health conditions among the remaining 21.5%, with intellectual and developmental disorders the most frequently reported conditions (6.3%)⁷⁹.

3.5.1 Disability among participants

The impact of any chronic health conditions and/or disabilities on daily functioning was assessed by asking participants about their degree of impairment in several functional domains: self-care; mobility; communication; learning and applying knowledge; managing tasks and handling situations; personal relationships; community life. These domains align with those used by the Australian Institute of Health and Welfare (AIHW)⁸⁰ and the National Disability Insurance Agency (NDIA) in the assessment of the support needs of people with a disability; however, the AIHW uses three additional domains (domestic life activities; education and training; employment) that are not relevant to an adolescent incarcerated population and were, therefore, not included in the YPICHS questionnaire.

As illustrated in Figure 21, the majority of participants did not report any difficulty in the domains assessed. The most commonly reported area in which assistance was needed was learning and applying knowledge, which was reported by 8.4% of participants, with no differences in prevalence according to gender (males: 8.3% vs. females: 10.5%) or Aboriginality (Aboriginal: 10.5% vs. non-Aboriginal 5.9%).

Figure 21 Area of participant disability



These self-reports from participants are not supported by assessments of intellectual disability, language and literacy (see sections 8 and 9). These assessments demonstrate that the level of disability and its impact on young people is significantly higher than indicated by self-report, suggesting that young people in custody are significantly under-reporting the level and impact of their disability.

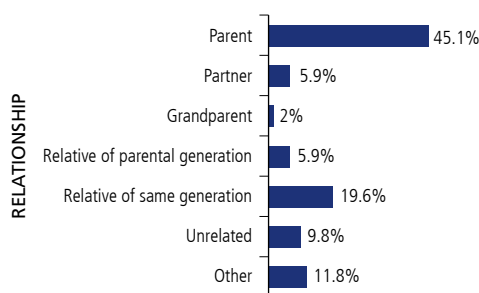
This information is critical as NSW transitions to the National Disability Insurance Scheme (NDIS). The person-centred nature of the NDIS relies heavily on the participant or their family to report accurately on the severity of their disability and the supports they will require to live an ordinary life in the community. Young people in the juvenile justice system are at risk of not receiving the educational and disability support they require if they are not able to self-report their disability support needs.

3.5.2 Disability of others living with the participant

Participants were asked whether anyone that they were living with in the four weeks preceding entry into custody had a physical, mental or emotional health problem or limitation that affected their daily functioning. Almost one quarter (22.6%) of participants had been living with someone with impaired

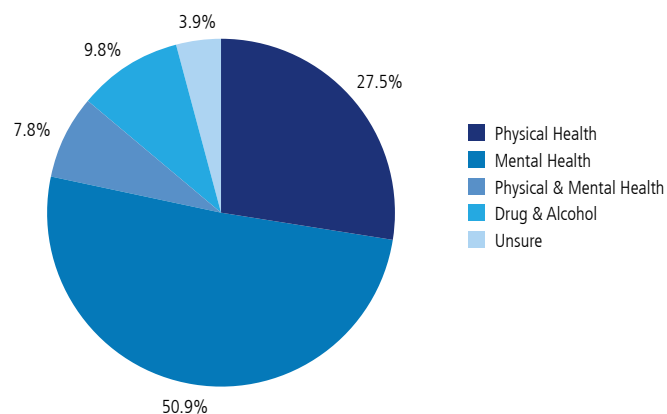
functioning, and 1.8% of participants were living with two such people. Most often, this was a parent or a relative of the same generation (i.e. a sibling or cousin) (Figure 22). In 45.7% of cases, the participant was responsible for helping to look after the person with a disability.

Figure 22 Relationship of person with disability to participant



The participants reported a range of problems/limitations suffered by the people with whom they lived, the most common being mental health problems, alone or in combination with physical problems (58.7%) (Figure 23). These problems most frequently affected the person's ability to work (40.0%) and their management of general tasks and demands (36.0%). Effects on the management of personal relationships (26.0%), involvement with the community (24.0%), communication (20.0%), mobility (12.0%), self-care (10.0%), education (10.0%), and learning (4.0%) were also reported. Almost half (47.8%) of the people residing with the participant had no difficulty in functioning due to their disabilities/limitations, but used aids, equipment or medication, while 26.1% had difficulties but did not require help and/or supervision, and 21.7% always/sometimes needed help or supervision.

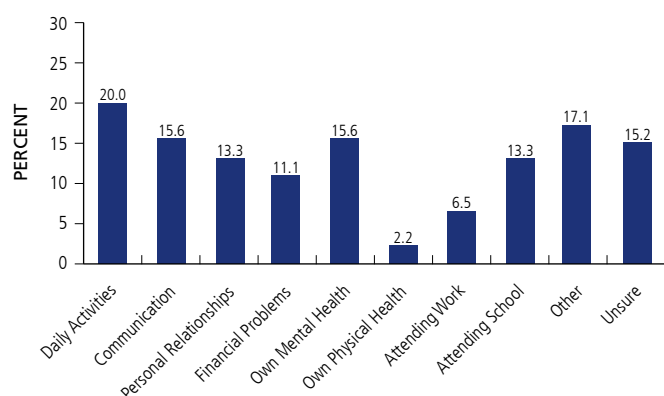
Figure 23 Problems/limitations of others



Of those participants living with someone with a problem/limitation that impaired their functioning, 26.7% reported that

such problems had no impact on their own lives. The remaining participants, however, reported a variety of ways in which their lives were affected by the problems of people with whom they lived (Figure 24).

Figure 24 Difficulties experienced by participants living with someone with a disability



3.6 Medications

Over half (55.9%) of young people (males: 55.7%; females: 54.5%) reported that they were currently taking prescribed medications, with Aboriginal participants significantly more likely than non-Aboriginal participants to do so (64.2% vs. 46.5%, $p < 0.05$). The most common medications being taken were those for the treatment of ADHD.

3.7 Injury

Injury is the leading cause of death and hospitalisation among young Australians¹⁵, accounting for around one in three child deaths between 2008 and 2010⁹. Over a quarter of participants (27.4%) reported receiving an injury over the preceding 12 months (Table 56). Among these participants, most (75.8%) had sustained one injury during this period. The mean number of injuries did not differ between males and females (1.3 vs. 1.0) or Aboriginal and non-Aboriginal participants (1.3 vs. 1.3).

Table 56 Injuries sustained over the past 12 months

	Males (n=207) %	Females (n=19) %	Aboriginal (n=125) %	Non-Aboriginal (n=102) %	Total (N=227) %
Injury in past 12 months	29.0	10.5	28.0	26.5	27.4
No. of injuries in past 12 months					
0	71.0	89.5	72.0	73.5	72.7
1	21.8	10.5	21.6	19.6	20.7
2	4.8	0.0	4.0	4.9	4.4
3	2.4	0.0	2.4	2.0	2.2

Table 57 presents the location of participants' injuries (i.e. area of the body injured). Injuries to the wrist or hand were the most common type of injury reported among male, female and non-Aboriginal participants. Among Aboriginal participants, the most commonly sustained injuries were to the ankle or foot.

Table 57 Nature of injuries in past 12 months

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
Head injury	16.7	0.0	11.4	22.2	16.1
Neck	0.0	0.0	0.0	0.0	0.0
Thorax (chest, upper back/ spine)	10.0	0.0	14.3	3.7	9.7
Abdomen, lower back/spine, pelvis	5.0	0.0	5.7	3.7	4.8
Shoulder/upper arm	5.0	0.0	2.9	7.4	4.8
Elbow/forearm	11.7	0.0	8.6	14.8	11.3
Wrist/hand	26.7	100.0	25.7	33.3	29.0
Hip/thigh	5.0	0.0	0.0	11.1	4.8
Knee/lower leg	6.7	0.0	8.6	3.7	6.5
Ankle/foot	21.7	0.0	28.6	11.1	21.0
Multiple areas	8.3	0.0	11.4	3.7	8.1
Foreign body entering through an orifice	3.3	0.0	5.7	0.0	3.2
Burns/corrosions	1.7	0.0	2.9	0.0	1.6
Poisoning (drugs/medication)	5.0	0.0	2.9	7.4	4.8
Poisoning (toxic substances)	0.0	0.0	0.0	0.0	0.0
Other/unspecified	1.7	0.0	0.0	3.7	1.6

Injuries were most often accidental (48.4%) or caused during an assault (38.7%) (Table 58). Injuries due to assault were most commonly inflicted by a stranger (25.0%), friend (20.8%) or acquaintance (8.3%). Young females were significantly more likely than young males to have been injured as a result of intentional self-harm (100% vs. 8.3%). Aboriginal young people were more likely than non-Aboriginal young people to have sustained an accidental injury (60.0% vs. 33.3%), but less likely to have been injured during an assault (25.7% vs. 55.6%).

Table 58 Cause of injuries in past 12 months

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
Accident	50.0	0.0	60.0	33.3 [#]	48.4
Intentional self-harm	8.3	100.0*	11.4	11.1	11.3
Assault	40.0	0.0	25.7	55.6*	38.7
Legal intervention	3.3	0.0	2.9	3.7	3.2
Complications from medical care	1.7	0.0	2.9	0.0	1.6
Delayed effects from earlier injury	1.7	0.0	2.9	0.0	1.6
Other/undetermined	5.0	0.0	0.0	11.1	4.8

* Statistically significant difference (p<0.05) between males and females; # statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal participants.

Participants most commonly sustained injuries while at home (33.9%), in a public place (22.6%) or on a street or highway (22.6%) (Table 59). Injuries typically occurred during leisure (54.8%) or sports (22.6%) activities (Table 60).

Table 59 Place injury occurred

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
Home	31.7	100.0	34.3	33.3	33.9
Residential institution	3.3	0.0	5.7	0.0	3.2
Juvenile justice centre	18.3	0.0	20.0	14.8	17.7
Other public building or area	23.3	0.0	14.3	33.3	22.6
Sports area	10.0	0.0	5.7	14.8	9.7
Street or highway	23.3	0.0	31.4	11.1	22.6
Trade or service area	0.0	0.0	0.0	0.0	0.0
Industrial or construction area	0.0	0.0	0.0	0.0	0.0
Farm	0.0	0.0	0.0	0.0	0.0
Other/unspecified	6.7	0.0	5.7	7.4	6.5

Table 60 Activity engaged in when injured

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
Sports	23.3	0.0	22.9	22.2	22.6
Leisure	56.7	0.0	54.3	55.6	54.8
Working for income	0.0	0.0	0.0	0.0	0.0
Other work or duties	3.3	0.0	5.7	0.0	3.2
Vital activities (incl. sleeping, washing, eating)	1.7	0.0	2.9	0.0	1.6
Other/unspecified	21.7	100.0	22.9	25.9	24.2

When asked about the severity of their injuries in the past 12 months, 80.7% of participants reported that they had sustained moderate to severe injuries (Table 61). No participants reported critical injuries during this period.

Table 61 Severity of injury

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
Minor	30.0	50.0	37.1	22.2	30.6
Moderate	56.7	50.0	57.1	55.6	56.5
Severe (not life-threatening)	20.0	0.0	20.0	18.5	19.4
Severe (life-threatening)	5.0	0.0	0.0	11.1	4.8
Critical (survival uncertain)	0.0	0.0	0.0	0.0	0.0

Most participants who had been injured in the preceding 12 months received medical attention for one or more of their injuries, with 62.9% hospitalised following an injury and 25.8% treated by a clinician without being hospitalised (Table 62). For each participant who had been hospitalised after an injury, the maximum length of time they had spent in hospital after any injury was determined. The median length of time spent in hospital during the longest period of hospitalisation was two nights (range: 1–30 nights).

Table 62 Action taken following injury

	Males (n=60) %	Females (n=2) %	Aboriginal (n=35) %	Non-Aboriginal (n=27) %	Total (N=62) %
None	15.0	0.0	17.1	11.1	14.5
Treated by self/peer	10.0	0.0	8.6	11.1	9.7
Treated by clinician (no hospitalisation)	26.7	0.0	31.4	18.5	25.8
Hospitalisation	61.7	100.0	57.1	70.4	62.9

3.8 Head injury

Any head injury that causes a loss of consciousness, regardless of how long the individual remains unconscious, can damage the brain⁸¹. A brain injury resulting from external trauma to the head, such as a blow, fall or motor vehicle accident, is known as a traumatic brain injury (TBI). TBI is the leading cause of non-fatal injury among Australians, and is one of the major contributors to the overall burden of disease among males aged 15–64⁶⁵. National data on hospital separations show that the rates of hospitalisation due to TBI are consistently higher among males across all age groups. While there is little data on the prevalence of TBI among Aboriginal people, Jamieson et al.⁸² found that their rate of assault-related head injuries was 21 times higher than that of non-Aboriginals.

Among young people, serious head injury can have long-term adverse impacts on psychosocial development and academic and occupational functioning. Between 2000 and 2006, approximately one in five people admitted to hospital in Australia due to head injury were 15–24-year-olds. Males in this age group were three times more likely than females to be hospitalised for head injuries and TBIs over this period⁸³.

High rates of head injury and associated TBI occur among both adult and juvenile offenders compared to the general population. Studies conducted among offender populations have consistently demonstrated an association between TBI and a range of adverse psychosocial outcomes, such as illicit drug use, poorer mental health, earlier contact with the criminal justice system, and higher rates of recidivism⁸⁴.

One in four participants (25.0%) (n=56) reported having a past head injury which involved a loss of consciousness (LOC), a slight decrease from previous YPICHS surveys (Figure 25), and 8.9% (n=20) had more than one such head injury (Table 63). Female participants were more likely than male participants to have sustained a head injury (52.6% vs. 22.5%, p<0.05). Of those participants reporting a head injury with LOC, 21.8% reported that a resultant brain injury had been confirmed by medical tests or scans (Table 64). In 61% of cases of head injury, the injury had been sustained within the preceding two years.

Figure 25 Ever had head injury resulting in a loss of consciousness, YPICHS 2003–2015

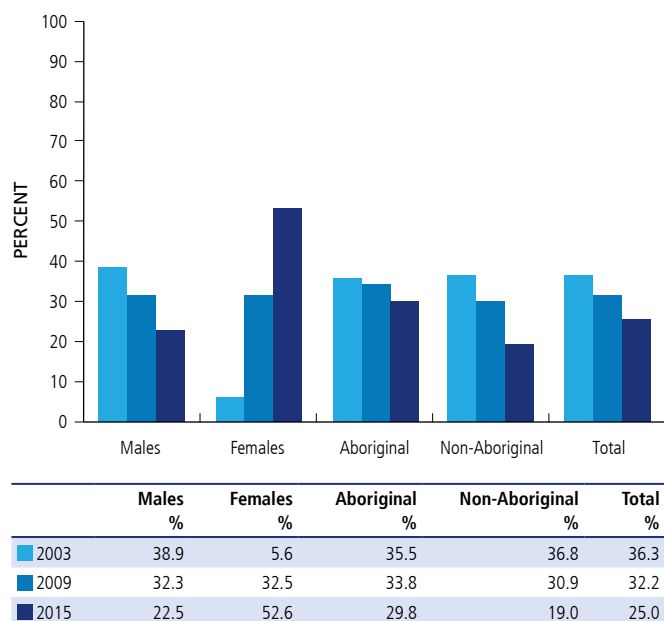


Table 63 Lifetime number of head injuries resulting in a loss of consciousness

	Males (n=204) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=100) %	Total (N=224) %
0	77.5	47.4	70.2	81.0	75.0
1	13.2	47.4	18.5	13.0	16.1
2	4.9	0.0	6.5	2.0	4.5
3–4	3.4	0.0	3.2	3.0	3.1
5–6	0.5	5.3	1.6	0.0	0.9
7+	0.5	0.0	0.0	1.0	0.4

HI=Head injury; LOC=loss of consciousness.

Table 64 Brain damage caused by head injury confirmed by medical tests and/or scans

	Males (n=45) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=18) %	Total (N=55) %
Yes	24.4	10.0	18.9	27.8	21.8
No	71.1	90.0	78.4	66.7	74.5
Don't Know	4.4	0.0	2.7	5.6	3.6

Young people reporting a past head injury with any LOC were asked to provide more information about the nature, circumstances and consequences of their injuries. If more than three head injuries had been sustained, participants were asked to recall the three most serious injuries.

Head injuries were most commonly accidental (58.9%) or caused during an assault (42.9%) (Table 65). Head injuries due to assault were most commonly inflicted by a family member (35.7%), although assault-related head injuries inflicted by strangers (21.4%), friends (21.4%), acquaintances (14.2%), and an ex-partner (7.1%) were also reported.

Table 65 Cause of past head injuries

	Males (n=46) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=19) %	Total (N=56) %
Accident	56.5	70.0	62.2	52.6	58.9
Intentional self-harm	2.2	0.0	2.7	0.0	1.8
Assault	45.7	30.0	40.5	47.4	42.9
Legal intervention	0.0	0.0	0.0	0.0	0.0
Complications from medical care	0.0	0.0	0.0	0.0	0.0
Delayed effects from earlier injury	0.0	0.0	0.0	0.0	0.0
Other/undetermined	10.9	0.0	5.4	15.8	8.9

In two thirds of cases, participants lost consciousness only momentarily after a head injury (Table 66). The proportion of female participants who had lost consciousness for more than 30 minutes was higher than that among other participants, although the difference was not statistically significant. Two participants suffered a fractured skull as a result of a head injury, with one also requiring surgery (Table 67).

Table 66 Time unconscious following a head injury

	Males (n=46) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=19) %	Total (N=56) %
Brief moment	73.9	40.0	70.3	63.2	67.9
More than 10 minutes	2.2	10.0	5.4	0.0	3.6
More than 30 minutes	6.5	30.0	10.8	10.5	10.7
More than 24 hours	2.2	0.0	2.7	0.0	1.8
Don't know	26.1	20.0	18.9	36.8	25.0

Table 67 Self-reported extent of head injury

	Males (n=46) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=19) %	Total (N=56) %
Fractured skull	4.3	0.0	0.0	10.5	3.6
Intracranial bleeding	0.0	0.0	0.0	0.0	0.0
Surgery	2.2	0.0	0.0	5.3	1.8

Young people who had sustained one or more head injuries were asked about past (Table 68) and current (Table 69) physical and psychological effects associated with the injury. Almost one half (46.4%) had experienced effects related to their head injury, typically headache, dizziness and poor concentration, and 25.0% were still experiencing residual effects, most commonly poor concentration.

Table 68 Problems resulting from head injury (past)

	Males (n=46) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=19) %	Total (N=56) %
No effect	56.5	40.0	59.5	42.1	53.6
Any effect	43.5	60.0	40.5	57.9	46.4
Weakness	13.0	0.0	2.7	26.3 [#]	10.7
Poor concentration	13.0	30.0	8.1	31.6 [#]	16.1
Memory loss/changes	8.7	10.0	0.0	26.3 [#]	8.9
Word finding difficulty	6.5	10.0	5.4	10.5	7.1
Coordination/balance problems	10.9	0.0	5.4	15.8	8.9
Personality/behaviour change	2.2	10.0	0.0	10.5	3.6
Anxiety or depression	2.2	10.0	2.7	5.3	3.6
Headache	21.7	30.0	18.9	31.6	23.2
Vision problems	13.0	10.0	5.4	26.3 [#]	12.5
Problems with sense of smell	0.0	0.0	0.0	0.0	0.0
Dizziness	26.1	30.0	24.3	31.6	26.8
Fits/seizures	0.0	0.0	0.0	0.0	0.0
Numbness or tingling	4.3	0.0	0.0	10.5	3.6
Twitches	2.2	0.0	0.0	5.3	1.8
Vomiting	2.2	0.0	2.7	0.0	1.8

HI=Head injury; LOC=loss of consciousness; # statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people; ## statistically significant difference (p<0.01) between Aboriginal and non-Aboriginal young people.

Table 69 Problems resulting from head injury (current)

	Males (n=46) %	Females (n=10) %	Aboriginal (n=37) %	Non-Aboriginal (n=19) %	Total (N=56) %
No effect	78.3	60.0	81.1	63.2	75.0
Any effect	21.7	40.0	18.9	36.8	25.0
Weakness	4.3	0.0	2.7	5.3	3.6
Poor concentration	6.5	30.0	8.1	15.8	10.7
Memory loss/changes	4.3	10.0	0.0	15.8 [#]	5.4
Word finding difficulty	0.0	10.0	2.7	0.0	1.8
Coordination/balance problems	0.0	0.0	0.0	0.0	0.0
Personality/behaviour change	2.2	10.0	0.0	10.5	3.6
Anxiety or depression	0.0	0.0	0.0	0.0	0.0
Headache	2.2	20.0	8.1	0.0	5.4
Vision problems	8.7	10.0	5.4	15.8	8.9
Problems with sense of smell	0.0	0.0	0.0	0.0	0.0
Dizziness	0.0	10.0	2.7	0.0	1.8
Fits/seizures	0.0	0.0	0.0	0.0	0.0
Numbness or tingling	2.2	0.0	0.0	5.3	1.8
Twitches	2.2	0.0	0.0	5.3	1.8

HI=Head injury; LOC=loss of consciousness; # Statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people.

3.9 Male health

Testicular cancer is the most commonly diagnosed cancer in men aged 18–39 after skin cancer, with approximately 800 men diagnosed in Australia each year⁸⁵. If detected and treated early testicular cancer has a good prognosis, with high 5-year survival rates (approximately 98%)⁸⁶.

As testicular cancer is typically discovered by accident, young males are encouraged to examine their testicles from puberty onwards⁸⁷. Less than half of male participants reported that they had ever received any education on how to properly examine their testicles for lumps. Of those who had received such education, over half (53.4%) indicated that they examined their testicles on a monthly or more frequent basis (Table 67).

Table 70 Frequency of examining testicles for lumps

	Aboriginal (n=53) %	Non-Aboriginal (n=40) %	Total (N=93) %
Once only	25.0	26.3	25.6
Less than monthly	15.4	28.9	21.1
Monthly	30.8	21.1	26.7
Weekly	28.8	23.7	26.7

3.10 Female health

All young females surveyed in 2015 had commenced menstruation. The average age of onset of menses was 12.3 years (range: 10–15 years), with no differences according to Aboriginality (Aboriginal: 12.6 years; non-Aboriginal 12.0 years).

Young females were asked whether they had ever had a Pap smear and, if so, details about their last Pap smear (Table 71). Approximately one quarter (26.3%) of young females reported having a Pap smear in the past, with the last Pap smear being conducted within the preceding six months in most cases. Of the five participants who had ever had a Pap smear, two had their last Pap smear while in custody. Four participants were aware of the results of their last pap smear, with only one participant reporting an “abnormal” result.

Table 71 Pap smears

	Aboriginal (n=12) %	Non-Aboriginal (n=7) %	Total (N=19) %
Ever had a pap smear	33.3 (n=4)	14.3 (n=1)	26.3 (n=5)
Location of last pap smear:			
In detention	50.0	0.0	40.0
In the community	50.0 (n=4)	100.0 (n=1)	60.0 (n=5)
Recency of last pap smear:			
Less than 6 months ago	100.0	0.0	80.0
6 – <12 months ago	0.0	0.0	0.0
12 months – <2 years ago	0.0	0.0	0.0
2 – <4 years ago	0.0	100.0	20.0
4 years or more ago	0.0 (n=4)	0.0 (n=1)	0.0 (n=5)
Result of last pap smear:			
Normal	50.0	100.0	60.0
Abnormal	25.0	0.0	20.0
Don't know	25.0	0.0	20.0

Almost one in three female participants had been pregnant, with one participant currently pregnant (Table 72). The average age at which participants first became pregnant was 14.2 years (range: 13–17 years). Of the six young females who had ever been pregnant, two reported having had a termination, and three a miscarriage.

Table 72 Pregnancy

	Aboriginal (n=12) %	Non-Aboriginal (n=7) %	Total (N=19) %
Ever been pregnant	33.3	28.6	31.6
Pregnant at the time of interview	0.0	14.3	5.6
Age of first pregnancy (mean)	13.8 (n=4)	15.0 (n=2)	14.2 (n=6)
Ever had a pregnancy termination	50.0 (n=4)	0.0 (n=2)	33.3 (n=6)
Ever had a miscarriage	50.0	50.0	50.0

4. Physical health measures

Participants were asked to undergo a physical health examination, which included measurement of height, weight, visual acuity, hearing, and blood pressure. When participant consent was provided, fingerprick testing for random blood glucose was conducted and urine and venous blood samples collected.

4.1 Height and weight

For participants who consented to and underwent a physical health check, the following physical measurements were recorded: height in centimetres (cm), weight in kilograms (kg), and waist and hip circumferences (cm).

The average height of males was 174.2 cm (range: 150–190 cm), which is between the 25th and 50th percentile for an average age of 17.3 years, while the average weight was 74.2 kg, which is between the 50th and 75th percentile.

Among females, the average height was 165.1 cm (range: 154–174 cm), which is between the 50th and 75th percentile for an average age of 16.3 years, while the average weight was 66.1 kg, which is between the 75th and 90th percentile.

4.1.1 Body Mass Index

Childhood overweight and obesity is a major public health concern. In 2015, almost one in four (22%) of NSW children aged 5–16 years were overweight or obese⁸⁸. Overweight and obesity during childhood and adolescence places young people at increased risk of metabolic syndrome, a cluster of risk factors (excess abdominal weight, lipid abnormalities, elevated glucose levels, and hypertension) for type 2 diabetes and cardiovascular disease. As childhood obesity is a strong predictor of adult obesity, the risk of associated chronic disease and mortality can accumulate throughout adulthood⁸⁹.

Australian and international clinical guidelines for the management of obesity recommend the use of body mass index (BMI) to assess weight status. In adults, BMI, which is calculated by dividing weight in kilograms by the square of height in metres (kg/m²), is used to determine whether a person is underweight, a healthy weight, overweight or obese. As a healthy ratio of weight to height varies according to a child's stage of development, weight status in children and adolescents up to 18 years of age is assessed using age – and sex-specific percentiles, known as BMI-for-age reference values, developed by the World Health Organization (WHO), United States Centers for Disease Control and Prevention (US-CDC) and the International Obesity Taskforce⁹⁰.

The prevalence of overweight and obesity among young people in custody far exceeds that among young people in the community. Haysom et al.⁹¹ found that, based on BMI, 47.9%

of young people in custody in 2009 were overweight or obese, and that 37.0% had a waist-to-height ratio (WHtR) indicative of increased metabolic risk, with those who had spent a longer time in custody more likely to be overweight or obese. Elevated overweight and obesity among young people in custody is likely to be due to a complex interaction of factors:

- genetics and lifestyle factors;
- a custodial environment regarded as “obesogenic”, particularly for Aboriginal adolescents, who represent approximately 50% of the juvenile custodial population⁹¹; and
- high rates of mental illness, with approximately 30% prescribed psychotropic medications which can cause significant weight gain and are associated with adverse metabolic side effects, atypical antipsychotics in particular⁹².

For participants aged 18 years or younger, BMI-for-age was calculated using the US-CDC BMI-for-age percentile charts for children and adolescents⁹³. The US-CDC categorises overweight as a BMI between the 85th and 95th percentiles, and obesity as a BMI above the 95th percentile.

Among those for whom BMI data (i.e. height and weight) were available (n=159), 27.7% were overweight and 18.2% were obese (Table 73). There were no significant differences in the prevalence of overweight and obesity by gender or Aboriginality.

Table 73 Body mass index category

	Males (n=140) %	Females (n=18) %	Aboriginal (n=93) %	Non-Aboriginal (n=66) %	Total (N=159) %
Underweight <5 th percentile	1.4	5.6	2.2	1.5	1.9
Healthy weight 5 th – 84 th percentile	52.1	50.0	52.7	51.5	52.2
Overweight 85 th – 94 th percentile	27.9	27.8	28.0	27.3	27.7
Obese ≥ 95 th percentile	18.6	16.7	17.2	19.7	18.2

4.1.2 Waist-to-height ratio

Clinical guidelines for weight assessment of adults recommend that waist circumference be used in addition to BMI to assess the risk of overweight – and obesity-related morbidity, such as metabolic syndrome, cardiovascular disease and type 2 diabetes⁹⁰. Waist circumference is widely regarded as a better indicator of intra-abdominal fat (fat within the abdominal cavity) than BMI, which does not account for variation in body fat distribution. As abdominal fat is associated with a greater risk of obesity-related disease than subcutaneous fat (fat located under the skin), waist circumference is a better indicator of cardiometabolic risk^{90, 94, 95}.

Among children and adolescents, however, guidelines suggest that, due to a lack of universally accepted thresholds over which a young person's waist circumference is deemed to pose a risk to health, the ratio of waist circumference to height is a more useful predictor of cardiometabolic risk^{90,96}. A WHtR equal to or greater than 0.5 (i.e. waist circumference \geq 50% of height) has been demonstrated to identify abdominal adiposity and associated cardiometabolic risk in overweight and obese children and adolescents⁹⁷. National Health & Medical Research Council (NHMRC) guidelines recommend that young people with a WHtR \geq 0.5 undergo further cardiovascular risk assessment⁹⁸.

Forty percent of participants had a WHtR \geq 0.5, indicating increased metabolic risk, with no significant differences according to gender or Aboriginality (Table 74). The prevalence of elevated WHtR was similar to that among 2009 YPICHs participants (37%), but far greater than that among young people in the community (approximately 17%)⁹⁹.

Table 74 Waist-to-height ratio

	Males (n=140) %	Females (n=18) %	Aboriginal (n=93) %	Non-Aboriginal (n=66) %	Total (N=159) %
WHtR \geq 0.5	40.1	41.2	39.8	40.3	40.0

4.2 Blood pressure

Two hundred and four participants had their blood pressure taken. The mean sitting systolic blood pressure was 118.9 mmHg and the mean sitting diastolic blood pressure was 70.5 mmHg (Table 75). Males had a significantly higher average systolic reading than females.

Table 75 Mean blood pressure readings

	Males (n=185)	Females (n=18)	Aboriginal (n=116)	Non-Aboriginal (n=87)	Total (N=203)
Mean systolic BP (sitting)	119.8	109.8**	119.2	118.5	118.9
Mean diastolic BP (sitting)	70.5	70.4	70.5	70.4	70.5

BP=blood pressure; ** statistically significant difference ($p < 0.001$) between males and females

For young people aged 18 and over, blood pressure was categorised using the National Heart Foundation of Australia's 2016 guideline for the diagnosis and management of hypertension in adults¹⁰⁰ which, in accordance with WHO recommendations, suggests a diagnosis of hypertension in individuals with a systolic blood pressure of 140 mmHg or higher and/or a diastolic blood pressure of 90 mmHg or higher. Prehypertension is indicated at a systolic blood pressure of 130–139 mmHg and/or a diastolic blood pressure of 85–89 mmHg.

In children and adolescents up to the age of 17, blood pressure thresholds account for age, gender and height. Based on the

National Institutes of Health's tables of systolic blood pressure by age and height¹⁰¹, normal blood pressure among participants aged 14–17 was defined as a systolic reading < 120 mmHg (< 119 mmHg for 14-year-old females with height < 153 cms). Blood pressure exceeding the normal threshold was categorised as prehypertension (also known as high normal), stage 1 hypertension or stage 2 hypertension (Table 76). No participants had blood pressure indicative of hypertensive crisis (systolic reading > 180 mmHg; diastolic reading > 110 mmHg).

Results presented in Table 76 show that almost two thirds of participants had normal blood pressure readings. Females were more likely than males to have normal blood pressure and males were more likely to meet criteria for prehypertension. At the hypertensive phases, however, there were no significant gender differences.

Table 76 Blood pressure categories

	Males (n=184) %	Females (n=18) %	Aboriginal (n=116) %	Non-Aboriginal (n=87) %	Total (N=203) %
Normal BP	61.4	88.9*	62.1	66.7	64.0
Prehypertension	28.3	5.6*	27.6	24.1	26.1
Stage 1 Hypertension	8.7	5.6	8.6	8.0	8.4
Stage 2 Hypertension	1.6	0.0	1.7	1.1	1.5

BP=blood pressure; * statistically significant difference between males and females ($p < 0.05$).

4.3 Blood glucose

Random blood glucose levels were obtained via fingerprick testing for 190 participants. Results presented in Table 77 show that almost all young people had normal results. Six participants (3.3%) had a higher than normal blood glucose level and one participant (0.5%) had a slightly lower level (3.1 mmol/L).

Table 77 Random blood glucose level (fingerprick test)

	Males (n=176) %	Females (n=13) %	Aboriginal (n=108) %	Non-Aboriginal (n=82) %	Total (N=190) %
Normal (3.5 – 7.8 mmol/L)	96.0	100.0	95.4	97.6	96.3
Higher than normal (> 7.8 mmol/L)	3.4	0.0	3.7	2.4	3.2
Lower than normal (< 3.5 mmol/L)	0.6	0.0	0.9	0.0	0.5

HbA1c is a test that measures the amount of glucose in the blood that binds to haemoglobin (glycated haemoglobin), providing an average blood glucose level over the preceding 10–12 weeks. HbA1c levels below 6.0% are considered "normal". HbA1c levels of 6.0% to 6.5% indicate a high risk of diabetes and levels equal to or greater than 6.5% are indicative of diabetes and regarded as "abnormal".

HbA1c results were obtained for 99 participants. Nearly all (99.0%) participants had a normal HbA1c level (Table 78). A single participant had an HbA1c value of 6.3, indicating an increased risk of diabetes.

Table 78 Glycated haemoglobin

	Males (n=94) %	Females (n=5) %	Aboriginal (n=57) %	Non-Aboriginal (n=42) %	Total (N=99) %
Normal (<6.0%)	98.9	100.0	98.2	100.0	99.0
High risk of diabetes (6.0 – 6.5%)	1.1	0.0	1.8	0.0	1.0
Diabetes (≥6.5%)	0.0	0.0	0.0	0.0	0.0

4.4 Liver function

Liver function tests were performed for 113 participants. Based on the reference intervals specified by the pathology laboratory at which testing was conducted, 47.8% of participants tested had results outside the normal range. Abnormal results were most commonly due to levels of alanine aminotransferase and aspartate aminotransferase higher than the upper limit of the reference interval, which occurred in 20.4% and 17.7% of cases respectively. There were no differences according to gender or Aboriginality in the prevalence of abnormal results.

4.5 Sexually transmitted infections and blood-borne viruses

The increased risk-taking that often occurs among young people during mid-late adolescence makes them more vulnerable to communicable diseases. Unsafe sexual practices elevate the risk of contracting sexually transmitted infections (STIs), such as chlamydia, gonorrhoea, syphilis and HIV, while injecting drug use is associated with a greater risk of blood-borne virus (i.e. HIV, HBV, HCV) acquisition¹⁵. In 2015, chlamydia was the second most frequently reported notifiable condition in Australia, with 77% of new diagnoses among 15–29-year-olds. Chlamydia notifications occurred most commonly among females (57%), especially in the 15–19 year age group, where the female-to-male ratio was 3:1¹⁰².

4.5.1 Sexually transmissible infections

Urine testing for chlamydia and gonorrhoea was conducted for 135 participants, six (4.4%) of whom tested positive for chlamydia. While the proportion of chlamydia infections detected among YPICHS participants has increased since 2009 (2%), it was lower in 2015 than in 2003 (7%). As in 2009, no participants tested positive for gonorrhoea, a decrease from the 2% of cases detected in 2003. Of the 106 participants tested for syphilis, one tested positive, whereas there were no cases of syphilis detected in 2009.

4.5.2 Blood-borne viruses

One hundred and seven participants were tested for HBV and HCV, and 83 screened for HIV. Overall, there was a low prevalence of blood-borne virus exposure.

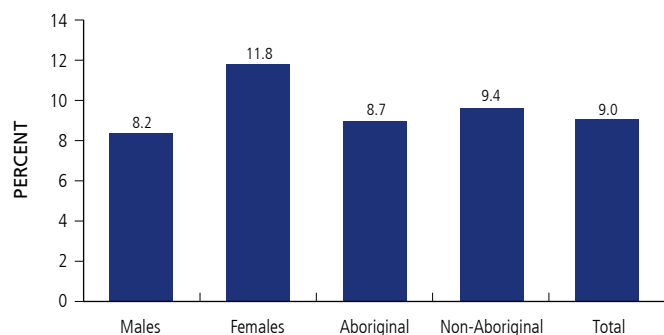
Of those tested for HBV, 80 (74.8%) tested positive for HBV surface antibodies, and a further three (2.8%) had borderline results, suggesting immunity via past infection or vaccination, but most likely through childhood and school immunisation programs. Two young people (1.9%) tested positive for HBV core antibodies, indicating a prior HBV infection. No participants tested positive for HBV surface antigen, a marker of recent or active infection. Three participants (2.8%) tested positive for HCV antibodies and one (0.9%) for active HCV infection. In contrast to the marked decrease between 2003 and 2009 in the rates of HBV (2003: 11.2%; 2009: 2.2%) and HCV (2003: 9.1%; 2009: 1.9%) antibody detection, detection rates in 2009 and 2015 were similar.

Consistent with the 2003 and 2009 YPICHS, no participants screened positive for either HIV antibodies or HIV antigen.

4.6 Vision

Participants were asked whether they wore prescription glasses or contact lenses and, if so, which vision problems their glasses or contact lenses were prescribed to correct. They were then administered a visual acuity test using a standardised Snellen chart. A total of 9.0% of participants reported that they required prescription lenses, with no differences by gender or Aboriginality (Figure 26). Glasses or contact lenses were typically prescribed for short-sightedness (27.8%) and long-sightedness (22.2%), but also for astigmatism (5.6%), blindness in one eye (0.4%), and cataracts (0.4%). Some participants did not specify a particular vision problem, but reported wearing prescription lenses for reading (1.7%) and focusing (0.4%). In 11.1% of cases, participants reported that they were unsure of the vision problem their lenses were prescribed to correct. According to the ABS 2014–15 National Health Survey, 11.7% of children aged 0–14 years and 36.2% of 15–24-year-olds have a long-term eye condition, predominantly short – or long-sightedness⁶⁴.

Results for the visual acuity test are presented in Table 79. Those who usually wore prescription lenses performed the test wearing their glasses/contact lenses. These results show that 94.9% of the 177 participants completing this section had 6/6 vision (20/20 US Snellen), which is classified as “normal” vision. A small proportion (3.4%) of participants could not accurately read beyond line 6 of the Snellen chart, indicating some degree of visual impairment.

Figure 26 Wear glasses or contact lenses**Table 79 Visual acuity (both eyes)**

	Males (n=161) %	Females (n=15) %	Aboriginal (n=94) %	Non-Aboriginal (n=83) %	Total (N=177) %
Line 1 correct (6/60)	100.0	100.0	100.0	100.0	100.0
Line 2 correct (6/36)	100.0	100.0	100.0	100.0	100.0
Line 3 correct (6/24)	100.0	100.0	100.0	100.0	100.0
Line 4 correct (6/18)	100.0	100.0	100.0	100.0	100.0
Line 5 correct (6/12)	99.4	100.0	100.0	98.8	99.4
Line 6 correct (6/9)	97.5	100.0	97.9	97.6	97.7
Line 7 correct (6/7.5)	96.9	93.3	96.8	96.4	96.6
Line 8 correct (6/6)	95.0	93.3	94.7	95.2	94.9

4.7 Hearing

Middle ear infection (otitis media) is one of the most common childhood illnesses, with estimates suggesting that by the age of 12 months, almost 73% of Australian children will have experienced at least one episode and almost all children by the age of three¹⁰³. Repeated middle ear infections in early childhood are associated with subsequent hearing problems which, in turn, can adversely impact language, academic and social development¹⁰⁴.

Rates of otitis media and associated hearing loss among Aboriginal children are among the highest in the world, with epidemiological studies finding middle ear disease in Aboriginal children living in remote communities almost universal (>90%)^{105, 106}. Otitis media among Aboriginal children has an earlier onset, is more likely to be bilateral (i.e. present in both ears), has a greater severity and recurrence rate, and is more likely to persist as a chronic disease^{104, 105}.

4.7.1 Hearing Problems

A family history of hearing problems was reported by 28.5% of participants, past ear infections by 34.8% and hearing difficulties by 18.7% (Table 80). Young females were significantly more likely than young males to have a family history of hearing problems and to report hearing difficulties, but there were otherwise no significant differences by gender or Aboriginality. Among those

with a hearing difficulty, over half had trouble hearing in both ears and one participant wore hearing aids.

Table 80 Self-reported hearing problems

	Males (n=164) %	Females (n=17) %	Aboriginal (n=106) %	Non-Aboriginal (n=76) %	Total (N=182) %
Family history of hearing problems	25.2	66.7**	26.2	31.6	28.5
Ear infections or dizziness	34.1	43.8	38.7	29.3	34.8
Difficulty hearing	15.9	47.1**	20.8	15.8	18.7
Left ear	2.4	5.9	3.8	1.3	2.7
Right ear	3.7	17.6	6.6	2.6	4.9
Both ears	8.5	23.5	8.5	11.8	9.9
Wear hearing aids	0.0	12.5	5.3	0.0	3.2
Ring in ears	29.6	50.0	36.5	25.0	31.8

** Statistically significant difference between males and females (p<0.01).

4.7.2 Hearing risk behaviours

The most common cause of hearing loss is exposure to excessive noise, which can damage the hearing mechanism in the inner ear¹⁰⁷. Exposure to loud noise was universal, with all participants reporting exposure to at least one type of loud noise. The most common type of exposure was listening to loud music or games through headphones, which was reported by 83.9% of participants (Table 81). Over half (55.3%) of those who listened to loud music or games through headphones did so for six or more hours per week (Table 82). Males were significantly more likely than females to have been exposed to noise from tractors or other farm machinery, trail or motor bikes, and amusement machines, while non-Aboriginal participants were more likely to report exposure to excessive noise at rock concerts and/or clubs (Table 81).

Table 81 Exposure to loud noises

	Males (n=163) %	Females (n=16) %	Aboriginal (n=107) %	Non-Aboriginal (n=73) %	Total (N=180) %
Tractor or farm machinery	50.3	18.8*	44.9	50.7	47.2
Trail bike or motor bike	66.9	37.5*	62.6	65.8	63.9
Amusement machines	41.7	6.3**	34.6	43.8	38.3
Rock music (as a band member)	7.4	6.3	5.6	9.6	7.2
Rock concerts and/or clubs	40.1	25.0	28.0	54.2###	38.5
Listen to loud music or games through headphones	82.1	100.0	86.9	79.5	83.9

* Statistically significant difference between males and females (p<0.05); ** statistically significant difference between males and females (p<0.01); ### statistically significant difference (p<0.001) between Aboriginal and non-Aboriginal participants.

Table 82 Amount of time spent listening to loud music/games through headphones

Hours per week	Males (n=132) %	Females (n=17) %	Aboriginal (n=92) %	Non-Aboriginal (n=58) %	Total (N=150) %
<1 hour	17.4	29.4	18.5	19.0	18.7
1 – <6 hours	25.8	23.5	20.7	32.8	25.3
6 – <10 hours	9.8	23.5	10.9	13.8	12.0
10+ hours	46.2	23.5	48.9	34.5	43.3

5. Health behaviours

5.1 Physical activity

The role of regular physical activity in the maintenance of good health and prevention of overweight, obesity and related chronic disease, such as cardiovascular disease and type 2 diabetes, is well documented¹⁰⁸. Physical activity also has benefits beyond the improvement of physical health, enhancing psychological and social wellbeing in children, adolescents and adults^{109, 110}.

According to Australia's Physical Activity and Sedentary Behaviour Guidelines for Young People aged 13–17 years¹¹¹, young people in this age group should engage in activity of moderate to vigorous intensity, including a variety of aerobic activities, every day, accumulating at least 60 minutes of such activity per day. The guidelines also recommend that young people engage in muscle and bone-strengthening activities on at least three days per week. Results from the 2011–12 Australian Health Survey suggest that the majority of young people do not meet the physical activity guidelines, with only one in five (19.4%) young people aged 5–17 years engaging in the recommended amount of weekly activity¹¹². Moreover, as age increased, physical activity decreased and sedentary screen-based activity increased. While 35.7% of 5–8-year-olds met the recommended levels of physical activity, only 5.8% of 15–17 years did so.

Table 83 presents participants' levels of physical activity preceding and since entry into custody. In the 12 months before entering custody, approximately two thirds of participants stated that they had been fairly to very physically active, and 42.9% had taken part in an organised sport. Females were significantly more likely than males, and Aboriginal participants more likely than non-Aboriginal participants, to report that they were not at all active in the 12 months before entering custody (Table 83).

Since entering custody, more than half (58.0%) thought that they had become more active, although 18.6% considered themselves less active than before custody. The overwhelming majority of participants (93.7%) had engaged in vigorous physical activity in the week preceding interview and had done so on a median of seven occasions (Table 83).

Table 83 Physical activity

	Males (n=206)	Females (n=19)	Aboriginal (n=124)	Non- Aboriginal (n=102)	Total (N=226)
Activity level before custody (%):					
Not at all physically active	7.3	31.6**	12.9	4.9#	9.3
Not very physically active	23.8	10.5	20.2	25.5	22.6
Fairly physically active	50.0	42.1	50.0	49.0	49.6
Very physically active	18.9	15.8	16.9	20.6	18.6
Change in activity levels (%):					
Less active	17.0	36.8	21.0	15.7	18.6
About the same	20.4	10.5	20.2	18.6	19.5
More active	59.7	36.8	55.6	60.8	58.0
Don't know	2.4	15.8*	2.4	4.9	3.5
Participated in organised sport (%)					
	43.2	42.1	45.2	40.2	42.9
Number of times in past week engaged in vigorous physical activity (median)					
	7	3	7	7	7
Time spent in vigorous activity in past week (median minutes)					
	420	105	420	420	420

** Statistically significant difference ($p < 0.01$) between males and females; * statistically significant difference ($p < 0.05$) between males and females; # statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

5.2 Diet and nutrition

Good nutrition plays a key role in the prevention of chronic disease, such as cardiovascular disease, type 2 diabetes and certain cancers^{15, 113}. The NHMRC¹¹⁴ recommends that young people aged 12–18 years consume two serves of fruit and five (females) to five and a half (males) serves of vegetables each day.

Geographic (e.g. remoteness), cultural, social, psychological and environmental factors can influence food choices. Nevertheless, most young people do not consume the recommended amount of fruit and vegetables¹⁵.

Participants were asked about their dietary patterns prior to entering custody (i.e. in the community) and since entering custody. Table 84 presents the proportion of young people that reported regular (i.e. three or more times per week) consumption of a range of foods pre-custody and shows that although Aboriginal young people were more likely than non-Aboriginal young people to regularly consume milk, they were also more likely to report regular consumption of energy-dense low-nutrient foods, such as potato crisps, biscuits and chocolate.

Table 84 Dietary consumption before custody

	Males (n=204) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=101) %	Total (N=224) %
Fresh fruit	41.2	31.6	45.5	33.7	40.2
Fresh vegetables	48.0	42.1	52.8	41.6	47.8
Breakfast	47.5	36.8	46.3	46.5	46.4
Fruit juice	49.0	52.6	52.8	44.6	49.1
Green salad	36.3	38.9	39.3	33.7	36.8
Milk	71.1	57.9	78.9	58.4 [#]	69.6
Hamburger, meat pie, hot dog or sausage	58.6	42.1	66.4	45.5 [#]	57.0
Potato crisps/chips	56.4	63.2	64.2	47.5 [#]	56.7
Biscuits, doughnuts, chocolate, ice cream, cakes	54.4	68.4	62.6	46.5 [#]	55.4
Takeaway food	61.3	63.2	62.6	59.4	61.2
Energy drinks	53.4	52.6	48.8	58.4	53.1

[#] Statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people; [#] statistically significant difference (p<0.01) between Aboriginal and non-Aboriginal young people.

Participants' diets had improved while in custody, as is evident from Table 85. Eating fresh fruit three or more times a week increased from 40.2% pre-custody to 90.2% since entering custody. Similarly, eating vegetables three or more times a week increased from 47.8% pre-custody to 85.3% since entering custody. Conversely, the regular consumption of nutritionally poorer foods, such as hamburgers, hot dogs, ice cream and energy drinks had decreased since participants had been in custody. Moreover, the proportion of young people that usually chose water to drink when they were thirsty increased from 45.1% before custody to 89.8% since custody.

Table 85 Dietary consumption since entering custody

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Fresh fruit	89.8	94.7	92.7	87.3	90.2
Fresh vegetables	85.4	84.2	85.4	85.3	85.3
Breakfast	94.6	100.0	95.1	95.1	95.1
Fruit juice	67.3	84.2	74.0	62.7	68.9
Green salad	78.5	78.9	78.9	78.4	78.7
Milk	92.7	89.5	96.7	87.3 [#]	92.4
Hamburger, meat pie, hot dog or sausage	22.9	42.1	26.0	22.5	24.4
Potato crisps/chips	11.2	26.3	14.6	10.8	12.9
Biscuits, doughnuts, chocolate, ice cream, cakes	23.0	31.6	26.8	20.8	24.1
Takeaway food	2.5	0.0	3.3	1.0	2.2
Energy drinks	2.0	5.6	2.5	2.0	2.2

[#] Statistically significant difference (p<0.01) between Aboriginal and non-Aboriginal young people.

In accordance with NHMRC guidelines, most participants (82.4%) reported that, on average, they ate two or more pieces

of fruit per day (mean: 2.9 pieces). In contrast, only 3.8% ate five or more serves of vegetables per day (mean: 2.1 serves).

5.3 Weight and body image

Participants were asked about their perceptions of their body weight and about past and recent weight control behaviours. Over half (60.7%) thought that they were "about the right weight", 18.8% that they were "slightly" to "very" underweight and 20.5% that they were "slightly" to "very" overweight (Table 86). Young females were significantly more likely than young males to perceive themselves as overweight (42.1% vs. 18.1%, p<0.05).

Table 86 Participants' perception of weight

	Males (n=204) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=101) %	Total (N=224) %
Very underweight	2.0	0.0	0.0	4.0	1.8
Slightly underweight	17.6	10.5	16.3	17.8	17.0
About the right weight	62.3	47.4	63.4	57.4	60.7
Slightly overweight	17.6	31.6	19.5	18.8	19.2
Very overweight	0.5	10.5	0.8	2.0	1.3

Table 87 presents participants' responses to a question about whether they were trying to alter their weight. Almost two thirds (63.5%) of participants responded that they were trying to change their weight, with 45.3% trying to gain weight and 18.2% trying to lose weight. Young males were more likely to report that they wanted to gain weight (48.8% vs. 10.5%, p<0.01) (Table 87).

Table 87 Participants' weight goals

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Not trying to do anything about weight	25.4	47.4	27.6	27.5	27.6
Lose weight	17.6	26.3	16.3	20.6	18.2
Gain weight	48.8	10.5 ^{**}	44.7	46.1	45.3
Stay the same weight	8.3	15.8	11.4	5.9	8.9

^{**} Statistically significant difference (p<0.01) between males and females.

During the preceding four weeks, more than one in four (28.0%) participants who were trying to change or maintain their weight had eaten less food, fewer calories, or foods low in fat in order to lose weight or keep from gaining weight. Those who had restricted their dietary intake during this period did so for a median of 15 days. There were no significant differences in the prevalence of dietary restrictions according to gender (males 29.4%, females 9.1%) or Aboriginality (Aboriginal 30.0%, non-Aboriginal 25.7%).

Most participants (86.5%) felt that their weight had changed since coming into custody (Table 88). Weight had typically increased (79.7%), although in two thirds of these cases a small rather than large weight increase was reported.

Table 88 Perceived weight change since coming into custody

	Males (n=201) %	Females (n=19) %	Aboriginal (n=120) %	Non-Aboriginal (n=101) %	Total (N=221) %
Increased a lot	28.4	36.8	32.5	24.8	29.0
Increased a little	51.7	36.8	50.8	50.5	50.7
Stayed the same	12.4	15.8	7.5	18.8	12.7
Decreased a little	5.5	10.5	7.5	4.0	5.9
Decreased a lot	1.0	0.0	0.8	1.0	0.9
N/A (recently arrived)	1.0	0.0	0.8	1.0	0.9

5.4 Sun protection

Australia has one of the highest rates of skin cancer in the world, with two in three Australians expected to be diagnosed with skin cancer by the age of 70¹¹⁵. Skin cancer is the most common type of cancer diagnosed in Australia, accounting for 80% of all newly diagnosed cancers. Overexposure to ultraviolet (UV) radiation is the leading risk factor for the development of skin cancer. While sun exposure is the most common source of UV radiation, it can also come from other sources, such as solariums, which are now banned in Australia¹¹⁵. Higher levels of sun exposure during childhood and adolescence, and sunburn in particular, increase the risk of skin cancer later in life, including melanoma, the most dangerous form of skin cancer^{116–118}.

The Cancer Council recommends a range of sun protection behaviours for the prevention of skin cancer: wearing sun-protective clothing that covers as much skin as possible; applying sunscreen with a high sun protection factor (e.g. SPF30+); wearing a hat that protects the face, head, neck and ears; seeking out shade; and wearing sunglasses¹¹⁵.

Participants were asked about the sun protection measures that they usually used when they were outdoors on a sunny day in the community. The majority (83.5%) used some form of sun protection, with young females more likely to wear sunglasses, and young males more likely to wear a hat, cap or hood (Table 89). Reasons given for not using sun protection included the following: the participant didn't think or worry about sun protection (n=3); they were not in the sun long enough to get sunburned (n=1); they wanted a tan (n=1); and, a belief that Aboriginal people don't burn (n=2).

There were marked differences in the sun protection behaviours of YPICHs participants and those reported by 12–17-year-olds participating in the 2011 NSW School Students Health Behaviours Survey. Almost half (43.3%) of NSW students in 2011 reported

that they usually or always apply sunscreen when outside for an hour or more on sunny summer days, whereas only 16.4% of YPICHs participants did so. They were also more likely than YPICHs participants to report that they usually or always tried to stay in the shade (34.8% vs. 19.1%)¹¹⁹.

Table 89 Sun protection behaviours

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Wear hat, cap or hood	77.6	21.1***	73.2	72.5	72.9
Wear clothes covering arms and legs	18.5	21.1	17.1	21.6	19.1
Wear sunscreen	15.6	21.1	14.6	18.6	16.4
Wear sunglasses	28.8	68.4***	29.3	36.3	32.4
Try to stay in the shade	19.5	10.5	16.3	22.5	19.1
None of the above	16.7	15.8	16.3	16.8	16.5

*** Statistically significant difference (p<0.001) between males and females.

Participants had spent an average of 7.2 hours outside each day while in the community, with 30.5% typically spending more than eight hours outside each day. Young males spent significantly more time in the sun than young females (7.5 vs. 4.6 hours per day, p<0.01).

Almost one third (32.1%) of young people received at least one sunburn over the preceding summer and 22.4% received more than one sunburn (Table 90). Males were more likely than females to have been sunburned (33.8% vs. 10.5%, p<0.05).

Table 90 Sunburn during the preceding summer

	Males (n=204) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=101) %	Total (N=224) %
Not at all	66.2	89.5	72.4	62.4	67.9
Once	9.8	5.3	8.1	11.9	9.8
2–3 times	11.3	0.0	9.8	10.9	10.3
4 or more times	12.7	5.3	9.8	14.9	12.1

When asked if they had been using sun protection when participating in outdoor activities while in custody, 46% responded positively. Use of sun protection was more prevalent among males than females (48.5% vs. 15.8%, p<0.01), but there was no difference according to Aboriginality (48.0% vs. 43.63%).

5.5 Tattooing and body piercing

More than half (59.1%) of participants had tattoos and/or piercings. Young females were more likely than young males to have tattoos or piercings, and both tattoos and piercings in particular (Table 91). Tattoos and piercings were predominantly done in the community. Among the five participants that had

tattoos or piercings done while in custody, only two reported that the equipment used was new or had been cleaned beforehand.

Table 91 Tattoos and piercings

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Have tattoos and/or piercings:					
No tattoos or piercings	43.4	15.8*	39.8	42.2	40.9
Tattoos	24.4	10.5	20.3	26.5	23.1
Piercings	17.1	31.6	22.0	13.7	18.2
Tattoos and piercings	15.1	42.1**	17.9	17.6	17.8
Where tattoos/ piercings obtained:					
	(n=116)	(n=16)	(n=74)	(n=59)	(N=133)
Community	94.8	100.0	95.9	94.9	95.5
Detention	2.6	0.0	2.7	1.7	2.3
Both community and detention	2.6	0.0	1.4	3.4	2.3
New or cleaned equipment (if obtained in detention):					
	(n=5)	(n=0)	(n= 3)	(n=2)	(N=5)
No	20.0	—	33.3	0.0	20.0
Yes sometimes	20.0	—	33.3	0.0	20.0
Yes always	40.0	—	0.0	100.0	40.0
Don't know	20.0	—	33.3	0.0	20.0

* Statistically significant difference ($p < 0.05$) between males and females; ** statistically significant difference ($p < 0.01$) between males and females.

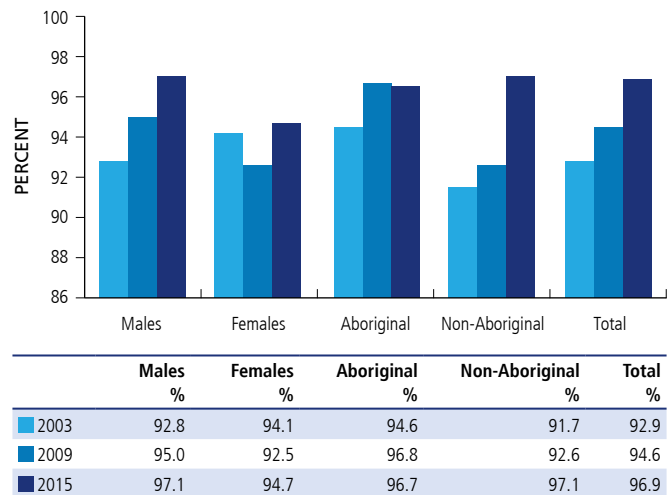
5.6 Sexual health

According to the 5th National Survey of Australian Secondary Students and Sexual Health, one third of students surveyed in 2013 (33.7%) had engaged in sexual intercourse¹²⁰. The proportion of students reporting experience of sexual intercourse increased with age, ranging from 22.7% of students in Year 10 to 50.4% of students in Year 12.

A 2012–13 survey of Australians aged 16–69 years found that the median age of first vaginal intercourse for male and female respondents born from the mid-1980s onwards was 17 years¹²¹. Those that first had sexual intercourse prior to the age of 16 had a greater number of lifetime and recent partners, and were more likely to have had an STI.

In contrast to the general population, the overwhelming majority (96.9%) of 2015 YPICHS participants, and 92.2% of those under the age of 16, reported having previously had vaginal, anal or oral sex, with no differences according to gender or Aboriginality. As illustrated in Figure 27, the high prevalence of past sexual activity among young people in custody is consistent with the findings from previous YPICHS surveys. Although increases in the proportion of sexually active participants are small (approximately 2%), there is a general upward trend in the likelihood of sexual experience over successive surveys.

Figure 27 Ever had sex (vaginal, anal or oral), YPICHS 2003–2015



Over half (60.8%) of those who had ever had sex reported that they had more than one sexual partner in the 12 months prior to custody and 52.2% had three or more partners (Table 92). The likelihood of having had more than one sexual partner during this period did not significantly differ by gender (males 61.7%, females 50.0%) or Aboriginality (Aboriginal 57.0%, non-Aboriginal 65.9%).

Table 92 Number of partners in 12 months before custody^a

	Males (n=180) %	Females (n=18) %	Aboriginal (n=114) %	Non-Aboriginal (n=85) %	Total (N=199) %
0	7.2	5.6	6.1	8.2	7.0
1	31.1	44.4	36.8	25.9	32.2
2	9.4	0.0	5.3	12.9	8.5
3–5	33.4	33.3	29.8	37.6	33.2
6–10	13.4	16.7	16.7	10.7	14.0
11–15	1.7	0.0	1.8	1.2	1.5
Over 15	4.0	0.0	3.6	3.6	3.5

^a Among those who had ever had sex.

The majority of young people (96.0%) identified as heterosexual, with young females more likely to identify as homosexual or bisexual than young males (21.1% vs. 0.5%, $p < 0.001$) (Table 93). This is consistent with findings from the aforementioned National Survey of Australian Secondary Students and Sexual Health, in which a higher proportion of female students identified as homosexual or bisexual (19.3% vs. 12.8%)¹²⁰.

Table 93 Sexual orientation

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Heterosexual	98.5	73.7	95.1	97.1	96.0
Homosexual	0.0	5.3	0.8	0.0	0.4
Bisexual	0.5	15.8	2.4	2.0	2.2
Not sure	0.5	0.0	0.8	0.0	0.4
Other	0.5	5.3	0.8	1.0	0.9

Unsafe sexual practices can result not only in unwanted pregnancy but in the transmission of STIs, including chlamydia, gonorrhoea and HPV, the latter being associated with particular cancers, such as cervical cancer and anal cancer^{122, 123}.

Less than half (43.4%) of sexually active students surveyed for the National Survey of Australian Secondary Students and Sexual Health reported that they "always" used condoms in the previous year and 13% "never" used condoms during this period¹²⁰. Among YPICHS participants, use of condoms and dental dams was far less frequent. Only 27.7% of young people who had sex in the 12 months preceding custody reported using condoms or dental dams "all of the time" with their sexual partner and 27.7% "never" used condoms (Table 94).

Table 94 Frequency of condom/dental dam use with sexual partners in 12 months before custody

	Males (n=184) %	Females (n=17) %	Aboriginal (n=111) %	Non-Aboriginal (n=91) %	Total (N=202) ^a %
Never	28.3	23.5	28.8	26.4	27.7
Occasionally	28.8	5.9	27.9	26.4	27.2
Most of the time	15.8	23.5	17.1	15.4	16.3
All of the time	26.1	47.1	25.2	30.8	27.7
Don't know	1.1	0.0	0.9	1.1	1.0

^a Among those who had sex in the 12 months before custody.

Participants who had sex without condoms/dams in the 12 months before custody were asked the primary reason for doing so. The most common reasons provided were that they disliked the feeling (27.1%), "knew" their partners were clean (22.2%), and that condoms/dams were unavailable (21.5%). Smaller proportions reported that they "couldn't be bothered" (13.9%), were affected by drugs/alcohol (6.9%), or acted impulsively (4.2%).

On the most recent occasion of sexual activity, 65.3% of participants reported using contraception, although only 58.4% had used a reliable form of contraception (i.e. oral, injectable or implantable contraceptive hormones; condoms; intrauterine device [IUD]; diaphragm), with 9.4% reporting that they used "withdrawal" as a form of contraception. Of those who reported

using contraception, condoms were the most commonly used form (Table 95).

Table 95 Forms of contraception used on last occasion of sexual activity within past 12 months

	Males (n=184) %	Females (n=17) %	Aboriginal (n=111) %	Non-Aboriginal (n=91) %	Total (N=202) %
No contraception	35.3	23.5	37.8	30.8	34.7
Oral contraceptive	4.3	5.9	5.4	3.3	4.5
Condom	42.9	58.8	37.8	51.6 [#]	44.1
Depo Provera	0.0	11.8	0.9	1.1	1.0
Implanon	9.8	41.2	14.4	9.9	12.4
IUD	0.5	0.0	0.9	0.0	0.5
Diaphragm	0.0	0.0	0.0	0.0	0.0
Morning after pill	0.0	0.0	0.0	0.0	0.0
Withdrawal	10.3	0.0	7.2	12.1	9.4

[#] Statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people.

Few participants (1.4%) reported that they had sex to obtain money or drugs. While 5.5% of the overall sample had engaged in sex against their will, females were far more likely to report having done so (38.9% vs. 2.0%, p<0.001).

One in ten (10.1%) young people had been diagnosed with an STI in the past, although no participants had current symptoms of an STI (Table 96). The most frequently diagnosed STI was chlamydia, reported by 9.6% of young people. Chlamydia was particularly common among female participants, who were significantly more likely than males to report having had chlamydia (33.3% vs. 7.5%, p<0.01).

Table 96 Past diagnoses of sexually transmitted infections

	Males (n=199) %	Females (n=18) %	Aboriginal (n=119) %	Non-Aboriginal (n=99) %	Total (N=218) %
No STI	92.0	66.7**	88.2	91.9	89.9
Gonorrhoea	0.5	0.0	0.8	0.0	0.5
Genital warts	0.0	0.0	0.0	0.0	0.0
Genital herpes	0.5	0.0	0.8	0.0	0.5
Chlamydia	7.5	33.3**	10.9	8.1	9.6
Pubic lice	0.0	0.0	0.0	0.0	0.0
Syphilis	0.0	0.0	0.0	0.0	0.0
Urethritis or non-specific urethritis	0.0	0.0	0.0	0.0	0.0
Oral herpes	0.5	0.0	0.8	0.0	0.5
Other STI	0.0	0.0	0.0	0.0	0.0
Women only					
Pelvic inflammatory disease	0.0	0.0	0.0	0.0	0.0
Candidiasis	0.0	0.0	0.0	0.0	0.0
Bacterial vaginosis	0.0	0.0	0.0	0.0	0.0
Trichomoniasis	0.0	0.0	0.0	0.0	0.0

** Statistically significant difference (p<0.01) between males and females.

5.7 Health service utilisation

5.7.1 Accessing health services in the community

Participants were asked who they usually went to see if they felt sick or needed health care in the community. As Table 97 illustrates, participants most commonly saw a local general practitioner (GP) or a family doctor (56.5%). While females were significantly more likely than males to see a family doctor (31.6% vs. 8.3%), males were more likely to see a local GP (48.3% vs. 21.1%). Of the 31 participants who reported seeking help from “other” sources, 54.8% said they usually sought help from a family member.

Table 97 Usual health care seeking in the community

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Never get sick or need health care	5.4	10.5	3.3	8.8	5.8
Community Integration Team (CIT) clinician	1.0	0.0	0.0	2.0	0.9
Family doctor	8.3	31.6**	7.3	14.7	10.7
GP (local doctor/medical centre)	48.3	21.1*	44.7	47.1	45.8
Local hospital	6.8	5.3	9.8	2.9 [#]	6.7
Community nurse	1.0	0.0	0.8	1.0	0.9
Aboriginal Medical Service	11.7	21.1	22.0	1.0	12.4
Chemist	1.5	0.0	0.8	2.0	1.3
Google/Internet	2.0	10.5	1.6	3.9	2.7
No one	13.2	0.0	8.9	15.7	12.0
Other	13.2	21.1	12.2	15.7	13.8

* Statistically significant difference ($p < 0.05$) between males and females; ** statistically significant difference ($p < 0.01$) between males and females; [#] statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

More than half (56.8%) of participants had seen a doctor while in the community within the preceding 12 months (Table 98). Female participants were more likely than male participants to have seen a doctor within the past three months (42.1% vs. 19.5%), but there were no other significant differences in recency according to gender or Aboriginality.

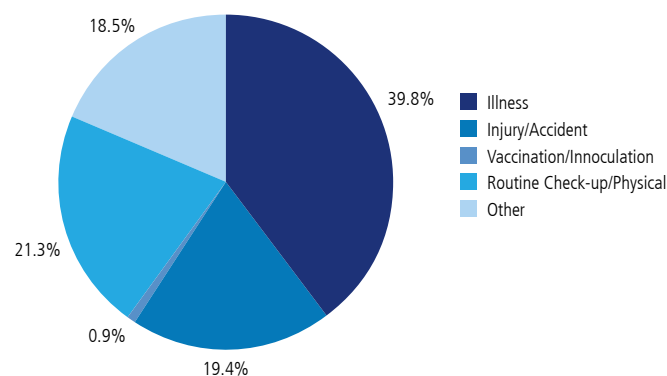
Table 98 Last time saw a doctor in the community about own health

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
0–3 months ago	19.5	42.1*	26.0	15.7	21.3
4–6 months ago	19.0	10.5	15.4	21.6	18.2
7–9 months ago	9.8	15.8	7.3	13.7	10.2
10–12 months ago	7.3	5.3	5.7	8.8	7.1
13–23 months ago	13.7	10.5	11.4	16.7	13.8
2 years or longer	19.5	10.5	21.1	15.7	18.7
Never seen a doctor	3.4	0.0	1.6	4.9	3.1
Can't remember	7.8	5.3	11.4	2.9	7.6

* Statistically significant difference ($p < 0.05$) between males and females.

On their most recent visit to a doctor in the community, participants typically saw a doctor due to illness (39.8%) or injury (19.4%) (Figure 28). Approximately one in five (21.3%), however, had attended for a routine check-up or physical. When asked if a health problem in the preceding 12 months had worsened due to not receiving the necessary level of care, most participants (84.8%) responded that the health problem did not get worse.

Figure 28 Primary reason for visiting doctor on last visit



Past hospital presentations were common among participants (Table 99). Over half (54.1%) had presented at a hospital emergency department (ED) or outpatient clinic about their health without subsequent admission and 52.1% had been admitted overnight or longer.

Table 99 Previous hospital presentations

	Males (n=199) %	Females (n=18) %	Aboriginal (n=118) %	Non-Aboriginal (n=100) %	Total (N=218) %
No. times attended ED or outpatient clinic (no admission)					
0	47.2	33.3	44.1	48.0	45.9
1	23.6	27.8	22.0	26.0	23.9
2	11.1	33.3	12.7	13.0	12.8
3–5	14.5	0.0	17.0	10.0	13.7
6–10	3.0	5.6	3.3	3.0	3.2
> 10	0.5	0.0	0.8	0.0	0.5
No. times admitted ≥1 night					
0	48.7	42.1	48.3	47.4	47.9
1	24.4	26.3	24.2	24.7	24.4
2	14.2	21.1	13.3	16.5	14.7
3–5	9.6	5.3	10.0	9.2	9.6
6–10	2.5	0.0	2.5	21.1	2.3
> 10	0.5	5.3	1.7	0.0	0.9

5.7.2 Accessing health services in custody

Participants were asked about access to mental health services in the courts and while in custody. Almost one quarter (23.5%) reported that they had been seen by a mental health clinician in the courts, 71.2% of whom found the service “somewhat to very helpful” for their mental health and/or legal problems.

Around one in three participants (32.9%) reported current emotional, behavioural or mental health problems, for which 66.2% had received treatment while in custody. Among those who said that they wanted treatment for such problems in custody (60.3%), reasons given for not accessing services were that they didn’t think anyone could help (23.5%) or didn’t know who to see (17.6%).

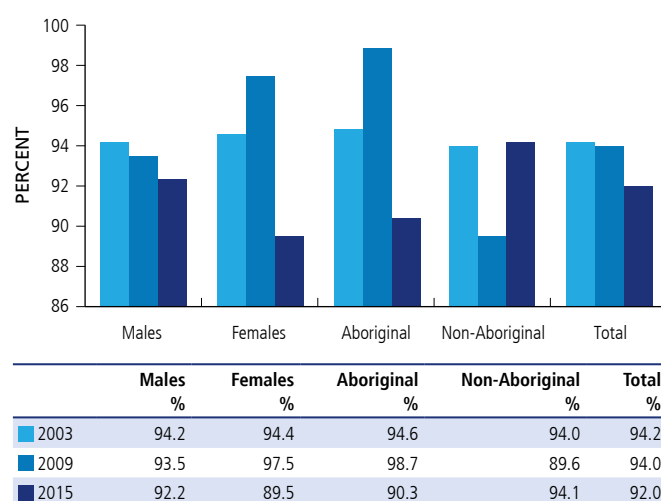
The Arunta system is a computer-based phone system which allows controlled access for young people in custody to access pre-determined telephone numbers. In NSW juvenile detention facilities this system allows young people to access services such as a mental health helpline, oral health self-referral system, legal adviser, and the NSW Health Care Complaints Commission. Almost all young people in custody in 2015 (95.3%) were aware of the Arunta telephone hotline and 77.2% had used it to access legal, dental, mental health, welfare, and Aboriginal-specific services. There were no significant differences in the proportions of young males and females (77.4% vs. 73.75), or those of Aboriginal and non-Aboriginal young people (83.1% vs. 70.1%), who had used the Arunta hotline.

5.8 Smoking

General population surveys, such as the National Drug Strategy Household Survey (NDSHS), show a downward trend in tobacco smoking among young Australians over the last decade. The proportion of young people that have never smoked increased from 92% in 2004 to 95% in 2013 among those aged 12–17,

and from 65% to 77% among those aged 18–24¹²⁴. Moreover, young people are delaying uptake of tobacco use, with the age of first use among 14–24-year-olds increasing from 14.6 in 2004 to 15.9 in 2013. In accordance with a decrease in the overall number of smokers, the frequency of tobacco use has declined between 2004 and 2013, with the prevalence of daily smoking decreasing from 5% to 3% among 12–17-year-olds and from 20% to 13% among 18–24-year-olds.

In contrast to the general population, 92.0% of YPICHS participants had smoked (Figure 29) and 85.4% had smoked in the 12 months prior to custody. The high prevalence of smoking among 2015 participants is consistent with previous YPICHS samples (Figure 29), although a significant decrease in smoking among Aboriginal young people from 2009 to 2015 was observed (98.7% vs. 90.3%, $p < 0.01$).

Figure 29 Ever smoked cigarettes, YPICHS 2003–2015

Among those who had smoked, the majority (82.2%) reported smoking daily in the 12 months preceding custody (Table 100).

Table 100 Frequency of smoking in 12 months preceding custody

	Males (n=190) %	Females (n=17) %	Aboriginal (n=112) %	Non-Aboriginal (n=96) %	Total (N=208) %
Daily or almost daily	82.1	82.4	81.3	83.3	82.2
3–4 days per week	1.6	5.9	1.8	2.1	1.9
1–2 days per week	4.7	11.8	5.4	5.2	5.3
Fortnightly	1.6	0.0	0.9	2.1	1.4
Monthly	0.5	0.0	0.9	0.0	0.5
Less than monthly	1.6	0.0	0.0	3.1	1.4
Never	7.9	0.0	9.8	4.2	7.2

Table 101 presents the estimated average number of cigarettes smoked per day in the year before participants entered custody.

Over one third (35.3%) reported smoking over 20 cigarettes per day, with no significant differences in the number of cigarettes smoked by gender or Aboriginality.

Table 101 Average number of cigarettes per day in 12 months preceding custody

	Males (n=175) %	Females (n=17) %	Aboriginal (n=101) %	Non-Aboriginal (n=92) %	Total (N=193) %
10 or fewer	40.0	41.2	41.6	38.0	39.9
11–20	24.0	35.3	26.7	22.8	24.9
21–30	23.4	5.9	21.8	21.7	21.8
31 or more	12.6	17.6	9.9	17.4	13.5

Among participants who had smoked, the mean age of smoking initiation was 12.2 years (range: 3–17 years), with over one in five (22.1%) having started smoking by the age of ten (Table 102). While there was no difference in the mean age at which males and females first smoked a cigarette (12.2 vs. 12.5 years), Aboriginal young people started smoking significantly earlier than non-Aboriginal young people (11.7 vs. 12.7 years, $p < 0.01$).

Table 102 Age first smoked a cigarette

	Males (n=190) %	Females (n=17) %	Aboriginal (n=112) %	Non-Aboriginal (n=96) %	Total (N=208) %
10 yrs or younger	22.6	11.8	27.7	15.6 [#]	22.1
11 yrs	8.4	17.6	8.0	10.4	9.1
12 yrs	20.6	23.6	22.3	18.8	20.7
13 yrs	17.9	17.6	17.9	17.7	17.8
14 yrs	16.3	17.6	15.2	17.7	16.3
15 yrs	7.9	11.8	5.4	11.5	8.2
16 yrs or older	6.3	0.0	3.6	8.3	5.8

[#] Statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people.

In an effort to reduce the availability of cigarettes to young people, thus decreasing the likelihood that they will start smoking, legislation in all Australian states and territories prohibits the sale of cigarettes to individuals under the age of 18. Participants under the age of 18 who had smoked in the 12 months prior to custody ($n=138$) were asked where they primarily obtained tobacco from in the community. Almost half (44.2%) responded that they purchased cigarettes themselves from a shop, 25.4% from friends, 10.9% from parents, 8.7% from other family members, and 10.9% from “other” sources (e.g. strangers, stealing from others).

The time elapsed between waking and having the first cigarette of the day has been validated as a strong predictor of nicotine dependence^{125, 126}. The briefer the period between waking and when a smoker has their first cigarette, the greater the likelihood of relapse following smoking cessation attempts and the shorter the interval between the first lapse and a relapse to regular smoking. As such, quit rates have been found to be higher

among those who typically wait at least 60 minutes before their first cigarette of the day than those who usually smoke within five minutes of waking¹²⁶. Table 103 presents the time to first cigarette among past-year smokers. While three quarters (74.1%) of the overall sample typically had their first cigarette within 30 minutes of waking, females were most likely to have their first cigarette within five minutes, indicating a greater level of dependence. As the time to first cigarette among young people under the age of 18 may be influenced, in some cases, by the environment in which they live and restricted access to cigarettes, these results should be interpreted with caution. Any limitations on an opportunity to smoke soon after waking, however, would be likely to bias the results towards an underestimate, rather than overestimate, of nicotine dependence. As such, the severity of nicotine dependence among younger participants may be greater than these results suggest.

Table 103 Time to first cigarette

	Males (n=175) %	Females (n=17) %	Aboriginal (n=101) %	Non-Aboriginal (n=92) %	Total (N=193) %
≤ 5 mins	40.6	76.5**	47.5	40.2	44.0
6–30 mins	32.6	5.9*	24.8	35.9	30.1
31–60 mins	6.9	0.0	7.9	4.3	6.2
>60 mins	20.0	17.6	19.8	19.6	19.7

* Statistically significant difference ($p < 0.05$) between males and females; **statistically significant difference ($p < 0.01$) between males and females.

Half of those who had smoked in the year before custody had either tried to quit (42.0%) or had quit (7.8%) and approximately one in five of those who had quit or tried to quit during this period had used support or medications to assist them, typically nicotine gum, spray or patches (Table 104).

Table 104 Quit attempts in year prior to custody

	Males (n=175) %	Females (n=17) %	Aboriginal (n=101) %	Non-Aboriginal (n=92) %	Total (N=193) %
Tried to quit	41.1	47.1	42.6	41.3	42.0
Quit	8.0	5.9	5.0	10.9	7.8
	(n=87)	(n=9)	(n=49)	(n=48)	(N=97)
Support/medication to help quit	16.1	44.1	18.4	18.8	18.6

When young people who had smoked in the year before custody were asked if they intended to smoke upon release, 42.6% responded that they did plan to smoke, 44.7% did not plan to smoke and 12.6% were unsure. While there were no significant gender differences in intention to smoke upon release (males: 41.6%; females: 52.9%), Aboriginal young people were more likely to plan on smoking (51.0% vs. 33.0%, $p < 0.05$).

Almost two thirds (65.2%) of past-year smokers, across all four demographic groups (males, females, Aboriginal, non-Aboriginal), expressed a desire to quit smoking. Only one in five,

however, felt that they needed help to do so, with Aboriginal participants more likely to indicate that they needed help (29.2% vs. 8.9%, $p < 0.01$). Those who felt they needed assistance to quit smoking were asked which types of assistance they felt would be useful, with multiple responses allowed. One third (33.3%) suggested nicotine replacement therapy, 25.0% advice from healthcare staff, 20.8% help from a drug and alcohol worker, 12.5% advice from Quitline, 12.5% peer support, and 41.7% were unsure.

Regardless of their smoking status, the majority (79.5%) of young people in custody had lived with at least one person who smoked before coming into custody. Aboriginal young people were significantly more likely than non-Aboriginal young people to have lived with one or more smokers prior to custody (90.0% vs. 67.0%, $p < 0.001$).

5.9 Alcohol

While alcohol consumption is common in Australian society, and low-level consumption is associated with few adverse consequences, excessive alcohol consumption is a major contributor to morbidity and mortality, particularly among young males⁶⁵. Among 15–24-year-old males in 2011, alcohol use disorders were the second most significant contributor after suicide/self-inflicted injury to the overall disease burden and the leading cause of non-fatal disease burden⁶⁵.

Young people who consume alcohol are at particular risk of alcohol-related harm. The initiation of alcohol consumption at an early age is associated with a higher frequency of alcohol use in adolescence and a greater risk of subsequent problematic alcohol use and dependence¹²⁷. Alcohol consumption among children and adolescents can have adverse effects on brain development, and risk-taking behaviour is more likely among drinkers under the age of 18 than among older drinkers. Young people are thus at greater risk of harm from alcohol-related accidents, with over half of all serious road injuries related to alcohol occurring among those aged 15–24¹²⁸. Based on such evidence, NHMRC guidelines recommend that not drinking alcohol at all is the safest option for children and young people under the age of 18 and that, for those under 15 years of age – who are at the greatest risk of alcohol-related harm – abstinence from alcohol is especially important. For young people aged 15–17 years, it is recommended that the initiation of alcohol consumption be delayed for as long as possible¹²⁸.

According to the 2013 NDSHS, 17.7% of 12–15-year-olds and 59.4% of 16–17-year-olds had ever consumed a full serve of alcohol¹²⁴. The proportion of young people choosing to abstain from alcohol, however, has increased. While 64% of 12–17-year-olds in 2010 had never consumed alcohol, 72% of those surveyed in 2013 were abstainers.

The overwhelming majority (93.4%) of 2015 YPICHS participants had consumed a full serve of alcohol in the past (Table 105). This finding is consistent with findings from previous YPICHS surveys: 94% of participants in 2003 and 94.6% in 2009 had consumed a full serve of alcohol. Age was dichotomised to compare the likelihood of having used alcohol between participants under the age of 18 and those aged 18 or older; no significant difference was observed (93.2% vs. 93.8%) (Table 105).

Table 105 Lifetime alcohol consumption

	Males (n=206) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=102) %	Total (N=226) %
Ever had a full serve of alcohol:					
All participants	94.2	89.5	91.1	96.1	93.4
≥18 years	95.2	100.0	100.0	88.9	93.8
<17 years and under	93.8	88.9	88.5	100.0	93.2

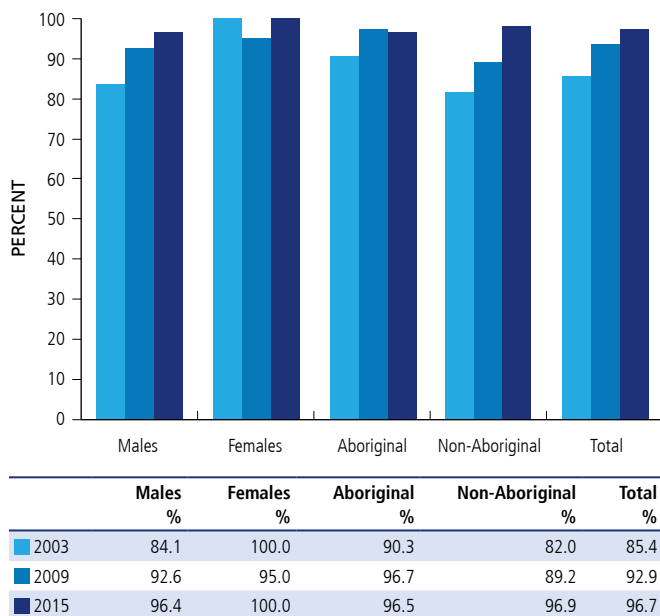
The average age at which the first full serve of alcohol was consumed was 13.1 years (range: 4–17 years). While males and females did not differ with respect to the mean age they first consumed alcohol (13.1 vs. 13.4 years), Aboriginal participants initiated alcohol use at a significantly earlier age than non-Aboriginal participants (12.7 vs. 13.6 years, $p < 0.01$). In comparison, among 14–24-year-old NDSHS respondents, the average age of initiation was 15.7 years in 2013¹²⁴.

Most participants (93.8%) were in the company of others the first time they drank alcohol. Two thirds (66.7%) first drank alcohol with a close friend or acquaintance, 3.3% with a parent, and 26.1% with another family member.

Participants under the age of 18 were asked where they usually obtained their alcohol from in the community. The most common responses were that alcohol was obtained from friends (43.0%) or purchased from a shop (23.5%). Alcohol was also obtained from parents (4.7%), other family members (16.1%), and from “other” sources (e.g. partners, strangers, stealing from others) (12.7%).

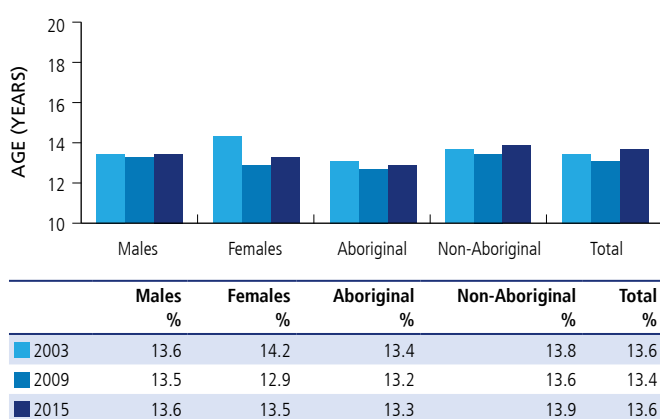
Of those who had consumed alcohol in the past, nearly all (96.7%) had been drunk at least once, with no differences according to gender or Aboriginality. As illustrated in Figure 30, the proportion of young people in custody that have ever been drunk has increased progressively.

Figure 30 Ever been drunk (if ever consumed alcohol), YPICHS 2003–2015



As Figure 31 illustrates, YPICHS participants have consistently reported first getting drunk at an average age of 13 years. Moreover, Aboriginal participants in 2015, as in 2009, were first drunk at a significantly earlier age than non-Aboriginal participants (13.3 vs. 13.9 years, $p < 0.05$).

Figure 31 Mean age first drunk



Of the 189 participants who had consumed alcohol in the 12 months preceding custody, getting drunk regularly was common. Over two fifths (41.8%) reported that they got drunk at least weekly during this period, with no differences by gender or Aboriginality (Table 106).

Table 106 Frequency of getting drunk in year preceding custody

	Males (n=173) %	Females (n=16) %	Aboriginal (n=102) %	Non-Aboriginal (n=87) %	Total (N=189) %
How often drunk:					
Never	7.5	0.0	8.8	4.6	6.9
Less than monthly	28.3	18.8	28.4	26.4	27.5
Monthly	23.1	31.3	25.5	21.8	23.8
Weekly	31.8	31.3	28.4	35.6	31.7
Daily or almost daily	9.2	18.8	8.8	11.5	10.1

High-risk alcohol consumption, that is, use at levels considered to increase the risk of alcohol-related harm, was assessed using the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT is a WHO-developed 10-item screening tool for hazardous (i.e. increasing risk of harm to user or others) and harmful (i.e. resulting in adverse physical and/or mental health consequences) patterns of alcohol consumption, as well as alcohol dependence¹²⁹. AUDIT scores are between 0 and 40. Among adults, a score of eight or more is considered indicative of hazardous or harmful alcohol consumption. For adolescents, however, lower thresholds have been suggested, with a score of four or more demonstrated to be an appropriate cut-off to identify hazardous drinking^{130, 131}. The AUDIT asks participants to respond with regard to their current alcohol consumption, but the possession or consumption of alcohol is prohibited in NSW juvenile justice centres and, as such, items were amended to refer to participants' drinking habits in the 12 months before incarceration.

The prevalence of hazardous and harmful or "risky" drinking in the year before custody was high. The mean AUDIT score for the overall sample was 14.4 (range: 2–40) and was significantly higher among females (Table 107). Using age-appropriate AUDIT cut-offs, 86.3% of participants aged 18 or over, and 97.8% of participants under the age of 18, met or exceeded the threshold for high-risk drinking. In contrast, the past-year prevalence of risky drinking among Australian adolescents surveyed for the 2013 NDSHS, defined in accordance with NHMRC guidelines as having more than four standard drinks on a single occasion, was 13.5%.

Table 107 Hazardous and harmful alcohol use in year preceding custody

	Males (n=171)	Females (n=15)	Aboriginal (n=100)	Non-Aboriginal (n=86)	Total (N=186)
Mean AUDIT score	13.9	19.9**	13.6	15.3	14.4
	(n=50) %	(n=1) %	(n=24) %	(n=27) %	(n=51) %
Risky drinking ≥ 18 years of age (AUDIT score ≥8)	86.0	100.0	91.7	81.5	86.3
	(n=121) %	(n=14) %	(n=76) %	(n=59) %	(n=135) %
Risky drinking < 18 years of age (AUDIT score ≥4)	97.5	100.0	96.1	100.0	97.8

** Statistically significant difference (p<0.01) between males and females.

In addition to administration of the AUDIT, participants were asked whether their alcohol use had caused them problems with their health, parents, friends, school, or police in the year preceding their entry into custody. Over half (51.6%) reported that their drinking had caused such problems, with no significant differences according to gender or Aboriginality (Table 108).

Table 108 Problems caused by alcohol use

	Males (n=174)	Females (n=16)	Aboriginal (n=102)	Non-Aboriginal (n=88)	Total (N=190)
Problems caused by alcohol use	50.6	62.5	54.9	47.7	51.6

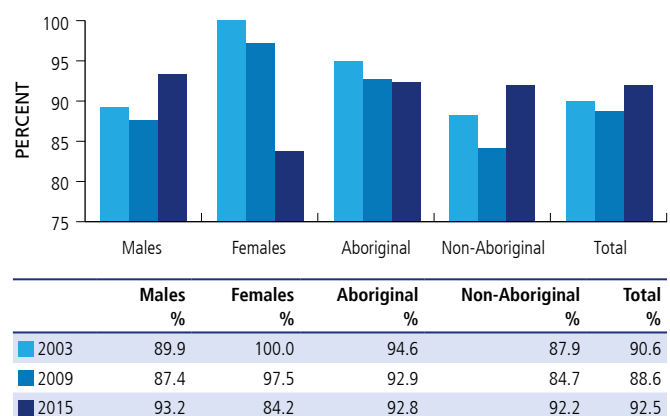
5.10 Illicit drug use

Illicit drug use is associated with a range of adverse physical and mental health sequelae. The acute effects of illicit drug intoxication include overdose (in the case of opioids and stimulants), accidental injury, increased sexual risk-taking, and violence. Regular and long-term illicit drug use can lead to the development of dependence, chronic disease (e.g. cardiovascular disease), and is associated with mental health problems (e.g. anxiety, depression, psychosis), increased criminality, and, among injecting drug users, an increased risk of blood-borne bacterial and viral infections, vascular damage, and overdose¹³². The risk of illicit drug-related harm increases with an earlier onset and increased frequency of use¹³³.

In 2013, 22.9% of young Australians aged 14–19 surveyed for the NDSHS had used an illicit drug and 17.6% in the previous 12 months. The most commonly used illicit drug among this age group, in terms of both lifetime and past year use, was cannabis, followed by ecstasy and methamphetamine¹²⁴.

For the purposes of the 2015 YPICHHS, illicit drug use was defined as either use of illicit drugs, non-medical use of over the counter and prescription pharmaceutical drugs, misuse of licit substances (e.g. volatile substances), or use of "synthetic" drugs.

Consistent with previous YPICHHS samples, the overwhelming majority (92.5%) of participants reported illicit drug use in the past (Figure 32). While Aboriginal participants in 2009 were significantly more likely than non-Aboriginal participants to have engaged in illicit drug use, there were no such differences, nor gender differences, among 2015 participants.

Figure 32 Lifetime illicit drug use, YPICHHS 2003–2015

As illustrated in Table 109, and in accordance with epidemiological data on illicit drug use in the general Australian population¹²⁴, the most commonly used illicit drugs among YPICHHS participants were cannabis (90.2%), crystal methamphetamine (55.1%) and ecstasy (41.8%). Males were more likely to have used cocaine, although there were no other differences according to gender. Non-Aboriginal participants were significantly more likely than Aboriginal participants to have used ecstasy, cocaine and hallucinogens, but less likely to have used methadone or buprenorphine.

Table 109 Illicit drug use by drug class

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Cannabis	91.2	84.2	91.1	89.2	90.2
Ecstasy	43.4	26.3	30.9	54.9 ^{###}	41.8
Crystal methamphetamine (ice)	55.1	52.6	60.2	49.0	55.1
Other methamphetamine forms (powder, base)	19.5	10.5	17.1	20.6	18.7
Cocaine	33.2	10.5*	22.0	43.1 ^{**}	31.6
Heroin	7.8	21.1	10.6	6.9	8.9
Methadone/buprenorphine	8.8	5.3	13.0	2.9 ^{**}	8.4
GHB	3.9	5.3	4.9	2.9	4.0
Ketamine	2.9	5.3	1.6	4.9	3.1
Hallucinogens (LSD, magic mushrooms)	23.9	15.8	17.9	29.4 [*]	23.1
Inhalants	11.2	21.1	13.0	10.8	12.0
Steroids	3.4	0.0	4.1	2.0	3.1
Synthetic drugs	19.6	10.5	17.1	20.8	18.8
Benzodiazepines	21.5	15.8	18.7	23.5	20.9
Barbiturates	3.9	0.0	3.3	3.9	3.6
Opioid analgesics (e.g. oxycodone)	11.7	10.5	11.3	11.8	11.5
Simple analgesics (e.g. paracetamol, Mersyndol, Nurofen Plus)	8.3	15.8	10.5	6.9	8.8
Antipsychotics (Seroquel)	17.1	5.3	16.3	15.7	16.0
Other drugs	2.0	0.0	1.6	2.0	1.8
Unknown (unidentified drug)	7.8	0.0	6.5	7.8	7.1

* Statistically significant difference ($p < 0.01$) between males and females; # statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal young people; ** statistically significant difference ($p < 0.01$) between Aboriginal and non-Aboriginal young people; ### statistically significant difference ($p < 0.001$) between Aboriginal and non-Aboriginal young people.

Table 110 presents the mean age of onset of illicit drug use for each drug class used. With the exception of an earlier initiation of cannabis use among Aboriginal participants, there were no significant differences according to gender or Aboriginality.

Table 110 Mean age (years) of onset of illicit drug use by drug class

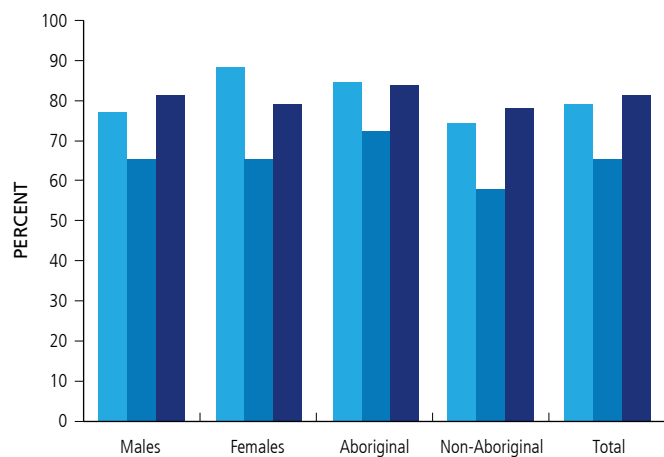
	Males (n=205)	Females (n=19)	Aboriginal (n=123)	Non-Aboriginal (n=102)	Total (N=225)
Cannabis	13.0	12.9	12.7	13.4 ^{**}	13.0
Ecstasy	15.3	15.3	15.1	15.4	15.3
Crystal methamphetamine (ice)	15.0	14.7	15.0	15.1	15.0
Other methamphetamine forms (powder, base)	15.0	15.0	14.8	15.1	15.0
Cocaine	15.5	15.0	15.2	15.7	15.5
Heroin	15.4	15.3	15.6	15.0	15.4
Methadone/buprenorphine	14.9	14.0	14.9	14.5	14.9
GHB	16.2	16.0	16.3	15.0	16.1
Ketamine	16.0	16.0	16.0	16.0	16.0
Hallucinogens (LSD, magic mushrooms)	15.0	15.5	15.8	15.4	15.1
Inhalants	12.5	12.0	13.0	12.0	12.5
Steroids	16.0	—	16.0	16.0	16.0
Synthetic drugs	15.3	15.0	15.4	15.2	15.3
Benzodiazepines	15.1	15.0	14.8	15.5	15.1
Barbiturates	16.1	—	16.0	16.3	16.1
Opioid analgesics (e.g. oxycodone)	14.9	15.0	15.0	14.9	15.0
Simple analgesics (e.g. paracetamol, Mersyndol, Nurofen Plus)	11.5	14.3	10.8	14.0	12.1
Antipsychotics (Seroquel)	14.8	15.0	14.4	15.2	14.8
Other drugs	15.0	—	15.0	15.0	15.0
Unknown (unidentified drug)	14.7	—	14.5	14.9	14.7

** Statistically significant difference ($p < 0.01$) between Aboriginal and non-Aboriginal young people.

Illicit drug use in the 12 months preceding custody was almost as prevalent as lifetime use, with 91.2% of participants having used during this period. As with lifetime use, the most common drugs used were cannabis (85.9%), crystal methamphetamine (52.9%) and ecstasy (39.2%).

Weekly or more frequent illicit drug use was reported by 81.5% of participants, a significant increase from the prevalence of weekly use in 2009 (81.5% vs. 65.0%, $p < 0.001$) (Figure 33). Three quarters (76.0%) of participants used cannabis at least weekly, while nearly one third (29.8%) used crystal methamphetamine at least weekly, with no significant differences according to gender or Aboriginality (Table 111).

Figure 33 At least weekly illicit drug use in the 12 months prior to custody, YPICHS 2003–2015



	Males %	Females %	Aboriginal %	Non-Aboriginal %	Total %
2003	77.8	88.2	84.8	74.2	78.6
2009	65.0	65.0	72.1	58.3	65.0
2015	81.6	78.9	84.0	78.4	81.5

Table 111 At least weekly illicit drug use in the 12 months prior to custody

	Males (n=205) %	Females (n=19) %	Aboriginal (n=123) %	Non-Aboriginal (n=102) %	Total (N=225) %
Cannabis	76.6	73.7	80.5	70.6	76.0
Ecstasy	11.2	0.0	8.9	11.8	10.2
Crystal methamphetamine (ice)	29.3	31.6	30.9	28.4	29.8
Other methamphetamine forms (powder, base)	2.0	0.0	1.6	2.0	1.8
Cocaine	5.9	0.0	3.3	8.8	5.8
Heroin	2.0	5.3	3.3	1.0	2.2
Methadone/buprenorphine	3.9	0.0	5.7	1.0	3.6
GHB	0.0	0.0	0.0	0.0	0.0
Ketamine	0.5	0.0	0.0	1.0	0.4
Hallucinogens (LSD, magic mushrooms)	2.0	0.0	1.6	2.0	1.8
Inhalants (e.g. petrol, amyl nitrate)	3.9	5.3	4.1	3.9	4.0
Steroids	1.5	0.0	1.6	1.0	1.3
Synthetic drugs	2.9	0.0	1.6	3.9	2.7
Benzodiazepines	5.9	0.0	4.1	6.9	5.3
Barbiturates	0.5	0.0	0.8	0.0	0.4
Opioid analgesics (e.g. oxycodone)	2.0	5.3	2.4	2.0	2.2
Simple analgesics (e.g. paracetamol, Mersyndol, Nurofen Plus)	0.5	0.0	0.8	0.0	0.4
Antipsychotics (Seroquel)	4.4	5.3	4.9	3.9	4.4
Other drugs	1.5	0.0	0.8	2.0	1.3
Unknown (unidentified drug)	1.0	0.0	0.0	2.0	0.9

Of those who reported illicit drug use, 65.2% had experienced consequent problems with their health, school, friends, parents or police. Drug-related problems were most commonly associated with the use of cannabis, crystal methamphetamine and petrol. Almost two thirds (62.1%) of crystal methamphetamine users, half (51.0%) of cannabis users and over a third (34.8%) of petrol users had experienced such problems.

Young people who had used illicit drugs more than weekly in the previous six months were asked questions from the Severity of Dependence Scale (SDS), a five-item scale that measures the degree of psychological dependence on various types of illicit drugs and has been demonstrated to be a valid and reliable measure of cannabis, amphetamine, cocaine and heroin dependence^{134–136}. SDS scores range from 0–15; among adolescent and young adult drug users, a score of four or more is used as a conservative cut-off criterion for dependence^{136, 137}.

Table 112 presents the proportion of participants engaging in illicit drug use at least weekly over the preceding six months who met SDS criteria for potential dependence. The majority (88.7%) of those who had used methamphetamine and 60.1% of those who had used cannabis at this level of frequency had SDS scores indicative of dependence. Two of the six participants reporting at least weekly heroin use and three of the five using cocaine at least weekly met SDS criteria for dependence.

Table 112 Illicit drug dependence prevalence by drug

	Males % (n)	Females % (n)	Aboriginal % (n)	Non-Aboriginal % (n)	Total % (N)
Cannabis	60.0 (150)	61.5 (13)	57.0 (93)	64.3 (70)	60.1 (163)
Methamphetamine	89.3 (56)	100.0 (5)	84.2 (38)	95.8 (24)	88.7 (62)
Heroin	25.0 (4)	50.0 (2)	25.0 (4)	50.0 (2)	33.3 (6)
Cocaine	75.0 (4)	0.0 (0)	0.0 (0)	60.0 (5)	60.0 (5)

Participants who had used drugs were typically with a close friend when they used for the first time (68.3%) and 16.1% were with an acquaintance. Only 5.9% reported that they were alone and 1% that they were with a partner. Very few participants (1.0%) were with a parent on their first occasion of use, although 22.9% reported being with another family member.

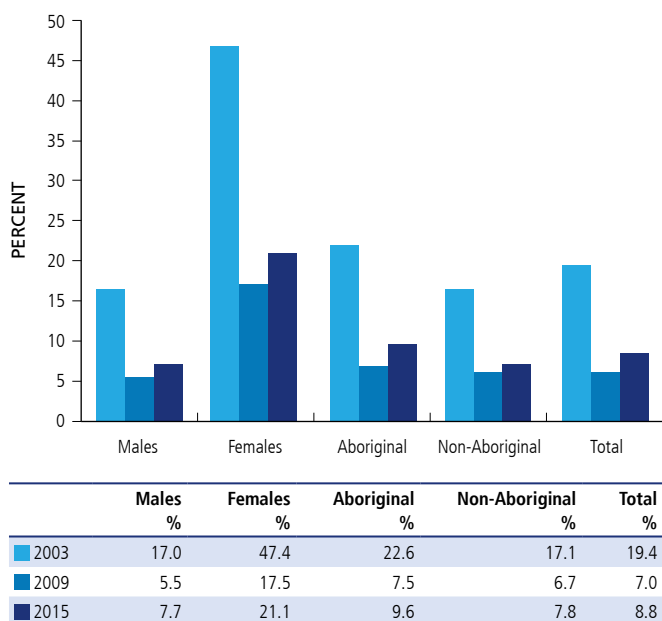
Almost two thirds (65.4%) of participants who had engaged in illicit drug use had committed a crime to obtain alcohol and/or other drugs, a similar proportion to that in 2009 (65.3%) (Table 113). More than three quarters reported that they were intoxicated (on alcohol, drugs, or both) at the time of their offence, a significantly greater proportion than in 2009 (77.6% vs. 69%, p<0.05). There were no differences in crime related to drug and alcohol use according to gender or Aboriginality.

Table 113 Alcohol and illicit drug-related offending

	Males (n=188) %	Females (n=16) %	Aboriginal (n=115) %	Non-Aboriginal (n=90) %	Total (N=205) %
Commit crime to obtain drugs and/or alcohol	64.4	81.3	68.7	61.1	65.4
Intoxicated at time of current offence	78.2	68.8	76.5	78.9	77.6

Almost one in 10 (8.8%) young people in custody had injected a drug, a slightly higher proportion than in 2009, but less than half that in 2003 (Figure 34). The mean age of onset of injecting drug use was 15.4 years (range: 14–17 years) and did not significantly differ between males and females (15.4 vs. 15.3 years). Non-Aboriginal participants, however, started injecting earlier than Aboriginal participants (14.7 vs. 15.8 years, $p < 0.05$).

Figure 34 Injecting drug use, YPICHS 2003–2015



Over two thirds (68.4%) of those who had injected a drug had done so in the previous 12 months and 26.3% had shared injecting equipment with others (e.g. syringe, spoon, tourniquet) (Table 114). Less than half of injecting drug users had used needle and syringe programs (NSPs) in the community, with 5.3% reporting that they had never heard of NSPs.

Table 114 Injecting drug use in previous 12 months

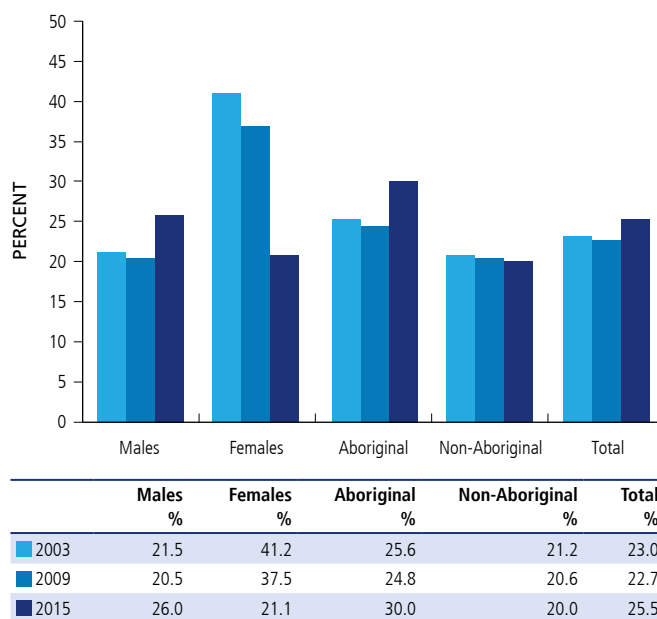
	Males (n=15) %	Females (n=4) %	Aboriginal (n=12) %	Non-Aboriginal (n=7) %	Total (N=19) %
Injected in last 12 months	60.0	100.0	75.0	57.1	68.4
Shared injecting equipment in last 12 months	20.0	50.0	25.0	28.6	26.3
Used needle and syringe programs in the community	33.3	75.0	41.7	42.9	42.1

5.11 Drug treatment

According to the Alcohol and Other Drug Treatment Services National Minimum Data Set, which collects data on publicly funded alcohol and other drug (AOD) treatment services across Australia, 22,301 people received treatment for their alcohol and/or drug use in NSW in 2014–15. Cannabis was the principal drug of concern for more than half (57%) of clients aged 10–19, followed by alcohol (17.8%) and amphetamines (16.9%).

Approximately one in four (25.5%) participants who had used alcohol or other drugs in the past had received treatment for problems related to their substance use (Figure 35). While the proportions of young males and Aboriginal young people who received treatment were higher in 2015 than in the 2003 and 2009 surveys, the proportion of young females in 2015 who received treatment decreased substantially from 41.2% in 2003 and 37.5% in 2009 to 21.1% in 2015.

Figure 35 Ever received treatment for alcohol and/or other drug problems



Among those who had received treatment, over a third (35.7%) had received treatment in custody only, with the remaining participants receiving treatment in the community only (41.1%) or in both custody and the community (23.2%) (Table 115). There were no significant differences with regard to the location in which treatment was received according to gender or Aboriginality.

Table 115 Location of alcohol and/or other drug treatment received (if ever received treatment)

	Males (n=52) %	Females (n=4) %	Aboriginal (n=36) %	Non-Aboriginal (n=20) %	Total (N=56) %
In custody	36.5	25.0	41.7	25.0	35.7
In community	40.4	50.0	41.7	40.0	41.1
In community & custody	23.1	25.0	16.7	35.0	23.2

Participants who had received treatment for AOD problems while in custody were asked who had given them help. The majority (81.8%) had received help from a counsellor, with 30.3% reporting that they had received help from a nurse, 27.3% from a doctor, 27.3% from a psychologist, 6.1% from a clinical nurse consultant, and 6.1% from "others".

Of the 39 participants who had received treatment while in the community, 71.8% had been in a residential rehabilitation facility, with a median length of stay of 14 days (range: 2–90 days) (Table 116). Aboriginal participants were significantly more likely than non-Aboriginal participants to have spent time in residential rehabilitation treatment.

Table 116 Residential rehabilitation treatment (if ever received treatment in community)

	Males (n=36)	Females (n=3)	Aboriginal (n=23)	Non-Aboriginal (n=16)	Total (N=39)
Residential rehabilitation treatment (%)	69.4	100.0	87.0	50.0 [#]	71.8
Length of stay in residential rehabilitation (median days)	14	46	8	14	14

[#] Statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal participants.

All participants who had used alcohol or other drugs in the past, regardless of whether they had ever received treatment, were asked if they felt that they needed help for problems related to their use while in custody. While 25.9% of participants responded that they did need such help, only 15.0% had actually received treatment while in custody.

6. Mental Health

6.1 Psychological disorders

Mental health disorders are the leading cause of disability among young Australians aged 15–24 years and account for 50% of the burden of disease in this age group¹³⁸. In 2013–2014, 6,310 families participated in the Young Minds Matter survey, which focused on the mental health of children and adolescents aged four to 17¹³⁹. This survey found that in the previous 12 months around one in seven children and adolescents aged 4–17 years (13.9%) had experienced a mental disorder. Research indicates that many young people with psychological disorders and cognitive disability are likely to enter the criminal justice system, and ultimately adult prison¹⁴⁰.

Psychological disorders are prevalent among young people who come into contact with the juvenile justice system, and are substantially more common for those entering custody than young people in the general population^{141–144}. The 2009 YPICHs found that detainees had high rates of attentional, behavioural and substance use disorders, as well as high rates of comorbid disorders². It is critical to screen young people in custody in order to identify any psychological disorders which require treatment. This is an important factor in the rehabilitation of offenders, with substance use disorders in particular contributing to a high risk of recidivism¹⁴⁵.

Psychological disorders can contribute to young offenders' behaviour in custody. For example, research indicates that young people with oppositional defiant disorder and conduct disorder are more likely to display physically aggressive behaviour¹⁴⁶. The same study found that young people in custody with mood disorders may be at heightened risk of altercations with others and self-harming behaviours¹⁴⁶. Clinical assessment, treatment and therapeutically informed behavioural management are therefore important for the safety of young people and staff¹⁴⁷. Young people in custody have also often been victims and witnesses of violence and trauma, frequently in the domestic setting¹⁴⁸. Research shows that young people with PTSD may respond to perceived threats in an unexpected and aggressive manner, or exhibit disproportionate reactions to any social cues they associate with their abusive experiences¹⁴⁹. Unless managed in a trauma-informed manner, detainees can be re-traumatised by their experiences in custody^{149, 150}.

For the 2015 YPICHs, the Kiddie Schedule for Affective Disorders and Schizophrenia – Present and Lifetime Version (K-SADS-PL Working Draft)¹⁵¹ was used to assess mental health and behavioural disorders. This instrument is a semi-structured diagnostic interview, which assesses whether young people met the criteria for a range of disorders based on the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition Revised (DSM-IV)¹⁵². The K-SADS-PL was also

used in the 2009 YPICHs. The 2003 YPICHs used the Adolescent Psychopathology Scale¹⁵³ for mental disorders. The K-SADS-PL interviews were conducted by registered JNSW psychologists with training from a JH&FMHN Consultant Child and Adolescent Forensic Psychiatrist in Adolescent Health.

The KSADS interview of the young person provides one part of the information needed for a clinical diagnosis of psychological disorders. A full diagnosis would involve the same interview with parent/carer and a complete medical history. Thus, the findings reported in this study are from the young person's interview only, and indicate whether the information meets the threshold for a psychological disorder.

For the 2015 YPICHs, young people were asked about symptoms in the K-SADS-PL interview, focusing on the past 12 months. In 2009, young people had been asked for both past and current diagnoses, which were reported separately. However, as most young people were unclear about timeframes for past symptoms, and corroborative interviews as part of the survey were not possible, delineation of past and current disorders was difficult. It was agreed, therefore, to focus on information relating to symptoms and diagnoses within the 12 months before interview.

In the 2015 YPICHs, 192 young people completed the K-SADS-PL. Most participants (83.3%) met the threshold for at least one psychological disorder, and 63.0% met the threshold for two or more psychological disorders (Table 117). The population prevalence of psychological disorders for children and adolescents aged 4–17 is estimated to be 13.9%¹³⁹.

The most common psychological disorders for the YPICHs participants were attention and behavioural disorders (59.4%) and substance use disorder (57.8%). There were no significant differences in prevalence between Aboriginal and non-Aboriginal young people, but there was a significantly higher proportion of males than females with substance abuse disorders (59.4% vs. 36.4%, $p < 0.05$).

Table 117 Any psychological disorders by type

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non- Aboriginal (n=92) %	Total (N=192) %
Any attention/behavioural	58.3	72.7	60.0	58.7	59.4
Any alcohol	35.0	18.2	38.0	30.4	34.4
Any substance	59.4	36.4	63.0	52.2	57.8
Any anxiety	24.4	27.3	26.0	22.8	24.5
Any mood	11.7	9.1	10.0	13.0	11.5
Any schizophrenia/psychotic	4.4	0.0	7.0	1.1	4.2
Any other disorder*	2.8	9.1	5.0	1.1	3.1
Any psychological disorder	83.3	81.8	87.0	79.3	83.3
Two or more disorders	62.2	72.7	69.0	56.5	63.0

* Other disorders included eating disorders and disorders which did not fit into the above categories or which could fit across multiple categories.

Table 118 presents a summary of the 12-month prevalence of psychological disorders among the 2015 YPICHs participants, identified by gender and Aboriginality. The average number of psychological disorders, occurring in the past 12 months, was 2.5 for each young person (with a standard deviation of 1.9), with no significant differences between groups.

Table 118 Mean number of psychological disorders – 12-month prevalence

	Males (n=180)	Females (n=11)	Aboriginal (n=100)	Non-Aboriginal (n=92)	Total (N=192)
Mean	2.5	2.4	2.7	2.3	2.5
SD	1.9	1.7	1.9	1.9	1.9
Median	2.0	2.0	2.0	2.0	2.0
Range	0–9	0–5	0–9	0–7	0–9

6.1.1 Mood disorders

Mood disorders include depression and dysthymia, including loss of self-confidence and reduced energy or manic symptoms characterised by less need for sleep, increased activity, restlessness and recklessness. Bipolar disorder involves episodes of either mania alone or in combination with depressive symptoms¹⁵⁴. In the 2015 YPICHs, 11.5% of participants met the threshold for any mood disorder over the previous 12 months (Table 119). The most common mood disorder was major depressive episode (MDE; 7.8%). The 12-month population prevalence of MDE for Australian young people aged 12–17 years is estimated to be 5.0%¹³⁹. Additional mood disorders were screened for but no young people met the criteria.

Table 119 Mood disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
MDE	7.8	9.1	8.0	7.6	7.8
Depressive disorder NOS	0.6	0.0	1.0	0.0	0.5
Dysthymia	1.7	0.0	1.0	2.2	1.6
Mania	0.6	0.0	0.0	1.1	0.5
Bipolar disorder NOS*	0.6	0.0	1.0	0.0	0.5
Bipolar disorder I	1.1	0.0	0.0	2.2	1.0
Any mood disorder	11.7	9.1	10.0	13.0	11.5

* Bipolar Disorder NOS (not otherwise specified) was a classification in the DSM-IV, upon which the K-SADS-PL is based. This classification was changed to Bipolar "Other Specified" and "Unspecified" in the DSM-5.

6.1.2 Anxiety disorders

Anxiety disorders generally involve feelings of tension, distress, and nervousness and can include panic, pounding heart, trembling and having difficulty breathing¹⁵⁵. Close to one-quarter (24.5%) of young people met the threshold for at least one anxiety disorder in the previous 12 months (Table 120). This is more than three times the 12-month population prevalence of anxiety disorders for Australian young people aged 12–17 years, estimated at 7.0%¹³⁹.

The most common anxiety disorder in the 2015 YPICHs was PTSD, with 13.5% meeting the threshold criteria for this disorder. The high prevalence of young people with PTSD in juvenile custody is significantly correlated with experiences of childhood abuse or trauma as self-reported in the Childhood Trauma Questionnaire (CTQ), in particular for emotional abuse ($r=0.205$, $p<0.05$), emotional neglect ($r=0.161$, $p<0.05$) and in cases where severe to extreme abuse was experienced ($r=0.196$, $p<0.05$). It is an important factor for consideration in the development of interventions, treatment programs and behavioural management.

Table 120 Anxiety disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
Panic disorder	2.8	0.0	2.0	3.3	2.6
Separation anxiety disorder	3.3	0.0	4.0	2.2	3.1
Social phobia	2.8	9.1	4.0	2.2	3.1
Simple phobia disorder	0.6	0.0	1.0	0.0	0.5
Generalised anxiety disorder	4.4	0.0	5.0	3.3	4.2
Obsessive compulsive	1.7	0.0	2.0	1.1	1.6
Post-traumatic stress disorder	13.3	18.2	13.0	14.1	13.5
Acute stress disorder	1.7	0.0	2.0	1.1	1.6
Anxiety disorder NOS*	3.9	9.1	5.0	3.3	4.2
Any anxiety disorder	24.4	27.3	26.0	22.8	24.5

* NOS = not otherwise specified.

6.1.3 Substance-related disorders

The population prevalence of alcohol and substance-related disorders for young people was not assessed in the Young Minds Matter survey¹³⁹. However, in the self-reported use of alcohol and drugs section of this study, almost two in five (37.9%) of young people aged 13–17 years indicated that they had ever drunk alcohol, 18.1% had drunk alcohol in the past 30 days and 12.5% had drunk for more than four days in a row in the past 30 days. Rates were essentially the same in males and females.

Likewise, for drug use, one in 10 (11.6%) young people aged 13–17 years had ever used cannabis, and one in 20 (5.0%) had used cannabis in the past 30 days. Some 4.5% of young people had ever used other drugs, and 1.6% had used other drugs in the past 30 days (e.g., prescription drugs for non-medicinal purposes, ecstasy, amphetamines, cocaine). Rates of drug use were also broadly similar between males and females¹³⁹.

In the 2015 YPICHs, well over half (57.8%) of young people surveyed were found to have met the threshold for at least one substance-related disorder in the previous 12 months (Table 121). This was the second most prevalent disorder identified in the study. The drug types assessed were the generic substance disorder categories according to the DSM-IV classification (e.g.,

cannabis, stimulants, sedatives/hypnotics/anxiolytics). For the purposes of this study, the specific drug types for substance abuse and dependence disorders were not recorded. In the 2015 YPICHs, there were 66 young people in the sample who met the threshold for at least one alcohol-related disorder (34.4%).

Table 121 Substance-related disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non- Aboriginal (n=192) %	Total (N=192) %
Alcohol abuse	33.9	9.1	36.0	29.3	32.8
Alcohol dependence	18.3	18.2	22.0	15.2	18.8
Any alcohol-related disorder	35.0	18.2	38.0	30.4	34.4
Substance abuse	18.9	18.2	19.0	18.5	18.8
Substance dependence	47.8	36.4	51.0	42.4	46.9
Any substance-related disorder	59.4	36.4	63.0	52.2	57.8

6.1.4 Schizophrenia and other psychotic disorders

Of young people in the 2015 YPICHs, 4.2% met the threshold for schizophrenia or another psychotic disorder in the previous 12 months. Schizophrenia (3.1%) was the most common condition (Table 122). The best source of estimates of prevalence for schizophrenia and psychotic disorders is the national survey of people living with psychotic illness¹⁵⁶. The youngest cohort covered by this survey is 18–24 years; diagnosis in the early 20s is common. This survey estimated a 12-month prevalence of 3.1 cases in every 1,000 people in this age group¹⁵⁶, so there are considerably more young people with schizophrenia in the 2015 YPICHs (6 cases in 192 people) than would be expected in the general population.

Table 122 Schizophrenia and other psychotic disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
Schizophrenia	3.3	0.0	5.0	1.1	3.1
Brief psychotic disorder	0.6	0.0	1.0	0.0	0.5
Psychotic disorder NOS	0.6	0.0	1.0	0.0	0.5
Schizophreniform disorder	0.6	0.0	1.0	0.0	0.5
Any schizophrenia/ psychotic disorder	4.4	0.0	7.0	1.1	4.2

6.1.5 Attention and behavioural disorders

Attention deficit/hyperactivity disorder (ADHD) is characterised by a persistent pattern of inattention and/or hyperactivity and impulsivity that impairs functioning. Conduct disorder is characterised by a constellation of behaviours that indicate persistent behaviour that violates the rights of others, social norms and rules¹³⁹.

Well over half (59.4%) of the young people in the 2015 YPICHs met the threshold for an attention or behavioural disorder in

the previous 12 months (Table 123). This was the most common category of disorders in the study, as was the case in the 2009 YPICHs. The majority of these were conduct disorder (45.3%), ADHD (20.8%) and disruptive disorder not otherwise specified (7.8%).

Females were significantly more likely than males to meet the threshold for disruptive disorder NOS (45.5% vs. 5.6%, $p < 0.001$). The rate of ADHD in the YPICHs sample is three times higher than the 12-month population prevalence for Australian young people aged 12–17 years, which is estimated to be 6.3%¹³⁹. For females in particular, the rate was 10 times higher in the 2015 YPICHs than the estimated population prevalence (YPICHs 27.3% vs. general population 2.7%)¹³⁹. The rate of conduct disorder in the 2015 YPICHs is more than 20 times higher than the 12-month population prevalence for Australian young people aged 12–17 years (YPICHs 45.3% vs. general population 2.1%)¹³⁹.

Table 123 Attention and behavioural disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non- Aboriginal (n=92) %	Total (N=192) %
Attention deficit hyperactivity disorder	20.6	27.3	21.0	20.7	20.8
Attention deficit hyperactivity disorder NOS	1.7	0.0	3.0	0.0	1.6
Oppositional defiant disorder	2.8	0.0	4.0	2.2	3.1
Conduct disorder	46.7	27.3	46.0	44.6	45.3
Disruptive disorder NOS	5.6	45.5	9.0	6.5	7.8
Any attention/behavioural disorder	58.3	72.7	60.0	58.7	59.4

6.1.6 Other mental disorders

The K-SADS-PL screens for other mental disorders such as eating disorders and adjustment disorders. Only two young people who participated in the survey met the threshold for an eating disorder (Table 124). One participant had bulimia and one young person had eating disorder NOS. No young people were found to have adjustment disorder (without a sub-type). Several disorders did not fit into the above categories or could fit across multiple categories. Three young people had adjustment disorders (with depressed mood), and one had schizoaffective disorder (depressive type).

Table 124 Other behavioural disorders

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
Bulimia	0.6	0.0	1.0	0.0	0.5
Eating disorder NOS	0.6	0.0	1.0	0.0	0.5
Adjustment disorder (with depressed mood)	1.1	9.1	3.0	0.0	1.6
schizoaffective disorder (depressive type)	0.6	0.0	0.0	1.1	0.5
Any other disorder	2.8	9.1	5.0	1.1	3.1

In 2009, screening was conducted for autism spectrum disorders, tic disorders and elimination disorders. Some participants indicated that they were unwilling to answer questions and some refused to continue with the screening interview if further questions similar to these were asked. The lack of informants made any screening for autism spectrum disorders unreliable. For these reasons, this section of the K-SADS-PL was omitted in 2015.

6.1.7 Comparison of the 2009 YPICHS and 2015 YPICHS psychological disorders findings

The K-SADS-PL was used in the 2009 and 2015 YPICHS. The comparisons in Table 125 refer to the 12-month period prior to the interview date.

Significant differences between the 2009 and 2015 YPICHS exist in regard to psychological disorders. In 2009 there were significantly higher prevalences of young people with any mood disorder (23.5% vs. 11.5%, $p<0.001$), any attention disorder (69.6% vs. 59.4%, $p<0.05$), and any alcohol disorder (44.4% vs. 34.4%, $p<0.05$) than in 2015. Aboriginal young people had significantly higher prevalences of mood disorders (22.1% vs. 10.0%, $p<0.05$), and attention disorders (75.0% vs. 60.0%, $p<0.05$) in 2009. Significantly higher proportions of females had mood disorders in 2009 than in 2015 (56.4% vs. 9.1%, $p<0.01$) and alcohol disorders (53.8% vs. 18.2% respectively, $p<0.05$).

6.2 Self-reported psychiatric history

The first four questions in the K-SADS-PL interview asked about the young person's psychiatric history. The data in Table 126 is based on Yes/No responses to these questions. It should be noted that not all young people responded to all of these questions. The number of respondents used to calculate percentages are indicated in the "TOTAL" column for each question.

Just under half of the young people (44.5%) who responded were aware of a current diagnosis for a mental health problem. There were no significant differences in the rate of known current diagnosis by gender or Aboriginality. There were no significant differences between groups based on the types of lifetime treatment history they had experienced. Over half the young people (58.2%) reported having at least one family member with mental health or an AOD problem. Significantly more Aboriginal than non-Aboriginal young people had at least one family member with AOD problems (65.9% vs. 50.0%, $p<0.05$).

Table 126 2015 Self-reported psychiatric history

	Males (n=170) %	Females (n=11) %	Aboriginal (n=94) %	Non-Aboriginal (n=88) %	Total (N=182) %
Current diagnosis (mental health)	44.1	45.5	51.1	37.5	44.5
Lifetime treatment history – community/outpatient	18.2	30.0	21.5	17.4	19.6
Lifetime treatment history – psychiatric hospitalisation	14.8	20.0	15.7	14.3	15.0
Lifetime treatment history – day program	1.5	20.0	2.6	3.0	2.8
Lifetime treatment history – residential treatment	15.1	0.0	18.5	8.6	13.9
Lifetime treatment history – intensive community treatment	4.5	0.0	4.0	4.5	4.2
Anyone in family with mental health or AOD	57.0	72.7	65.9	50.0	58.2

Table 125 Psychological disorders, YPICHS 2009 and 2015

	Males		Females		Aboriginal		Non-Aboriginal		Total	
	2009 (n=254) %	2015 (n=180) %	2009 (n=39) %	2015 (n=11) %	2009 (n=140) %	2015 (n=100) %	2009 (n=153) %	2015 (n=92) %	2009 (N=293) %	2015 (N=192) %
Any attention/behavioural	67.7	58.3	82.1	72.7	75.0	60.0	64.7	58.7	69.6	59.4
Any alcohol	49.2	35.0	53.8	18.2	45.7	38.0	43.1	30.4	44.4	34.4
Any substance	51.2	59.4	48.7	36.4	59.3	63.0	43.1	52.2	50.9	57.8
Any anxiety	28.3	24.4	53.8	27.3	34.3	26.0	29.4	22.8	31.7	24.5
Any mood	18.5	11.7	56.4	9.1	22.1	10.0	24.8	13.0	23.5	11.5
Any schizophrenia/psychotic	4.7	4.4	10.3	0.0	7.9	7.0	3.3	1.1	5.5	4.2
Any psychological disorder	85.8	83.3	92.3	81.8	92.1	87.0	81.7	79.3	86.7	83.3
Two or more disorders	69.7	62.2	92.3	72.7	79.3	69.0	66.7	56.5	72.7	63.0

The interviewing psychologist recorded additional standardised notes and information during this section of the KSADS administration. The following analysis is based upon these notes.

Of the 182 respondents, 81 young people reported 134 diagnoses. The most common diagnoses were ADHD (40.3%), depression (19.4%), and anxiety (14.2%). Most of the 81 young people (57.1%) reported only one diagnosis. A little over a quarter (26.2%) reported two diagnoses, and 15.5% had three or more. Of the 99 young people (54.4%) who stated that anyone in their family had a mental health or AOD problem, 160 family members were identified, with a total of 197 problems. The most common family members listed were mother (31.9%), father (23.8%), uncle (10.6%), brother (10%), sister (6.9%) and aunty (4.4%). AOD problems were the most common (51.3%), followed by depression (11.7%), schizophrenia (11.7%), and bipolar (9.6%).

6.3 Suicide and self-harm

Suicide is the leading cause of death in Australia for people aged 15–24 years (30.5% of deaths), among both males (31.6%) and females (28%)¹⁵⁷. Australian male and female young offenders followed for 12 years were nine and 41 times more likely (respectively) to die than their counterparts in the general population; drugs, suicide and non-intentional injury were the leading causes¹⁵⁸. The Northwestern Juvenile Project followed a large cohort of young offenders in the United States (US) for 7.2 years, and found that they had a mortality rate four times that of the general population, with female mortality nearly eight times as high¹⁵⁹. A recent study of the same cohort found that one in 10 young people in custody had considered suicide in the six months before data collection, and 11.0% had attempted to commit suicide at least once¹⁶⁰. In a Canadian review¹⁶¹, the adjusted risk of suicide (for juveniles in custody) was three to 18 times higher than for age-matched controls. In this study, the prevalence of lifetime suicidal ideation ranged from 16.9% to 59% while lifetime self-injury prevalence ranged from 6.2% to 44%¹⁶¹. Affective disorders, borderline personality traits, substance use disorders, impulse control disorders, and anxiety disorders were associated with suicidal thoughts and self-injury. The conclusions were that all youth should be screened upon admission into custody, and any comorbid disorders should be treated.

The screen for depression in the K-SADS-PL interview schedule includes five questions about suicide and self-harm. One in 10 of the YPICHS participants who responded reported levels of recurrent thoughts of death (10.6%), suicidal acts with intent (10.1%), suicidal acts with medical lethality (7.4%), self-harm behaviour (5.4%), and suicidal ideation (3.2%) over the previous 12 months (Table 127). The estimated population prevalence for self-harm in the previous 12 months among young people aged 12–17 is 8.0%, higher than the 5.4% measured in YPICHS

participants¹³⁹. As is the case in the general population, self-harm was more common among females than males in YPICHS (20.0% vs. 4.6%). The estimated population prevalence of suicidal ideation in the previous 12 months is 7.5% for the same age group (compared to 3.2% for YPICHS), for suicide attempts 2.4% (compared to 10.2% for YPICHS), and for suicide attempts requiring medical intervention 0.6% (compared to 7.5% for YPICHS). Therefore, participants in the YPICHS are less likely to self-harm and ideate, and more likely to make serious suicidal acts and attempts – particularly young males – than their counterparts in the general population.

Table 127 Prevalence of suicide and self-harm

	Males (n=177) %	Females (n=11) %	Aboriginal (n=98) %	Non- Aboriginal (n=91) %	Total (N=189) %
Recurrent thoughts	10.2	18.2	9.2	12.1	10.6
Infrequent thoughts	9.0	9.1	10.2	7.7	9.0
Recurrent thoughts of death	19.2	27.3	19.4	19.8	19.6
Recurrent thoughts of suicide	3.4	0.0	4.2	2.2	3.2
Infrequent/vague thoughts	11.4	20.0	14.6	8.9	11.8
Suicidal ideation	14.9	20.0	18.8	11.1	15.1
Self-injurious behaviour with ANY suicidal intent	10.7	0.0	8.2	12.1	10.1
Preparations with no actual intent/follow-through	2.3	0.0	3.1	1.1	2.1
Suicidal acts (intent)	13.0	0.0	11.3	13.2	12.2
Medical intervention occurred	7.9	0.0	5.2	9.9	7.4
Superficial injuries/actions	3.4	0.0	3.1	3.3	3.2
Suicidal acts (medical lethality)	11.3	0.0	8.2	13.2	10.6
Repetitive or with significant injury	4.6	20.0	5.2	5.6	5.4
Once, with no serious injury	7.4	30.0	10.4	6.7	8.6
Non-suicidal (self-injurious)	12.0	50.0	15.6	12.2	14.0

6.3.1 Self-harm while in custody

Self-harm is associated with a history of suicidality (i.e. ideation and attempts) and is a risk factor for subsequent suicidal ideation and attempts¹⁶². Self-harming behaviour typically begins in early adolescence and peaks at around 15 years of age¹⁶³, although it can continue for many years⁵⁷.

Research among offender populations suggests that rates of self-harm among juvenile and adult offenders are higher than among the general population¹⁶⁴. In order to assess self-harming behaviours among young people in custody independently of suicidality, “self-harm” was defined as self-inflicted injury to one’s body in the absence of suicidal intent, commonly referred to in the literature as “non-suicidal self-injury”^{57, 165}.

Participants were asked whether they had deliberately harmed or injured themselves since entering the current period of custody. Of the 10.2% of participants who had self-harmed since coming into custody, 57.1% had done so within the

preceding month. Rather than any temporal trend or “cluster” of self-harm incidents, this finding is likely to reflect the fact that half of the YPICHS participants (51.3%) had entered detention within the preceding two months, and 60.9% of those who had self-harmed had been in custody three months or less. More than half (56.5%) of those who had self-harmed had done so on more than one occasion and one quarter (26.1%) on five or more occasions.

In accordance with previous research finding higher rates of self-harm among females, particularly within the 15–19-year age group^{164, 166}, females were significantly more likely than males to have self-harmed (26.3% vs. 8.7%), while there was no significant difference in the likelihood of self-harm according to Aboriginality (Table 128).

Table 128 Prevalences of self-harm while in custody

	Males (n=206) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=102) %	Total (N=226) %
Ever self-harmed	8.7	26.3*	12.1	7.8	10.2
≥3 self-harm episodes	4.4	5.3	4.0	4.9	4.4

* Statistically significant difference ($p < 0.05$) between males and females.

Among participants who had self-harmed while in custody, the most common method used was cutting (87%) (Table 129). While males reported other methods of self-harm, cutting was the exclusive method of harm for all but one of the female participants.

Table 129 Methods of self-harm

	Males (n=18) %	Females (n=5) %	Aboriginal (n=15) %	Non-Aboriginal (n=8) %	Total (N=23) %
Poisoning/overdose	5.6	0.0	6.7	0.0	4.3
Cutting	88.9	80.0	86.7	87.5	87.0
Burning	0.0	0.0	0.0	0.0	0.0
Hanging	16.7	0.0	6.7	25.0	13.0
Banging head	5.6	0.0	6.7	0.0	4.3
Jumping from heights	0.0	0.0	0.0	0.0	0.0
Swallowing objects	0.0	0.0	0.0	0.0	0.0
Picking wounds	5.6	0.0	6.7	0.0	4.3
Not eating/drinking	0.0	0.0	0.0	0.0	0.0
Other	5.6	20.0	13.3	0.0	8.7

Participants reported a diverse range of motivations for the most recent episode of self-harm (Table 130), with the most common reason being to relieve tension (21.7%), which was reported by all four groups (male, female, Aboriginal and non-Aboriginal).

Table 130 Motivations for most recent self-harm incident

	Males (n=18) %	Females (n=5) %	Aboriginal (n=15) %	Non-Aboriginal (n=8) %	Total (N=23) %
To get help	0.0	0.0	0.0	0.0	0.0
Relieve tension	22.2	20.0	13.3	37.5	21.7
To get what you want	5.6	0.0	0.0	12.5	4.3
Make others listen	5.6	0.0	6.7	0.0	4.3
Drug withdrawal	5.6	0.0	6.7	0.0	4.3
Personal problems	27.8	0.0	20.0	25.0	21.7
Depression/despair	22.2	0.0	0.0	50.0	17.4
Self-punishment	0.0	20.0	6.7	0.0	4.3
Escape reality	5.6	0.0	6.7	0.0	4.3
Anger	22.2	0.0	20.0	12.5	17.4
Boredom	11.1	20.0	13.3	12.5	13.0
Pressure from others	5.6	0.0	6.7	0.0	4.3
Other	27.8	40.0	40.0	12.5	30.4

6.3.2 Suicidal ideation while in custody

Thoughts about suicide since entering custody were reported by 9.3% of participants, with no differences between males and female participants (9.3 vs. 10.5%) or Aboriginal and non-Aboriginal participants (8.9 vs. 9.9%) (Table 131). Of those reporting suicidal ideation while in custody, 81% had told a health care professional, youth worker or family about these thoughts. Again there were no statistically significant differences according to gender (males 78.9%, females 100%) or Aboriginality (Aboriginal 72.7%, non-Aboriginal 90.0%) in the likelihood of reporting suicidal ideation to others.

When participants who reported suicidal ideation were asked about the recency of such thoughts, 65% reported that they had last thought about suicide within the preceding month. As with recency of self-harm, however, this probably reflects the proportion of participants (61.9%) who had entered custody within the preceding three months.

6.3.3 Suicide attempts while in custody

Among the 21 participants who reported suicidal ideation since coming into custody, 19% (n=4) had attempted suicide while in custody, representing 1.8% of the total YPICHS sample (Table 131). Three participants had attempted suicide on one occasion, while one participant had made five suicide attempts. In all cases of attempted suicide, the participant did not let anyone know of their intention to attempt suicide beforehand. Three participants had attempted suicide by way of hanging and one via overdose/poisoning.

All participants, regardless of whether they reported suicidal ideation or attempts since coming into custody, were asked about knowledge of others' suicidality. Almost one quarter (24.3%) responded that they knew of other young people in

custody who had attempted or committed suicide, and 42.9% knew someone outside of custody that had committed suicide.

Table 131 Prevalence of suicidality while in custody

	Males (n=205) %	Females (n=19) %	Aboriginal (n=124) %	Non-Aboriginal (n=101) %	Total (N=225) %
Suicidal ideation	9.3	10.5	8.9	9.9	9.3
Suicide attempts	2.0	0.0	0.8	3.0	1.8

6.4 Strengths and Difficulties

Participants under the age of 18 were administered the Strengths & Difficulties Questionnaire (SDQ). The SDQ is a 25-item questionnaire with demonstrated reliability and validity, designed to screen for the presence of behavioural and mental health problems in childhood and adolescence that warrant further assessment and/or intervention^{167, 168}. The SDQ can be used with children aged 4–17 years and assesses psychological functioning in five domains: emotional problems, conduct problems, hyperactivity, peer problems, and prosocial behaviours. Each item is scored 0–2 and the items in each domain comprise a subscale which is scored from 0–10. The subscale scores are summed to provide a total difficulties score ranging from 0–40. The results in this section are derived from comparisons with age – and gender-based normative data obtained from a sample of Australian children aged 7–17 years¹⁶⁹.

Table 132 presents the proportion of participants who scored above the suggested cut-offs for a normal score for each subscale domain and for the total difficulties score. Scores in the “borderline” category are those falling between the 80th and 90th percentiles and scores in the “abnormal” category are those above the 90th percentile.

Overall, problems with peer relationships were the most prevalent, with 27.6% of participants scoring in the borderline range and 53.4% in the abnormal range. Conduct problems were also common, with almost half (46.6%) of participants scoring in the abnormal range. Females were significantly more likely to score in the “abnormal” range for hyperactivity and for total difficulties, with the prevalence of abnormal scores for these scales more than double that among males. Aboriginal participants were more likely than non-Aboriginal participants to score in the “borderline” range for emotional problems.

Table 132 Strengths & Difficulties Questionnaire results

	Males (n=146) %	Females (n=17) %	Aboriginal (n=97) %	Non-Aboriginal (n=66) %	Total (N=163) %
Emotional problems					
% Borderline	12.3	0.0	15.5	4.5 [#]	11.0
% Abnormal	20.5	23.5	23.7	16.7	20.9
Conduct problems					
% Borderline	14.4	23.5	15.5	15.2	15.3
% Abnormal	45.9	52.9	48.5	43.9	46.6
Hyperactivity					
% Borderline	15.1	11.8	16.5	12.1	14.7
% Abnormal	27.4	70.6 ^{***}	35.1	27.3	31.9
Peer problems					
% Borderline	28.1	23.5	24.7	31.8	27.6
% Abnormal	52.7	58.8	56.7	48.5	53.4
Total difficulties					
% Borderline	24.7	11.8	22.7	24.2	23.3
% Abnormal	25.3	70.6 ^{***}	35.1	22.7	30.1

*** Statistically significant difference ($p < 0.001$) between males and females; # statistically significant difference ($p < 0.05$) between Aboriginal and non-Aboriginal participants.

7. Trauma experiences and impact of trauma

General population surveys, such as the Australian National Survey of Mental Health and Wellbeing (NSMHWB) and the US National Comorbidity Survey, suggest that over half of adolescents and adults have experienced one or more traumatic events over their lifetime^{170–172}. Traumatic events are generally defined as those in which an individual is exposed to or witnesses actual or threatened death, serious injury or sexual violence, whether the threat is real or perceived. Examples of traumatic events include life-threatening accidents, witnessing serious injury or death, military combat, sexual and physical assault, kidnap, terrorist attack, torture, and natural or manmade disasters.

In some cases, people can develop symptoms of PTSD following trauma exposure. PTSD is characterised by symptoms in the following clusters:

- persistent re-experiencing of the traumatic event;
- persistent avoidance of stimuli associated with the event and numbing of general responsiveness; and,
- persistent symptoms of increased arousal¹⁵².

PTSD is a debilitating, often chronic, disorder that is associated with an increased risk of other psychiatric comorbidity, such as depression and substance use disorders¹⁷³. PTSD is more prevalent among women, who have more than double the odds of developing PTSD after exposure to a traumatic event than men, and younger people^{174, 175}. According to data from the 2007 NSMHWB, 7.2% of Australians aged 16–85 years met criteria for a lifetime diagnosis of PTSD (females 9.7%, males 4.7%) and 4.4% met criteria for a diagnosis in the preceding 12 months (females 5.9%, males 2.8%)¹⁷⁶.

Adolescence, late adolescence in particular (i.e. 16–17 years), has been identified as a high-risk period for trauma exposure and, thus, for the development of PTSD^{174, 177}. PTSD in adolescence is commonly associated with suicide, substance abuse, poor social support, academic problems, and poor physical health¹⁷⁷.

Australian and international research has found higher rates of trauma exposure in incarcerated populations than in the general population^{178, 179}. Accordingly, the prevalence of PTSD is higher among both adults and juveniles in custody than that among the general population^{180–182}. In a study of the mental health of Australian prisoners, Butler et al.¹⁸¹ found that the prevalence of PTSD among prisoners was seven times that in a comparison community sample (25.6% vs. 3.6%). While the average prevalence of PTSD in adolescence has been estimated to be 13.6%¹⁷⁷, Moore et al. reported a 20.3% prevalence of PTSD among participants of the 2009 YPICHS survey¹⁸².

7.1 Trauma exposure

Almost half (47.8%) of participants had been exposed to at least one traumatic event. In contrast to gender differences in the prevalence of PTSD in the general population, there were no statistically significant differences in the prevalence of trauma exposure between male and female participants (47.6% vs. 47.4%) or between Aboriginal and non-Aboriginal participants (45.2% vs. 51.0%). There were, however, differences in the types of trauma experienced (Table 133). Female participants were significantly more likely than male participants to have witnessed or been the victim of sexual assault, and to have been subjected to forced sexual intercourse. They were also more likely to report being made to feel emotionally or psychologically unsafe. Aboriginal participants were less likely than non-Aboriginal participants to have experienced or witnessed a life-threatening accident, or to have been threatened with a weapon, held captive or kidnapped.

Table 133 Nature and number of traumatic events among those exposed to an event

	Males (n=98)	Females (n=9)	Aboriginal (n=56)	Non- Aboriginal (n=52)	Total (N=108)
Traumatic event type (%)					
Did not wish to disclose	5.1	0.0	5.4	3.8	4.6
Life-threatening accident	22.4	0.0	12.5	28.8*	20.4
Fire, flood or other natural disaster	5.1	0.0	8.9	0.0	4.6
Witnessing someone being badly injured or killed	54.1	44.4	55.4	51.9	53.7
Witnessing someone being sexually assaulted	1.0	22.2*	5.4	1.9	3.7
Forced sexual intercourse	1.0	22.2*	3.6	3.8	3.7
Sexual assault	1.0	66.7***	8.9	5.8	7.4
Seriously physically attacked or assaulted	18.4	55.6*	17.9	26.9	22.2
Being threatened with a weapon, held captive or kidnapped	8.2	22.2	3.6	17.3*	10.2
Being made to feel unsafe emotionally or psychologically	7.1	33.3*	5.4	15.4	10.2
Traumatised by nature of own offence	7.1	0.0	1.8	11.5	6.5
Other	16.3	11.1	17.9	13.5	15.7
No. of traumatic event types (median)	1	3***	1	1	1

* Statistically significant difference (p<0.05) between males and females; *** statistically significant difference (p<0.001) between males and females; # statistically significant difference (p<0.05) between Aboriginal and non-Aboriginal young people.

Of those who reported trauma exposure, 37.5% had experienced more than one type of traumatic event. Female participants reported more traumatic event types than males (3 vs. 1 events, p<0.001) (Table 133).

The median amount of time that had elapsed since the most serious traumatic event was 12 months (range: <1–168 months),

with no differences according to gender (males 13 months, females 12 months) or Aboriginality (Aboriginal 12 months, non-Aboriginal 14 months).

7.2 Post-traumatic stress disorder

Participants who stated that they had experienced a traumatic event were administered a modified version of the PTSD-8, an eight-item instrument used to screen for the presence of PTSD¹⁸³. In the original version, each item is scored from 1 to 4, based on how much the symptom of post-traumatic stress has bothered the respondent since the traumatic event (1. "not at all"; 2. "rarely"; 3. "sometimes"; 4. "most of the time"). For the 2015 YPICHHS, the recall period of the PTSD-8 was modified in order to assess current symptomatology, with participants asked to report the frequency of trauma-related symptoms in the preceding two weeks. The PTSD-8 assesses symptoms from all three symptom clusters (i.e. re-experiencing, avoidance and numbing, and hyperarousal) specified in the DSM-IV-TR¹⁵². The symptom threshold for each cluster is met when a score of three or more is obtained for at least one PTSD-8 item within that cluster¹⁸³.

Over three quarters of those exposed to a traumatic event had subsequently experienced at least one of the eight symptoms contained in the PTSD-8. The prevalence of having had "any" symptoms did not significantly differ by gender (males: 75.3% vs. females: 75.0%) or Aboriginality (Aboriginal: 73.2%; non-Aboriginal: 78.0%). The most commonly reported symptoms were associated with re-experiencing (recurrent thoughts or memories of the event: 58.9%) and avoidance (avoiding thoughts or feelings associated with the event: 46.2%), and this was the case regardless of gender or Aboriginality (Table 134).

Table 134 Lifetime prevalence of PTSD symptoms following a traumatic event

	Males (n=98) %	Females (n=8) %	Aboriginal (n=56) %	Non-Aboriginal (n=51) %	Total (N=107) %
Re-experiencing					
Recurrent thoughts or memories of the event	57.1	75.0	57.1	60.8	58.9
Feeling as though the event is happening again	20.4	12.5	21.4	19.6	20.6
Recurrent nightmares about the event	38.8	50.0	39.3	41.2	40.2
Sudden emotional or physical reactions when reminded of the event	36.1	37.5	37.5	36.0	36.8
Any re-experiencing symptoms	64.9	75.0	62.5	70.0	66.0
Avoidance					
Avoiding activities that remind you of the event	38.8	50.0	39.3	41.2	40.2
Avoiding thoughts or feelings associated with the event	45.4	50.0	44.6	48.0	46.2
Any avoidance symptoms	53.6	62.5	55.4	54.0	54.7
Hyperarousal					
Feeling jumpy, easily startled	23.5	37.5	26.8	21.6	24.3
Feeling on guard	31.6	37.5	30.4	35.3	32.7
Any hyperarousal symptoms	36.7	37.5	35.7	39.2	37.4

Table 135 presents, for each cluster of PTSD symptoms, the proportion of participants meeting the symptom cluster threshold (i.e. at least one symptom within the cluster), based on their experience of symptoms in the two weeks preceding interview.

Table 135 Proportion of participants with a history of trauma exposure who met criteria for endorsement of PTSD-8 symptom clusters in the previous two weeks

	Males (n=95) %	Females (n=8) %	Aboriginal (n=56) %	Non-Aboriginal (n=48) %	Total (N=104) %
Re-experiencing	19.1	12.5	21.8	14.6	18.4
Avoidance	9.6	12.5	10.9	8.3	9.7
Hyperarousal	12.6	25.0	16.1	10.4	13.5

Meeting the PTSD-8 criteria for all three symptom clusters (i.e. "screening positive") is indicative of the presence of PTSD and warrants further diagnostic assessment. While 75.5% of participants with a history of trauma exposure met criteria for at least one PTSD symptom cluster in the preceding two weeks, only 5.7% met criteria for all three clusters and thus screened positive for symptoms consistent with PTSD (Table 136).

Table 136 Proportion of participants who screened positive for symptoms consistent with PTSD in the preceding 2 weeks

	Males (n=97) %	Females (n=8) %	Aboriginal (n=56) %	Non-Aboriginal (n=50) %	Total (N=106) %
Positive screen for PTSD	6.2	0.0	7.1	4.0	5.7

7.3 Childhood abuse and neglect

According to the AIHW ¹⁸⁴, during 2015–16, there were 30,266 substantiated notifications of child abuse or neglect for young people aged 17 years or younger in NSW. These substantiated notifications involved 17,282 young people ¹⁸⁴. Thirty-one percent of the young people involved in the notifications were Aboriginal, a rate of 57.2 per 1,000 young people. This is almost eight times the prevalence in non-Aboriginal young people (7.4 per 1,000) ¹⁸⁴. Of the 17,282 young people involved, 16.1% were subject to notifications relating to physical abuse, 16.6% for sexual abuse, 34.5% for emotional abuse, and 32.8% for neglect ¹⁸⁴.

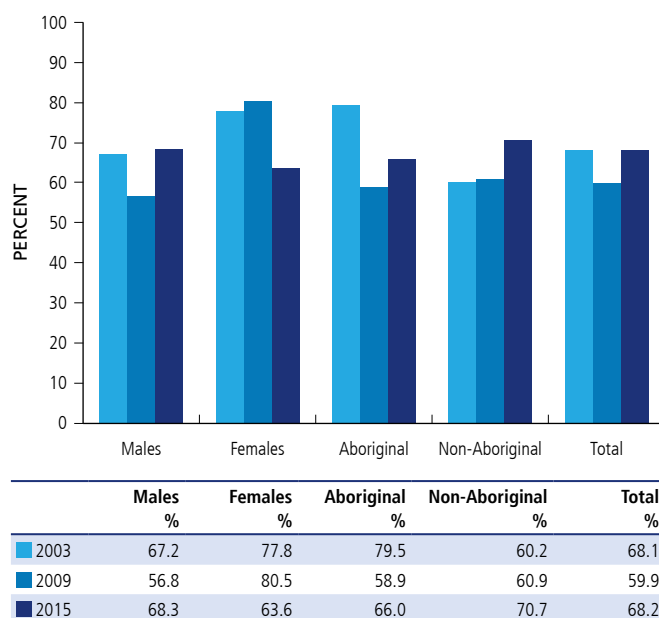
The CTQ is a 28-item self-report inventory that was administered to participants in the YPICHS in 2003, 2009 and 2015 to screen for histories of abuse and neglect. The CTQ produces five scales representing three different types of abuse (emotional, physical, and sexual) and two types of neglect (emotional and physical) ¹⁸⁵. The CTQ also includes a Minimisation/Denial scale for detecting the likelihood that the young person is under-reporting their experience of abuse and neglect. The level of under-reporting by the 2015 YPICHS sample, while high (49.0%), appears slightly lower than in either 2003 or 2009 (Table 137). Similar proportions of females and males under-reported their experience of trauma (54.5% vs. 48.3%); however, a higher proportion of Aboriginal young people under-reported than non-Aboriginal young people (52.0% vs. 45.7%). Neither difference was statistically significant.

Table 137 Under-reporting of childhood abuse and neglect experiences, YPICHS 2003–2015

	2003 (N=216) %	2009 (N=307) %	2015 (N=192) %
Males	55.6	58.6	48.3
Females	38.9	36.6	54.5
Aboriginal	51.1	57.6	52.0
Non-Aboriginal	56.3	53.8	45.7
Total	54.2	55.7	49.0

Overall, 68.2% of young people in the 2015 YPICHS reported experiencing at least one form of childhood abuse or neglect. This is a slight increase from the 59.9% found in the 2009 YPICHS. As in 2009, Aboriginal young people were less likely than non-Aboriginal young people to have reported experiencing any childhood abuse or neglect (66.0 vs. 70.7). Unlike those surveyed in 2003 and 2009 however, females were less likely than males to have reported experiencing any childhood abuse or neglect (63.6 vs. 68.3) (Figure 36). Neither difference was statistically significant.

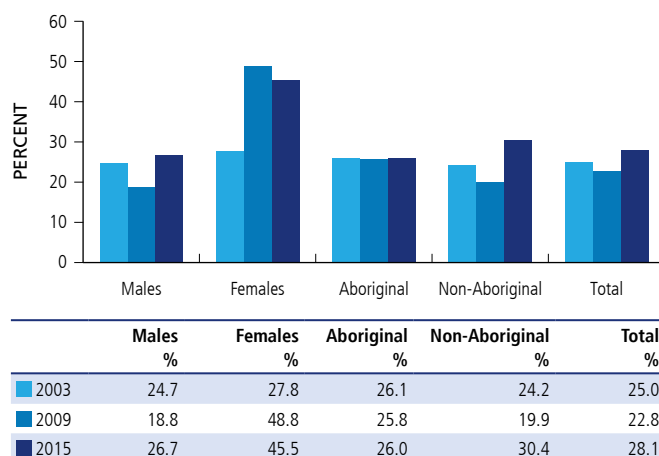
Figure 36 Any childhood abuse or neglect by year (scores above 'none to low')



Over one-quarter (28.1%) of participants in the 2015 YPICHS experienced some form of severe childhood abuse or neglect. This is slightly higher than the levels reported in both 2003 and 2009 (25% and 23% respectively). In 2009 and 2015, more females reported experiencing severe childhood abuse or neglect than males (49.0% vs. 19.0% in 2009 and 45.5% vs. 26.7% in 2015), but in 2015 this difference was not statistically significant.

In 2009, Aboriginal young people were slightly more likely to report experiencing severe childhood abuse or neglect than non-Aboriginal young people (26.0% vs. 20.0%). Conversely, in 2015, non-Aboriginal young people were slightly more likely to report experiencing severe childhood abuse or neglect than non-Aboriginal young people (30.4% vs. 26.0%) (Figure 37).

Figure 37 Any severe childhood abuse or neglect by year (scores above 'none to low')



The types of childhood abuse and neglect were broken down to enable a comparison between the 2003, 2009 and 2015 YPICHS findings (Table 138). Though self-reported overall abuse in 2015 was similar to that reported in 2003 (slightly higher than that reported in 2009), the proportions for emotional and sexual abuse types were fairly consistent across all three surveys. While the reporting of physical abuse decreased from 42% in 2003 to 35% in 2009, it remained stable at 34.9% in 2015. Again, the level of reporting of both neglect types was fairly consistent across the 2003 and 2009 samples (ranging from 33% to 37%), but a higher proportion of the 2015 YPICHS sample reported both emotional and physical neglect (45.3% and 43.2% respectively). In all three surveys, at least a third of the sample reported that they experienced at least one form of physical abuse, emotional abuse, physical neglect or emotional neglect. The proportion of young people who reported that they experienced sexual abuse remained at approximately 10% across the three survey periods.

Table 138 Type of childhood abuse or neglect by year (scores above “none to low”)

	2003 (N=216) %	2009 (N=307) %	2015 (N=192) %
Emotional abuse	36.6	33.9	34.4
Physical abuse	41.7	34.9	34.9
Sexual abuse	10.6	9.8	10.9
Emotional neglect	37.5	36.2	45.3
Physical neglect	34.3	32.9	43.2
Any type of abuse/neglect	68.1	59.9	68.2
Any severe abuse/neglect	25.0	22.8	28.1

As there has been no definitive nationwide study of the prevalence of child abuse and neglect in Australia to date, it is difficult to compare the findings from the YPICHS surveys to rates in the wider Australian population. Rosier¹⁸⁶ states that differences in the way data has been collected, questions have been worded, and maltreatment/abuse/neglect has been defined result in considerable variance in prevalence estimates between studies.

The Australian Institute of Family Studies has summarised the recent estimated rates of abuse and neglect across the Australian population¹⁸⁶. Acknowledging the limitations noted above, the following comparisons with the YPICHS data can be made.

Prevalence rates of child physical abuse have been estimated at 5–18% within the Australian community, making the YPICHS prevalence rate of 34.9% in 2015 extremely high in comparison.

Sexual abuse rates are estimated at 1.4–12% for males and 4–26.8% for females within the Australian community. The variation here is large, due to different definitions of sexual assault. Although the data obtained from all three YPICHS surveys are not strictly comparable with other reporting categories for

sexual assault, the rate reported (10.9%) is within the wide range reported for the Australian population.

The prevalence of neglect in the Australian community ranges from 1.6% to 4%. While some studies refer only to physical neglect, others include emotional neglect. In both instances, this is substantially lower than the prevalence reported in the 2015 YPICHS (43.2% reporting physical neglect and 45.3% reporting emotional neglect).

The prevalence of emotional maltreatment in Australia ranges from 9% to 14%. Rosier¹⁸⁶ refers to this type of abuse as “emotional maltreatment”; it may reflect a combination of what is categorised in this survey as “emotional abuse” and “emotional neglect”. Again, in both instances, young people in custody reported much higher prevalence rates – more than twice those found in the general community (Table 139).

Table 139 Type of childhood abuse or neglect by Aboriginality and gender (scores above “none to low”)

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
Emotional abuse	33.3	45.5	31.0	38.0	34.4
Physical abuse	35.6	18.2	33.0	37.0	34.9
Sexual abuse	8.3	45.5	9.0	13.0	10.9
Emotional neglect	45.6	36.4	40.0	51.1	45.3
Physical neglect	43.3	36.4	44.0	42.4	43.2
Any type of abuse/neglect	68.3	63.6	66.0	70.7	68.2
Any severe abuse/neglect	26.7	45.5	26.0	30.4	28.1

Table 139 shows the proportion of young people who reported experiencing each type of abuse or neglect examined in the CTQ. A description of each scale is outlined below, together with a comparison of the proportions of young people reporting experiences related to each scale, by Aboriginality and gender. Differences are non-significant unless indicated.

7.3.1 Emotional Abuse Scale

The Emotional Abuse Scale identifies experiences of verbal assaults. These can be attacks on a young person’s sense of worth or wellbeing¹⁸⁵. Approximately one-third (34.4%) of participants reported experiencing some form of emotional abuse. Of these 66 young people, 54.5% reported experiencing “moderate to severe” or “severe to extreme” emotional abuse (Table 140).

A higher proportion of non-Aboriginal young people reported experiencing emotional abuse than Aboriginal young people (38.0% vs. 31.0%). Similarly, a higher proportion of young females reported experiencing emotional abuse than young males (45.5% vs. 33.3%) (Table 139).

Table 140 Severity of emotional abuse

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
None to low	66.7	54.5	69.0	62.0	65.6
Low to moderate	15.6	18.2	14.0	17.4	15.6
Moderate to severe	7.2	9.1	6.0	8.7	7.3
Severe to extreme	10.6	18.2	11.0	12.0	11.5

7.3.2 Physical Abuse Scale

The Physical Abuse Scale refers to physical assaults by an older person that either result in or pose a risk of injury¹⁸⁵. Similar to reported levels of emotional abuse, approximately one third (34.9%) of participants reported having experienced some form of physical abuse. Of these 67 young people, 73.1% reported having experienced “moderate to severe” or “severe to extreme” physical abuse (Table 141).

As with emotional abuse, a higher proportion of non-Aboriginal young people reported experiencing this type of abuse than Aboriginal young people (37.0% vs. 33.0%). In contrast, however, to the results obtained on the Emotional Abuse Scale, a smaller proportion of young females reported experiencing physical abuse than young males (18.2% vs. 35.6%) (Table 139).

Table 141 Severity of physical abuse

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
None to low	64.4	81.8	67.0	63.0	65.1
Low to moderate	9.4	9.1	12.0	6.5	9.4
Moderate to severe	10.0	0.0	6.0	13.0	9.4
Severe to extreme	16.1	9.1	15.0	17.4	16.1

7.3.3 Sexual Abuse Scale

The Sexual Abuse Scale gauges the experience of contact or conduct of a sexual nature between a young person and an older person that may contain explicit coercion¹⁸⁵. The proportion of young people reporting an experience of sexual abuse is much lower than the proportions reporting all other abuse or neglect covered here, and was found in only 10.9% of the sample population. Consideration must be given here, as with all scales reported, to the probability of under-reporting, as indicated by the 49% endorsement of the CTQ’s minimisation/denial scale.

Of the 21 young people who reported an experience of sexual abuse, 81.0% reported the severity of their abuse as “moderate to severe” or “severe to extreme” (Table 142). As with previous years, a significantly higher proportion of young females reported experiencing sexual abuse than young males (45.5% vs. 8.3%, $p < 0.01$). Again a slightly higher proportion of non-Aboriginal young people reported this type of abuse (13.0% vs. 9.0%) (Table 139).

Table 142 Severity of sexual abuse

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
None to low	91.7	54.5	91.0	87.0	89.1
Low to moderate	2.2	0.0	2.0	2.2	2.1
Moderate to severe	3.9	27.3	3.0	7.6	5.2
Severe to extreme	2.2	18.2	4.0	3.3	3.6

7.3.4 Emotional Neglect Scale

The Emotional Neglect Scale aims to identify a lack of love, encouragement, belonging and support resulting from failure on the part of caregivers to provide for the young person’s basic psychological and emotional needs¹⁸⁵. Over a third (45.3%) of 2015 YPICHS participants reported experiencing some form of childhood emotional neglect. Of these 87 young people, 44.8% reported experiencing “moderate to severe” or “severe to extreme” levels of emotional neglect (Table 143).

A slightly higher proportion of males and non-Aboriginal young people reported this type of neglect than females (45.6% vs. 36.4%) and Aboriginal young people (51.1% vs. 40.0%) respectively (Table 139).

Table 143 Severity of emotional neglect

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
None to low	54.4	63.6	60.0	48.9	54.7
Low to moderate	25.0	27.3	22.0	28.3	25.0
Moderate to severe	8.9	0.0	7.0	9.8	8.3
Severe to extreme	11.7	9.1	11.0	13.0	12.0

7.3.5 Physical Neglect Scale

The Physical Neglect Scale seeks to identify a lack of basic physical needs, such as food, shelter, safety and supervision, and health, resulting from a caregiver’s failure to provide for the young person¹⁸⁵. Again, over a third (43.2%) of YPICHS participants reported experiencing some form of childhood physical neglect. Of these 83 young people, 62.7% reported their experience of physical neglect as “moderate to severe” or “severe to extreme” (Table 144).

A slightly higher proportion of males and Aboriginal young people reported this type of neglect than females (43.3% vs. 36.4%) and non-Aboriginal young people (44.0% vs. 42.4%) respectively (Table 139).

Table 144 Severity of physical neglect reported

	Males (n=180) %	Females (n=11) %	Aboriginal (n=100) %	Non-Aboriginal (n=92) %	Total (N=192) %
None to low	56.7	63.6	56.0	57.6	56.8
Low to moderate	16.7	9.1	17.0	15.2	16.1
Moderate to severe	12.8	9.1	12.0	14.1	13.0
Severe to extreme	13.9	18.2	15.0	13.0	14.1

7.4 Psychological impact of trauma

Traumatic events experienced by children include physical or sexual abuse, major losses, witnessing violence towards others, neglect, and exposure to natural and other disasters. Whilst the impact of any of these events can be devastating, and may lead to long-term difficulties, there is now a rich body of literature on the impact of early childhood trauma and neglect on neurodevelopment and the manifestations arising from exposure to repeated trauma¹⁸⁷⁻¹⁹¹. According to Lubit¹⁹², the experience of abuse, trauma and neglect during the time from infancy to adolescence (“a time of enormous neurological growth and development”,¹⁹³ p. 356) can disrupt a child’s developmental pathway, resulting in an array of persistent outcomes which may adversely affect various aspects of functioning that extend far beyond childhood and into adolescence and adulthood^{190, 191, 194}.

Adverse outcomes resulting from childhood abuse and neglect have been found in a variety of areas, including poor physical health^{190, 195}, cognitive dysfunction¹⁹⁶, and poor coping strategies and social skills^{197, 198}. In addition, evidence suggests a relationship between childhood trauma and poor emotional and mental health^{199, 200} and psychotic disorders^{201, 202}. Significantly for the current study, childhood trauma has also been linked to the development of antisocial behavioural problems such as aggression, juvenile delinquency, adult criminality, and abusive or violent behaviour^{148, 192, 203-207}.

The impact of trauma was investigated using the Trauma Symptom Checklist for Children (TSCC), a self-report measure of post-traumatic distress and psychological symptomology resulting from exposure to trauma²⁰⁸. The TSCC is intended for use in the evaluation of young people who have experienced traumatic events, including childhood physical or sexual abuse, major losses, witnessing violence towards others, and natural disasters, but for the purpose of the 2015 YPICHS it was administered to all consenting participants. As such, a direct relationship between reported symptomatology and trauma exposure cannot be inferred. Also, note that the TSCC was not administered before 2015, so comparisons to earlier years are not possible.

The TSCC consists of 54 items which assess a variety of psychological outcomes associated with trauma. The items produce two validity scales (Under-response and Hyper-response)

and six clinical scales (Anxiety, Depression, Anger, Post-traumatic Stress, Dissociation, and Sexual Concerns)²⁰⁸. Raw scores for each of these scales are converted to T-scores according to age and gender.

The Under-response validity scale reflects the extent to which a young person denies the behaviours, thoughts or feelings that others are likely to experience and report (e.g. feeling sad or daydreaming). Young people who score high on this scale are likely to be defensive or avoidant in their responses. The TSCC Professional Manual recommends that those with a converted T-score of 70 or higher on this scale be considered “invalid” due to the likelihood that the participant is under-reporting symptoms²⁰⁸.

Conversely, the Hyper-response validity scale reflects the extent to which a young person over-reports the behaviours, thoughts or feelings that others are likely to experience and report to a lesser extent. Young people who score high on this scale are likely to wish to be seen as overly concerned or dysfunctional. The TSCC Professional Manual recommends that those with a converted T-score of 90 or higher on this scale be considered “invalid” due to the likelihood that the participant is over-reporting their symptoms²⁰⁸.

Results from the 2015 YPICHS reveal that 7.3% of young people were potentially under-reporting their trauma-related symptoms and 0.5% were potentially over-reporting their symptoms, with no statistically significant differences according to gender or Aboriginality (see Table 145).

Table 145 TSCC Validity Scales

	Males (n=181) %	Females (n=11) %	Aboriginal (n=102) %	Non-Aboriginal (n=91) %	Total (N=193) %
Under-responding	7.2	9.1	8.8	5.5	7.3
Over (Hyper)-responding	0.6	0.0	1.0	0.0	0.5
Valid responses	92.3	90.9	90.2	94.5	92.2

Those checklists where responses indicated potential under-reporting or over-reporting were removed, leaving the remaining 178 “valid” checklists to determine the results from the clinical scales. For all clinical scales, except for the Sexual Concerns scale, converted T-scores of 65 or above are considered clinically significant. For the Sexual Concerns scale, converted T-scores of 70 and above are considered clinically significant²⁰⁸.

Results from the six clinical scales indicated that 29.8% of valid respondents reported at least one clinically significant trauma symptom and 18% reported experiencing two or more symptoms. No significant differences were found by gender or Aboriginality (see Table 146).

7.4.1 Anxiety

Scores on the Anxiety scale measure the extent to which a young person experiences generalised anxiety, hyperarousal and worry. This scale measures specific fears such as fear of the dark or of being killed. It also measures free-floating anxiety and a non-specific sense of impending danger. Elevated scores on this scale may reflect the presence of an anxiety disorder or the anxious hyperarousal and/or fears associated with PTSD.

While it should be noted that, within a custodial environment, an elevated sense of anxiety may be considered reasonable or prudent, only a small proportion of young people (3.4%) reported clinically significant levels of trauma-related symptoms of anxiety (Table 146).

7.4.2 Depression

The Depression scale scores reflect feelings of sadness, unhappiness, and loneliness; episodes of tearfulness; feeling of guilt and self-denigration; and self-harm and suicidality. Elevated scores on this scale may indicate a depressive episode, a depressive reaction, or a more long-term depressive disorder such as dysthymia. Young people with high scores on this scale may see themselves as worthless.

While not a statistically significant difference, a slightly higher proportion of young females reported clinically significant levels of trauma-related symptoms of depression than young males (10% vs. 7.8%). Similar proportions of Aboriginal young people and non-Aboriginal young people reported this level of depressive symptoms (8.7% vs. 7.0%) (Table 146).

7.4.3 Anger

The Anger scale measures the degree of angry thoughts, feelings, and behaviours experienced by the young person. High scores on this scale suggest an elevated level of feeling mad or mean; hating others; wanting to yell at or hurt people; and/or arguing or fighting. While some young people who have high scores on this scale may be seen as hostile or aggressive, others may internalise feelings of anger or resentment relating to their abuse and neglect.

While 5.1% of young people reported clinically significant levels of anger, none of these was a young female. A slightly (non-significantly) higher proportion of non-Aboriginal young people reported this level of anger than Aboriginal young people (5.8% vs. 4.3%) (Table 146).

7.4.4 Post-traumatic Stress

The Post-traumatic Stress scale measures the level of three symptom groups associated with PTSD in the DSM-5: intrusive symptoms such as nightmares or flashbacks, hyperarousal, and avoidant and numbing feelings, thoughts, and behaviours.

Although 9.6% of young people reported a clinically significant level of post-traumatic stress symptoms, no young females reported this level of symptomology. Conversely to anger, a slightly greater proportion of Aboriginal young people in the sample reported elevated post-traumatic stress symptoms than non-Aboriginal young people (10.9% vs. 8.1%) (Table 146).

7.4.5 Disassociation

The Dissociation scale measures the young persons' experiences of derealisation; one's mind going blank; emotional numbing; pretending to be someone else or somewhere else; day-dreaming; memory problems and dissociative avoidance. This scale has two subscales – Overt Dissociation and Fantasy. Young people with high scores on the Overt Dissociation subscale often appear emotionally detached and cognitively avoid negative affect, while those with elevated scores on the Fantasy subscale may appear to be overinvolved in fantasy to the exclusion of the "real" world.

While not significantly different, higher proportions of young males reported clinically significant levels of disassociation (7.2%), overt dissociation (11.4%), and fantasy (3.6%) than young females. In fact, no young females reported this level of symptomology (Table 146).

7.4.6 Sexual Concerns

The Sexual Concerns scale measures sexual thoughts or feelings that occur earlier than developmentally expected or with greater than normal frequency; sexual conflicts; negative responses to sexual stimuli; and fear of being sexually exploited. This scale has two subscales: Sexual Preoccupation and Sexual Distress. Briere²⁰⁸ suggests that young people with elevated scores on this scale, or its subscales, may have been prematurely sexualised, or sexually traumatised, as a result of sexual abuse, exposure to pornography, or witnessing sexual acts.

Table 146 shows that slightly higher proportions of young females reported elevated levels on the Sexual Concerns scale than young males (10.0% vs. 4.2%). A significantly higher proportion of young females, however, received elevated scores on the Sexual Distress subscale (40.0% vs. 4.8%, $p < 0.01$). According to Briere²⁰⁸, elevations on this subscale suggest distress or conflict associated with sexual matters or experiences, and generally involve sexual fears and unwanted sexual feelings and behaviours.

Conversely, of the 6.2% of young people who reported elevated levels on the Sexual Preoccupation subscale, none was a young female. This indicates a somewhat higher level of developmentally premature sexual behaviours by the young males in the sample (Table 146).

Table 146 Clinically significant trauma symptomology (valid TSCC only)

	Males (n=167) %	Females (n=10) %	Aboriginal (n=92) %	Non-Aboriginal (n=86) %	Total (N=178) %
Anxiety	3.6	0.0	3.3	3.5	3.4
Depression	7.8	10.0	8.7	7.0	7.9
Anger	5.4	0.0	4.3	5.8	5.1
Post-traumatic stress	10.2	0.0	10.9	8.1	9.6
Disassociation	7.2	0.0	7.6	5.8	6.7
Overt dissociation	11.4	0.0	9.8	11.6	10.7
Fantasy	3.6	0.0	1.1	5.8	3.4
Sexual concerns	4.2	10.0	3.3	5.8	4.5
Sexual preoccupation	6.6	0.0	4.3	8.1	6.2
Sexual distress	4.8	40.0	6.5	7.0	6.7
Any clinically significant trauma symptom	28.7	50.0	29.3	30.2	29.8
Two or more types of clinically significant trauma symptoms	16.2	10.0	13.0	18.6	18.0

8. Intellectual ability

In the 2015 YPICHs, intellectual ability was measured using full-scale versions of the Wechsler scales. The Wechsler scales are amongst the most widely used psychometric measures of intelligence. They incorporate a hierarchical model of intelligence in which general ability is measured against four underlying factors: fluid intelligence, crystallised intelligence, working memory and processing speed. Both versions have been adapted to Australian English, with the children's version being supplemented by Australian norms.

The Wechsler Intelligence Scale for Children, Fourth Edition Australian Standardised Edition (WISC-IV)²⁰⁹ was administered to YPICHs participants up to the age of 16 years and 11 months, while the Wechsler Adult Intelligence Scale, Fourth Edition Australian and New Zealand Language Adapted Edition (WAIS-IV)²¹⁰ was administered to older young people. Both the WISC-IV and WAIS-IV include 10 core subtests, the results of which combine to provide four index scores – the Verbal Comprehension Index (VCI), Perceptual Reasoning Index (PRI), Working Memory Index (WMI) and the Processing Speed Index (PSI) – representing major components of intelligence.

The VCI is composed of subtests that measure verbal abilities requiring reasoning, comprehension and verbal concept formation such as explaining how two items are similar. It assesses the respondent's ability to listen, draw on learned information, think through an answer, and provide a verbal response.

The PRI is composed of subtests that measure nonverbal reasoning and perceptual organisation. It assesses the respondent's ability to examine a problem, use visual skills, organise thoughts, and test possible solutions.

The WMI is composed of subtests that measure the working memory, ability to sustain attention and concentration, and mental control. It assesses the respondent's auditory short term memory and ability to memorise new information and reorganise that information to produce a verbal response.

The PSI is composed of subtests that measure speed of mental processing and motor coordination. It assesses the respondent's abilities to focus, scan, and discriminate between, visual information.

A fifth score, representing general intellectual ability, is based on the total combined performance of the four index scores; this score is known as the Full Scale IQ (FSIQ). The FSIQ is generally considered the most reliable measure of overall intellectual ability. The mean score for the WAIS-IV and WISC-IV scales is 100 (SD 15).

The full scale measures, which were also used in the 2009 YPICHs, were chosen in order to better characterise participants'

ability profiles, and to judge more accurately the need to complete adaptive functioning assessments for those who score in the range indicative of intellectual disability. The 2003 YPICHs utilised the Wechsler Abbreviated Scale of Intelligence (WASI). As this abbreviated version involves only four subtests, it provides a less robust measure of intellectual ability than the full 10 subtests. With the exception of FSIQs, comparisons with the 2003 YPICHs data are dubious due to the different subscales and composite indices. As a result, index comparisons are made with the 2009 results only.

One hundred and eighty-seven young people completed either the WISC-IV (42%) or the WAIS-IV (58%), depending on their age at the time of testing. Most participants (93%) were male and the proportions of participants who identified as Aboriginal and non-Aboriginal were similar (54% vs. 46%).

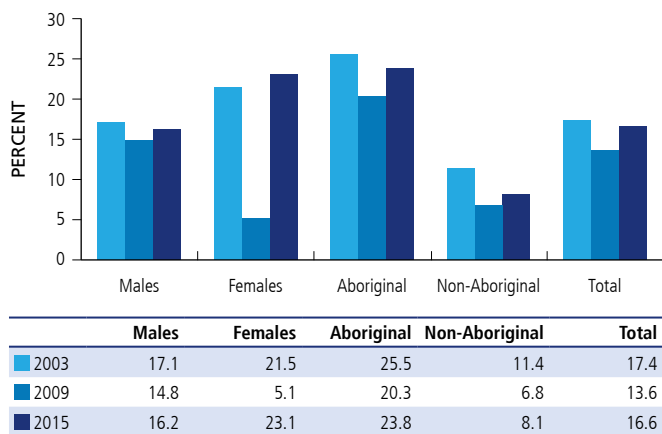
The mean FSIQ score for the 2015 YPICHs participants was 78.7, which falls in the borderline range of ability. Males had a slightly higher mean FSIQ than females (79.1 vs. 73.2), but this difference was not statistically significant. Non-Aboriginal young people had a significantly higher mean FSIQ than Aboriginal young people (81.2 vs. 76.7; $p < 0.01$).

The mean FSIQ score for the 2009 YPICHs participants was slightly higher (81.4) than in 2015, falling in the low average range of ability. Caution should be taken when comparing the 2009 and 2015 results to those from the 2003 YPICHs, due to the different subscales contained in the abbreviated WASI used in 2003; however, the mean FSIQ score among 2003 YPICHs participants was 82, similarly falling in the low average range of ability.

One in six 2015 YPICHs participants (16.6%) obtained an FSIQ score in the extremely low range (below 70), indicating a potential intellectual disability. This was a slight increase from the 2009 YPICHs, in which 14% of participants obtained an extremely low FSIQ, but similar to 2003, when 17.4% of participants obtained a score in this range (Figure 38).

In the 2015 YPICHs, a higher proportion of females had an extremely low FSIQ than males (23.1% vs. 16.2%), though this difference was not statistically significant (Figure 38). Again, this is similar to 2003, when more females' FSIQ scores fell in this range compared to males' (22% vs. 17%) but contrary to the 2009 YPICHs, when more males had an extremely low FSIQ than females (15% vs. 5%). A significantly greater proportion of Aboriginal young people had an extremely low FSIQ than non-Aboriginal young people in the 2003 (25.5% vs. 11.4%), 2009 (20.3% vs. 6.8%, $p < 0.001$) and 2015 YPICHs (23.8% vs. 8.1%, $p < 0.01$).

Figure 38 Extremely low FSIQ scores (<70), YPICHS 2003–2015



All three samples show a skewed distribution of FSIQ scores that are in contrast to a normative group of age peers, half of whose FSIQ scores would be expected to fall in the average range (scores between 90 and 109). Figure 39 and Table 147 below show the expected normal distribution of test scores, along with the FSIQ scores obtained in the 2003, 2009, and 2015 YPICHS.

Figure 39 Percentage of young people in each FSIQ classification range, YPICHS 2003–2015

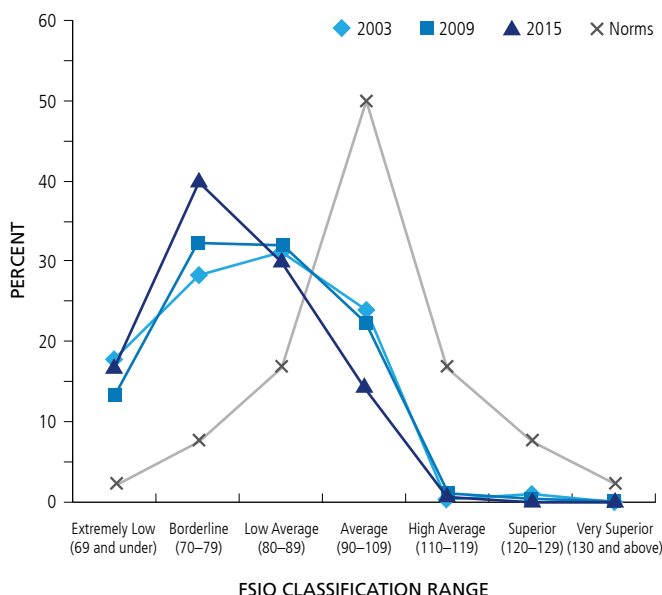


Table 147 Percentage of young people in each FSIQ classification range, YPICHS 2003–2015

FSIQ classification range	2003 (N=230)	2009 (N=295)	2015 (N=187)	Norms
Extremely low (69 and under)	17.4	13.6	16.6	2.2
Borderline (70 to 79)	27.4	32.2	38.5	6.7
Low average (80 to 89)	30.4	31.5	28.3	16.1
Average (90 to 109)	23.5	21.4	16.0	50.0
High average (110 to 119)	0.4	1.0	0.5	16.1
Superior (120 to 129)	0.9	0.3	0.0	6.7
Very superior (130 and above)	0.0	0.0	0.0	2.2

In the 2003, 2009 and 2015 YPICHS scores were distributed similarly, with most of each sample obtaining an FSIQ below the average range. In 2015, 83.4% of young people scored 89 or below in the FSIQ (see Table 147); in 2003 and 2009, the comparable figures were 75% and 77% respectively. Based on the normative standardisation sample, only 25% of the population is expected to score in this range.

Table 148 Percentage of young people in each FSIQ classification range by gender and Aboriginality

FSIQ classification range	Males (n=173)	Females (n=13)	Aboriginal (n=101)	Non-Aboriginal (n=86)	Total (N=187)
	%	%	%	%	%
Extremely low (69 and under)	16.2	23.1	23.8	8.1	16.6
Borderline (70 to 79)	37.0	61.5	39.6	37.2	38.5
Low average (80 to 89)	30.1	7.7	22.8	34.9	28.3
Average (90 to 109)	16.2	7.7	13.9	18.6	16.0
High average (110 to 119)	0.6	0.0	0.0	1.2	0.5
Superior (120 to 129)	0.0	0.0	0.0	0.0	0.0
Very superior (130 and above)	0.0	0.0	0.0	0.0	0.0

While the number of females was small in the 2015 YPICHS, a slightly higher proportion of females had an FSIQ below the average range than males (92.3 vs. 83.2) (Table 148). Again, this is in contrast to the 2009 YPICHS, in which a higher proportion of males had an FSIQ below the average range than females (80% vs. 62%).

In both 2009 and 2015, a greater proportion of Aboriginal young people than non-Aboriginal young people had an FSIQ score below the average range (86.1% vs. 80.2% in 2015, $p=0.279$; 89% vs. 65% in 2009, $p<0.001$), but this difference was not significant in 2015. Conversely, only one young person (0.5%) had an FSIQ in the high average range or above, whereas four (1.3%) scored in this range in 2009. Based on the normative standardisation sample, 25% of the population is expected to score in this range.

As noted earlier, the composite indices (VCI, PRI, WMI and PSI) are made up of groups of related subtests of the WISC-IV and WAIS-IV. These results provide a closer examination of the areas

of strength and weakness in cognitive functioning displayed by young people in custody.

8.0.1 Verbal Comprehension Index

In the 2015 YPICHS, the average VCI score was 78.4, which falls in the borderline range (SD 11.2, range 47–119) (Table 149). Significant differences were evident in the mean VCI scores by gender, with males having a higher mean VCI score than females (79.0 vs. 70.8, $p<0.05$). This contrasts with the 2009 results, in which young females had a significantly higher mean VCI score than young males (82.7 vs. 78.0, $p<0.05$). Consistent with the 2009 YPICHS, however, non-Aboriginal young people had a higher mean VCI score than Aboriginal young people, but this difference was not statistically significant in 2015 (80.1 vs. 76.9, $p>0.05$ in 2015; 82.6 vs. 74.7, $p<0.001$ in 2009).

These results suggest that most of the juvenile justice custodial population are scoring well below their same-aged peers in a range of areas, especially verbal comprehension. This indicates a below-average level of ability to access and apply word knowledge, verbalise meaningful concepts, think about verbal information, and express themselves using words. Low scores in this area may be the result of poor word knowledge, difficulty retrieving learned information, or problems with verbal expression ²¹¹.

8.0.2 Perceptual Reasoning Index

In the 2015 YPICHS, the average score on the PRI was 85.6 which falls in the low average range (SD 12.8, range 49–115) (Table 149). As with the 2009 YPICHS, no significant differences were detected between genders on this index (males 86.0, females 79.5), nor between non-Aboriginal and Aboriginal young people (87.1 vs. 84.4).

These results indicate that the juvenile justice custodial population are generally scoring just below their community-based peers in organised thought and cognitive flexibility, suggesting difficulties on visual tasks involving nonverbal concept formation, visual perception and organisation, simultaneous processing, nonverbal fluid reasoning, and abstract categorical reasoning.

8.0.3 Working Memory Index

In the 2015 YPICHS, the average score on the WMI was 85.0, which falls in the low average range (SD 13.2, range 54–122) (Table 149). Unlike the 2009 results, which showed no differences with respect to gender on this index, males assessed in 2015 had a significantly higher mean WMI score than females (85.5 vs. 77.8, $p<0.05$). Consistent with the findings in 2009, non-Aboriginal young people assessed in 2015 had a higher mean WMI score than Aboriginal young people; however, while this difference was statistically significant in 2009 (89.6 vs. 83.7, $p<0.001$), it was not in 2015 (86.9 vs. 83.4).

Results suggest that young people in custody are scoring slightly below their peers in the storage and retrieval of auditory and visual information which, according to Lane ²¹², may lead to poor planning, selective attention, and the inability to regulate behaviour. Working memory has been found to play a role in many of the symptoms displayed by young people with ADHD, as well as those with autism spectrum disorder ^{213, 214}.

8.0.4 Processing Speed Index

In the 2015 YPICHS, the average score on the PSI was 82.7, which falls in the low average range (SD 13.3, range 50–132) (Table 149). Consistent with the 2009 results, the young females assessed in 2015 had a higher mean PSI score than their young male counterparts (86.1 vs. 82.1), but this difference was not statistically significant. In both samples, non-Aboriginal young people had a significantly higher mean PSI score than Aboriginal young people (85.9 vs. 79.9, $p<0.01$ in 2015; 90.1 vs. 84.4, $p<0.001$ in 2009).

As slow processing speed is an indication of how fast information can be taken in and used, low average scores on this index indicate that young people in custody are generally performing just below their peers in the speed at which they take in information, make sense of it, and respond. Evidence suggests that processing speed problems are also a major underlying factor in ADHD ^{215, 216}. Those with poor processing speed may also feel anxious or frustrated when learning new things, as they know how to do something but may need more time than most to complete tasks and activities ²¹⁷.

Table 149 provides a summary of results for all four indices.

Table 149 Mean index and FSIQ scores

Index	Males (n=173)			Females (n=13)			Aboriginal (n=101)			Non-Aboriginal (n=89)			Total (N=187)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Verbal Comprehension Index (VCI)	79.0	11.0	47–119	70.8	11.5	55–96	76.9	11.9	47–119	80.1	10.1	61–108	78.4	11.2	47–119
Perceptual Reasoning Index (PRI)	86.0	12.8	49–115	79.5	11.8	61–98	84.4	12.2	49–115	87.1	13.5	49–115	85.6	12.8	49–115
Working Memory Index (WMI)	85.5	13.0	56–122	77.8	13.3	54–94	83.4	13.5	54–122	86.9	12.6	59–122	85.0	13.2	54–122
Processing Speed Index (PSI)	82.1	13.0	50–114	86.1	9.9	68–105	79.9	11.8	50–108	85.9	14.3	50–132	82.7	13.3	50–132
Full Scale IQ (FSIQ)	79.1	11.3	48–112	73.2	9.4	55–92	76.7	10.9	48–103	81.2	11.2	48–112	78.7	11.2	48–112

8.1 Adaptive Functioning

In the 2012 ABS Survey of Disability and Carers, it was estimated that 3.7% of children aged 14 years or younger had an intellectual disability, which was more prevalent among boys (4.7%, vs. 2.5% in girls) ²¹⁸. While an FSIQ score in the extremely low range (69 and below) indicates a potential intellectual disability, further investigation is required in order to confirm or rule out the presence of an intellectual disability.

In making such a diagnosis, the DSM-5 ⁵⁷ emphasises the importance of assessing conceptual, social, and practical adaptive behaviour skills and the use of adaptive domain information for diagnostic and intervention purposes. As such, for the 31 young people who scored 69 and below on the FSIQ, an adaptive functioning assessment was required to ascertain whether deficits were present in activities of daily life, such as communication, social participation, and independent living, and across multiple environments, such as home, school, work, and community.

The measure used was the Adaptive Behaviour Assessment System – Third Edition (ABAS-3) ²¹⁹. The previous edition, ABAS-2 ²²⁰, was administered in the 2009 YPICHs. ABAS-3 Parent Forms (5–21 years) were provided to all Juvenile Justice Centres holding young people who had an FSIQ score in the extremely low range (69 and below). Centre psychologists were asked to liaise with the young person's parent or guardian and request completion of this form. If a young person had been released from custody but remained under the supervision of JJNSW, the forms were sent to the supervising officers at the relevant community offices. Forms were sent out for 30 young people. One young person was no longer under the supervision of JJNSW at follow-up time.

Forms were returned for 18 young people (16 males and two females), but one male's form was deemed invalid as the number of "guess" responses exceeded that recommended for scoring. The remaining 12 forms were not returned; attempts to contact the guardians of 10 of these young people were unsuccessful, and two parents/guardians refused to complete the assessment.

The ABAS-3 contains questions on nine areas of functioning, including communication, functional academics, self-direction, leisure, social functioning, community use, home living, health and safety, and self-care. These skill areas are grouped to produce three primary domains of adaptive behaviour – the Conceptual, Social, and Practical Adaptive Domains. A summary score, the General Adaptive Composite (GAC), combines responses across all nine skill areas. The results of the 17 valid adaptive functioning assessments are reported below (Table 150). As the results of the adaptive functioning assessment were not reported in 2009, no comparisons can be made.

8.1.1 The General Adaptive Composite

The GAC summarises responses in relation to performance across all nine adaptive skill areas (see Table 150). The average score on the GAC was 75.1, which falls in the low range (SD 19.4, range 45–111). While no significant differences were found across gender or Aboriginality, young females had a slightly higher mean GAC than young males (81.0 vs. 74.3) and Aboriginal young people had a higher mean GAC than non-Aboriginal young people (76.5 vs. 70.5). Of those who had the ABAS-3 administered, a large proportion of young people (41.2%) obtained a GAC score in the extremely low range (below 70), indicating further the potential of an intellectual disability (Table 151). Conversely, only one young person (5.9%) had a GAC in the above average range ²¹⁹.

Table 151 Percentage of young people in each GAC classification range by gender and Aboriginality

	Males (n=15) %	Females (n=2) %	Aboriginal (n=13) %	Non-Aboriginal (n=4) %	Total (N=17) %
Extremely low (70 or less)	46.7	0.0	38.5	50.0	41.2
Low (71–79)	6.7	50.0	7.7	25.0	11.8
Below average (80–89)	26.7	0.0	23.1	25.0	23.5
Average (90–109)	13.3	50.0	23.1	0.0	17.6
Above average (110–119)	6.7	0.0	7.7	0.0	5.9
High (120 and above)	0.0	0.0	0.0	0.0	0.0

While the combination of an FSIQ below 70 and extremely low GAC score is suggestive of an intellectual disability, this is not conclusive for a diagnosis. A diagnosis requires an extremely low IQ, as well as a significant limitation in independent

Table 150 Mean index and GAC scores

Index	Males (n=15)			Females (n=2)			Aboriginal (n=13)			Non-Aboriginal (n=4)			Total (N=17)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Conceptual Adaptive Domain	72.7	18.0	49–107	81.5	13.4	72–91	74.7	19.5	49–107	70.5	9.3	62–83	73.7	17.4	49–107
Social Adaptive Domain	76.1	19.7	55–112	77.5	13.4	68–87	78.1	20.0	55–112	70.3	15.0	55–89	76.2	18.8	55–112
Practical Adaptive Domain	80.1	20.1	46–112	86.5	9.2	80–93	82.3	20.2	46–112	76.0	16.4	52–89	80.8	19.1	46–112
General Adaptive Composite (GAC)	74.3	20.3	45–111	81.0	12.7	72–90	76.5	21.2	45–111	70.5	13.5	54–86	75.1	19.4	45–111

functioning. The DSM-5⁵⁷ does not specify a score value when establishing a “significant limitation”, but states that the standard “...is met when at least one domain of adaptive functioning – conceptual, social, or practical – is sufficiently impaired that ongoing support is needed in one or more life settings at school, at work, at home, or in the community” (p. 38). A score below 70 in any of the three domains of adaptive functioning is generally considered a significant deficit in that particular area of functioning²²¹.

8.1.2 Conceptual Adaptive Domain

The Conceptual Adaptive Domain summarises responses in relation to performance in the following skill areas: communication, functional academics, and self-direction. These skill areas focus on language, reading and writing, and concepts relating to time, money and numbers. In the 2015 YPICHHS, the average score on the Conceptual Adaptive Domain was 73.7, which falls in the low range (SD 17.4; range 49–107) (Table 150). Seven young people scored in the extremely low range on this domain, indicating a significant deficit in the area of communication and understanding concepts involving numbers.

8.1.3 Social Adaptive Domain

The Social Adaptive Domain summarises responses in relation to performance in the leisure and social skill areas, which focus on interpersonal skills, relationships, social responsibility, involvement in activities, self-esteem, judgement, ability to follow rules, and social problem solving. In the 2015 YPICHHS, the average score on the Social Adaptive Domain was 76.2, which falls in the low range (SD 18.8, range 55–112) (Table 150). Eight young people scored in the extremely low range on this domain, indicating a significant deficit in social functioning.

8.1.4 Practical Adaptive Domain

The Practical Adaptive Domain summarises responses in relation to performance in the following skill areas; community use, home living, health and safety, and self-care. These skill areas focus on activities of daily living, hygiene and health care, occupational skills, safety, and use of money and transport. In the 2015 YPICHHS, the average score on the Practical Adaptive Domain was 80.8, which falls in the below average range (SD 19.1, range 46–112) (Table 150). Five young people scored in the extremely low range on this domain, indicating a significant deficit in practical functioning.

No significant differences were found across gender or Aboriginality on any of the adaptive functioning domains, but scores across all domains were slightly higher for females than for males and slightly higher for Aboriginal young people than for non-Aboriginal young people (Table 150).

8.2 Screening for Intellectual Disability

The Children and Adolescent Intellectual Disability Screening Questionnaire (CAIDS-Q) was added to the YPICHHS battery of assessments in 2015. The CAIDS-Q is a screener which non-clinicians can use to quickly identify young people who may have an intellectual disability. Developed in the United Kingdom²²², following reviews which concluded that there was no validated screening tool able to predict intellectual disability among children and adolescents^{223, 224}, the CAIDS-Q consists of seven items which have been shown to discriminate between young people with and without an intellectual disability.

The seven items on the CAIDS-Q are scored as either “yes” or “no”. Each of the first four items is scored according to whether or not the young person is able to complete a particular task. The next two items relate to whether the young person has had previous contact with disability services and previous or current support at school. The last item relates to the young person’s social network, specifically a reciprocal relationship with peers of a similar age. The instrument is designed to be completed with the young person or someone who knows them well (a carer or teacher). Corroborative evidence is required for all items, except if a young person demonstrates task capability. When items are unable to be scored, a “don’t know” response is permissible, although the screener is deemed invalid if there are more than two “don’t know” responses. None of the 193 young people surveyed had more than two such responses. The analysis below describes the proportions of young people who could not complete the tasks, did not have friends, and who required support (see Table 152). “Don’t know” responses have been removed from all calculations.

One hundred and ninety-three young people were screened using the CAIDS-Q. Of these participants, 93.8% were male and 5.7% were female. Similar proportions of participants identified as Aboriginal (52.8%) and non-Aboriginal (47.2%). Sixteen per cent of participants were unable to tell the time using an analogue clock; this was the case for a significantly higher proportion of females than males (45.5% vs. 14.6%, $p < 0.05$) and Aboriginal young people than non-Aboriginal young people (23.8% vs. 7.9%, $p < 0.01$).

The second item required participants to read a simple sentence. Four per cent of participants were unable to do this. Again, higher proportions of female (9.1%) and Aboriginal (5.9%) young people were unable to complete this task than male (3.9%) and non-Aboriginal (2.2%) young people, but these differences were not statistically significant. The third item involved asking participants to write a simple sentence; 3% of participants were unable to do this (0% females, 3.3% of males). A higher proportion of Aboriginal young people were unable to complete this task than non-Aboriginal young people (3.9% vs. 2.2%). Neither of these differences was statistically significant. All of the female participants were able to tie a shoelace, but 1.7%

of males could not; a higher proportion of Aboriginal than non-Aboriginal young people was unable to complete this task (2.0% vs. 1.1% respectively), but neither of these differences was statistically significant.

Table 152 Young people's CAIDS-Q responses by gender and Aboriginality

CAIDS-Q item	Males (n=181) %	Females (n=11) %	Aboriginal (n=102) %	Non- Aboriginal (n=91) %	Total (N=193) %
Young person cannot tell the time	14.6	45.5	23.8	7.9	16.3
Young person cannot read	3.9	9.1	5.9	2.2	4.1
Young person cannot write	3.3	0.0	3.9	2.2	3.1
Young person cannot tie his/her shoelaces	1.7	0.0	2.0	1.1	1.6
Young person has had previous contact with intellectual disability services	10.4	18.2	8.5	13.6	10.9
Young person has had, or currently requires, support in school	30.2	36.4	31.3	29.4	30.4
Young person does not have friends	2.2	9.1	2.9	2.2	2.6
Identified as potentially having an intellectual disability	5.0	27.3	6.9	5.5	6.2

When asked about previous contact with intellectual disability services or support in school, some participants advised that they did not know (9.3% with respect to previous services and 6.2% with respect to support in school). While attempts were made to follow-up self-reported responses via external sources, this was not always possible due to time constraints. After removing the "don't know" responses, 10.9% of young people indicated previous contact with intellectual disability services, and 30.4% reported that they had previously, or currently required, support in school. There was no significant difference between the level of support services reported by male and female young people or between Aboriginal and non-Aboriginal young people.

When asked if they had friends, 2.6% of participants replied "no" (Table 152). No statistically significant differences were found across gender or Aboriginality. This item was corroborated wherever possible.

Overall, the CAIDS-Q identified 12 young people (6.2%) as potentially having an intellectual disability. A significantly higher proportion of females was identified than males (27.3% vs. 5.0%, $p < 0.05$).

9. Speech and language

Research in both Australia and overseas has highlighted high rates of oral language difficulties in youth justice settings (e.g. 225–229). Oral language difficulties hinder a child’s acquisition of literacy skills, and contribute to social, emotional and behavioural problems and subsequent school disengagement 230. A recent study within NSW demonstrated that 74% of young people in custody had oral language skills below the average range for their age, with 40% scoring two or more standard deviations below the mean, i.e. in the “very low” range, indicating severe difficulties 231.

Oral language skills were measured using the CELF-4 232. A Core Language Score was derived from summing the scaled scores of four subtests (Recalling Sentences, Formulated Sentences, Word Classes, and Word Definitions). The CELF-4 is widely used internationally in both research and clinical practice, and is an accepted tool to determine the presence or absence of a language disorder. The edition used was standardised in Australia 232.

Reading skills were assessed using the York Assessment for Reading Comprehension: Passage Reading, Secondary Test, Australian Edition 233 which investigates the reading rate, fluency, accuracy and comprehension of secondary aged students. Assessments were administered by four Speech Pathologists with extensive clinical experience.

Language and literacy measures were not included in the 2003 or 2009 surveys, and as such there is no previous survey data with which to compare the results.

9.1 Oral language skills

9.1.1 Core Language Score

The Core Language Score (CLS) is, as stated above, considered to be a reliable way to quantify a young person’s overall oral language performance. Most YPICHS participants (80.3%) scored below the average range (standard score 85 and below), indicating that they have more difficulty than expected in day-to-day understanding of what is said to them or expressing their own thoughts and feelings verbally (Table 153 and Figure 40).

The proportion of young females scoring below the average range was greater than that of young males (93.3% vs. 79.1%), and a significantly higher proportion of the young people who identified as being Aboriginal had below average oral language skills than those who were not Aboriginal (86.4% vs. 73.3%, $p < 0.05$).

Almost half (48.7%) of the young people scored in the “very low” range indicating severe difficulties (standard score 70 and below) (Table 153). Again, this group included a higher

proportion of young females than males (60.0% vs. 47.5%), though this difference was not statistically significant, while Aboriginal young people were significantly more likely than non-Aboriginal young people (57.3% vs. 38.9%, $p < 0.05$) to have severe difficulties (Figure 41).

Table 153 Core Language Scores

	Males (n=177) %	Females (n=15) %	Aboriginal (n=103) %	Non-Aboriginal (n=90) %	Total (N=193) %
Severe difficulties (70 and below)	47.5	60.0	57.3	38.9	48.7
Moderate difficulties (71–77)	11.3	6.7	9.7	12.2	10.9
Mild difficulties (78–85)	20.3	26.7	19.4	22.2	20.7
Average (86–114)	20.3	6.7	13.6	25.6	19.2
Above average (115–122)	0.6	0.0	0.0	1.1	0.5
Superior (123–129)	0.0	0.0	0.0	0.0	0.0
Very superior (130 and above)	0.0	0.0	0.0	0.0	0.0

Figure 40 Distribution of CLS scores in YPICHS sample compared with normal distribution

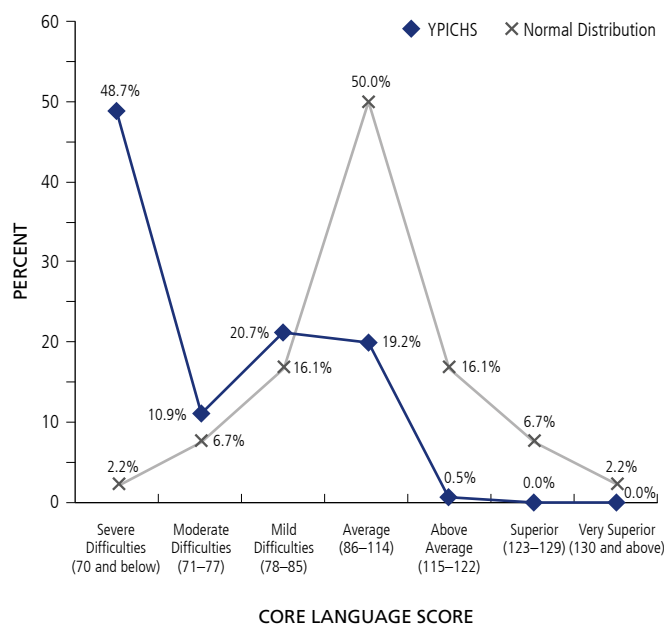
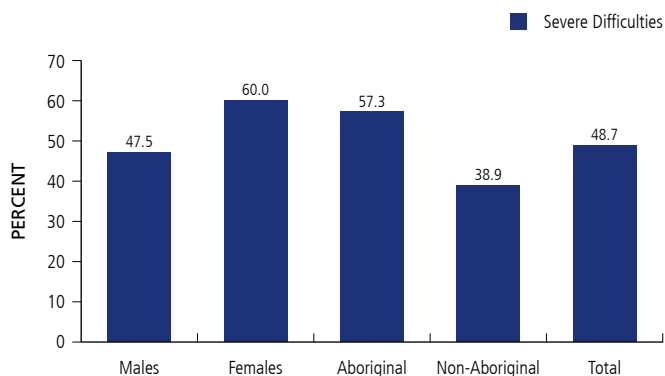


Figure 41 Proportions of young people with “severe” core language difficulties by gender and Aboriginality



The four subtests which contribute to the CLS are described below.

9.1.2 Recalling Sentences subtest

The Recalling Sentences subtest is used to measure a young person’s ability to recall and reproduce sentences of increasing length and complexity, and their response is scored for accuracy. The subtest evaluates the ability to listen to spoken sentences and repeat them without making any errors (semantic or syntactic changes), and indicates whether vocabulary or grammatical structures have been internalised in order to be recalled accurately. Low scores on this subtest suggest that a young person experiences difficulties in following directions, academic learning, and vocabulary acquisition.

Table 154 Recalling Sentences subtest (CELF-4)

	Males (n=177) %	Females (n=16) %	Aboriginal (n=104) %	Non-Aboriginal (n=90) %	Total (N=194) %
Severe difficulties	35.0	62.5	41.3	33.3	37.6
Moderate difficulties	11.3	12.5	12.5	10.0	11.3
Mild difficulties	9.0	6.3	7.7	10.0	8.8
Average	44.6	18.8	38.5	46.7	42.3
Above average	0.0	0.0	0.0	0.0	0.0

Over half (57.7%) of the young people scored below the average range (scaled score 6 and below) (Table 154); 81.3% of the young females versus 55.3% of the young males ($p<0.05$), and 61.5% of the Aboriginal young people versus 53.3% of non-Aboriginal young people. Over one-third (37.6%) of the young people scored in the “very low” range, indicating severe difficulties (scaled score 4 and below). This group included a significantly higher proportion of females than males (62.5% vs. 35.0%, $p<0.05$).

9.1.3 Formulated Sentences subtest

The Formulated Sentences subtest measures a young person’s ability to produce meaningful sentences with accurate grammar,

which is a skill necessary to express their thoughts clearly in spoken language. Individuals are given a picture and a target word and are asked to incorporate the word into a sentence relating to the picture, with the semantic and syntactic/grammatical accuracy of their responses analysed. The results for the 2015 YPICHs participants are shown in Table 155.

Table 155 Formulated Sentences subtest (CELF-4)

	Males (n=177) %	Females (n=15) %	Aboriginal (n=103) %	Non-Aboriginal (n=90) %	Total (N=193) %
Severe difficulties	38.4	40.0	45.6	30.0	38.3
Moderate difficulties	7.9	6.7	4.9	12.2	8.3
Mild difficulties	11.9	0.0	10.7	11.1	10.9
Average	40.7	46.7	37.9	44.4	40.9
Above average	1.1	6.7	1.0	2.2	1.6

Over half (57.5%) of the young people scored below the average range (scaled score 6 and below), with a higher proportion of Aboriginal young people than non-Aboriginal young people (61.2% vs. 53.3%) and a higher proportion of young males than females (58.2% vs. 46.7%) presenting with difficulties in this task (Table 155).

Nearly one in four (38.3%) of the young people scored in the “very low” range indicating severe difficulties (scaled score 4 and below), with no difference as a function of gender. A significantly higher proportion of Aboriginal than non-Aboriginal young people performed poorly on this task (45.6% vs. 30.0%, $p<0.05$), although caution should be exercised with this interpretation as it may reflect Aboriginal dialectical variations in grammatical structures (with accuracy on this assessment being measured against Standard Australian English).

9.1.4 Word Classes subtest

The Word Classes subtest evaluates a young person’s ability to identify and explain the relationships between words as a function of a variety of functional and conceptual similarities or differences. The young person is given four words and is asked to choose the two words they believe are related, and then explain the relationship. The skill relates to the everyday language ability of understanding and expressing meanings, which often requires comparing and contrasting related words or concepts in order to deal with shades of meaning. A majority (78.2%) of the young people scored below the average range (scaled score 6 and below) (Table 156). It was significantly more likely that the young person would perform below the average range on this subtest if they were female than male (100.0% vs 76.3%, $p<0.05$), but there was no significant difference between Aboriginal and non-Aboriginal young people (82.5% vs. 73.3%).

Table 156 Word Classes subtest (CELF-4)

	Males (n=177) %	Females (n=15) %	Aboriginal (n=103) %	Non-Aboriginal (n=90) %	Total (N=193) %
Severe difficulties	56.5	73.3	67.0	47.8	58.0
Moderate difficulties	7.9	13.3	6.8	10.0	8.3
Mild difficulties	11.9	13.3	8.7	15.6	11.9
Average	23.7	0.0	17.5	26.7	21.8
Above average	0.0	0.0	0.0	0.0	0.0

Once again, over half (58.0%) of the young people assessed scored in the “very low” range indicating severe difficulties (scaled score 4 and below). This comprised 73.3% of the young females and 56.5% of the young males, and a significantly higher proportion of Aboriginal young people than non-Aboriginal young people (67.0% vs. 47.8%, $p < 0.01$).

9.1.5 Word Definitions subtest

The Word Definitions subtest is used to measure young people’s expressive vocabulary. They are given a word (in the context of a sentence) and are asked to explain what it means. As well as assessing their knowledge of specific words, this subtest evaluates the ability to analyse words and identify their defining features, including considering their semantic class/category, which is vital for vocabulary acquisition. Approximately two-thirds (67.0%) of the young people scored below the average range (scaled score 6 and below) (Table 157). Aboriginal young people were more likely than non-Aboriginal young people (76.0% vs. 56.7%, $p < 0.01$) to score below the range expected for their age, and there was a higher proportion of young females than young males (87.5% vs. 65.0%), though this difference was not statistically significant.

Table 157 Word Definitions subtest (CELF-4)

	Males (n=177) %	Females (n=16) %	Aboriginal (n=104) %	Non-Aboriginal (n=90) %	Total (N=194) %
Severe difficulties	45.2	68.8	55.8	37.8	47.4
Moderate difficulties	11.3	12.5	11.5	11.1	11.3
Mild difficulties	8.5	6.3	8.7	7.8	8.2
Average	34.5	12.5	24.0	42.2	32.5
Above average	0.6	0.0	0.0	1.1	0.5

Almost half of the young people (47.4%) scored in the “very low” range indicating severe difficulties (scaled score 4 and below), including a higher proportion of females than males (68.8% vs. 45.2%) and significantly more Aboriginal young people than non-Aboriginal young people (55.8% vs. 37.8%, $p < 0.05$).

9.2 Literacy

The York Assessment of Reading Comprehension (YARC) Passage Reading Secondary – Australian Edition comprises a Single Word Reading test and three sets of written passages, both fiction and non-fiction, that enable the assessment of a young person’s ability to read and gain meaning from written text.

9.2.1 Single Word Reading

The young people were asked to read words, one at a time, of increasing complexity, as a measure of their decoding skills. Their performance on this subtest determined whether they could continue to read passages, and if so, which passages they would be given. Nearly three quarters (73.2%) of the young people scored below the average range (standard score 85 and below), demonstrating that they are likely to have more difficulties than expected in reading even just one word at a time (Figure 42 and Table 158). There were no significant differences in the proportion of difficulties by gender (78.6% of young females vs. 72.6% of young males) or Aboriginality (77.0% Aboriginal vs. 68.9% non-Aboriginal).

Figure 42 Distribution of Single Word Reading (YARC) scores of YPICHS sample compared with normal distribution

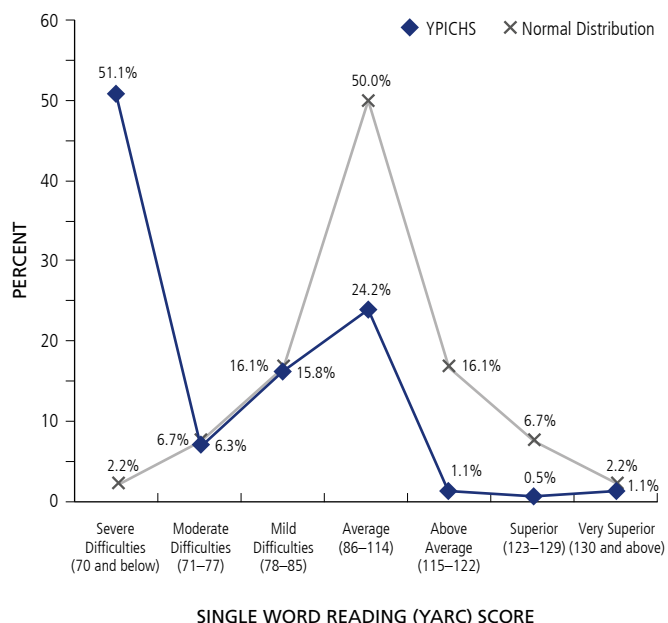


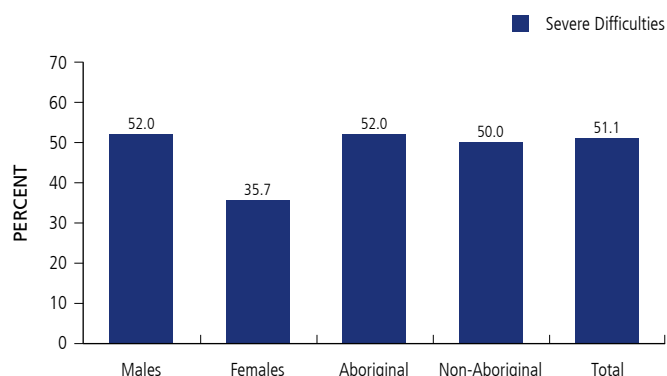
Table 158 Single Word Reading (YARC)

	Males (n=175) %	Females (n=14) %	Aboriginal (n=100) %	Non-Aboriginal (n=90) %	Total (N=190) %
Severe difficulties	52.0	35.7	52.0	50.0	51.1
Moderate difficulties	5.7	14.3	7.0	5.6	6.3
Mild difficulties	14.9	28.6	18.0	13.3	15.8

	Males (n=175) %	Females (n=14) %	Aboriginal (n=100) %	Non-Aboriginal (n=90) %	Total (N=190) %
Average	24.6	21.4	22.0	26.7	24.2
Above average	1.1	0.0	1.0	1.1	1.1
Superior	0.6	0.0	0.0	1.1	0.5
Very superior	1.1	0.0	0.0	2.2	1.1

Just over half (51.1%) of the young people scored in the range indicating severe difficulties (standard score 70 and below), meaning they are likely to be unable to read simple words in their environment adequately (Figure 43). Young males were more likely to present with severe decoding difficulties than young females (52.0% vs. 35.7%), but the rates of severe difficulties were very similar in the Aboriginal and non-Aboriginal subgroups (52.0% vs. 50.0%). Four young people were unable to read the required number of words to continue to the passage reading subtests. These were all young males, two of whom identified as being Aboriginal.

Figure 43 Proportions of young people with “severe” Single Word Reading difficulties by gender and Aboriginality



9.2.2 Passage Reading

The young people who had performed well enough on the Single Word Reading Test were asked to read passages (the complexity of which was dependent on their performance on the Single Word Reading Test), with measurements of reading fluency, accuracy and rate taken. After reading the passages, they were asked questions to assess their understanding of the text (they could look back at the passage to reduce the impact of memory), and were asked to summarise the content of the passage.

9.2.3 Reading rate

Nearly two-thirds (63.2%) of the young people scored below the average range (standard score 85 and below), indicating that they read more slowly and less efficiently than expected for their age. This group included a higher proportion of young females than young males (69.2% vs. 62.6%) and a higher proportion of Aboriginal young people than non-Aboriginal young people

(67.0% vs. 59.1%), but neither of these differences were significant (Table 159).

Nearly half (49.7%) of the young people scored in the range indicating severe difficulties (standard score 70 and below). They included 61.5% of the young females and 49.1% of the young males, and 54.6% of the Aboriginal young people compared with 44.3% of the non-Aboriginal young people.

Table 159 Reading Rate (YARC)

	Males (n=171) %	Females (n=13) %	Aboriginal (n=97) %	Non-Aboriginal (n=88) %	Total (N=185) %
Severe difficulties	49.1	61.5	54.6	44.3	49.7
Moderate difficulties	7.0	7.7	5.2	10.2	7.6
Mild difficulties	6.4	0.0	7.2	4.5	5.9
Average	28.1	30.8	25.8	30.7	28.1
Above average	6.4	0.0	4.1	8.0	5.9
Superior	2.9	0.0	3.1	2.3	2.7
Very superior	0.0	0.0	0.0	0.0	0.0

9.2.4 Reading Accuracy

Due to the standardised test administration procedure, the reading accuracy score can only be calculated for those young people who read the lowest level of passage reading. There were 118 young people who did not complete the supplementary Reading Accuracy test. Of the 67 young people who did complete this test, over two thirds (68.7%) scored below the average range (standard score 85 and below), comprising 57.1% of the young females and 70.0% of the young males, with similar rates of difficulties among Aboriginal (71.1%) and non-Aboriginal (65.5%) young people.

Nearly four of 10 (38.8%) of the young people for whom this score was available scored in the range indicating severe difficulties (standard score 70 and below), including 57.1% of the young females and 36.7% of the young males, and 47.4% of the Aboriginal young people (compared with 27.6% of the non-Aboriginal young people), but these differences were not statistically significant (see Table 160).

Table 160 Reading Accuracy (YARC)

	Males (n=60) %	Females (n=7) %	Aboriginal (n=38) %	Non-Aboriginal (n=29) %	Total (N=67) %
Severe difficulties	36.7	57.1	47.4	27.6	38.8
Moderate difficulties	16.7	0.0	15.8	13.8	14.9
Mild difficulties	16.7	0.0	7.9	24.1	14.9
Average	30.0	42.9	28.9	34.5	31.3
Above average	0.0	0.0	0.0	0.0	0.0
Superior	0.0	0.0	0.0	0.0	0.0
Very superior	0.0	0.0	0.0	0.0	0.0

9.2.5 Reading fluency

Reading fluency, involving both reading rate and accuracy, is vital for efficient reading, which in turn supports reading comprehension. Someone whose reading is slow, stilted and error-ridden is unlikely to be able to understand written language adequately. Approximately three quarters (74.3%) of the young people assessed scored below the average range (standard score 85 and below). They included similar proportions of young females and young males (76.9% and 74.0% respectively) and a higher proportion of Aboriginal young people than non-Aboriginal young people (80.2% vs. 67.8%), but there were no significant differences between groups (Table 161).

Over half (53.0%) of the young people performed in the range indicating severe difficulties (standard score 70 and below). They included similar proportions of severe difficulties by gender (53.8% of the young females vs. 52.7% of the young males) but a significantly higher proportion of the Aboriginal young people than non-Aboriginal young people (59.4% vs. 46.0%, $p < 0.05$).

Table 161 Reading Fluency (YARC)

	Males (n=169) %	Females (n=13) %	Aboriginal (n=95) %	Non-Aboriginal (n=88) %	Total (N=183) %
Severe difficulties	52.7	53.8	59.4	46.0	53.0
Moderate difficulties	8.3	7.7	9.4	6.9	8.2
Mild difficulties	13.0	15.4	11.5	14.9	13.1
Average	26.0	23.1	19.8	32.2	25.7
Above average	0.0	0.0	0.0	0.0	0.0
Superior	0.0	0.0	0.0	0.0	0.0
Very superior	0.0	0.0	0.0	0.0	0.0

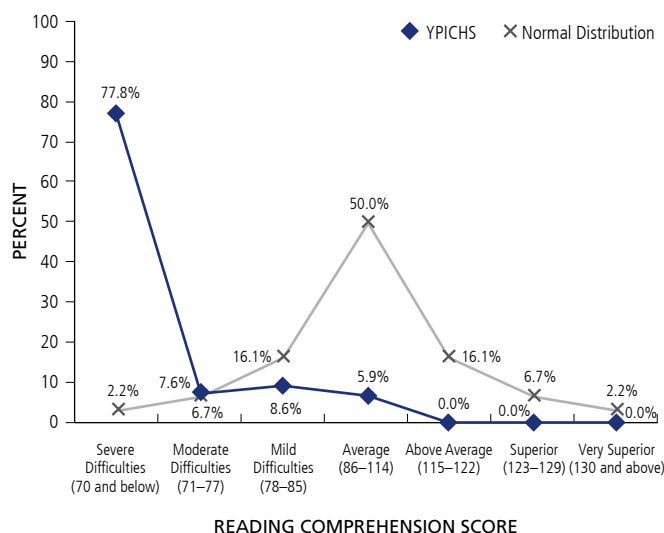
9.2.6 Reading comprehension

An overwhelming majority (94.1%) of young people who completed this subtest (remembering that four of the young people who participated in the survey were unable to read sufficiently to even attempt this subtest) scored below the average range (standard score 85 and below), indicating they are likely to have more difficulties than expected in understanding what they read. That included 100% of the young females, 93.6% of the young males, 96.9% of the Aboriginal young people, and 90.9% of the non-Aboriginal young people (Table 162 and Figure 44).

Table 162 Reading Comprehension (YARC)

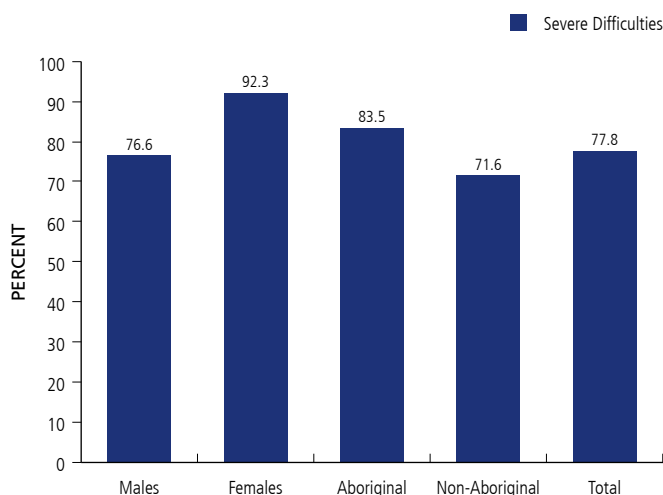
	Males (n=171) %	Females (n=13) %	Aboriginal (n=97) %	Non-Aboriginal (n=88) %	Total (N=185) %
Severe difficulties	76.6	92.3	83.5	71.6	77.8
Moderate difficulties	7.6	7.7	8.2	6.8	7.6
Mild difficulties	9.4	0.0	5.2	12.5	8.6
Average	6.4	0.0	3.1	9.1	5.9
Above average	0.0	0.0	0.0	0.0	0.0
Superior	0.0	0.0	0.0	0.0	0.0
Very superior	0.0	0.0	0.0	0.0	0.0

Figure 44 Distribution of Reading Comprehension scores of YPICHS sample compared with normal distribution



Over three quarters (77.8%) of the young people for whom this score was available scored in the range indicating severe difficulties (standard score 70 and below), suggesting that they are likely to experience significant difficulties understanding written language, even at a basic, functional literacy level (Figure 45). That included 92.3% of the young females and 76.6% of the young males, and a significantly greater proportion of Aboriginal young people (83.5% vs. 71.6%).

Figure 45 Proportions of young people with “severe” Reading Comprehension difficulties by gender and Aboriginality



9.2.7 Summarisation

Summarising a passage involves identifying and recalling key information. It demonstrates a sound understanding of the text, and is an essential study skill. Four fifths (80.0%) of the young people assessed scored below the average range, including 92.3% of the young females compared with 78.9% of the young males, but this difference was not statistically significant. There was a significantly higher rate of Aboriginal than non-Aboriginal young people scoring below the average (88.7% vs. 70.5%, $p < 0.01$) (Table 163).

Almost half (48.1%) of the young people scored in the low range indicating severe difficulties, with no significant differences with respect to gender (61.5% of young females vs. 47.4% of young males) or Aboriginality (51.5% of Aboriginal young people vs. 44.3% non-Aboriginal young people).

Table 163 Summarisation (YARC)

	Males (n=171) %	Females (n=13) %	Aboriginal (n=97) %	Non-Aboriginal (n=88) %	Total (N=185) %
Low	47.4	61.5	51.5	44.3	48.1
Below Average	31.6	30.8	37.1	26.1	31.9
Average	18.1	7.7	10.3	25.0	17.3
Above average	2.3	0.0	1.0	3.4	2.2
High	0.6	0.0	0.0	1.1	0.5



Summary and Conclusions

The results from the 2015 YPICHs highlight the complexity of the social and health needs of young people in custody and the consequent need for a multifaceted approach to healthcare. JH&FMHN provides a specialist Adolescent Custodial Service to assess the health risks and needs of young people in custody with a focus on mental health, alcohol and other drugs, primary health, population health, women's health, Aboriginal health and school linkage. The Adolescent Custodial Service oversees ongoing acute and chronic health issues, implementation of health education and promotion programs, and the facilitation of transfer of care and discharge planning. JH&FMHN and JJNSW are committed to using the findings of this research to build upon the evidence base in order to guide policy, service planning and clinical practice towards the achievement of optimal health outcomes for this vulnerable population.

Consistent with previous surveys, young people in custody in NSW in 2015 reported high levels of social disadvantage, with poor literacy skills, low educational attainment, a history of child abuse and neglect, fractured family networks, placement in OOHc, and parental incarceration common findings. Associated with such disadvantage were higher prevalences of alcohol and illicit drug use, and poorer physical and mental health than their community counterparts.

Key Findings

The main findings from the 2015 YPICHs are summarised below:

Socio-economic disadvantage

One in five participants (21.1%) reported that they had been placed in OOHc before the age of 16 years and 38.1% had been placed in care three or more times. Rates of OOHc among young people in custody far exceed those among the general population, especially for young females. Levels of educational attainment were low. Only one quarter (27.0%) of participants were in school prior to custody and the median age of leaving school was 15 years, with female and Aboriginal participants leaving school earlier than other participants. While most participants were in stable accommodation prior to custody, the number of young females entering custody from unstable accommodation (21.1%) is at its highest since the inception of the survey. Over half (53.6%) of participants had at least one parent who had been incarcerated, with Aboriginal young people more than twice as likely to have a parent who had been incarcerated (67.5% vs. 36.6%).

Head injury

One in four participants (25.0%) reported a past head injury resulting in loss of consciousness, with females more likely than males to have sustained a head injury (52.6% vs. 22.5%). Almost half (42.9%) of head injuries were caused by an assault, most commonly inflicted by a family member, and 25.0% reported lasting effects, typically poor concentration.

Overweight and obesity

Almost half (45.9%) of participants were either overweight or obese and 40.0% had a WHtR \geq 0.5, indicating increased metabolic risk. Over three quarters (79.7%) perceived their weight to have increased since entering custody.

Sexual health

The overwhelming majority (96.9%) of participants, and 92.2% of those under the age of 16, reported having had sex. Unsafe sexual practices were common. Among participants who were sexually active in the year preceding custody, only one in four (27.7%) reported always using condoms or dental dams and 27.7% never did so. One in 10 (10.1%) young people had been diagnosed with an STI in the past, chlamydia being the most prevalent (9.6%). Chlamydia was more common among female than male participants (33.3% vs. 7.5%).

Smoking

The prevalence of smoking remains high, with 92.0% of participants having ever smoked and 85.4% having smoked in the 12 months preceding custody. Although a decrease in smoking among Aboriginal participants occurred between 2009 and 2015 (98.7% vs. 90.3%), those that did smoke began smoking at an earlier age than non-Aboriginal participants (11.7 vs. 12.7 years).

Alcohol

The overwhelming majority (96.7%) of participants who had ever consumed alcohol had experienced being "drunk". The average age of first getting drunk was 13.6 years, with Aboriginal participants first becoming drunk earlier than non-Aboriginal participants (13.3 vs. 13.9 years). Over two fifths (41.8%) of those who had consumed alcohol in the year before custody reported being drunk at least weekly, and 51.6% admitted that their alcohol consumption had caused them problems with school, friends, health, police, and/or parents. The majority (86.5%) of participants aged 18 or over, and 97.8% of participants under the age of 18, engaged in hazardous and/or harmful drinking according to AUDIT criteria in the year before custody.

Drugs

Illicit drug use remained common, with 92.5% of participants having engaged in illicit drug use in the past. Cannabis was the most commonly used illicit drug (90.2%), followed by crystal methamphetamine (55.1%), ecstasy (41.8%) and cocaine (31.6%). These findings indicate a notable change in the patterns of illicit drug use among young people in custody, with a significant increase in the prevalence of use of crystal methamphetamine, which has tripled since 2009 (17.7%), reflecting an increase in the use of this drug in the community. Frequent (i.e. at least weekly) illicit drug use in the year prior to custody was reported by 81.5% of participants, an increase from 2009 (65.0%). Most (88.7%) of those who had used crystal methamphetamine and 60.1% of those who had used cannabis at this level of frequency met SDS criteria for dependence. More than three quarters (77.6%) of participants reported that they were intoxicated at the time of the offence that led to their incarceration and 65.4% reported committing crime to obtain alcohol or drugs.

Offending behaviour

Three aspects of offending behaviour were examined – previous detention, current detention and the criminal history of young people.

Previous detention

83.9% of participants had experienced at least one previous instance of juvenile detention before the survey. The average age of first entry into custody was 15.1 years, with Aboriginal participants being significantly younger than non-Aboriginal participants at their first entry (14.6 years vs. 15.6 years). On average, the participants had been in custody 5.3 times each. The participants had been found guilty of an offence and had been sentenced to custody with a control order an average of 0.8 times, with most young people never having a control order (64.8%). Young people were more likely to be put onto a supervised community order than receive a custodial sentence, with an average of 1.5 orders per young person, and Aboriginal young people receiving significantly more on average than non-Aboriginal young people (1.8 vs. 1.3). Young people could also be referred to a YJC when they committed offences that were too serious for warnings or cautions but not serious enough for a community order or control order. The average number of times that the participants had been referred to a YJC was 1.0 (range 0–5). Again, Aboriginal young people had experienced more YJCs on average than non-Aboriginal young people (1.1 vs. 0.8); nearly half (47.4%) of the participants had never had one.

Current detention

Just under half of young people (49.6%) were on sentenced control or appeal orders, compared to 50.4% on remand. The average length of time that the participants had been in custody at the time of the survey was 142 days, with around one-third of participants (32.6%) having been in custody for less than four weeks. The average length of sentences being served by the participants was 741 days. The participants' most frequent MSOs were acts intended to cause injury (44.3%), robbery, extortion and related offences (21.7%), and unlawful entry with intent (19.6%).

Criminal history

The most common self-reported offences were buying illegal drugs (91.2%), followed by stealing from a place or person (89.1%), and breaking into somewhere to steal (77.2%). The first offence type committed was, on average, graffiti at 11.8 years of age. Aboriginal young people were significantly younger than non-Aboriginal young people when they first committed certain offences, and males were significantly younger than females when they first committed vandalism or damaging property (12.6 vs. 14.3 years). The most common type of crimes that participants reported committing in the six months prior to custody were buying illegal drugs (91.5%), selling illegal drugs (83.7%), selling or buying stolen goods (75.9%), and assault (75.7%). Most young people reported committing a range of offences, with little evidence of specialisation. The average number of crime types committed was 7.9, with significantly more crimes for males than females (8.0 vs. 5.5). The most frequently given reasons for first starting to commit crime related to friends and peers (52.0%), followed by feeling good/stop being bored or angry (25.3%), the procurement and use of alcohol or other drugs (25.3%), and the desire for money and material items (22.0%).

Anti-social processes and traits

The APSD measures three factors (callous/unemotional; narcissism; and impulsivity) which indicate risk of a young person developing antisocial behaviour. Between 2009 and 2015, there was a significant reduction in average score on the narcissism subscale for males and Aboriginal young people (Males, 4.2 vs. 3.7; Aboriginal, 4.4 vs. 3.7). This was also the case for the impulsivity subscale for Aboriginal young people (5.5 vs. 5.0). In 2015, although non-Aboriginal young people scored higher on all the callous/unemotional and impulsivity subscales, and females scored higher on impulsivity, none of these differences was significant.

Callous and unemotional traits

Callous and unemotional traits are persistent behaviours that show disregard for others, lack of empathy and a generally deficient affect. These young people respond well to reward-based schemes. Thus, identification of young people with these

traits within adolescent custodial settings is important for proper treatment and behavioural management. Three subscales were measured (Cynicism, Uncaring and Unemotional), as well as an overall score. All groups scored highest on the Uncaring subscale. Young males scored higher on the Cynicism subscale than young females. Overall, there were no significant differences for gender or Aboriginality.

Mental health

Mental health concerns are among the most essential needs of young people in contact with the juvenile justice system, especially for those entering custody. An average of 2.5 psychological disorders per participant occurred in the previous 12 months. Most (83.3%) of participants had at least one psychological disorder, and 63.0% had two or more disorders. The population prevalence of psychological disorders for young people is estimated to be 13.9%, so young people in the YPICHS were nearly six times as likely to experience them.

Substance-related disorders

Substance-related disorders were indicated in well over half (57.8%) of the young people surveyed. An estimate of population prevalence for substance-related disorders is not available, but research indicates that 18.1% of young Australians self-report drinking alcohol, 5.0% using cannabis, and 1.6% using other drugs at least once in the previous 30 days.

Attention or behavioural disorders

Attention or behavioural disorders were detected in well over half (59.4%) of young people in the 2015 YPICHS. This was the most common category of disorders in the study, as in the 2009 YPICHS. The rate of ADHD was three times higher than the estimated population prevalence (6.3%). For females in particular, the rate was 10 times higher in the YPICHS sample than the estimated population prevalence (27.3% vs. 2.7% respectively). The rate of conduct disorder in the YPICHS sample was more than 20 times higher than the population prevalence (45.3% vs. 2.1%).

Mood disorders

Mood disorders were indicated in 11.5% of 2015 participants, more than double the population prevalence (5.0%). Close to one-quarter of young people were found to have at least one anxiety disorder (24.5%), more than three times the population prevalence (7.0%). The most common anxiety disorder was PTSD (13.5% of the sample). The high prevalence of young people with PTSD in juvenile custody correlates with childhood abuse or trauma. It is a significant factor in the development of interventions, treatment programs and behavioural management.

Schizophrenia or another psychotic disorder

Schizophrenia or another psychotic disorder affected 4.2% of young people in the 2015 YPICHS. Schizophrenia (3.1%) was the most common condition. The population prevalence is estimated to be 3.1 cases in every 1000 people in this age group, so there was a considerably higher proportion of young people with schizophrenia in the 2015 YPICHS (6 cases in 192 people) than in the general population.

Suicide and self-harm

One in 10 of the young people who responded reported threshold levels of recurrent thoughts of death (10.6%), suicidal acts with intent (10.1%), suicidal acts with medical lethality (7.4%), self-harm behaviour (5.4%), and suicidal ideation (3.2%). Since coming into custody, 9.3% of young people had thought about suicide and 1.8% had made a suicide attempt. One in 10 had self-harmed during the current custodial period, with females significantly more likely than males to have done so (26.3% vs. 8.7%).

Childhood abuse and the impact of trauma

The experience of abuse, trauma or neglect during childhood may disrupt a child's developmental pathway, resulting in pervasive and long-lasting outcomes which may adversely affect various aspects of functioning. The evidence suggests a relationship between childhood trauma and poor emotional and mental health, and the development of antisocial behavioural problems such as aggression, juvenile delinquency, adult criminality, abusive or violent behaviour. The CTQ was used to measure the prevalences of three different types of abuse (emotional 34.4%, physical 34.9%, and sexual 10.9%) and two types of neglect (emotional 45.3%, and physical 43.2%).

Overall, 68.2% of young people in the 2015 YPICHS reported experiencing at least one form of childhood abuse or neglect, with over one-quarter (28.1%) experiencing some form of severe abuse or neglect. The CTQ also includes a minimisation/denial scale for detecting the likelihood that the young person is under-reporting their experience of abuse and neglect, which indicated that approximately 49% of young people were under-reporting their experiences.

No significant differences were found between Aboriginal and non-Aboriginal young people in custody in 2015 in the reporting of experiences of any type of abuse or neglect. As with previous years, a significantly higher proportion of young females reported experiencing sexual abuse than young males (45.5% vs. 8.3%).

The impact of trauma was investigated using the TSCC, a self-report measure of post-traumatic distress and psychological symptomatology resulting from exposure to trauma. It is intended for use in the evaluation of young people who have experienced

traumatic events, including childhood physical or sexual abuse, major losses, witnessing violence towards others, and natural disasters. Close to a third of participants (29.8%) reported at least one clinically significant trauma symptom and 18.0% reported experiencing two or more symptoms.

Many YPICHS participants experienced significant trauma symptomology, such as anxiety (3.4%), depression (7.9%), anger (5.1%), post-traumatic stress (9.6%), overt disassociation (10.7%), fantasy (3.4%), sexual preoccupation (6.2%) and sexual distress (6.7%). Almost half (47.8%) of young people had been exposed to at least one past traumatic event. Of those who reported trauma exposure, 37.5% had experienced more than one type of traumatic event. Females reported more traumatic event types on average than males (3 vs. 1). Of those with a history of trauma exposure, 5.7% screened positive for recent (i.e. past two weeks) symptoms consistent with PTSD.

Intellectual ability

Intellectual ability was measured using full-scale versions of the Wechsler scales, with four index scores representing major components of intelligence. General intellectual ability is based on the total combined performance of the four index scores. This score is known as the FSIQ, and is generally considered the most reliable measure of overall intellectual ability. The mean FSIQ score for the 2015 YPICHS participants was 78.7, which falls in the borderline range of ability. There were no significant differences by gender, but non-Aboriginal young people had a significantly higher mean FSIQ than Aboriginal young people (81.2 vs. 76.7). One in six 2015 YPICHS participants (16.6%) obtained an FSIQ score in the extremely low range (below 70), indicating a potential intellectual disability.

The four index scores provide a closer examination of the areas of strength and weakness in cognitive functioning displayed by young people in custody. The VCI emphasises verbal concept formation where reasoning and understanding are required. The average score on the VCI was 78.4, which falls in the borderline range (SD: 11.2; range 47–119), with males having a significantly higher mean VCI score than females (79.0 vs. 70.8, $p < 0.05$). Low scores may be the result of poor word knowledge, difficulty retrieving learned information, or problems with verbal expression.

The PRI relates to non-verbal and fluid reasoning. In the 2015 YPICHS, the average score on the PRI was 85.6, which falls in the low average range (SD 12.8, range 49–115). The WMI assesses auditory short-term memory, concentration and attention. The average score on the WMI was 85.0, which falls in the low average range (SD 13.2; range 54–122). Males had a significantly higher mean WMI score than females (85.5 vs. 77.8, $p < 0.05$). The PSI measures the speed of information processing. The average score on the PSI was 82.7, which falls in the low

average range (SD 13.3, range 50–132). Non-Aboriginal young people had a significantly higher mean PSI score than Aboriginal young people (85.9 vs. 79.9, $p < 0.01$).

Full Scale IQ (FSIQ) scores in the extremely low range (69 and below) indicate a potential intellectual disability, therefore further investigation is required to make a diagnosis. For the 31 young people who scored below 70 on their FSIQ, an adaptive functioning assessment was required to ascertain whether deficits were also present in activities of daily life. The measure used was the Adaptive Behaviour Assessment System. A large minority of young people (41.2%) who had the ABAS-III administered obtained a score in the extremely low range (below 70), strengthening the likelihood of their having an intellectual disability.

The 2015 YPICHS trialled the use of the CAIDS-Q as a non-clinical screener for intellectual disability. The CAIDS-Q identified 12 young people as potentially having an intellectual disability. Concerns regarding the CAIDS-Q were that it might over-identify Aboriginal children and adolescents as potentially having an intellectual disability, as some of its seven items reflect disadvantage in educational access and attendance and/or cultural values and practice that can elevate scores. However, no significant difference was identified between the proportion of Aboriginal and non-Aboriginal young people identified as potentially having an intellectual disability.

Language and reading comprehension

High rates of oral language and reading difficulties were identified, using standardised assessments, among the 2015 YPICHS participants. While this was expected given previous research in both Australia (including NSW) and overseas, the rates of difficulties detected in the survey are slightly higher than previously reported, probably reflecting the exclusion criteria of previous studies. Most of the YPICHS participants performed below the average range for their age on core receptive and expressive language measures, with half of the participants scoring in the range that indicates severe difficulties. Almost three quarters of the young people demonstrated difficulties in reading single words, with half demonstrating severe difficulties, and nearly all demonstrated reading comprehension difficulties, with over three quarters exhibiting severe difficulties.

Aboriginal young people were significantly more likely than non-Aboriginal young people to perform more poorly than expected for their age on most measures.

Implications for policy and practice

Integrating and embedding research into policy and practice is a priority for the Network. Findings from previous surveys have been used to inform strategic decision-making, models of care and clinical redesigns. The Network and Juvenile Justice NSW is committed to using the findings of the 2015 YPICHS to guide policy and practice to improve the health and wellbeing of this disadvantaged population. Nevertheless, clinical and health services research consistently highlights the failure to translate research in this area into policy and practice^{234, 235}. Therefore, the Network's Research and Evaluation Service is working to develop a robust, evidence-based translation strategy to inform activities to facilitate awareness, acceptance and adoption of new research and its integration into decision-making and practice. The first step of this strategy will be to purposefully identify key information from this report for different target audiences through the production of Fact Sheets.

Young people in custody engage well with Network staff and JJNSW psychologists. These specialists make appropriate referrals to community health and mental health services when young people are leaving custody. However, many young people do not keep these appointments. The findings of this report provide clear evidence of the complex social, physical and mental health issues of the population. Continuity of health services as these young people transition to the community is important to their wellbeing and a protective factor against further offending. Transition planning and community follow-up are challenges for the Network and JJNSW.

The findings of this study are used to inform all JJNSW staff of the complexity of the juvenile population. YPICHS findings are used in initial and continuing training of JJNSW custodial and community staff. They will inform current developments in JJNSW, particularly:

- introduction of caseworkers into custodial centres, including several in identified roles, to work closely with community counterparts to deliver seamless case planning and management;
- roll-out of evidence-based training across custodial centres, including in mental health, communication and managing challenging behaviour; and
- Managing Actual or Potential Aggression (MAPA) train-the-trainer training. These staff will assist in adapting this package to suit JJNSW needs and rolling it out across JJNSW, in addition to Protective Tactics training.



Conclusion

Almost all young people in custody will eventually return to the community. Therefore, identifying and addressing their health needs in custody will help reduce the public health burden they carry back into the community and, in some respects, may contribute to a decreased risk of offending. The 2015 YPICHS demonstrates the complex physical and psychosocial health needs of young people in custody. In comparison to young people in the community, young people in custody have poorer physical and mental health, high rates of trauma, abuse and neglect, and are more likely to have a history of alcohol and illicit drug use and dependence. The custodial environment provides a unique opportunity to assess and manage the needs of young people who may not otherwise have regular access to appropriate services where these needs can be identified and met. The JH&FMHN and JJNSW are committed to ensuring that the results of this survey make an important contribution to the planning and delivery of services to improve the health and well-being of this vulnerable population.



References

1. NSW Department of Juvenile Justice. 2003 NSW Young People in Custody Health Survey. Key Findings Report. Sydney: NSW Department of Juvenile Justice; 2003.
2. Indig D, Vecchiato C, Haysom L, Beilby R, Carter J, Champion U, et al. 2009 Young People in Custody Health Survey: Full Report. Sydney; 2011.
3. Australian Institute of Health and Welfare. Youth justice in Australia 2015–16. Bulletin 139. Cat. no. AUS 211. Canberra: AIHW; 2017.
4. IBM Corp. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.; Released 2015
5. Stone AA, Shiffman S. Capturing momentary, self-report data: A proposal for reporting guidelines. *Annals of Behavioral Medicine*. 2002;24:236-43.
6. Althubaiti A. Information bias in health research: Definition, pitfalls, and adjustment methods. *Journal of Multidisciplinary Healthcare*. 2016;9:211-7.
7. Okura Y, Urban LH, Mahoney DW, Jacobsen SJ, Rodeheffer RJ. Agreement between self-report questionnaires and medical record data was substantial for diabetes, hypertension, myocardial infarction and stroke but not for heart failure. *Journal of Clinical Epidemiology*. 2004;57(10):1096-103.
8. Solar O, Irwin A. A conceptual framework for action on the social determinants of health. *Social Determinants of Health Discussion Paper 2 (Policy and Practice)*. 2010.
9. Australian Institute of Health and Welfare. A picture of Australia's children 2012. PHE 167. Canberra: AIHW; 2012.
10. Australian Institute of Health and Welfare. Australian Institute of Health and Welfare Annual Report 2015–16. Cat. no. AUS 209. Canberra: AIHW; 2016.
11. Australian Institute of Health and Welfare Youth justice in Australia 2014–15. Bulletin 133. AUS 198. Canberra: AIHW; 2016.
12. Australian Institute of Health and Welfare. Child protection Australia 2014–15. Child welfare series no 63. Cat. no. CWS 57. Canberra: AIHW; 2016.
13. Mendes P, Snow PC, Baidawi S. Young People Transitioning from Out-of-Home Care in Victoria: Strengthening support services for dual clients of Child Protection and Youth Justice. Melbourne: Monash University; 2012.
14. Mendes P, Snow PC, Baidawi S. Young People Transitioning from Out-of-Home Care in Victoria: Strengthening support services for dual clients of Child Protection and Youth Justice – Phase Two Report. Melbourne: Monash University; 2013.
15. Australian Institute of Health and Welfare. Young Australians: their health and wellbeing 2011. Cat. no. PHE 140. Canberra: AIHW; 2011.
16. Dowse L, Cumming TM, Strnadová I, Lee J-S, Trofimovs J. Young People with Complex Needs in the Criminal Justice System. *Research and Practice in Intellectual and Developmental Disabilities*. 2014;1:174-85.
17. Weatherburn D, Cush R, Saunders P. Screening juvenile offenders for further assessment and intervention. *Crime and Justice Bulletin*. Sydney; 2007.
18. Farrington DP. Childhood origins of antisocial behavior. *Clinical Psychology & Psychotherapy*. 2005;12(3):177-90.
19. NSW Department of Education and Communities. Compulsory School Attendance 2017 [Available from: https://education.nsw.gov.au/wellbeing-and-learning/media/documents/attendance-behaviour-engagement/attendance/attendance_parents.pdf].
20. Education and Work, Australia [Internet]. ABS. 2016.
21. Noonan G. Specialist support classes in regular and specialist schools. NSW Department of Education; 2017.
22. Carroll JE, Gruenewald TL, Taylor SE, Janicki-Deverts D, Matthews KA, Seeman TE. Childhood abuse, parental warmth, and adult multisystem biological risk in the Coronary Artery Risk Development in Young Adults study. *Proceedings of the National Academy of Sciences of the United States of America*. 2013;110(42):17149-53.
23. Patten SB, Wilkes TCR, Williams JVA, Lavorato DH, el-Guebaly N, Wild TC, et al. Childhood adversity and subsequent mental health status in adulthood: screening for associations using two linked surveys. *Epidemiology and Psychiatric Sciences*. 2016;25(2):160-70.
24. Kessler RC, McLaughlin KA, Green JG, Gruber MJ, Sampson NA, Zaslavsky AM, et al. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry*. 2010;197(5):378.
25. Farrington DP. Psychosocial predictors of adult antisocial personality and adult convictions. *Behavioral Sciences & the Law*. 2000;18(5):605-22.

26. Barrett DE, Katsiyannis A, Zhang D, Zhang D. Delinquency and Recidivism: A Multicohort, Matched-Control Study of the Role of Early Adverse Experiences, Mental Health Problems, and Disabilities. *Journal of Emotional and Behavioral Disorders*. 2014;22 3-15.
27. Family Characteristics and Transitions, Australia, 2012–13 [Internet]. ABS. 2015 [cited 07/09/2017].
28. Murray J, Farrington DP, Sekol I. Children's antisocial behavior, mental health, drug use, and educational performance after parental incarceration: A systematic review and meta-analysis. *Psychological Bulletin*. 2012;138(2):175-210.
29. Marino JL, Lewis LN, Bateson D, Hickey M, Skinner R. Teenage Mothers. *Australian Family Physician*. 2016;45(10):712-7.
30. Births, Australia, 2015 [Internet]. ABS. 2016 [cited 07/03/17].
31. General Social Survey: Summary Results, Australia, 2014 [Internet]. ABS. 2014.
32. Muir K, Powell A. Walking a well-being tightrope: young people in Australia. *Journal of Population Research*. 2012;29(4):293-313.
33. Gladden RM, Vivolo-Kantor AM, Hamburger ME, Lumpkin CD. Bullying Surveillance Among Youths: Uniform Definitions for Public Health and Recommended Data Elements, Version 1.0 Atlanta: GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, U.S. Department of Education; 2014.
34. Farrington DP, Ttofi MM. Bullying as a predictor of offending, violence and later life outcomes. *Criminal Behaviour and Mental Health*. 2011;21(2):90-8.
35. Klomek AB, Sourander A, Elonheimo H. Bullying by peers in childhood and effects on psychopathology, suicidality, and criminality in adulthood. *The Lancet Psychiatry*. 2015;2(10):930-41.
36. Sansone RA, Lam C, Wiederman MW. Victims of bullying in childhood, criminal outcomes in adulthood. *International Journal of Psychiatry in Clinical Practice*. 2013;17(1):69-72.
37. Ttofi MM, Farrington DP, Lösel F, Loeber R. Do the victims of school bullies tend to become depressed later in life? A systematic review and metaanalysis of longitudinal studies. *Journal of Aggression, Conflict and Peace Research*. 2011;3(2):63-73.
38. Ttofi MM, Farrington DP, Lösel F. School bullying as a predictor of violence later in life: A systematic review and meta-analysis of prospective longitudinal studies. *Aggression and Violent Behavior*. 2012;17(5):405-18.
39. Australian Institute of Health and Welfare. Life expectancy and mortality of Aboriginal and Torres Strait Islander people. Cat. no. IHW 51. Canberra: AIHW; 2011.
40. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011—Summary report. Australian Burden of Disease Study series no 7. Cat. no. BOD 8. Canberra: AIHW; 2016.
41. Azzopardi PS, Kennedy EC, Patton GC, Power R, Roseby RD, Sawyer SM, et al. The quality of health research for young Indigenous Australians: systematic review. *The Medical Journal of Australia*. 2013;199(1):57-63.
42. Priest N, Mackean T, Davis E, Briggs L, Waters E. Aboriginal perspectives of child health and wellbeing in an urban setting: Developing a conceptual framework. *Health Sociology Review*. 2012;21(2):180-95.
43. Kickett-Tucker CS. Aboriginal perspectives of child health and wellbeing in an urban setting: Developing a conceptual framework. *Health Sociology Review*. 2012;21(2):180-95.
44. Estimates of Aboriginal and Torres Strait Islander Australians, June 2011 [Internet]. ABS. 2013 [cited 31/05/17].
45. Children (Criminal Proceedings) Act 1987 (CCPA) [Available from: http://www.austlii.edu.au/au/legis/nsw/consol_act/cpa1987261/].
46. Children (Community Service Orders) Act, 1987 [Available from: http://www.austlii.edu.au/au/legis/nsw/consol_act/csoa1987357/].
47. Young Offenders Act, 1997
48. National offence index [Internet]. ABS. 2009. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/Mf/1234.0.55.001>.

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49. Australian Bureau of Statistics. Australian and New Zealand Standard Offence Classification (ANZSOC). Canberra: ABS; 2011 [Third edition] [Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/1234.0>]
50. Prichard J, Payne J. Key findings from the Drug Use Careers of Juvenile Offenders study. Trends and Issues in Crime and Criminal Justice. Canberra: Australian Institute of Criminology; 2005.
51. Prichard J, Payne J. Alcohol, drugs and crime: a study of juveniles in detention. Research and Public Policy Series no 67. Australian Institute of Criminology; 2005.
52. Gaffney A, Jones W, Sweeney J, Payne J. Drug use monitoring in Australia: 2008 annual report on drug use among police detainees. AIC Monitoring Reports No 09. Australian Institute of Criminology; 2010.
53. Kruh IP, Frick PJ, Clements CB. Historical and personality correlates to the violence patterns of juveniles tried as adults. *Criminal Justice and Behavior*. 2005;32:69–96
54. Frick PJ, Hare RD. Antisocial Process Screening Device: APSD. Multi-Health Systems; 2001.
55. Pechorro P, Hidalgo V, Nunes C, Jimenez L. Confirmatory Factor Analysis of the Antisocial Process Screening Device: Self-report among incarcerated male juvenile offenders. *International Journal of Offender Therapy and Comparative Criminology*. 2016;60(16):17.
56. Munoz LC, Frick PJ. The reliability, stability, and predictive utility of the self-report version of the Antisocial Process Screening Device. *Scandinavian Journal of Psychology*. 2007;48(4):299-312.
57. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th edn. Washington, DC: American Psychiatric Association; 2013.
58. Essau CA, Sasagawa S, Frick PJ. Callous-unemotional traits in a community sample of adolescents. *Assessment*. 2006;13:454-69.
59. Kimonis ER, Frick PJ, Skeem J, Marsee MA, Cruise K, Munoz LC, et al. Assessing callous-unemotional traits in adolescent offenders: Validation of the Inventory of Callous-Unemotional Traits. *International Journal of Law and Psychiatry*. 2008;31(3):241-52.
60. Loeber R, Burke J, Pardini DA. Perspectives on oppositional defiant disorder, conduct disorder, and psychopathic features. *Journal of Child Psychology and Psychiatry*. 2009;50(1-2):10.
61. Topp L, Day C, Dore GJ, Maher L. Poor criterion validity of self-reported hepatitis B infection and vaccination status among injecting drug users: a review. *Drug and Alcohol Review*. 2009;28(6):669-75.
62. Schlichting EG, Johnson ME, Brems C, Wells RS, Fisher DG, Reynolds G. Validity of injecting drug users' self report of hepatitis A, B, and C. *Clinical Laboratory Science*. 2003;16(2):99-106.
63. O'Keefe D, Aitken C, Higgs P, Dietze P. Concordance between self-reported and actual hepatitis C virus infection status in a cohort of people who inject drugs. *Drug and Alcohol Review*. 2013;32(2):208-10.
64. Australian Bureau of Statistics. National Health Survey – First Results. Australia 2014–15. 4364.0.55.001. Canberra: ABS; 2015.
65. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study BOD 4. Canberra: AIHW; 2016.
66. Australian Institute of Health and Welfare, Poulos LM, Cooper SJ, Ampon R, Reddel HK, Marks G. Mortality from asthma and COPD in Australia. Cat. no. ACM 30. Canberra: AIHW; 2014.
67. Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012–13 [Internet]. ABS. 2014 [cited 01/02/17].
68. Australian Health Survey: Health Service Usage and Health Related Actions, 2011–12 [Internet]. ABS. 2013 [cited 01/02/17].
69. Australian Government Department of Health. Immunise Australia Program Canberra: Australian Government Department of Health; [Available from: <http://www.immunise.health.gov.au/>].
70. Hendry A, Hull B, Dey A, Campbell-Lloyd S, Beard F. NSW Annual Immunisation Coverage Report, 2015. 10.1071/NA16003. 2015.
71. Watt RG. Strategies and approaches in oral disease prevention and health promotion. *Bulletin of the World Health Organisation*. 2005;83(9):711-8.
72. Petersen PE, Bourgeois D, Ogawa H, Estupinan-Day S, Ndiaye C. The global burden of oral diseases and risks to oral health. *Bulletin of the World Health Organisation*. 2005;83(9):661-9.

73. Pussinen PJ, Kononen E. Oral health: A modifiable risk factor for cardiovascular diseases or a confounded association? *European Journal of Preventive Cardiology*. 2016;23(8):834-8.
74. Jamieson LM, Elani H, Mejia GC, Ju X, Kawachi I, Harper S, et al. Inequalities in Indigenous Oral Health. *Journal of Dental Research*. 2016;95(12):1375-80.
75. Slade GD, Bailie RS, Roberts-Thomson K, Leach AJ, Raye I, Endean C, et al. Effect of health promotion and fluoride varnish on dental caries among Australian Aboriginal children: results from a community-randomized controlled trial. *Community Dentistry and Oral Epidemiology*. 2011;39(1):29-43.
76. World Health Organization. How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF). Exposure draft for comment. Geneva: WHO; 2013.
77. Kuper H, Monteath-van Dok A, Wing K, Danquah L, Evans J, Zuurmond M, et al. The impact of disability on the lives of children; cross-sectional data including 8,900 children with disabilities and 898,834 children without disabilities across 30 countries. *PLoS One*. 2014;9(9):e107300.
78. Australian Institute of Health and Welfare. Health status and risk factors of Australians with disability 2007–08 and 2011–12. Cat. no. DIS 65. Canberra: AIHW; 2016.
79. Disability, Ageing and Carers, Australia: Summary of Findings, 2015 [Internet]. ABS. 2016 [cited 03/02/17].
80. Australian Institute of Health and Welfare. Standardised Disability Flag: data collection guide. Cat. no. DAT 6. Canberra: AIHW; 2016.
81. Helps Y., Henley G, Harrison J. Hospital separations due to traumatic brain injury, Australia 2004–05. *Injury research and statistics series no 45*. Cat no. INJCAT 116. Adelaide: AIHW; 2008.
82. Jamieson LM, Harrison JE, Berry JG. Hospitalisation for head injury due to assault among Indigenous and non-Indigenous Australians, July 1999—June 2005. *The Medical Journal of Australia*. 2008;188(10):576-9.
83. Harrison JE, Berry JG, Jamieson LM. Head and traumatic brain injuries among Australian youth and young adults, July 2000-June 2006. *Brain Injury*. 2012;26(7-8):996-1004.
84. Moore E, Indig D, Haysom L. Traumatic brain injury, mental health, substance use, and offending among incarcerated young people. *The Journal of Head Trauma Rehabilitation*. 2014;29(3):239-47.
85. Cancer Council Australia. *Understanding Testicular Cancer. A guide for men with cancer, their families and friends*. Sydney: Cancer Council NSW; 2016.
86. Australian Institute of Health and Welfare. *Cancer in Australia 2017. Cancer series no 101. Cat. no. CAN 100*. Canberra: AIHW; 2017.
87. Cancer Council NSW. *Men and Cancer. Your guide to reducing your risk of cancer*. Sydney: Cancer Council NSW; 2015.
88. Centre for Population Health. *NSW Childhood Overweight and Obesity Premier's Priority: Annual Data Report 2016*. Sydney: NSW Ministry of Health; 2016.
89. Elkiran O, Yilmaz E, Koc M, Kamanli A, Ustundag B, Ilhan N. The association between intima media thickness, central obesity and diastolic blood pressure in obese and overweight children: A cross-sectional school-based study. *International Journal of Cardiology*. 2013;165(3):528-32.
90. National Health and Medical Research Council. *Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia*. Melbourne: National Health and Medical Research Council; 2013.
91. Haysom L, Indig D, Moore E, Hardy LL, van den Dolder PA. Prevalence and perceptions of overweight and obesity in Aboriginal and non-Aboriginal young people in custody. *The Medical Journal of Australia*. 2013;199(4):266-70.
92. Eapen V, Shiers D, Curtis J. Bridging the gap from evidence to policy and practice: reducing the progression to metabolic syndrome for children and adolescents on antipsychotic medication. *The Australian and New Zealand Journal of Psychiatry*. 2013;47(5):435-42.
93. National Center for Health Statistics, National Center for Chronic Disease Prevention and Health Promotion. *CDC Growth Charts*. 2000.
94. Dalton M, Cameron AJ, Zimmet PZ, Shaw JE, Jolley D, Dunstan DW, et al. Waist circumference, waist-hip ratio and body mass index and their correlation with cardiovascular disease risk factors in Australian adults. *Journal of Internal Medicine*. 2003;254(6):555-63.

-
95. Janssen I, Katzmarzyk PT, Ross R. Waist circumference and not body mass index explains obesity-related health risk. *The American Journal of Clinical Nutrition*. 2004;79(3):379-84.
96. Garnett SP, Baur LA, Cowell CT. Waist-to-height ratio: a simple option for determining excess central adiposity in young people. *International Journal of Obesity*. 2008;32(6):1028-30.
97. Baur LA, Hazelton B, Shrewsbury VA. Assessment and management of obesity in childhood and adolescence. *Nature Reviews Gastroenterology & Hepatology*. 2011;8(11):635-45.
98. National Health and Medical Research Council. Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia. Melbourne 2013.
99. Australian Government Department of Health and Ageing. 2007 Australian National Children's Nutrition and Physical Activity Survey. Main Findings.: P3 – 4592. Canberra: Australian Government Department of Health and Ageing; 2008.
100. Gabb GM, Mangoni AA, Arnolda L. Guideline for the diagnosis and management of hypertension in adults – 2016. *The Medical Journal of Australia*. 2017;206(3):141.
101. National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. A Pocket Guide to Blood Pressure Measurement in Children. NIH Publication 07-5268. Bethesda, Maryland: National Heart, Lung and Blood Institute, U.S. Department of Health and Human Services; 2007.
102. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report 2016. Sydney: UNSW Australia; 2016.
103. Taylor PS, Faeth I, Marks MK, Del Mar CB, Skull SA, Pezzullo ML, et al. Cost of treating otitis media in Australia. *Expert Review of Pharmacoeconomics & Outcomes Research*. 2009;9(2):133-41.
104. Yiengprugsawan V, Hogan A, Strazdins L. Longitudinal analysis of ear infection and hearing impairment: findings from 6-year prospective cohorts of Australian children. *BMC Pediatrics*. 2013;13(1):28.
105. Mahadevan M, Navarro-Locsin G, Tan HKK, Yamanaka N, Sonsuwan N, Wang P-C, et al. A review of the burden of disease due to otitis media in the Asia-Pacific. *International Journal of Pediatric Otorhinolaryngology*. 2012;76(5):623-35.
106. Closing the Gap Clearinghouse (AIHW & AIFS). Ear disease in Aboriginal and Torres Strait Islander children. Resource sheet no 35. Canberra: Australian Institute of Health and Welfare & Melbourne: Australian Institute of Family Studies; 2014.
107. Australian Hearing. What are the most common causes of hearing loss? 2013 [Available from: <https://www.hearing.com.au/causes-hearing-loss-australia/>].
108. Reiner M, Niermann C, Jekauc D, Woll A. Long-term health benefits of physical activity – a systematic review of longitudinal studies. *BMC Public Health*. 2013;13(1):813.
109. Eime RM, Young JA, Harvey JT, Charity MJ, Payne WR. A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity*. 2013;10(1):98.
110. Hogan CL, Mata J, Carstensen LL. Exercise Holds Immediate Benefits for Affect and Cognition in Younger and Older Adults. *Psychology and Aging*. 2013;28(2):587-94.
111. Department of Health. Australia's physical activity and sedentary behaviour guidelines for young people (13–17 years). Canberra: Department of Health; 2014.
112. Australian Health Survey: Physical Activity, 2011–12 – Australia [Internet]. ABS. 2013 [cited 02/02/17]. [Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0042011-12?OpenDocument>].
113. Holt EM, Steffen LM, Moran A, Basu S, Steinberger J, Ross JA, et al. Fruit and vegetable consumption and its relation to markers of inflammation and oxidative stress in adolescents. *Journal of the American Dietetic Association*. 2009;109(3):414-21.
114. National Health and Medical Research Council. Australian Dietary Guidelines Summary. Canberra: National Health and Medical Research Council; 2013.
115. Cancer Council Australia. Understanding Skin Cancer. A guide for people with cancer, their families and friends. Sydney: Cancer Council NSW; 2016.

116. Whiteman DC, Whiteman CA, Green AC. Childhood sun exposure as a risk factor for melanoma: a systematic review of epidemiologic studies. *Cancer Causes & Control*. 2001;12(1):69-82.
117. Oliveria SA, Saraiya M, Geller AC, Heneghan MK, Jorgensen C. Sun exposure and risk of melanoma. *Archives of Disease in Childhood*. 2006;91(2):131.
118. Cust AE, Jenkins MA, Goumas C, Armstrong BK, Schmid H, Aitken JF, et al. Early-life sun exposure and risk of melanoma before age 40 years. *Cancer Causes & Control*. 2011;22(6):885-97.
119. Centre for Epidemiology and Evidence. New South Wales School Students Health Behaviours Survey: 2011 Report. Sydney; 2013.
120. Mitchell A, Kent P, Heywood W, Blackman P, Pitts M. 5th National Survey of Australian Secondary Students and Sexual Health 2013 LaTrobe University, Australian Research Centre for Sex, Health and Society; 2014.
121. Rissel C, Heywood W, de Visser RO, Simpson JM, Grulich AE, Badcock PB, et al. First vaginal intercourse and oral sex among a representative sample of Australian adults: the Second Australian Study of Health and Relationships. *Sexual Health*. 2014;11(5):406-15.
122. Gillison ML, Chaturvedi AK, Lowy DR. HPV prophylactic vaccines and the potential prevention of noncervical cancers in both men and women. *Cancer*. 2008;113(10 Suppl):3036-46.
123. Lowy DR. HPV vaccination to prevent cervical cancer and other HPV-associated disease: from basic science to effective interventions. *The Journal of Clinical Investigation*. 2016;126(1):5-11.
124. Australian Institute of Health and Welfare. National Drug Strategy Household Survey detailed report: 2013. Drug statistics series no 28. Cat. no. PHE 183. Canberra: AIHW; 2014.
125. Fagerstrom K. Time to first cigarette; the best single indicator of tobacco dependence? *Monaldi Archives for Chest Disease*. 2003;59(1):91-4.
126. Baker TB, Piper ME, McCarthy DE, Bolt DM, Smith SS, Kim SY, et al. Time to first cigarette in the morning as an index of ability to quit smoking: implications for nicotine dependence. *Nicotine & Tobacco Research*. 2007;9 Suppl 4:S555-70.
127. Toumbourou JW, Evans Whipp TJ, Smith R, Hemphill SA, Herrenkohl TI, Catalano RF. Adolescent predictors and environmental correlates of young adult alcohol use problems. *Addiction*. 2014;109(3):417-24.
128. National Health and Medical Research Council. Australian Guidelines to Reduce Health Risks from Drinking Alcohol. Canberra: National Health and Medical Research Council; 2009.
129. Saunders JB, Aasland OG, Babor TF, De La Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II. *Addiction*. 1993;88(6):791-804.
130. Emond JA, Gilbert-Diamond D, Tanski SE, Sargent JD. Energy Drink Consumption and the Risk of Alcohol Use Disorder among a National Sample of Adolescents and Young Adults. *The Journal of Pediatrics*. 2014;165(6):1194-200.
131. Chung T, Colby SM, Barnett NP, Rohsenow DJ, Spirito A, Monti PM. Screening adolescents for problem drinking: performance of brief screens against DSM-IV alcohol diagnoses. *Journal of Studies on Alcohol*. 2000;61(4):579-87.
132. Degenhardt L, Hall W. Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *The Lancet*. 379(9810):55-70.
133. Lubman DI, Hides L, Yücel M, Toumbourou JW. Intervening early to reduce developmentally harmful substance use among youth populations. *Medical Journal of Australia*. 2007;187(7):S22-5.
134. Gossop M, Darke S, Griffiths P, Hando J, Powis B, Hall W, et al. The Severity of Dependence Scale (SDS): psychometric properties of the SDS in English and Australian samples of heroin, cocaine and amphetamine users. *Addiction*. 1995;90(5):607-14.
135. Gossop M, Best D, Marsden J, Strang J. Test-retest reliability of the Severity of Dependence Scale. *Addiction*. 1997;92(3):353.
136. Martin G, Copeland J, Gates P, Gilmour S. The Severity of Dependence Scale (SDS) in an adolescent population of cannabis users: Reliability, validity and diagnostic cut-off. *Drug & Alcohol Dependence*. 83(1):90-3.

137. Marsden J, Stillwell G, Barlow H, Boys A, Taylor C, Hunt N, et al. An evaluation of a brief motivational intervention among young ecstasy and cocaine users: no effect on substance and alcohol use outcomes. *Addiction*. 2006;101(7):1014-26.
138. Australian Institute of Health and Welfare. Making progress: the health, development and well-being of Australia's children and young people. Cat. No. PHE 104. Canberra: AIHW; 2008.
139. Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, et al. The mental health of children and adolescents. Report on the Second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Department of Health, Canberra; 2015.
140. Baldry E, Dowse LM, Clarence M. Background Paper: People with Mental Health and Cognitive Disability: pathways into and out of the criminal justice system. Reintegration Puzzle Conference; Melbourne 2011.
141. Vermeiren R, Jaspers I, Moffitt T. Mental health problems in juvenile justice populations. *Child and Adolescent Psychiatric Clinics of North America*. 2006;15(2):19.
142. Teplin LA, Abram KM, McClelland GM, Mericle AA, Dulcan MK, Washburn JJ, et al. Psychiatric disorders of youth in detention. In: Kessler CL, Kraus LJ, editors. *The Mental Health Needs of Young Offenders: Forging Paths toward Reintegration and Rehabilitation*. Cambridge: Cambridge University Press; 2007. p. 7–47.
143. Fazel S, Doll H, Langstrom N. Mental disorders among adolescents in juvenile detention and correctional facilities: a systematic review and metaregression analysis of 25 surveys. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2008;47(9):1010-9.
144. Teplin LA, Welty LJ, Abram KM, Dulcan MK, Washburn JJ, McCoy K, et al. *Psychiatric Disorders in Youth After Detention*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention; 2015.
145. Wasserman GA, McReynolds LS, Schwalbe CS, Keating JM, Jones SA. Psychiatric disorder, comorbidity and suicidal behaviour in Juvenile Justice Youth. *Criminal Justice and Behavior*. 2010;37(12):16.
146. Grisso T. Adolescent offenders with mental disorders. *The Future of Children*. 2008;18(2):143-64.
147. Underwood LA, Washington A. Mental Illness and Juvenile Offenders. *International Journal of Environmental Research and Public Health*. 2016;13(2):228.
148. Ardino V. Offending behaviour: the role of trauma and PTSD. *European Journal of Psychotraumatology*. 2012;3(1).
149. Welfare H, Hollin CR. Involvement in extreme violence and violence-related trauma: A review with relevance to young people in custody. *Legal and Criminological Psychology*. 2012;17(1):89-104.
150. Miller NA, Najavits LM. Creating trauma-informed correctional care: a balance of goals and environment. *European Journal of Psychotraumatology*. 2012;3.
151. Axelson D, Birmaher B, Zelazny J, Kaufman J, Gill M, Brent D. K-SADS-PL: 2009 working draft. Advanced Center for Intervention and Services Research (ACISR) for Early Onset Mood and Anxiety Disorders, Western Psychiatric Institute and Clinic. 2009.
152. Association AP. *Diagnostic and statistical manual of mental disorders (4th ed., Text Revision)*. Washington, DC: American Psychiatric Association; 2000.
153. Reynolds WM. *The Adolescent Psychopathology Scale*. Florida: Psychological Assessment Resources (PAR) Inc. 1998.
154. Australian Bureau of Statistics. *Australian Social Trends* Canberra: ABS; 2009 [Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features30March%202009>]
155. Australian Bureau of Statistics. *National Survey of Mental Health and Wellbeing: Summary of Results, 2007*. 4326.0. Canberra: ABS; 2008.
156. Morgan V, Waterreus A, Jablensky A, Mackinnon A, McGrath J, Carr V, et al. *People living with psychotic illness 2010*. Report on the second Australian national survey Commonwealth of Australia; 2011.
157. Harrison JE, Henley G. Suicide and hospitalised self-harm in Australia: trends and analysis. *Injury research and statistics series no 93*. Cat. no. INJCAT 169. Canberra: AIHW; 2014.
158. Coffey C, Veit F, Wolfe R, Cini E, Patton GC. Mortality in young offenders: retrospective cohort study. *British Medical Journal*. 2003;17.

159. Teplin LA, McClelland GM, Abram KM, Mileusnic D. Early violent death among delinquent youth: a prospective longitudinal study. *Pediatrics*. 2005;115(6):1586-93.
160. Abram K, Choe J, Washburn J, Teplin L, King D, Dulcan M, et al. Suicidal thoughts and behaviours among detained youth. *Juvenile Justice Bulletin*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention; 2014.
161. Casiano H, Katz L, Globerman D, Sareen J. Suicide and deliberate self-injurious behavior in juvenile correctional facilities: A review. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*. 2013;22(2):7.
162. Chan MK, Bhatti H, Meader N, Stockton S, Evans J, O'Connor RC, et al. Predicting suicide following self-harm: systematic review of risk factors and risk scales. *The British Journal of Psychiatry*. 2016;209(4):277-83.
163. Patton GC, Hemphill SA, Beyers JM, Bond L, Toumbourou JW, McMorris BJ, et al. Pubertal Stage and Deliberate Self-Harm in Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2007;46(4):508-14.
164. Dixon-Gordon K, Harrison N, Roesch R. Non-Suicidal Self-Injury Within Offender Populations: A Systematic Review. *International Journal of Forensic Mental Health*. 2012;11(1):33-50.
165. Saraff PD, Trujillo N, Pepper CM. Functions, Consequences, and Frequency of Non-suicidal Self-Injury. *The Psychiatric Quarterly*. 2015;86(3):385-93.
166. Pointer S. Trends in hospitalised injury, Australia: 1999–00 to 2012–13. *Injury research and statistics series*. Cat. no. INJCAT 171. Canberra: AIHW; 2015.
167. Goodman R. The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*. 1997;38(5):581-6.
168. Goodman A, Goodman R. Strengths and Difficulties Questionnaire as a Dimensional Measure of Child Mental Health. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2009;48(4):400-3.
169. Mellor D. Normative data for the strengths and difficulties questionnaire in Australia. *Australian Psychologist*. 2005;40(3):215-22.
170. Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*. 1995;52(12):1048-60.
171. Scott J, Chant D, Andrews G, Martin G, McGrath J. Association between trauma exposure and delusional experiences in a large community-based sample. *The British Journal of Psychiatry*. 2007;190(4):339-43.
172. Sledjeski EM, Speisman B, Dierker LC. Does number of lifetime traumas explain the relationship between PTSD and chronic medical conditions? Answers from the national comorbidity survey-replication (NCS-R). *Journal of Behavioral Medicine*. 2008;31(4):341-9.
173. McLaughlin KA, Koenen KC, Hill ED, Petukhova M, Sampson NA, Zaslavsky AM, et al. Trauma Exposure and Posttraumatic Stress Disorder in a National Sample of Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2013;52(8):815-30.e14.
174. Frans O, Rimmo PA, Aberg L, Fredrikson M. Trauma exposure and post-traumatic stress disorder in the general population. *Acta Psychiatrica Scandinavica*. 2005;111(4):291-9.
175. Johnson J, Maxwell A, Galea S. The epidemiology of posttraumatic stress disorder. *Psychiatric Annals*. 2009;39(6):326-34.
176. Chapman C, Mills K, Slade T, McFarlane AC, Bryant RA, Creamer M, et al. Remission from post-traumatic stress disorder in the general population. *Psychological Medicine*. 2012;42(8):1695-703.
177. Nooner KB, Linares LO, Batinjane J, Kramer RA, Silva R, Cloitre M. Factors related to posttraumatic stress disorder in adolescence. *Trauma, Violence & Abuse*. 2012;13(3):153-66.
178. Anderson RE, Geier TJ, Cahill SP. Epidemiological associations between posttraumatic stress disorder and incarceration in the National Survey of American Life. *Criminal Behaviour and Mental Health*. 2016;26(2):110-23.
179. Dixon A, Howie P, Starling J. Trauma Exposure, Posttraumatic Stress, and Psychiatric Comorbidity in Female Juvenile Offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2005;44(8):798-806.
180. Goff A, Rose E, Rose S, Purves D. Does PTSD occur in sentenced prison populations? A systematic literature review. *Criminal Behaviour and Mental Health*. 2007;17(3):152-62.

-
181. Butler T, Andrews G, Allnutt S, Sakashita C, Smith NE, Basson J. Mental disorders in Australian prisoners: a comparison with a community sample. *The Australian and New Zealand Journal of Psychiatry*. 2006;40(3):272-6.
182. Moore E, Gaskin C, Indig D. Childhood maltreatment and post-traumatic stress disorder among incarcerated young offenders. *Child Abuse & Neglect*. 2013;37(10):861-70.
183. Hansen M, Andersen TE, Armour C, Elklit A, Palic S, Mackrill T. PTSD-8: A Short PTSD Inventory. *Clinical Practice and Epidemiology in Mental Health*. 2010;6:101-8.
184. Australian Institute of Health and Welfare. Child protection Australia 2015–16. *Child Welfare series no 66. Cat. no. CWS 60. Canberra: AIHW; 2017.*
185. Bernstein DP, Fink L. *Childhood Trauma Questionnaire: A Retrospective Self-report : Manual: Harcourt Brace & Company; 1998.*
186. Rosier K. The Prevalence of Child Abuse and Neglect. CFCA Resource Sheet [Internet]. 2017. [Available from: <https://aifs.gov.au/cfca/publications/prevalence-child-abuse-and-neglect>].
187. Nemeroff CB. Neurobiological consequences of childhood trauma. *The Journal of Clinical Psychiatry*. 2004;65(Suppl1):11.
188. DeBellis MD, Zisk A. The biological effects of childhood trauma. *Child and Adolescent Psychiatric Clinics of North America*. 2014;23(2):38.
189. Cook A, Spinazzola J, Ford J, Lanktree C, Blaustein M, Cloitre M, et al. Complex Trauma in Children and Adolescents. *Psychiatric Annals*. 2005;35(5):9.
190. Danese A, Baldwin JR. Hidden wounds? Inflammatory links between childhood trauma and psychopathology. *Annual Review of Psychology*. 2017;68(1):28.
191. Ganguly P, Brenhouse HC. Broken or maladaptive? Altered trajectories in neuroinflammation and behaviour after early life adversity. *Developmental Cognitive Neuroscience*. 2015;11:13.
192. Lubit RH. Posttraumatic Stress Disorder in Children 2016. [Available from: <http://emedicine.medscape.com/article/918844-overview>]
193. Hagele DM. The impact of maltreatment on the developing child. *North Carolina Medical Journal*. 2005;66(5):356-9.
194. Fang X, Brown DS, Florence C, Mercy JA. The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse & Neglect*. 2012;36(2):10.
195. Danese A, Tan M. Childhood maltreatment and obesity: systematic review and meta-analysis. *Molecular Psychiatry*. 2014;19:11.
196. Danese A, Moffitt TE, Arseneault L, Bleiberg BA, Dinardo PB, Gandelman SB, et al. The origins of cognitive deficits in victimized children: implications for neuroscientists and clinicians. *American Journal of Psychiatry*. 2016;174:13.
197. Mc Elroy S, Hevey D. Relationship between adverse early experiences, stressors, psychosocial resources and wellbeing. *Child Abuse & Neglect*. 2014;38(1):11.
198. Vaughn-Coaxum RA, Wang Y, Kiely J, Weisz JR, Dunn EC. Associations between trauma type, timing, and accumulation on current coping behaviors in adolescents: results from a large, population-based sample. *Journal of Youth Adolescence*. 2017.
199. Miller GE, Cole SW. Clustering of depression and inflammation in adolescents previously exposed to childhood adversity. *Biological Psychiatry*. 2012;72(1):7.
200. Lereya ST, Copeland WE, Costello EJ, Wolke D. Adult mental health consequences of peer bullying and maltreatment in childhood: two cohorts in two countries. *The Lancet Psychiatry*. 2015;2(6):8.
201. Varese F, Smeets F, Drukker M, Lieveise R, Lataster T, Viechtbauer W, et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective-and cross-sectional cohort studies. *Schizophrenia Bulletin*. 2012;38:11.
202. Bendall S, Jackson HJ, Hulbert CA, McGorry PD. Childhood trauma and psychotic disorders: a systematic, critical review of the evidence. *Schizophrenia Bulletin*. 2008;34(3):568-79.
203. Ford JD, Chapman J, Connor DF, Cruise KR. Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice and Behavior*. 2012;39(6):31.

204. Dierkhising CB, Ko SJ, Woods-Jaeger B, Briggs EC, Lee R, Pynoos RS. Trauma histories among justice-involved youth: findings from the National Child Traumatic Stress Network. *European Journal of Psychotraumatology*. 2013;4.
205. Boonmann C, Grisso T, Guy LS, Colins OF, Mulder EA, Vahl P, et al. Childhood traumatic experiences and mental health problems in sexually offending and non-sexually offending juveniles. *Child and Adolescent Psychiatry and Mental Health*. 2016;10.
206. Cashmore J. The link between child maltreatment and adolescent offending: Systems neglect of adolescents. *Family Matters*. 2011;89:11.
207. Renn P. The link between childhood trauma and later violent offending: the application of attachment theory in a probation setting. *Attachment and Human Development*. 2002;4(3):24.
208. Briere J. *Trauma Symptom Checklist for Children (TSCC)*. Professional Manual. Florida, USA: PAR; 1996.
209. Wechsler D. *Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV) – Australian Standardised Edition*. Sydney, NSW: Pearson; 2005.
210. Wechsler D. *Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV) Australian and New Zealand Language Adapted Edition*. Sydney, NSW: Pearson; 2008.
211. Weiss LG, Saklofske DH, Prifitera A, Holdnack JA. *WISC-IV Advanced Clinical Interpretation*. Burlington, MA: Academic Press. 2006.
212. Lane D. Working memory and processing speed 2014 [Available from: <http://speldnsw.org.au/wp-content/uploads/2013/02/Working-Memory-and-Processing-Speed.pdf>].
213. Holmes J, Hilton KA, Place M, Alloway TP, Elliott JG, Gathercole SE. Children with low working memory and children with ADHD: same or different? *Frontiers in Human Neuroscience*. 2014;8:1.
214. Wang Y, Zhang Y, Liu L, Cui J, Wang J, Shum DHK, et al. A meta-analysis of working memory impairments in autism spectrum disorders. *Neuropsychology Review*. 2017;27(1):16.
215. Shanahan MA, Pennington BF, Yerys BE, Scott A, Boada R, Willcutt EG, et al. Processing speed deficits in Attention Deficit/Hyperactivity Disorder and Reading Disability. *Abnormal Child Psychology*. 2006;34:18.
216. Adalio CJ, Owens EB, McBurnett K, Hinshaw SP, Pfiffner LJ. Processing speed predicts behavioral treatment outcomes in children with Attention-deficit/Hyperactivity Disorder predominantly inattentive type. *Journal of Abnormal Child Psychology*. 2017.
217. Evely M, Ganim Z. Working with children with poor processing speed. 2014.
218. Intellectual Disability, Australia, 2012 [Internet]. ABS. 2014. [Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4433.0.55.003Main+Features12012>].
219. Harrison PL, Oakland T. *Adaptive Behavior Assessment System (3rd ed.)*. Torrance, CA: Western Psychological Services; 2015.
220. Harrison PL, Oakland T. *Adaptive Behavior Assessment System (2nd ed)*. Torrance, CA: Western Psychological Services; 2003.
221. Koriakin TA, McCurdy MD, Papazoglou A, Pritchard AE, Zabel TA, Mahone EM, et al. Classification of intellectual disability using the Wechsler Intelligence Scale for Children: Full Scale IQ or General Abilities Index? *Developmental Medicine and Child Neurology*. 2013;55(9):6.
222. McKenzie K, Paxton D, Murray G, Milanese P, Murray AL. The evaluation of a screening tool for children with an intellectual disability: the Child and Adolescent Intellectual Disability Screening Questionnaire. *Research in Developmental Disabilities*. 2012;33(4):8.
223. Maulik PK, Darmstadt GL. Childhood disability in low – and middle-income countries: overview of screening, prevention, services, legislation, and epidemiology. *Pediatrics*. 2007;120(1).
224. McKenzie K, Megson P. Screening for intellectual disability in children: A review of the literature. *Journal of Applied Research in Intellectual Disabilities*. 2011;25(1):8.
225. Bryan K. Preliminary study of the prevalence of speech and language difficulties in young offenders. *International Journal of Language and Communication Disorders*. 2004;39(3):10.
226. Sanger DD, Moore-Brown BJ, Magnuson G, Svoboda N. Prevalence of language problems among adolescent delinquents: A closer look. *Communication Disorders Quarterly*. 2001;23(1):10.

-
227. Snow P, Powell M. What's the story? An exploration of narrative language abilities in male juvenile offenders. *Psychology, Crime and Law*. 2005;11(3):15.
 228. Snow P, Powell M. Oral language competence, social skills, and high risk boys: What are juvenile offenders trying to tell us? *Children and Society*. 2008;22:13.
 229. Snow P, Powell M. Oral language competence in incarcerated young offenders: Links with offending severity. *International Journal of Speech-Language Pathology*. 2011;13(6):10.
 230. Snow PC. Elizabeth Usher Memorial Lecture: Language is literacy is language. Positioning Speech Language Pathology in education policy, practice, paradigms, and polemics. *International Journal of Speech-Language Pathology*. 2016;18(3):13.
 231. Snow PC, Woodward M, Mathis M, Powell MB. Language functioning, mental health and alexithymia in incarcerated young offenders. *International Journal of Speech-Language Pathology*. 2016;18(1):20-31.
 232. Semel E, Wiig E, Secord W. *Clinical Evaluation of Language Fundamentals, Fourth Edition, Australian Standardised Edition (CELF-4 Australian)*. Sydney: PsychCorp, Pearson Clinical and Talent Assessment; 2006.
 233. Stothard SE, Hulme C, Clarke P, Barmby P, Snowling MJ. *York Assessment of Reading for Comprehension: Passage Reading, Secondary Test Australian ed*. London, UK: GL Assessment; 2012.
 234. Grimshaw JM, Eccles MP, Lavis JN, Hill SJ, Squires JE. Knowledge translation of research findings. *Implementation Science*. 2012;7(1):50.
 235. Green LA, Seifert CM. Translation of research into practice: Why we can't "just do it"? *Journal of the American Board of Family Medicine*. 2005;8(6):541-5.

