The painting illustrates two goannas aware that there are a number of hunters in their territory, three camped around a fire and two waiting near their drinking hole. The goannas have been feeding at one of their favourite eating areas, which can be reached by using their travelling tracks. These two goannas have a number of caves that they can hole in symbolised at the bottom left and right hand top of the painting. The goannas are marked similar to the area they live in.

Uncle Les is a Wanaruah Man and was National NAIDOC Artist of the Year in 2008. Uncle Les is an Aboriginal Artist well known for his work with Aboriginal peoples within the New South Wales educational and criminal justice system. Of late, Uncle Les is known for his art teaching to Aboriginal men at both St Helers and Gosford Correctional Centres.

Suggested citation:
2009 NSW Inmate Health Survey: Aboriginal Health Report

By Devon Indig, Elizabeth McEntyre, Jude Page, Bronwen Ross
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<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>AIC</td>
<td>Australian Institute of Criminology</td>
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<tr>
<td>AIFS</td>
<td>Australian Institute of Family Studies</td>
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<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<tr>
<td>ALP</td>
<td>Alkaline Phosphotase</td>
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<tr>
<td>ALT</td>
<td>Alanine Aminotransferase</td>
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<tr>
<td>AST</td>
<td>Aspartate Aminotransferase</td>
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<tr>
<td>ATSIC</td>
<td>Aboriginal and Torres Strait Islander Commission</td>
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<tr>
<td>AUDIT</td>
<td>Alcohol Use Disorders Identification Test</td>
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<tr>
<td>CSNSW</td>
<td>Corrective Services New South Wales</td>
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<tr>
<td>DAA</td>
<td>NSW Department of Aboriginal Affairs</td>
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<tr>
<td>DOCS</td>
<td>NSW Department of Community Services</td>
</tr>
<tr>
<td>DOH</td>
<td>NSW Department of Health</td>
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<tr>
<td>DOHA</td>
<td>Department of Health and Ageing (Australian)</td>
</tr>
<tr>
<td>ESKD</td>
<td>End Stage Kidney Disease</td>
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<tr>
<td>GFR</td>
<td>Glomerular Filtration Rate</td>
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<tr>
<td>GGT</td>
<td>Gamma-Glutamyltransferase</td>
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<tr>
<td>HbA1c</td>
<td>Glycated Haemoglobin</td>
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<td>HBV</td>
<td>Hepatitis B Virus</td>
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<tr>
<td>HCV</td>
<td>Hepatitis C Virus</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HREOC</td>
<td>Human Rights and Equal Opportunity Commission</td>
</tr>
<tr>
<td>HSC</td>
<td>Higher School Certificate</td>
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<tr>
<td>IHS(s)</td>
<td>Inmate Health Survey(s)</td>
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<tr>
<td>MCDS</td>
<td>Ministerial Council on Drugs Strategy</td>
</tr>
<tr>
<td>NAIDOC</td>
<td>National Aboriginal and Islander Day Observance Committee</td>
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<tr>
<td>NATSIHS</td>
<td>National Aboriginal and Torres Strait Islander Health Survey</td>
</tr>
<tr>
<td>NCHECR</td>
<td>National Centre in HIV Epidemiology and Clinical Research</td>
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<tr>
<td>NDSHS</td>
<td>National Drug Strategy Household Survey</td>
</tr>
<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<tr>
<td>NIDAC</td>
<td>National Indigenous Drug and Alcohol Committee</td>
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<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>SD</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>STI(s)</td>
<td>Sexually Transmissible Infection(s)</td>
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Foreword

The 2009 NSW Inmate Health Survey: Aboriginal Health Report is the first report to provide an Aboriginal-specific focus on inmates of NSW. The report complements the findings of the 2009 NSW Inmate Health Survey: Key Findings Report and provides greater insights into the health of Aboriginal people in custody. Mental health problems, drug and alcohol dependence, and blood borne viruses are all highly prevalent among Aboriginal inmates. Smoking rates remain high at 83% among men and 88% among women. Half of Aboriginal women and one third of Aboriginal men demonstrated signs of moderate to severe depression and multiple risk factors for chronic diseases.

This survey shows that the health needs of Aboriginal people in custody are growing. The prevalence of mental health issues, chronic disease and high risk alcohol use (by Aboriginal men) has increased since previous surveys. Aboriginal women in particular reported poorer general health; 23% reported fair to poor health in 1996 compared to 32% in 2009. This disparity in health for Aboriginal people in custody cannot be explained by socio-economic disadvantage alone. This population is most often affected also by structural disadvantage such as lower educational attainment, higher unemployment, poor or overcrowded housing, geographic isolation and barriers to accessing health services. High rates of hazardous alcohol and drug use, violence (both victims and perpetrators) and mental health and well-being problems are both a cause and effect of health inequality. The complexities of these issues present ongoing challenges for Justice Health and our key stakeholders. Adding to the health burden is the increasing number of Aboriginal people coming into custody and staying for longer periods.

Justice Health will be able to continue to deliver improved health outcomes for Aboriginal patients in custody in NSW through informed and targeted programs. We will continue to seek opportunities to expand our services in the community to divert those with complex health needs from custody and reduce the rate of return to prison.

We look forward to continuing the series of publications and service and policy developments arising from the 2009 NSW Inmate Health Survey, particularly those which can reduce the disparities in health for Aboriginal people. We are confident that this and other reports and publications will provide sound evidence to guide both Justice Health and other agencies and sectors in the provision of services to Aboriginal people in custody in NSW.

Julie Babineau
Chief Executive
Justice Health

Hon Patricia Staunton
Chair
Justice Health Board
The 2009 NSW Inmate Health Survey: Aboriginal Health Report is the first Aboriginal-specific snapshot of the health and well-being of the NSW Aboriginal inmate population. The information derives from the 2009 NSW Inmate Health Survey (IHS) (Indig et al., 2010a) and includes comparisons made with the 2001 IHS (Butler & Milner, 2003) and 1996 IHS (Butler, 1997). The IHSs are referenced in international literature as being the most comprehensive descriptions of prisoner health. The Surveys established an evidence base appropriate for the development and evaluation of health service delivery and allow for an examination of trends over time in the health status adult inmates.

This report presents the main findings of the cross-sectional component of the 2009 IHS drawing from a random sample of 996 participants, of which 312 (31%) self-identified as being of Aboriginal origin. It should be noted that the small number of Aboriginal women in the 1996 (N=31), 2001 (N=29) and 2009 (N=53) IHS samples mean the generalisability of these findings for Aboriginal women should be interpreted with caution. Results are presented by Aboriginality and gender. Where possible and appropriate, comparable findings from all three IHSs (1996, 2001 and 2009) are presented, to depict changes over time in health and social indicators describing the NSW prison population.

Background

Across Australia, Aboriginal prisoners comprise one-quarter of the total prisoner population of N=29,317 and have a rate of imprisonment 14 times higher than non-Aboriginal people (ABS, 2009). The Australian prisoner population has been increasing at a rate of approximately 6% per year with the overall number of Aboriginal prisoners increasing 71% between 2001 and 2009, compared with a 25% increase for non-Aboriginal prisoners (ABS, 2009). NSW incarcerates the largest number of prisoners and reported a full-time custody population of 10,368 as of 30 June 2009 (Corben, 2010). Each year there are approximately 30,000 new prison entrants and over 150,000 movements between prisons among inmates in NSW.

Despite making up just over 2% of the general community in NSW, it is well documented that Aboriginal people are over-represented in custody. Aboriginal men increased from 12% of the NSW inmate population in 1996 to 22% in 2009, while Aboriginal women increased from 17% to 29% over the same time period (Corben, 2010). The substantial increase in the number of Aboriginal people in prison is due mainly to changes in the criminal justice system’s response to offending since 2001 rather than changes in offending itself (Fitzgerald, 2009). More Aboriginal offenders receive a prison sentence and for longer periods.

Methodology

The 2009 NSW Inmate Health Survey was conducted using a stratified random sample of all inmates from 30 adult correctional centres (26 male centres and 4 female centres). Of the 1,166 inmates randomly selected and invited to participate, 996 agreed, equating to a response rate of 85.4%. Women and Aboriginal people were over-represented in the sample to ensure better estimates of health issues for these populations. The sample was also stratified by age groups (18-24 years, 25-44 years and 45 years or more) to ensure adequate representation of older and younger inmates.

The Survey components included a survey completed by computer-assisted telephone interview, a physical health exam, and blood and urine testing. Telephone interviews took an average of 73 minutes (median of 70 minutes, range 21 to 198 minutes) to conduct. See the 2009 NSW Inmate Health Survey: Key Findings Report (Indig et al., 2010a) for more detailed description of the methodology.

It should be noted that the sampling of participants was conducted using Corrective Services NSW (CSNSW) data regarding Aboriginality, which identifies a person as Aboriginal if they ever indicated they were Aboriginal to CSNSW. Participants were also asked during the telephone if they identified as being of Aboriginal or Torres Strait Islander origin. When comparing participant self-reported Aboriginality with CSNSW data, a 6% discrepancy was found, which followed no particular pattern. It was decided to use self-reported Aboriginality at the time of interview since the validity of CSNSW routinely collected data could not be determined.
Key Findings

1. Social Determinants
   - Nearly double the proportion of Aboriginal inmates did not complete Year 10 of schooling for both men (73% vs 43%, p<0.01) and women (60% vs 39%, p<0.01) compared to non-Aboriginal inmates.
   - The proportion of Aboriginal inmates who were unemployed in the six months before their incarceration was significantly higher for both women (87% vs 60%, p<0.01) and men (64% vs 43%, p<0.01).
   - A high proportion of inmates were reliant on pensions or benefits as a source of income, with significantly more Aboriginal men (77% vs 57%, p<0.01) and Aboriginal women (94% vs 72%, p<0.01) reporting this than non-Aboriginal inmates.
   - Half of all women reported difficulty finding accommodation the last time they were released from custody, with no difference by Aboriginality. Significantly more Aboriginal than non-Aboriginal men reported difficulty finding accommodation (33% vs 21%, p<0.01).
   - Living in a rural area was found to be strongly associated with Aboriginal imprisonment. Aboriginal women were three times as likely (60% vs 20%, p<0.01) to live in a rural area prior to prison than non-Aboriginal women and Aboriginal men were twice as likely (53% vs 24%, p<0.01).

2. Family history
   - Nearly half of Aboriginal inmates were placed in care as children. Twice as many Aboriginal men (46% vs 22%, p<0.01) and nearly twice as many Aboriginal women (45% vs 27%, p<0.05) had been placed in care before the age of 16 years compared to non-Aboriginal inmates.
   - Approximately one in three Aboriginal inmates had a parent imprisoned during their childhood. Aboriginal women were three times as likely to have had a parent imprisoned (36% vs 10%, p<0.01) and Aboriginal men were nearly three times as likely (31% vs 12%, p<0.01) compared to non-Aboriginal inmates.
   - Aboriginal inmates were significantly more likely than non-Aboriginal inmates to be married or in a de-facto relationship, for both men (31% vs 24%, p<0.04) and women (47% vs 24%, p<0.01).
   - Aboriginal inmates were more likely to have children aged 16 years or younger. This was significant for both Aboriginal men (56% vs 37%, p<0.01) and Aboriginal women (68% vs 43%, p<0.01) than non-Aboriginal inmates, including being significantly more likely to have three or more children aged 16 years or younger for both Aboriginal men (20% vs 9%, p<0.01) and Aboriginal women (26% vs 9%, p<0.01).
   - Harmful alcohol use was a common problem among family members of inmates. Significantly more Aboriginal compared to non-Aboriginal inmates reported significant others in their lives (parent, partner or other family member) had problems due to their use of alcohol, including both Aboriginal men (68% vs 45%, p<0.01) and Aboriginal women (72% vs 56%, p<0.05).
3. Offending behaviour

- Aboriginal inmates were twice as likely to report a history of juvenile detention, a finding significant for both men (61% vs 33%, p<0.01) and women (34% vs 17%, p<0.01). Aboriginal men were also significantly more likely to have been in juvenile detention five or more times compared to non-Aboriginal men (26% vs 9%, p<0.01).

- Having a history of previous adult incarceration was significantly higher among Aboriginal inmates, for both Aboriginal men (81% vs 56%, p<0.01) and Aboriginal women (59% vs 41%, p<0.03) compared to non-Aboriginal inmates. Between 1996 and 2009, the proportion of women with a history of previous incarceration decreased for both Aboriginal and non-Aboriginal women, whereas the rates remained relatively steady for both Aboriginal and non-Aboriginal men over this time.

- Aboriginal men were nearly twice as likely as non-Aboriginal men to have three or more adult incarcerations (60% vs 34%, p<0.01). Excluding Aboriginal men, all other prisoners had decreases in having three or more incarcerations between 1996 and 2009 including substantial drops for Aboriginal women (67% in 1996 to 34% in 2009).

4. Violence

- Aboriginal Australians are over-represented as both victims and perpetrators of all forms of violent crime. Aboriginal inmates were significantly more likely to be charged with assault as their most serious offence, including both men (26% vs 18%, p<0.04) and women (23% vs 8%, p<0.03) compared to non-Aboriginal inmates.

- The majority (81%) of Aboriginal women reported ever being in a violent relationship, compared to 61% for non-Aboriginal women, a statistically significant difference (p<0.02). Twice as many Aboriginal men reported ever being in a violent relationship than non-Aboriginal men (41% vs 21%, p<0.01). This question did not distinguish between being a victim or perpetrator of violence.

- Nearly twice as many Aboriginal women (42% vs 24%, p<0.04) reported experiencing any sexual violence since age 16 years compared to non-Aboriginal women. Non-Aboriginal women reported higher rates of experiencing any form of domestic violence or abuse than Aboriginal women (47% vs 40%), but this was not statistically significant.

5. Smoking, alcohol and other drugs

- Over three quarters of Aboriginal inmates (83% of men and 88% of women) were current tobacco smokers (double the Aboriginal community rate of 45% men and 42% women) compared to 71% of non-Aboriginal men and 76% of non-Aboriginal women. Among inmates, being a current smoker was only significant for Aboriginal men who were more likely to smoke than non-Aboriginal men (p<0.01). This rate of smoking is little changed from 1996 to 2009, in contrast to steady decreases for non Aboriginal people in the community.

- Aboriginal inmates smoked significantly fewer cigarettes per day. Aboriginal men were less likely to smoke 21 or more cigarettes than non-Aboriginal men (18% vs 28%, p<0.02). Nearly all Aboriginal smokers reported they would like to quit smoking (90% of Aboriginal men and 80% of Aboriginal women), which was higher than for non-Aboriginal smokers, though this was not a significant difference.

- Aboriginal men were significantly more likely than non-Aboriginal men to report risky drinking behaviour (74% vs 57%, p<0.01), dependent drinking behaviour (44% vs 30%, p<0.01) and binge drinking behaviour such as usually drinking ten or more drinks (58% vs 41%, p<0.01). Aboriginal women who drank alcohol were also significantly more likely to do so as a dependent drinker (29% vs 11%, p<0.01) or a binge drinker usually drinking ten or more drinks (31% vs 15%, p<0.01) compared to non-Aboriginal women.

- A history of illicit drug use was high among all inmates. Significantly more Aboriginal women reporting having ever tried illicit drugs (88% vs 74%, p<0.05) than non-Aboriginal women. Aboriginal inmates were significantly more likely than non-Aboriginal inmates to have ever used cannabis, including both men (88% vs 82%, p<0.03) and women (82% vs 68%, p<0.05).
• Aboriginal men were significantly more likely than non-Aboriginal men to have: used illicit drugs on a regular basis in the year before prison (51% vs 38%, p<0.01); to have ever used illicit drugs in prison (48% vs 39%, p<0.02); and to have ever injected drugs (46% vs 37%, p<0.02). Having a history of injecting drugs decreased for all participants from 2001 to 2009, including the highest decreases for Aboriginal women (92% to 50%) and non-Aboriginal women (70% to 53%).

• Aboriginal men were significantly more likely to have ever participated in a methadone treatment program than non-Aboriginal men (26% vs 19%, p<0.03). Twice as many Aboriginal women (51%) as Aboriginal men reported having ever been on the methadone program for opioid dependence. There was a steady increase in the number of Aboriginal men having ever been on methadone from 1996 to 2009 with a decrease in heroin use during this period.

• Aboriginal people were also more likely to report being intoxicated at the time of offence than non-Aboriginal people, including both men (73% vs 59%, p<0.01) and women (67% vs 44%, p<0.01). Aboriginal men were also significantly more likely to have indicated they had committed crime to buy alcohol or drugs (28% vs 20%, p<0.02) compared to non-Aboriginal men.

6. Mental health
• Mental health problems were high among all prisoners. The three most common mental health conditions were depression, anxiety and drug dependence. Aboriginal women demonstrated the highest rate of mental health problems among inmates, including being more likely to have ever been admitted to a psychiatric hospital (21%), to being on psychiatric medications (31%) and to have ever attempted suicide (37%), though none of these findings were significantly different to non-Aboriginal women.

• The proportion of inmates who had ever been assessed or treated by a doctor or psychiatrist for a mental health problem increased steadily between 1996 and 2009 for all groups, except Aboriginal women who remained steady at around 52%. The proportion of Aboriginal men being treated for mental health problems increased the most from 32% in 1996 to 45% in 2009. This may indicate improved funding of and access to mental health services rather than an increase in prevalence.

• Approximately half of the women showed evidence of moderate to severe depression, compared to approximately one-third of men, with little variation by Aboriginality.

7. Chronic diseases
• Aboriginal people are at higher risk of many chronic conditions due to higher rates of multiple risk factors compared to non-Aboriginal people. High rates of tobacco smoking, physical inactivity, poor diet and heavy alcohol consumption are common risk factors for cardiovascular disease, kidney disease, diabetes and obesity.

• Over half of inmates were overweight or obese, including two-thirds (66%) of Aboriginal women. Women were twice as likely as men to do inadequate physical activity compared to men. However, there were no significant differences by Aboriginality with regard to being overweight or obese or having inadequate physical activity.

• Aboriginal men were significantly more likely than non-Aboriginal men to have ever been told by a doctor that they had high blood sugar (11% vs 6%, p<0.02) or ever been told by a doctor that they had diabetes (7% vs 3%, p<0.01).

• Aboriginal women were twice as likely to have asthma as non-Aboriginal women (62% vs 38%, p<0.01) and both Aboriginal and non-Aboriginal men were equally likely to have asthma (26%).

• A significantly higher proportion of Aboriginal men compared to non-Aboriginal men had markers for liver disease, including elevated Gamma Glutamyltransferase (GGT) levels (31% vs 22%, p<0.02) and elevated Alkaline phosphatase (ALP) levels (19% vs 10%, p<0.01).
8. **Blood borne viruses**

- Significantly more Aboriginal men tested positive to Hepatitis C (36% vs 24%, $p<0.01$) compared to non-Aboriginal men. However, there was a substantial drop between 2001 and 2009 in the proportion of inmates being Hepatitis C antibody positive, with the highest decreases found among women (from 76% to 54% for Aboriginal women; from 61% to 43% for non-Aboriginal women). Consistent with this trend was a decrease in the proportion of people who had ever injected drugs.

- Significantly more Aboriginal men tested positive to Hepatitis B surface antibody (69% vs 50%, $p<0.01$) compared to non-Aboriginal men indicating they had cleared the virus or had responded to Hepatitis B vaccination. Aboriginal men were also significantly more likely to report having ever been tested for a blood borne virus (61% vs 47%, $p<0.01$) compared to non-Aboriginal men.

- Two in five (40%) Aboriginal men and half of Aboriginal women (48%) demonstrated vaccine conferred immunity to Hepatitis B infection. These results were slightly higher than for non-Aboriginal men and women, but were not statistically significant.

9. **Sexual health**

- Aboriginal men were nearly twice as likely to have had sex by the age of 13 years (42% vs 25%, $p<0.01$) than non-Aboriginal men.

- Non-Aboriginal women were the most likely (37%) to report their first sexual partner was five or more years older than them and also the most likely (71%) to report never having used condoms in the year before prison, though these findings were not significantly different to Aboriginal women.

- Just under a third of inmates reported ever being diagnosed with a sexually transmissible infection (STI), with the highest proportion found in Aboriginal men (32%) and the lowest in Aboriginal women (26%), though these differences were not significant. There were no significant differences by Aboriginality with detection of an STI using the screening tests in the survey.

10. **Health service utilisation**

- Aboriginal inmates were significantly less likely to have accessed healthcare outside prison. Aboriginal men were more likely to have never accessed healthcare outside prison (27% vs 12%, $p<0.01$) compared to non-Aboriginal men. Non-Aboriginal inmates were more likely to report having ever seen a general practitioner in the community than Aboriginal inmates, a finding significant for both men (40% vs 69%, $p<0.01$) and women (39% vs 87%, $p<0.01$).

- Of those who had accessed health care, Aboriginal inmates were more likely to visit Aboriginal Community Controlled Health Services than a general practitioner in the community (56% of Aboriginal men and 60% of Aboriginal women had ever accessed Aboriginal health services in the community compared to 40% and 39% ever visiting a general practitioner).

- Women were more likely to have ever accessed a range of health services (emergency department presentation, hospital admission, prison clinic visit) than men, but there were no differences found by Aboriginality.
Conclusions

Meeting the health needs of the inmate population in NSW constitutes a significant challenge. The survey found higher levels of disadvantage, unstable housing, violence, alcohol and drug use and mental health issues among Aboriginal inmates. Despite far higher rates of poor health in comparison to the general community, barriers to accessing prevention and treatment services resulted in fewer Aboriginal people who had ever accessed healthcare outside prison.

The survey also found some positive health indicators among Aboriginal inmates compared to non-Aboriginal inmates. Aboriginal men had better immunity to Hepatitis B through vaccination, were more likely to have ever been tested for a blood borne virus and were significantly more likely to have ever participated in a methadone treatment program than non-Aboriginal men. Aboriginal men also smoked fewer cigarettes. Potentially protective resilience factors for Aboriginal inmates included being significantly more likely to be married or in a de-facto relationship and having more children than non-Aboriginal inmates.

Prison health care is not only provided in a complex environment but, as the results of the 2009 IHS demonstrate, prison inmates are a complex, “high-needs” population. The correctional environment, however, provides a unique opportunity to improve the health status of a group who suffer poor health and may have less contact with health services in the community. Importantly, the 2009 Inmate Health Survey: Aboriginal Health Report provides Justice Health, its key stakeholders and the community with reliable evidence of the health needs of Aboriginal people incarcerated in NSW. As such, the key findings from the 2009 IHS provide all agencies and sectors involved in the provision of services to patients in custody with evidence to guide policy and practice. In light of these data, access to culturally competent physical and mental health and drug and alcohol services, welfare support and improving opportunities could make a significant contribution to health gains for those involved in the criminal justice system and as such reduce factors associated with crime.
This report complements the 2009 Inmate Health Survey: Key Findings Report (Indig et al., 2010a). It examines in detail the differentials in the health and welfare status of Aboriginal and non-Aboriginal prison inmates in NSW. This report provides additional evidence to guide policies and programs designed to improve the health of this particularly vulnerable prison sub-population. This report refers only to Aboriginal people in recognition that NSW is Aboriginal land. The term Indigenous is used when referring to national data. Reference to Aboriginal people is inclusive of Torres Strait Islander people in this report.

NSW has the largest number of Aboriginal people in Australia, with an estimated 148,178 Aboriginal people, comprising just over 2% of the total NSW population and approximately 29% of the total Aboriginal population in Australia (ABS, 2010a). The Aboriginal population is younger, with a median age of 21.1 years (compared with 37.0 years for the non-Aboriginal population) and 38% of the population is under 15 years of age (compared with 19% of the non-Aboriginal population) (ABS, 2010a). Although most Aboriginal people live in urban and regional areas of NSW, they comprise the largest proportion of the populations in the most remote regions of NSW (ABS, 2010a).

Aboriginal Health

Aboriginal people are the most disadvantaged group in Australia, as measured by a range of health, economic and social indicators that include education, employment, income, housing and contact with the criminal justice system (ABS/AIHW, 2008; Legislative Council, 2008). The most recent estimates for 2005-2007 indicated the gap between Indigenous and non-Indigenous life expectancy in Australia was 11.5 years for men and 9.7 years for women (ABS/AIHW, 2008). The gap in health equity and quality of life are contributing factors to premature death. The reasons for the increased burden of disease and injury carried by the Aboriginal population are complex and cannot be fully explained by socioeconomic disadvantage alone or in combination with other health risk factors (ABS/AIHW, 2008). Social determinants of health such as minority group status (including the effects of colonisation) are root causes of serious health inequality (WHO, 2007). It is estimated that 70% of the burden of disease for Aboriginal people is a result of non-communicable disease including tobacco (17%), high body mass (16%), physical inactivity (12%), high blood cholesterol (7%) and alcohol (4%) being the main risk factors contributing to the health gap (Vos et al., 2008). Aboriginal people living in remote areas experience a disproportionate amount (40%) of the health gap compared with non remote areas (Vos et al., 2008), indicating a large potential for health gain.

Aboriginal imprisonment

Nineteen years ago the Royal Commission into Aboriginal Deaths in Custody drew attention to the fact that the rate of imprisonment of Indigenous Australians was 13 times higher than the corresponding rate for non-Indigenous Australians (Commonwealth of Australia, 1991). Efforts to reduce Indigenous imprisonment rates over the intervening period have met with little success. The background factors that figure prominently in the causation of crime by Aboriginal offenders are well known; the social determinants of health and inequity including the effects of colonisation and poverty (NIDAC, 2009); hazardous rates of drug or alcohol use; involvement in violent crime; high rate of breach of bail conditions and re-offending (Weatherburn et. al., 2006); and the response of the criminal justice system itself to Aboriginal offending (Blagg et. al., 2005; Fitzgerald, 2009).

It is well documented that Aboriginal people are over-represented in custody (ABS, 2009). Across Australia, Aboriginal prisoners comprise one-quarter of the total prisoner population of N=29,317 and have a rate of imprisonment 14 times higher than non-Aboriginal people (ABS, 2009). The Australian prisoner population has been increasing at a rate of approximately 6% per year, with the overall number of Aboriginal prisoners increasing 71% between 2001 and 2009, compared with a 25% increase for non-Aboriginal prisoners (ABS, 2009). NSW imprisons the largest number of people and reported a full-time custody population of 10,368 as of 30 June 2009 (Corben, 2010). Each year there are approximately 30,000 new prison entrants and over 150,000 movements between prisons among prisoners in NSW.
Despite making up just over 2% of the general community in NSW, Aboriginal men increased from 12% of the NSW inmate population in 1996 to 22% in 2009, while Aboriginal women increased from 17% to 29% over the same time period (Corben, 2010). The substantial increase in the number of Aboriginal people in prison is due mainly to changes in the criminal justice system’s response to offending since 2001 rather than increases in offending itself. A large proportion of this increase is for people detained without sentence. Aboriginal people are more likely to be refused bail and spending a longer time on remand. The number of Aboriginal men in prison on remand has nearly doubled since 2001 (Fitzgerald, 2009). Additionally more Aboriginal offenders receive a prison sentence and for longer periods, increasing the exposure to the criminal justice system.

This report presents the main findings of the 2009 NSW IHS, drawing from a random sample of 996 participants, with results presented separately by gender and Aboriginality. Where possible and appropriate, comparable findings from all three IHSs (1996, 2001 and 2009) are also presented, to depict changes over time in important health and social indicators describing the NSW prison population.
The 2009 NSW Inmate Health Survey was conducted using a stratified random sample of all inmates from 30 adult correctional centres (26 male centres and 4 female centres). Of the 1,166 inmates randomly selected and invited to participate, 996 agreed, equating to a response rate of 85.4%. Women and Aboriginal people were over-represented in the sample to ensure better estimates of health issues for these populations. The sample was also stratified by age groups (18-24 years, 25-44 years and 45 years or more) to ensure adequate representation of older and younger inmates.

The survey components included a survey completed by computer-assisted telephone interview, a physical health exam and blood and urine testing. Telephone interviews took an average of 73 minutes (median of 70 minutes, range 21 to 198 minutes) to conduct. See the 2009 NSW Inmate Health Survey: Key Findings Report (Indig et al., 2010a) for a more detailed description of the methodology.

It should be noted that the sampling of participants was conducted using Corrective Services NSW (CSNSW) data regarding Aboriginality, which identifies a person as being of Aboriginal origin if they ever indicated that they were to CSNSW. Participants were also asked during the telephone interview if they identified as being of Aboriginal or Torres Strait Islander origin. When comparing participant self-reported Aboriginality with CSNSW data, a 6% discrepancy was found, which followed no particular pattern. It was decided to use self-reported Aboriginality at the time of interview since the validity of CSNSW routinely collected data could not be determined.

Nearly a third of 2009 IHS participants self-reported Aboriginal or Torres Strait Islander origin (33% of men and 27% of women). Six percent of the 312 participants who identified as Aboriginal Australians indicated that they were of Torres Strait Islander origin. The average age of Aboriginal inmates in the 2009 IHS was significantly younger for Aboriginal people for both men (34.1 vs 36.1 years, p<0.05) and women (31.1 vs 37.3 years, p<0.01) (Table i).

<table>
<thead>
<tr>
<th>Table i</th>
<th>Participant age characteristics</th>
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<tr>
<td></td>
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<tr>
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<tr>
<td>Mean (+ sd)</td>
<td>34.1 (+ 11.8)</td>
</tr>
<tr>
<td>Median</td>
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<tr>
<td>Range</td>
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</tr>
</tbody>
</table>

This report includes trends across the three IHSs from 1996, 2001 and 2009. It should be noted that the sample size for Aboriginal women is particularly small across the 3 surveys (N=31 in 1996, N=29 in 2001 and N=53 in 2009) so trends in this report should be considered with caution.

<table>
<thead>
<tr>
<th>Table ii</th>
<th>Sample size, Inmate Health Surveys</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
</tr>
<tr>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Aboriginal Men</td>
<td>204</td>
</tr>
<tr>
<td>Non-Aboriginal Men</td>
<td>453</td>
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<tr>
<td>Aboriginal Women</td>
<td>31</td>
</tr>
<tr>
<td>Non-Aboriginal Women</td>
<td>101</td>
</tr>
<tr>
<td>Total random sample</td>
<td>789</td>
</tr>
</tbody>
</table>

This report has been structured into ten major content areas to present the key findings by gender and Aboriginality. The full results of all the 2009 IHS trends by gender and Aboriginality is available as a separate Appendix document (Indig et al., 2010b).
Results

1. Social determinants

Education

One of the fundamental social determinants of health is educational attainment. Data from the 2006 Australian Census shows that nearly one third (30%) of Indigenous people aged 15 years or over did not complete Year 10 compared with 15% of non-Indigenous people (ABS, 2010a). Additionally, less than one in five (19%) Indigenous people completed Year 12 compared with almost one-half (45%) of non-Indigenous people (ABS, 2010a). In NSW in 2008, retention rates in years 7 to 12 in government schools was 65% for all students and half as high (32%) for Aboriginal students (NSW Audit Office, 2009).

![Figure 1.1](image_url)  

**Figure 1.1** Left school prior to completing Year 10

Prisoners have significantly less education than the general community with more than half leaving school before completing Year 10 (School Certificate level). Aboriginal people in custody had nearly double the rates of not completing Year 10 for both men (73% vs 43%, p<0.01) and women (60% vs 39%, p<0.01). There is an increasing trend for Aboriginal women in prison to have not completed Year 10 (50% in 1996 to 60% in 2009). The opposite trend occurred for non-Aboriginal women with 48% having not completed Year 10 in 1996 compared to 39% in 2009.
Significantly fewer Aboriginal people had a qualification above school certificate (Year 10) such as a Higher School Certificate (HSC)/leaving certificate, institutional or trade certificate, which was found in both men (7% vs 23%, p<0.01) and women (13% vs 36%, p<0.01). Aboriginal women were twice as likely to have ever been expelled from school as non-Aboriginal women (42% vs 21%, p<0.01), while Aboriginal men were also more likely to have ever been expelled from school than non-Aboriginal men (43% vs 35%, p<0.02). Aboriginal inmates were less likely to complete an educational course in prison, among both women (38% vs 50%) and men (36% vs 43%), but this result was only significant when comparing Aboriginal to non-Aboriginal people as a whole (44% vs 36%, p<0.02).
Employment/Benefits

In 2009, an estimated 46% of the Australian Aboriginal population aged 15 years and over were employed (ABS, 2010b). Among Australians in the labour force actively looking for work, the unemployment rate for the Aboriginal population was three times higher than among the non-Aboriginal population (18% vs 6%) (ABS, 2010b). Having employment or being a student is a protective factor in staying out of prison (Baldry et al., 2003).

Participants in the 2009 IHS had unemployment rates far higher than the community, with Aboriginal people having the highest rates of not working in the six months prior to imprisonment. Rates of unemployment were substantially greater among Aboriginal women (87% vs 60%, p<0.01) than men (64% vs 43%, p<0.01) when compared with non-Aboriginal men and women.

Among unemployed people, chronic unemployment was particularly high among Aboriginal women with over half (57%) being long term unemployed (five or more years), compared to 38% of non-Aboriginal women, though this was not statistically significant. Aboriginal people as a whole were significantly more likely to have been unemployed for five or more years (41% vs 32%, p<0.05) and also significantly less likely to have a job in prison (65% vs 57%, p<0.02).
High levels of unemployment among prisoners correlates with a high proportion that are reliant on pensions or benefits as a source of income. Significantly more Aboriginal men (77% vs 57%, p<0.01) and Aboriginal women (94% vs 72%, p<0.01) than non-Aboriginal men and women relied on government benefits as a source of income. Between 1996 and 2009 there was also an increase in the proportion of inmates on pensions or benefits received in the six months prior to incarceration for all groups. The largest increases were for Aboriginal inmates: Aboriginal men increased from 40% to 77%; Aboriginal women increased from 68% to 94%.

Accommodation/living situation

Having unstable accommodation is a predictor of imprisonment (Baldry et al., 2003). Average Aboriginal households are larger than their non-Aboriginal counterparts. While it may be acceptable and common for large numbers of family members to share accommodation, this can lead to breakdown of relationships and contribute to family violence. A consequent transient lifestyle has negative consequences for health, education and family relationships (Berry et al., 2001). According to the 2004/05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), 27% of Indigenous people aged 18 years and over live in overcrowded households, with significant variation among states (ABS/AIHW, 2008). NSW has an Aboriginal homelessness rate nearly three times that of non-Aboriginal residents at 110 per 10,000 people, compared to 40 per 10,000 people in the non-Aboriginal population (Housing NSW, 2010). Additionally, Aboriginal households in urban NSW experience over-crowding at double the rate of non-Aboriginal households and Aboriginal households in rural NSW experience overcrowding at seven times the rate of non-Aboriginal households. Aboriginal people in NSW have a far lower rate of home ownership and greater reliance on social housing. Nearly one third of Aboriginal households live in social housing compared to 6% of non-Aboriginal households (Housing NSW, 2010).
More Aboriginal inmates indicated they had been sleeping rough or had no fixed accommodation in the six months before incarceration, including 13% of Aboriginal men and 11% of Aboriginal women, compared with 10% of non-Aboriginal men and women, though this was not significantly different. Women were more likely to report problems with accommodation which, in addition to barriers to both public and private housing, may in part relate to high rates of family violence. Over half of women who had previously been incarcerated had problems with their accommodation the last time they were released, with no significant difference between Aboriginal and non-Aboriginal women. A significantly higher proportion of Aboriginal men (33% vs 21%, \( p<0.01 \)) also indicated they had problems with their accommodation the last time they were released from prison compared to non-Aboriginal men. Aboriginal men were significantly more likely (24% vs 11%, \( p<0.01 \)) to live with siblings or other family members than non-Aboriginal men.

Aboriginal people in NSW predominantly reside in urban and regional areas of the state, yet they comprise the largest proportion of the populations of the most remote regions of NSW (ABS, 2010a). Rural areas have less access to services such as health and community services, fewer employment opportunities, and lower average incomes (Cuneen, 2008). Geographic isolation and limited transport for Aboriginal people are also commonly reported (Cunningham et al., 2008). IHS participants were asked to indicate the suburb or town where they mostly lived in the year prior to their incarceration. This information was mapped to the eight major NSW Health Area Health Services, which includes four metropolitan and four rural Area Health Services. Twice as many Aboriginal men (53% vs 24%, \( p<0.01 \)) and three times as many Aboriginal women (60% vs 20%, \( p<0.01 \)) lived in a rural area prior to incarceration, compared with non-Aboriginal inmates.
Summary

The 2009 IHS was consistent with community based findings in that Aboriginal people had lower educational attainment and lower workforce participation than non-Aboriginal people. While educational attainment for Aboriginal people in the community improves, the opposite trend is occurring among more marginalised Aboriginal inmates, with fewer completing Year 10 compared to 1996. Similarly, Aboriginal inmates were more likely to be unemployed in the six months before incarceration and less likely to have a job in prison than non-Aboriginal inmates. Aboriginal inmates were also more likely to usually reside in a rural or regional area where there is less access to health and community services, fewer employment opportunities, high rates of harmful alcohol use, lower average incomes and limited transport. Poor educational attainment, high rates of unemployment and social exclusion are risk factors for incarceration for Aboriginal people. Further, the over-representation of Aboriginal inmates from rural areas represents an opportunity to significantly reduce socioeconomic inequities and to improve community capacity in these areas through improved education, employment, community connection and access to culturally competent health services.
2. Family background

Placed in care

Families, community networks and interpersonal relationships are vital aspects of society, and essential to individual wellbeing. A history of being raised outside of the family unit is more prevalent among inmate populations than among the general population (Borzycki, 2005). Specific to Aboriginal people are the ‘stolen generations’ whereby children of Aboriginal Australian descent were removed from their families by Federal and State government agencies via laws and policies between approximately 1869 and 1969. For individuals, their removal as children and the abuse experienced under the care of authorities or their delegates have had lasting effects, including effects on their children and grandchildren (HREOC, 1997). This forced removal is also associated with higher rates of family dysfunction and imprisonment (Weatherburn et al., 2006). Approximately one-third of the Aboriginal population have a relative who, as a child, was removed from their family (Gray, 2006).

Aboriginal children are overrepresented in child protection systems, including out-of-home care. In NSW, 38% of children in out-of-home care are of Aboriginal origin (DOCS, 2007), being at least 6.5 times more likely than non-Aboriginal children to be in foster, kinship or residential out-of-home care (AIFS, 2009). Aboriginal children are removed from families for different reasons than for non-Aboriginal children. Aboriginal children are much more likely than non-Aboriginal children to suffer neglect and less likely to suffer physical abuse (AIHW, 2004). Neglect may be due to higher rates of mental health concerns, drug and alcohol abuse and domestic violence in Aboriginal families (AIFS, 2009).

Figure 2.1  Ever placed in care before the age of 16 years

Twice as many Aboriginal men (46% vs 22%, p<0.01) and nearly twice as many Aboriginal women (45% vs 27%, p<0.05) reported having ever been placed in care as a child compared to non-Aboriginal participants. This trend increased from 2001 to 2009 for all participants, with the greatest increases among Aboriginal men (34% to 46%) and women (35% to 45%).
Significantly fewer Aboriginal men (39% vs 56%, p<0.01) and Aboriginal women (26% vs 52%, p<0.01) than non-Aboriginal inmates reported being raised by both biological parents for their entire childhood. Over half of Aboriginal participants with a history of being placed in care were placed in long-term care compared to less than a third of non-Aboriginal participants placed in care. These results were significant for both Aboriginal men (53% vs 31%, p<0.01) and Aboriginal women (54% vs 28%, p<0.04).

Aboriginal inmates were three times as likely to have a history of having a parent incarcerated during their childhood than non-Aboriginal inmates, with a higher rate of Aboriginal women (36% vs 10%, p<0.01) compared to men (31% vs 12%, p<0.01). Likewise, Aboriginal inmates were significantly more likely to report their parents had been placed in care as a child with the rate nearly three times higher for Aboriginal women compared to non-Aboriginal women (27% vs 10%, p<0.01) and nearly double for Aboriginal men (14% vs 7%, p<0.01) compared to non-Aboriginal men. A large proportion of Aboriginal inmates did not know if their parents had ever been placed in care (23% of men, 13% of women), as a likely result of being removed from their parents themselves and subsequent loss of family contact and history.
Current family

Prison inmates who maintain close links with their families and/or close friends during incarceration have lower rates of post-release recidivism than inmates who do not maintain these ties (Hairston, 2003; Visher & Travis, 2003; Turgeon, 1999). Poverty, lack of transport and cost of visiting family and phone calls may impact more directly on Aboriginal people who generally have less access to these resources (ABS/AIHW, 2008). Lower literacy levels may also limit navigation of the prison system, including how to contact family members. For inmates, lower rates of prison employment among Aboriginal inmates also limits resources for phone calls to family.

Aboriginal inmates were significantly more likely to be currently married or in a de-facto relationship compared to non-Aboriginal inmates. Aboriginal women were twice as likely as non-Aboriginal women to be married or in a de-facto relationship (47% vs 24%, p<0.01), while Aboriginal men were also significantly more likely to be married or in a de facto relationship (31% vs 24%, p<0.04).

Among 2009 IHS participants, Aboriginal people had less contact with family members than non-Aboriginal inmates. They were significantly more likely to have no visits from their family in the past four weeks. This was the case for both Aboriginal men (62% vs 42%, p<0.01) and women (51% vs 43%, p<0.04). Aboriginal men were also significantly more likely to not have any phone calls or letters in the past four weeks than non-Aboriginal men (15% vs 10%, p<0.04).

Alcohol and other drug problems are significant issues for this group that compound existing social problems. Over two-thirds of Aboriginal men (compared to 45% of non-Aboriginal men, p<0.01) reported that they had a family member or partner who they thought had a problem with alcohol, a problem also found among Aboriginal women (72% vs 56%, p<0.05).
Aboriginal inmates were more likely to have children aged less than 16 years (for men 56% vs 37%, p<0.01, and women 68% vs 43%, p<0.01) than non-Aboriginal inmates. Across all inmates, the proportion who was a parent of at least one child aged 16 years or younger steadily decreased from 1996 to 2009.
A smaller proportion of inmates who had children aged less than 16 years had those children dependent on them for care prior to their imprisonment. Being dependent is defined as children primarily reliant on the inmate for their care as opposed to living with the other parent, other family or out of home care. Aboriginal inmates were more likely to have dependent children than non-Aboriginal inmates, including both women (43% vs 25%) and men (30% vs 24%), though the difference was not statistically significant. Aboriginal women with children were more likely to have given birth to their first child when they were a teenager than non-Aboriginal women (65% vs 45%), but this was not statistically significant. Aboriginal inmates were significantly more likely than non-Aboriginal inmates to have three or more children aged 16 years or younger, among both men (20% vs 9%, p<0.01) and women (26% vs 9%, p<0.01).

Summary

A high proportion of Aboriginal inmates had a disadvantaged childhood, including nearly half having been placed in care at some point as a child. Drug and alcohol problems, high rates of parental incarceration and associated neglect are contributing factors to being placed in care. Higher proportions of Aboriginal inmates reported having family members with alcohol problems and one in three Aboriginal inmates had a parent who had been incarcerated during their childhood. Aboriginal people also had less support from family and friends while they were in prison, with regard to receiving visits, letters or phone calls. This may be due in part to poverty, geographical isolation and less access to transport than non-Aboriginal people. The combination of all of these factors results in less social support for Aboriginal inmates and less community connection on release from prison – a risk factor itself for incarceration and associated problems.
3. Offending behaviour

The factors associated with crime have been found to be mostly structural, with lower educational attainment and unemployment, hazardous alcohol and other drug use, poverty and fewer opportunities strongly correlated with committing crime (Weatherburn et al., 2006). People with untreated mental illness or intellectual disabilities are also at higher risk if they do not have strong support structures (Mullen, 2001; HREOC, 2008). The most important risk factors relating to Aboriginal prosecution and imprisonment are high risk alcohol consumption and illicit drug use (Weatherburn et al., 2006). Failing to complete Year 12, unemployment, overcrowded housing, homelessness or being removed from family (including the stolen generations) also increase the risk (Weatherburn et al., 2006). Aboriginal people are disproportionally at higher risk of incarceration due to breach of bail conditions and violent offences, particularly assault and robbery (Snowball & Weatherburn, 2006).

Between 2002 and 2005 there was a decrease in the prevalence of household crime, which includes break and enter, attempted break and enter and motor vehicle theft, from 8.9% of households in 2002 to 2.2% in 2005 (ABS, 2006a). Contributing to this decline in household crime was a reduction in break and enter crime, which decreased from 4.7% of households in 2002 to 3.3% in 2005. During the same period there was no significant change in the rate of personal crime, which includes robbery, assault and sexual assault, remaining steady in Australia at 5.3% (ABS, 2006a). According to the National Prisoner Census, Indigenous prisoners were more likely to have their most serious offence as an act intended to cause injury than non-Indigenous prisoners (32% vs 15%) (ABS, 2009).

One commonly used measure of reoffending is whether a person convicted of an offence is subsequently reconvicted of another offence within two years. In a national study by the Australian Institute of Criminology of 8,938 prisoners with a violent offence, 55% of Indigenous prisoners had returned to prison within two years, compared with 31% of non-Indigenous prisoners (Willis & Moore, 2008). In NSW in 2006, 29% of adult offenders and 54% of juvenile offenders aged 10-17 years were found to re-offend within two years of their conviction (ABS, 2010c).

Juvenile detention

Juvenile detention is a strong predictor of continuing involvement in both the juvenile and adult criminal justice systems. Between 1981 and 2007, the rate of juvenile detention among young people aged 10 to 17 years has decreased 51% (Taylor, 2009). Young Indigenous people are detained nearly 28 times more frequently than non-Indigenous young people (403 indigenous young people per 100,000 population in 2007 compared with only 14.4 non-Indigenous per 100,000 population) (Taylor, 2009). Crime is committed disproportionately by 15-25 year olds, peaking between the ages of 15 and 18 and declining by the late 20s. A study of 33,900 young offenders in NSW showed that the average age for a first criminal appearance was 16 years, with 70% appearing only once before the Children’s Court (Coumarelos, 1994). Boys are about seven times more likely to be charged for offending than girls.

Figure 3.1 Juvenile detention characteristics

<table>
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<th></th>
<th>Aboriginal men</th>
<th>Non-Aboriginal men</th>
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</thead>
<tbody>
<tr>
<td>Ever in juvenile detention</td>
<td>32.9%</td>
<td>17.1%</td>
</tr>
<tr>
<td>5+ times in juvenile detention</td>
<td>25.9%</td>
<td>8.7%</td>
</tr>
<tr>
<td></td>
<td>Aboriginal women</td>
<td>Non-Aboriginal women</td>
</tr>
<tr>
<td>Ever in juvenile detention</td>
<td>4.1%</td>
<td>11.3%</td>
</tr>
<tr>
<td>5+ times in juvenile detention</td>
<td>1.0%</td>
<td>8.7%</td>
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</table>
Among 2009 IHS participants, Aboriginal people were twice as likely to report having ever been in juvenile detention, a finding significant for both men (61% vs 33%, p<0.01) and women (34% vs 17%, p<0.01). Aboriginal men also reported being in juvenile detention significantly more times, with 26% of Aboriginal men indicating that they had been in juvenile detention five or more times, compared with only 9% of non-Aboriginal men (p<0.01). Aboriginal women were three times as likely to report having been to juvenile detention as non-Aboriginal women (11% vs 4%); this finding was not statistically significant.

**Previous incarceration**

Nearly three-quarters (74%) of sentenced Indigenous prisoners in Australia had a prior adult imprisonment compared to half (50%) of non-Indigenous prisoners (ABS, 2009). The likelihood of a prison sentence is greatly increased if the offender has a lengthy prior criminal record, has been convicted of a serious violent offence, breached a previous court order or has been convicted of multiple concurrent offences (Snowball & Weatherburn, 2006). Aboriginal offenders are more likely than non-Aboriginal offenders to exhibit all of these factors (Snowball & Weatherburn, 2006). Further, personal and family factors implicated in offending include: poor impulse control, weak parental supervision and poor parental disciplinary practices. Structural and societal factors significant to crime, arrest and imprisonment include: living in a crime prone neighbourhood, economic stress, lack of social support and social involvement, interpersonal conflict, personal stress and drug and alcohol abuse (Weatherburn et al., 2006).

**Figure 3.2** Previous adult incarceration

Consistent with this research, Aboriginal inmates were significantly more likely to report being previously incarcerated than non-Aboriginal inmates, including both men (81% vs 56%, p<0.01) and women (59% vs 41%, p<0.03). Between 1996 and 2009, the proportion of inmates who had previously been incarcerated decreased among all groups except among Aboriginal men where it remained fairly stable at 80% (with a drop in 2001 to 73%).

**Figure 3.3** History of three or more incarcerations
The proportion of participants with a history of three or more incarcerations also decreased from 1996 to 2009, with the largest decrease found among Aboriginal women (67% to 34%). Over half (60%) of Aboriginal men reported a history of three or more incarcerations in their lifetime, compared to one-third (34%) of non-Aboriginal men, a statistically significant difference (p<0.01). Aboriginal women were also more likely than non-Aboriginal women (34% vs 21%) to report a history of three or more incarcerations in their lifetime, but the difference was not statistically significant.

Aboriginal people were significantly more likely to report their first imprisonment was when they were a teenager, including both men (67% vs 40%, p<0.01) and women (37% vs 17%, p<0.01). In 2009, men were twice as likely as women to have spent five or more years in adult prisons during their lifetime, including 38% of Aboriginal men and 32% of non-Aboriginal men, compared with 19% of Aboriginal women and 14% of non-Aboriginal women. However, there were no significant differences for having spent five or more years in prison by Aboriginality. Between 1996 and 2009, there was a large increase in the proportion of people spending five or more years in prison in their lifetime, including a six-fold increase among Aboriginal women (from 3% in 1996 to 19% in 2009) and a four-fold increase among Aboriginal men (from 9% in 1996 to 39% in 2009). Smaller increases were found for non-Aboriginal people. This reflects the trend of increased sentences imposed during this period rather than a change in offences committed.
Current incarceration

Between one-quarter and one-third of IHS participants were currently on remand, with the highest rates among Aboriginal women (36%) and non-Aboriginal women (31%), though this was not statistically significant. Between 2001 and 2009 there was a near doubling in the proportion of Aboriginal men currently on remand, from 15% in 2001 to 27% in 2009 (Indig et al., 2010b). A similar increase was found for non-Aboriginal men, from 17% in 2001 to 26% in 2009. By contrast, the proportion of Aboriginal women on remand decreased from 53% in 2001 to 31% in 2009 (Indig et al., 2010b). Aboriginal people had shorter median sentence lengths for their current incarceration, for both men (3.0 vs 4.5 years, p<0.01) and women (2.1 vs 3.0 years), though this finding was not significant for women.

Convicted most serious offence

The graph shows the percentage of men and women, categorized by Aboriginal or non-Aboriginal status, who have been convicted of various serious offences. The most common crimes include assault, robbery, break, enter and steal, drugs, and order breaches. The graph also indicates the proportion of convictions related to other serious crimes, such as homicide, driving, and sexual offenses.
Among 2009 IHS participants who were sentenced, Aboriginal people were significantly more likely to have had a most serious offence of assault, which was significant for both men (26% vs 18%, p<0.04) and women (23% vs 8%, p<0.03). Aboriginal women were nearly three times as likely to have a most serious offence of robbery (17% vs 6%), though this was not statistically significant. Aboriginal men (4% vs 12%, p<0.01) and women (3% vs 25%, p<0.01) were significantly less likely to have a drug-related most serious offence. Women were nearly twice as likely as men to have break, enter and steal as their most serious offence, though there were no differences by Aboriginality for this offence type.

**Summary**

Aboriginal men were more likely than non-Aboriginal men to have a history of juvenile detention and to have first entered juvenile detention at a younger age. Violent offences were more common for both Aboriginal men and women. Although illicit drug use is a major cause of incarceration of Aboriginal people, drug offences were less significant as the most serious offence than for non-Aboriginal inmates. Aboriginal men were also more likely to report having had three or more periods of imprisonment, but also for significantly shorter sentence lengths. The cycle of drugs, violence, crime and incarceration impacts on the health, social support and well-being of Aboriginal men and communities and can be significantly reduced by diverting people into targeted treatment services to address the causes of crime and poor health.
4. Violence

Violence is perceived by many people, both Aboriginal and non-Aboriginal, as a major issue in Aboriginal communities and is disproportionately high in comparison to the rates of the same types of violence in the Australian population as a whole (Memmott et al., 2001). There is no clear measure of the extent to which Aboriginal family violence is under-reported, but it is expected to be higher than for the general population (Cripps, 2008; Cunneen, 2009). Crime data shows a significant increase in the prevalence and incidence of assault recorded by police in NSW, up 92% from 1990 to 2009 (Moffatt & Goh, 2010). Anecdotal evidence suggests the severity of violent crime has increased, at least since the 1980s (Memmott et al., 2001; Mouzos & Makkai, 2004). In a study by the NSW Bureau of Crime Statistics and Research, Aboriginal people were found to be between 2.7 and 5.2 times more likely than non-Aboriginal people to be victims of violent crime, with most offences committed by Aboriginal men (Fitzgerald & Weatherburn, 2001).

Aboriginal people are over-represented as both victims and perpetrators of all forms of violent crime in Australia (Memmott et al., 2001; Bryant & Willis, 2008). In addition to reduced psycho-social functioning, the impact of violence is a risk factor for generational violence and trauma. The key risk factors for Indigenous family violence relate to: substance use; social stressors; living in a remote community; levels of individual, family and community (dys)functionality; availability of resources; age; removal from family; disability; and financial difficulties (Al-Yaman et al., 2006; Bryant & Willis, 2008; Cripps et al., 2009).

Similar factors affect a person’s risk of being injured, including age, sex, alcohol use and socioeconomic status (ABS/AIHW, 2008; Stevenson et al., 1999). Nationally in 2005-06, the most commonly recorded external causes for injury in Aboriginal people resulting in hospitalisation were assault, accidental falls, exposure to inanimate mechanical forces (e.g. contact with glass), complications of medical or surgical care, and transport-related injuries (ABS/AIHW, 2008). Hospitalisations recorded for injury due to assault were 6 and 33 times higher in Aboriginal men and women, respectively, than in non-Aboriginal men and women in NSW (DOH, 2008).

According to the 2009 IHS, as stated in the previous chapter, sentenced Aboriginal people were significantly more likely to have had a most serious offence of assault, including both men (26% vs 18%, p<0.04) and women (23% vs 8%, p<0.03). When combining all violent offences (assault, robbery, homicide, sexual) for sentenced prisoners, Aboriginal men were more likely than non-Aboriginal men (62% vs 58%) to have had a violent offence as their most serious offence, though the difference was not significant. Aboriginal women were twice as likely to be currently incarcerated for a violent offence than non-Aboriginal women (53% vs 26%, p<0.01). Approximately 15% of participants reported having a physical injury deliberately caused by others in the past year, with no difference by sex or Aboriginality.
Domestic or family violence

Numerous studies demonstrate Aboriginal women as disproportionate victims of sexual and physical violence, most often perpetrated by their partners. According to the Australian component of the International Violence Against Women Survey, Aboriginal women are victims of violence at 40 times the rate of non-Aboriginal women, with Aboriginal women accounting for 15% of homicide victims in Australia in 2002–03 (Mouzos & Makkai, 2004). However, the survey highlights the limits of current literature on the incidence and prevalence of family violence for Aboriginal women, making it difficult to draw accurate conclusions (Carrington & Phillips, 2006). Research shows violence between Aboriginal people is more likely to be directed at intimates than at strangers with Aboriginal women being exceedingly more likely to be a victim of domestic violence than non-Aboriginal women (Ferrante et al., 1996). The Aboriginal Justice Council reported that in 53% of cases of violence against Aboriginal women, the offender was known to the victim, and in 69% of these cases the offender was the spouse or partner of the victim (Blagg et al., 2000).

Figure 4.2 Violent relationship and sexual violence

In the 2009 IHS, the majority (81%) of Aboriginal women reported having ever been in a violent relationship, compared to 61% of non-Aboriginal women, a statistically significant difference (p<0.02). Twice as many Aboriginal men (41% vs 21%, p<0.01) reported being in a violent relationship as non-Aboriginal men. It should be noted that this question did not distinguish between being a victim or a perpetrator of violence. Aboriginal women were just under twice as likely as non-Aboriginal women (42% vs 24%, p<0.04) to report having experienced any sexual violence since age 16 years. The survey did not ask participants about any childhood sexual or physical abuse experienced.

Figure 4.3 Domestic violence and abuse experienced among women
Only women were asked about their experience of domestic violence and abuse. Just under half (47%) of non-Aboriginal women experienced some form of domestic violence and abuse, compared with 40% of Aboriginal women. The most common form of abuse for women was verbal abuse, followed by physical abuse. A slightly higher proportion of Aboriginal women reported their partner had tried to limit their contact with family or friends (26% vs 24%) or stopped them knowing about or having access to money (23% vs 19%). Less than one in ten (9%) women reported being forced to take part in unwanted sexual activity. None of these differences were statistically significant.

Summary
Consistent with community findings, Aboriginal inmates are more likely to experience violence than non-Aboriginal inmates as both perpetrators and victims of violence. Aboriginal women were twice as likely to be incarcerated for violent offences than non-Aboriginal women. A high proportion of Aboriginal women reported having ever been in a violent relationship and were more likely to experience sexual violence as an adult. There is a high correlation between sexual assault, family violence and incarceration for Aboriginal women. A history of violence may further exclude Aboriginal people from treatment and support programs. Further investigation into interventions to reduce violence among Aboriginal people and the development of prevention and intervention strategies specifically for Aboriginal women are required.
5. Smoking, alcohol and drugs

Smoking

Tobacco smoking is the single most preventable cause of ill health and death and accounts for the greatest cost to society, estimated at over $31 billion dollars in 2004/05 (Collins & Lapsley, 2008). It is a major risk factor for coronary heart disease, stroke, peripheral vascular disease, cancer and a variety of other diseases and conditions (AIHW, 2008b). While interventions to reduce smoking have been successful in the wider community, until recently interventions have not been targeted at Aboriginal people and therefore have not impacted on the high smoking rates of Aboriginal people. The continued high rates of smoking among Aboriginal populations underlie the assertion that tobacco use, more than any other lifestyle factor, contributes to the gap in healthy life expectancy between those most advantaged and those most in need (MCDS, 2004).

Reported smoking rates for Aboriginal adults in the community are around double those for the general population across all age groups. Approximately 45% of Aboriginal men and 42% of Aboriginal women aged 16 years and over in NSW reported they were current smokers (DOH, 2006). These rates are similar to those reported in the National Aboriginal and Torres Strait Islander Health Survey 2004-05, in which, after adjusting for age, 48% of Aboriginal respondents aged 18 years or older in NSW reported being a daily smoker, compared with 21% of non-Aboriginal people. Among Aboriginal people, rates of daily smoking were higher among women aged 25 years or older than among Aboriginal men in those age groups, and more than half (52%) of non-Aboriginal people aged 15 years and over had never smoked compared to 31% of Aboriginal people (ABS, 2006b).

Aboriginal participants in the 2009 IHS survey smoked at approximately double the rate of Aboriginal people in the community, with Aboriginal men being significantly more likely to smoke than non-Aboriginal men (83% vs 71%, p<0.01). From 1996 through to 2009, the proportion of inmates who indicated they were a current smoker decreased slightly for all groups except Aboriginal men, who had a slight increase.
Approximately a third of participants had started smoking by the time they were 12 years old, with the highest proportion (40%) found among Aboriginal men, though this was not statistically significant. Despite starting smoking at a younger age and having a higher prevalence of smokers, Aboriginal people smoked fewer cigarettes than non-Aboriginal people. Aboriginal men were significantly less likely to smoke 21 or more cigarettes per day than non-Aboriginal men (18% vs 28%, p<0.02).

Despite these high rates of smoking, Aboriginal people who smoked were more likely to want to quit smoking than non-Aboriginal inmates, though the differences were not statistically significant. In particular, nine in every ten (90%) Aboriginal men who smoked wanted to quit, compared to 80% of Aboriginal women. Non-Aboriginal women were the least likely (71%) to want to quit smoking.
Alcohol

According to the 2002 NATSIHS Survey, high risk alcohol consumption was the second most important predictor of criminal prosecution after illicit drug use and the third most important predictor of imprisonment for Aboriginal people for any offence (Weatherburn et al., 2006). While fewer Aboriginal people drink alcohol, those who do so tend to drink at riskier levels than the general population across all age groups, which is most evident in the 16-24 year age group of both sexes (AIHW, 2007; MCDS, 2006). In NSW over the period 2002-2005 combined, just under half (46%) of Aboriginal adults engaged in risky alcohol drinking, as defined by the NHMRC Australian Alcohol Guidelines (NHMRC, 2009). Engaging in risky alcohol drinking is about 50% higher for Aboriginal men and 40% higher for Aboriginal women compared to non-Aboriginal people in community populations (DOH, 2006). Further, alcohol-related hospitalisations are much higher (2.4 times higher) among Aboriginal people than among non-Aboriginal people (DOH, 2008).

Figure 5.3 Hazardous/harmful alcohol consumption (AUDIT score 8+) in year before prison

Hazardous and harmful alcohol consumption as defined by the Alcohol Use Disorder Identification Test (AUDIT) score of 8 or more was highly prevalent among prisoners in the year before their incarceration. The highest rate was found among Aboriginal men, where nearly three-quarters (74%) indicated alcohol consumption at risky levels, which was significantly higher (p<0.01) than among non-Aboriginal men (57%). The lowest prevalence was found among non-Aboriginal women where only a little more than a third (36%) reported risky drinking behaviour. Excluding considerations of the 2001 prevalence estimates, there was a small increase in reports of hazardous or harmful alcohol consumption between 1996 and 2009 and this occurred among both Aboriginal (from 70% to 74%) and non-Aboriginal men (from 47% to 57%).
In the 2009 IHS, twice as many women as men indicated they did not consume any alcohol in the year before prison, with the highest proportion found among Aboriginal women (35%), followed by non-Aboriginal women (31%). A score of 20 or more on the AUDIT was indicative of alcohol dependence, which was significantly more likely to be found among Aboriginal people, including both Aboriginal men (44% vs 30%, p<0.01) and Aboriginal women (29% vs 11%, p<0.01) compared to non-Aboriginal people.

The 2009 IHS data show that 58% of Aboriginal men indicated that when they drank, they usually drank ten or more drinks on a typical day in the year before prison. Nearly a third (31%) of Aboriginal women reported usually drinking ten or more drinks on a typical day, which was twice the proportion of non-Aboriginal women (15%). This binge drinking behaviour also happened on a more frequent basis with Aboriginal people who drank alcohol, including 40% of Aboriginal men and 29% of Aboriginal women indicating they usually had six or more drinks on a daily/almost daily basis in the year before prison, compared to 27% of non-Aboriginal men and 12% of non-Aboriginal women. Higher rates of binge drinking among both Aboriginal men and Aboriginal women compared to non-Aboriginal inmates were statistically significant (p<0.01).
Illicit drugs

Illicit drug use was the strongest predictor of both criminal prosecution and imprisonment for Aboriginal people for any offence according to the 2002 NATSIHS survey (Weatherburn et al., 2006). According to population surveys (ABS/AIHW, 2008) the overall level of illicit drug use among the Aboriginal population aged 15 years or older living in non-remote areas was more than twice the level (28%) of the general Australian population aged 14 years or older (13%) (ABS, 2006b). The higher level of drug use applied across all drug types (ABS, 2006b).

Figure 5.5  Ever use any illicit drug

Nearly all IHS participants had used an illicit drug at some stage, with Aboriginal women having significantly higher rates of having ever used drugs than non-Aboriginal women (88% vs 74%, p<0.05). There was a substantial increase from 1996 to 2009 in the number of men who had ever used illicit drugs, from 73% to 88% in Aboriginal men and from 67% to 84% in non-Aboriginal men. By contrast, the proportion of women who had ever used illicit drugs decreased slightly for both Aboriginal (92% to 88%) and non-Aboriginal (79% to 74%) women.

Figure 5.6  Illicit drugs by drug type
Cannabis is the most common drug ever used by inmates with rates nearly three times higher than community samples, 34% of people in the 2007 National Drug Strategy Household Survey (NDSHS) reported ever using cannabis compared to 88% of Aboriginal men in custody and 82% of non-Aboriginal women in custody. Aboriginal inmates were significantly more likely to have ever used cannabis than non-Aboriginal inmates, including both men (88% vs 82%, p<0.03) and women (82% vs 68%, p<0.05).

Aboriginal men were the most likely to have ever used amphetamines (60%), followed closely by non-Aboriginal women (58%) and non-Aboriginal men (56%) but none of these were statistically significant. This compares to 6% of people in the general community (AIHW, 2008a). Cocaine was significantly less likely to be used by Aboriginal inmates compared to non-Aboriginal inmates, including both men (39% vs 48%, p<0.02) and women (30% vs 53%, p<0.01). Aboriginal people were also significantly less likely to have ever used ecstasy for both men (35% vs 51%, p<0.01) and women (20% vs 45%, p<0.01) than non-Aboriginal inmates.

Heroin use is strongly correlated with crime, particularly prostitution and forgery for women and property crime and theft among men (Hall et al., 1999). A high proportion of inmates reported having ever used heroin, found in approximately half of women (52% among Aboriginal women, 48% among non-Aboriginal women) and nearly one in four men (43% among Aboriginal men and 36% among non-Aboriginal men), compared to 1.6% of the general community (AIHW, 2008a). There were no significant differences between Aboriginal and non-Aboriginal people in regard to having ever used heroin.

Figure 5.7 Daily/almost daily heroin use

Though a high proportion of inmates had ever tried heroin, a much lower proportion reported using heroin on a daily or almost daily basis in the year before prison. Non-Aboriginal women had the highest proportion (26%) who were regular heroin users prior to prison, compared to 16% of Aboriginal men and women, and only 7% of non-Aboriginal men. There were significant decreases in inmates reporting daily/near daily use of heroin from 2001 to 2009, with the highest drop found among Aboriginal women (from 56% to 16%). When looking at regular use of any illicit drug, significantly more Aboriginal men (51% vs 38%, p<0.01) reported having used at least one illicit drug on a ‘daily or almost daily basis’ compared to non-Aboriginal men.
Injecting drug use

The 2007 NDSHS found that 2% of Australians aged 14 years or older reported a history of injecting drug use, including 2.5% of men and 1.3% of women (AIHW, 2008a) of which 0.5% currently inject.

The proportion of IHS participants who reported a history of injecting drug use decreased between 2001 and 2009. The decline was most prominent in women (from 92% to 50% among Aboriginal women and from 70% to 53% among non-Aboriginal women), likely to reflect a decrease in availability of heroin due to the ‘heroin drought’ which emerged at the beginning of 2001, and changes in sentencing (Degenhardt et al., 2005). Regardless, there were a high proportion of inmates who had ever injected drugs, particularly women. More than half of women had ever injected drugs, and significantly more Aboriginal men had ever injected drugs than non-Aboriginal men (46% vs 37%, p<0.02). Approximately one in five Aboriginal men (19%) had ever injected drugs in prison, compared with between 15% and 17% in all other groups, but this was not statistically significant.
Drug and alcohol use and offending

Aboriginal 2009 IHS participants were more likely than non-Aboriginal participants to report that they were intoxicated at the time of the offence for which they were currently incarcerated, including both men (73% vs 59%, p<0.01) and women (67% vs 44%, p=0.01). Aboriginal men were also significantly more likely to report that they committed the offence for which they were currently incarcerated to buy drugs or alcohol (28% vs 20%, p=0.02) when compared to non-Aboriginal men. One third (33%) of Aboriginal women reported they committed the offence for which they were incarcerated to buy drugs or alcohol, compared to just over one in five (22%) of non-Aboriginal women, but this was not statistically significant.

Drug treatment

There is a need for culturally competent drug and alcohol treatment services to meet the specific needs of Aboriginal people (NIDAC, 2009). While pharmacotherapy programs have been successful in reducing crime, (Lind et al., 2004) access to programs is limited, particularly in rural areas due to limited services and access barriers such as transport. Among the samples of approximately 900 injecting drug users who participate in the survey component of the annual Illicit Drug Reporting System, Australia’s illicit drug market surveillance system, current enrolment in methadone treatment has remained relatively stable at a national level at around 30% among injecting drug users since 2005 (Stafford & Burns, 2010).

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The 2009 IHS found more Aboriginal inmates than non-Aboriginal inmates had ever participated in a methadone treatment program. In particular, significantly more Aboriginal men had ever been on methadone compared to non-Aboriginal men (26% vs 19%, \( p<0.03 \)). Twice as many Aboriginal women as Aboriginal men (51% vs 26%) reported having ever been on the methadone program for opioid dependence. There was a steady increase in the number of Aboriginal men having ever been on methadone from 1996 to 2009. Improved access to methadone treatment in prison, higher rates of return to prison and Aboriginal people as a priority population may contribute to higher rate of participation in the methadone treatment program.

Summary

The findings of the 2009 IHS identified that Aboriginal inmates smoked cigarettes at about twice the rate of Aboriginal people in the community. Aboriginal men were more likely to be a current smoker than non-Aboriginal men, but reported smoking fewer cigarettes and were more likely to want to quit smoking. Aboriginal women were more likely to not drink any alcohol and Aboriginal men were more likely to drink at risky levels, including high proportions that were alcohol dependent or reported binge drinking behaviour. Illicit drug use is a major predictor of Aboriginal incarceration and patterns of drug use are different for Aboriginal people compared to non-Aboriginal people. Aboriginal women were more likely to have ever used illicit drugs and Aboriginal men were more likely to have regularly used drugs before prison. Aboriginal people were more likely to have used cannabis, more likely to have injected drugs and less likely to use cocaine or ecstasy than non-Aboriginal inmates.

Higher rates of injecting drug use increase the risk of transmission of blood borne viruses. As such, targeted prevention, education and substitution programs for Aboriginal people are required to reduce the burden of disease. It is encouraging to report higher rates of participation in methadone programs among Aboriginal men. This may be due in part to the success of prison methadone programs and improving access to pharmacotherapy programs on release from prison. Consistent with reported findings, alcohol and drug misuse were closely tied to offending behaviour for Aboriginal people, suggesting that access to appropriate drug and alcohol treatment including tailored programs to divert Aboriginal people from the criminal justice system may help reduce recidivism and the drug crime cycle. Such interventions could significantly impact the increasing trend of Aboriginal incarceration.
6. Mental health

There are large discrepancies in the mental health and emotional well-being of Aboriginal Australians compared with non-Aboriginal peoples, apparent in the analyses of Aboriginal hospitalisations for mental health conditions, mortality resulting from mental illness and the incarceration of Aboriginal people with a mental health condition (ABS, 2006b). Traditionally and contemporarily, Aboriginal people perceive their health not only in terms of the physical health of the individual, but rather in regard to the social, emotional and cultural well-being of the whole community (ATSIC, 1989).

The importance of social determinants has been widely articulated as influencing health status and risk factors affecting the social and emotional well-being of Aboriginal people. Connection to and empowerment of community, chronic stress, family violence and perception of control over life circumstances have also been suggested as contributing factors (Tsey et al., 2003). The effects of colonisation on well-being have been described as traumatic at many levels, linked to a variety of outcomes including: over-representation of Aboriginal people in the justice system, family violence, welfare dependency, substance and alcohol misuse, breakdown of traditional family structures, loss of cultural and spiritual identity, loss of individual self-esteem, security and happiness and health problems - physical, mental and emotional. In turn this has had an effect on children and the communities in which Aboriginal people live (Garvey, 2008; Atkinson, 2002).

The first detailed information about the social and emotional wellbeing of Aboriginal people was collected as part of the 2004-2005 National Aboriginal and Torres Strait Islander Health Survey (ABS, 2006b). Information related to the mental health of Aboriginal Australians presented here includes self-reported data from the NATSIHS (ABS, 2006b), and hospitalisations and mortality which result from mental illness, assault and incarceration (ABS, 2006b). Available data indicate that Aboriginal Australians suffer a higher burden of emotional distress and possible mental illness than that experienced by the wider community. Some data is available on self-harm and assault, child abuse and neglect, substance use, and incarceration related to mental health conditions in Aboriginal people. These factors may be indicators of social and emotional distress, but the data does not provide information about the cause of the patient’s mental illness or behavioural problem (ABS, 2006b).

Although data are likely to underestimate the number of Aboriginal people hospitalised due to under-recording of Aboriginality, it is evident that Aboriginal Australians are more likely than non-Aboriginal people to be hospitalised for ‘mental and behavioural disorders’. National data indicate in 2004-05 there were about twice as many hospital separations of Aboriginal Australians for ‘mental and behavioural disorders’, as would be expected, based on the rates for other Australians. Rates of intentional injury, whether self-inflicted or caused by assault, may be an indicator of psychological illness and distress in the community. Hospitalisation data from 2003-04 show that there were about seven times as many hospital separations as expected for assault among Aboriginal men, and nearly 31 times as many for Aboriginal women, based on all-Australian rates. There were also about twice as many hospital separations as expected for self-harm, for both Aboriginal men and women (ABS, 2006b).
Psychiatric history

The mental health of prisoners is substantially worse than that of the general community, with one study documenting a 12-month prevalence of any psychiatric illness as 80% in NSW prisoners compared to 31% in the community (Butler et al., 2006). When this same study was analysed by Aboriginality, Aboriginal women were found to be the most vulnerable population with the highest rates of depression, psychosis and psychological distress (Butler et al., 2007).

![Figure 6.1](Image)

Figure 6.1 Ever assessed or treated by a doctor or psychiatrist for an emotional or mental problem

In the 2009 IHS, over half of women (52% of Aboriginal women, 55% of non-Aboriginal women) and just under half of men (49% of non-Aboriginal men, 45% of Aboriginal men) had ever been assessed or treated by a doctor or psychiatrist for an emotional or mental problem. The rates of mental health treatment had increased between 1996 and 2009 for men, with treatment increasing from 32% to 45% of Aboriginal men and 37% to 49% of non-Aboriginal men. The rates of mental health treatment for women remained fairly stable and were not significantly different by Aboriginality. It should be noted that this is self-reported mental health treatment, which is likely to be an underestimate of actual mental illness, due to mental health being under-diagnosed.

In 2005-06, Indigenous people were almost twice as likely to be hospitalised for mental and behavioural disorders as other Australians. In terms of specific disorders, the rates of hospitalisation in 2005-06 for Indigenous people diagnosed with ‘mental disorders due to psychoactive substance use’ were 4.5 times higher for Indigenous men than for other Australian men and 3.3 times higher for Indigenous women than for other Australian women (ABS/AIHW, 2008).
In the 2009 IHS, over one in five (22%) Aboriginal women indicated that they had previously been admitted to a psychiatric unit or hospital, compared to 19% of non-Aboriginal women and 15% of all men. Aboriginal women also had the highest proportion (31%) of participants who indicated they currently used psychiatric medications, compared with between 16% and 19% of all other participants. There were no significant differences for psychiatric admissions or using psychiatric medications by Aboriginality. Aboriginal women were significantly less likely than non-Aboriginal women to indicate that they had ever received support, counselling or treatment for a mental problem from a psychologist or counsellor (33% vs 51%, p<0.01).
**Depression**

The NATSIHS survey found 62% of Aboriginal people aged 18 or over in the community reported feeling ‘so sad that nothing could cheer them up’ and 38% ‘that everything was an effort’ ‘all of the time’. Similarly, 44% felt nervous, 62% ‘without hope’, and 42% ‘restless or jumpy’ ‘all of the time’ (ABS, 2006b). The higher overall levels of psychological distress reported by Aboriginal people than by non-Aboriginal people are consistent with the relative frequencies with which the two populations experienced specific stressors in the previous 12 months. According to the 2004-2005 NATSIHS, 77% of Aboriginal people experienced one or more significant stressors in the previous 12 months (ABS, 2006b). In comparison, 59% of the total population reported in the 2006 General Social Survey that they had experienced one or more significant stressors in the previous 12 months (ABS/AIHW, 2008). The proportions reporting specific stressors were generally higher for Aboriginal people than for the total population, particularly for the ‘death of a family member or friend’, ‘alcohol or drug related problem’, ‘trouble with police’, and ‘witness to violence’. Almost one in five Aboriginal people reported that a member of the family had been sent to jail in the previous 12 months, but that stressor was not reported for the non-Aboriginal population (ABS/AIHW, 2008).

**Suicide and self-harm**

The level of intentional self-harm has been recognised as a key indicator of Aboriginal disadvantage (Productivity Commission, 2007). The suicide rate for Aboriginal men and women was twice that for non-Aboriginal men and women (Tatz, 1999). For Aboriginal men aged 0-24 and 25-34 years, rates were 3 times those for non-Aboriginal men. For Aboriginal women aged 0-24 years, rates were 5 times those for non-Aboriginal women (ABS/AIHW, 2008). Tatz (1999) found high rates of suicide among Aboriginal youth in NSW for the years 1996-98, noting that these were ‘among the highest recorded in the international literature he reviewed’. He describes Aboriginal suicide as having ‘unique social and political contexts’, and stresses that any attempt to identify the causes of and possible remedies for Aboriginal suicide needs an understanding of the differences that distinguish Aboriginal suicide from non-Aboriginal suicide (ABS, 2006b). NATSIHS data found that Indigenous people aged 18 years or older were twice as likely as their non-Indigenous counterparts to feel high or very high levels of psychological distress (ABS, 2006b).
In the 2009 IHS, Aboriginal women had the highest proportion of participants who had ever thought about committing suicide (39%) and also the highest proportion who had ever attempted suicide (37%). For all other participants the gap between thinking about suicide and actually attempting suicide was much greater, with the widest gap among non-Aboriginal men, where 31% had ever thought about suicide and 17% had ever attempted it. There were no significant differences by Aboriginality for men and women to have thought about suicide. Aboriginal people were more likely than non-Aboriginal people (25% vs 19%, p<0.02) to have ever attempted suicide, but this difference was not found when men and women were analysed separately.

Self-harm activities (excluding suicide attempts) was also highest in Aboriginal women (22%), but was not statistically higher than what was found for non-Aboriginal women (16%). However, Aboriginal men were significantly more likely than non-Aboriginal men to report a history of self-harm (19% vs 12%, p<0.01).

Summary

The 2009 Inmate Health Survey did not identify any differences by Aboriginality for having a history of mental health treatment or psychiatric hospital admission. This may be a result of Aboriginal people being less likely to seek treatment for their mental health problems including barriers to accessing mainstream services and the limitations of mainstream services in understanding the cultural context of social and emotional wellbeing of Aboriginal people. This was evident in the fact that despite having similar rates of self-reported mental illness non-Aboriginal women were more likely to have ever received mental health support or counselling than Aboriginal women. Aboriginal inmates were more likely to have ever attempted suicide than non-Aboriginal inmates and Aboriginal men were more likely to have ever self-harmed. Significant health gains in the social and emotional wellbeing of Aboriginal inmates are possible with a focus on interventions and services that are culturally competent, holistic and targeted to ensure they have the greatest benefit for Aboriginal people.
7. Chronic diseases

The burden of disease suffered by Indigenous Australians is estimated to be two-and-a-half times greater than the burden of disease in the total Australian population. Chronic diseases such as cardiovascular conditions, diabetes, respiratory and kidney diseases have a major impact on that burden and Indigenous Australians experience their onset at a far earlier age than other Australians (ABS/AIHW, 2008).

The major chronic diseases experienced by Aboriginal people generally share common risk factors and are also influenced by cultural, socioeconomic, and environmental factors. Aboriginal people are at higher risk of many chronic conditions due to higher rates of multiple risk factors compared to non-Aboriginal people. High rates of tobacco smoking, physical inactivity, poor nutrition and heavy alcohol consumption are common risk factors for cardiovascular disease, kidney disease, diabetes and obesity. Addressing problems related to all these factors is crucial in preventing chronic disease and mitigating its progression, associated complications, and co-morbidities. Compared with rates for non-Aboriginal people, hospitalisation rates for Aboriginal people in NSW are: 1.4 times higher for conditions for which hospitalisation can be avoided through prevention and early management; 2.1 times higher for diabetes; 40% higher for cardiovascular diseases; and 2.3 times higher for chronic respiratory diseases (DOH, 2008).

Cardiovascular disease and mental disorders accounted for most of the Aboriginal burden of disease (DOH, 2008). Cardiovascular disease and cancer made up a larger proportion of the burden of disease in the total population than in the Aboriginal population. All other disease categories (most notably diabetes and injury) accounted for a greater proportion of the burden in the Aboriginal population (DOH, 2008). Compared with rates for non-Aboriginal people, hospitalisation rates for Aboriginal people in NSW are: 1.4 times higher for conditions for which hospitalisation can be avoided through prevention and early management; 2.1 times higher for diabetes; 40% higher for cardiovascular diseases; and 2.3 times higher for chronic respiratory diseases (DOH, 2008).

Self-rated general health status

Self-assessed health status provides an indicator of overall health, reflecting an individual’s awareness and expectations of their own health and well-being. In the National Aboriginal and Torres Strait Islander Health Survey 2008 (ABS/AIHW, 2008), Indigenous people aged 15 years and over were almost twice as likely as non-Indigenous people to assess their health as fair or poor (28% compared to 15%).

Figure 7.1 Self-rated health

In the 2009 IHS, 25% of participants rated their health as fair or poor, with the highest rates among women (34% in non-Aboriginal women and 32% in Aboriginal women), though this difference was not statistically significant. Additionally, fewer Aboriginal people rated their health highly. While 44% of Indigenous people in the community rated their health as very good or excellent (ABS, 2006b), Aboriginal people in custody were less likely to do so, with only 34% of Aboriginal men and 24% of Aboriginal women rating their health as very good or excellent. By contrast, over half (53%) of non-Aboriginal women in custody reported their health as very good or excellent, which was significantly higher (p<0.01) than reported by Aboriginal women.
Illness/disability and medication

About two-thirds of Indigenous people reported having at least one long-term health condition. Indigenous people living in remote areas were less likely to report a long-term health condition than those in non-remote areas (ABS, 2006b).

Figure 7.2  Illness/disability and medication

In the 2009 IHS, half of women (55% of non-Aboriginal and 51% of Aboriginal women) reported that they had a current disability or illness that troubled them for six months or longer. A slightly smaller proportion of men (45% of Aboriginal men, 46% of non-Aboriginal men) also reported a current disability or illness. Nearly all (91%) Aboriginal women reported currently taking prescribed medication, compared with 84% of non-Aboriginal women and about two-thirds of both Aboriginal and non-Aboriginal men. There were no significant differences by Aboriginality for reporting a current disability or illness or currently taking a prescribed medication. Almost half (47%) of Aboriginal IHS respondents reported having three or more long term conditions (such as kidney disease, asthma, bronchitis, migraine, diabetes, high cholesterol, cancers and infectious diseases), compared with 37% of non-Aboriginal people in the community (ABS, 2006b).

7. CHRONIC DISEASES
Overweight/obesity and exercise

Using Body Mass Index (BMI) calculated from self-reported height and weight, the rate of overweight and obesity among Indigenous people was 25% higher than among non-Indigenous people (ABS, 2006b). The 2004-05 NATSIHS Survey found that 57% of Indigenous adults aged 15 years and over were overweight or obese compared to 67% of Australian men and 52% of Australian women (ABS, 2006b).

Figure 7.3: Overweight/obesity and exercise

The BMI and waist circumference were used in the IHS to work out the proportion of people who are overweight or obese. Two-thirds (66%) of Aboriginal women were found to be overweight/obese using their BMI, compared to 55% of non-Aboriginal women and 52% of Aboriginal men, which is concordant with the community findings.

Being physically active improves mental, musculoskeletal and cardiovascular health and reduces the likelihood of being overweight or obese. In the 2009 IHS, women were found to be twice as likely to have inadequate physical activity in the past four weeks as men, with nearly half (49%) of non-Aboriginal women and 47% of Aboriginal women and 21% of Aboriginal men and 24% of non-Aboriginal men having inadequate exercise. There were no significant differences by Aboriginality for being overweight or having inadequate exercise.
Diabetes

Diabetes is a significant health problem for Aboriginal Australians. Diabetes and high blood sugar is 1.5 times higher among Indigenous people than among non-Indigenous people (ABS, 2006b). While Type 1 (early onset, insulin dependent) diabetes is rare among Aboriginal people, Type 2 diabetes mellitus (later onset, usually non-insulin dependent) has a high prevalence among Aboriginal people. The onset of Type 2 diabetes occurs at an earlier age among Aboriginal people, which leads to a greater burden of illness associated with the complications of diabetes, including kidney damage, loss of vision, peripheral nerve damage and peripheral vascular diseases (ABS, 2006b).

Nationally the prevalence of diabetes (including high blood sugar levels) among Indigenous people in the NATSIHS survey was 6% in 2004–05. Diabetes was almost twice as likely to be reported by Indigenous Australians in remote areas as it was in non-remote areas. After accounting for age differences between the two populations, Indigenous Australians were more than three times as likely as non-Indigenous Australians to report some form of diabetes (ABS, 2006b).

In NSW, over the period 2002-2005 combined, 10.6% of Aboriginal people aged 16 years and over reported having diabetes or high blood sugar, compared with 7.6% of NSW adults overall in 2005 (DOH, 2006). Among Aboriginal people, the proportion with diabetes or high blood sugar increased with age from 4.5% in the 16-24 years age group to 26.2% in those aged 65 years or older (DOH, 2006). This compares with figures of 3.0% for the 16-24 years age group and 16.8% and 14.4% for the 65-74 years and 75 years or older age groups in the general population (DOH, 2006). For Aboriginal people, there was some geographical variation in diabetes prevalence, with a significantly greater proportion of rural residents (13.9%) than urban residents (5.5%) reporting diabetes or high blood sugar (DOH, 2006).

In NSW, over the period 1993-94 to 2006-07, age-adjusted hospitalisation rates for a primary diagnosis of diabetes among Aboriginal people were three to four times the rates among non-Aboriginal people. In 2006-07, the hospitalisation rate for diabetes mellitus in Aboriginal people was 1,072 per 100,000 population, compared with 345 per 100,000 in non-Aboriginal people (DOH, 2008). The Aboriginal hospitalisation rate for diabetes in 2006-07 was 3.3 times the rate in 1993-94, whereas the non-Aboriginal rate in 2006-07 was only 2.9 times the rate in 1993-94. The steeper increase in the rate for Aboriginal people reflects, at least in part, an improvement in the recording of Aboriginality in hospital data over this period (DOH, 2008).
Among participants in the 2009 IHS, Aboriginal men were significantly more likely than non-Aboriginal men to have ever been told by a doctor that they had high blood sugar (11% vs 6%, p<0.02) or been told by a doctor that they had diabetes (7% vs 3%, p<0.01). This finding of Aboriginal men being more likely to report ever being told they had diabetes was also found in the 2001 Inmate Health Survey (Karaminia et al., 2007). Using random venous plasma glucose test, Aboriginal men had the highest proportion (9%) of high blood sugar indicating a risk of diabetes, though this was not significantly higher than for non-Aboriginal men. Aboriginal men and women were also found to be at increased risk for diabetes using a glycated haemoglobin (HbA1c) test but again this was not a statistical difference.
Asthma

The proportion of Indigenous people who have ever had asthma is approximately double the rate (17.6% vs 9.2% in NSW) among non-Indigenous people (ABS, 2006b). The reason for the higher prevalence of asthma is unclear but may be related to factors such as over-crowded housing situations for Aboriginal people, higher rates of exposure to tobacco smoke, poverty and obesity (Chang & Couzos, 2008; DAA, 2007). Suboptimal use of medications and poorer access to preventative health care also contribute to higher rates of hospitalisation for asthma (Chang & Couzos, 2008).

Figure 7.5  Ever told by a doctor have asthma

Aboriginal women were nearly twice as likely as non-Aboriginal women (62% vs 38%, p<0.01) to have ever been told by a doctor that they had asthma. Just over a quarter (26%) of both Aboriginal and non-Aboriginal men also reported ever being told they had asthma. The proportion of participants with asthma increased for all groups between 1996 and 2009 except non-Aboriginal women which decreased slightly from 41% to 38%. Aboriginal men were significantly more likely to have a below normal peak flow reading of their lung capacity (37% vs 29%, p<0.02). Over half (57%) of Aboriginal women and nearly half of non-Aboriginal women (45%) reported a below normal peak flow reading, but this was not statistically significant.
Cardiovascular disease

Coronary heart disease and stroke are the major forms of cardiovascular disease causing death and illness in NSW. They share a number of behavioural risk factors which are more prevalent in the Aboriginal population than the non-Aboriginal population. These include tobacco smoking, physical inactivity, poor nutrition and heavy alcohol consumption (DOH, 2008). In 2004–05, around one in eight Indigenous people nationally reported a long-term health condition relating to the circulatory system, such as heart disease or hypertensive disease (high blood pressure), becoming more common as people get older—more than half (54%) of Indigenous Australians aged 55 years and over reported having heart and circulatory problems/disease. Hypertensive disease (high blood pressure) was the most commonly reported heart and circulatory condition among Aboriginal people (ABS, 2006b).

The Aboriginal hospitalisation rate for cardiovascular disease in NSW increased by 25% between 1993-94 and 2006-07, while the non-Aboriginal rate decreased by 11%. The increase in the rate for Aboriginal people reflects, at least in part, an improvement in the recording of Aboriginality in hospital data over this period.

Figure 7.6 Ever told by a doctor had a heart problem

Between 1996 and 2009 there was an increasing trend by Aboriginal inmates to report they had been ever told by a doctor they had a heart problem (10% to 19% for men and 22% to 30% for women). By contrast there was a small decrease among non-Aboriginal women who reported being ever told by a doctor that they had a heart problem (from 26% to 22%). In 2009, Aboriginal women had the highest prevalence of being ever told by a doctor that they had a heart problem (30%), compared to 19% of both Aboriginal and non-Aboriginal men and 22% of non-Aboriginal women, but these differences were not statistically significant.
Kidney disease

Kidney disease among Aboriginal populations as a consequence of poverty, diabetes, hypertension, obesity, smoking, intra-uterine malnutrition and inadequate access to health services relative to need continues to increase (Couzos et al., 2008). While progressive kidney disease is generally asymptomatic for the majority of its course, the onset of end stage kidney disease (ESKD) causes major physical and social disruption for patients. New cases of ESKD occur at 2 to 30 times the rate, and at a younger age, among Aboriginal people compared to non-Aboriginal Australians (Couzos et al., 2008). Chronic kidney disease and ESKD are often unrecognised and poorly managed for Aboriginal people; a lack of preparation (including delayed referral) may be responsible for the poor outcomes of tertiary level care (Couzos et al., 2008).

In the 2009 IHS, Aboriginal people were more likely to report having ever been told by a doctor that they had kidney problems (7% vs 5% for men, 17% vs 12% for women), though these differences were not significant. Among IHS participants who provided a blood sample, tests were conducted for urea, creatinine and Glomerular Filtration rate to assess kidney function. A small proportion of participants were found to have abnormal test results for kidney function with women more likely to have abnormal kidney function than men. There were no significant differences by Aboriginality.
Liver disease

Excessive alcohol use and viral hepatitis, particularly Hepatitis B and C, among Aboriginal people contribute to high rates of liver disease and liver cancers. As discussed previously, Indigenous people were more likely to consume alcohol at risky or high-risk levels for harm in the short term (DOH, 2006). Aboriginal people both in the community and in custody have higher rates of Hepatitis B and C compared to non-Aboriginal people, of which a small proportion manifest as liver cancer. Aboriginal people are less likely to receive treatment, including self-management support for Hepatitis B and C, thus poorer health outcomes result from these infections. Cancers of the liver are more likely to be fatal, the stage of cancer may be more advanced by the time it is recognised. The patterns of liver disease and liver cancer incidence among Aboriginal people are largely explained by the higher prevalence of risk factors (Cunningham et al., 2008).

Liver function was measured by a blood test which assessed bilirubin, Gamma Glutamyltransferase (GGT), Alkaline phosphatase (ALP), Alanine transaminase (ALT) and Aspartate transaminase (AST) levels. Twice as many men as women had above normal bilirubin levels and over a third (37%) had above normal AST levels, but there was no significant difference by Aboriginality for either of these markers. Approximately one in seven participants had above normal ALT levels, with a higher proportion of women having elevated levels than men. Aboriginal men had significantly higher GGT levels (31% vs 22%, p<0.02) and ALP levels (19% vs 10%, p<0.01) compared to non-Aboriginal men. Though Aboriginal women also had higher GGT levels (27% vs 18%) and ALP levels (19% vs 10%), the findings were not statistically significant. These findings are consistent with the higher reported rates of alcohol abuse among men, particularly Aboriginal inmates, higher rates of Hepatitis B among Aboriginal men and significantly higher rates of Hepatitis C infection among both Aboriginal men and Aboriginal women.
Cancer

Cancer is an important and increasing health problem for Aboriginal people as a major cause of mortality, exceeded only by circulatory and respiratory diseases (ABS/AIHW, 2008). There are currently no national data on cancer incidence in Aboriginal people due to poor data quality in several jurisdictions including NSW. It is estimated there are 45% more cancer deaths among Aboriginal Australians than expected on the basis of non-Aboriginal rates (ABS/AIHW, 2008). The patterns of Aboriginal cancer incidence and mortality are largely explained by the higher prevalence of risk factors, most notably tobacco use. Higher rates of chronic Hepatitis B, low Pap test screening rates, early onset of child bearing, high numbers of pregnancies and births and a different diet from other Australians may also contribute to higher cancer rates (Condon, 2004). Additionally Aboriginal people are significantly more likely to have cancers that have a poor prognosis, are usually diagnosed with cancer at a later stage, are less likely to receive adequate treatment, and are more likely to die from cancers than other Australians (Cunningham et al., 2008). Screening for early diagnosis and specialist treatment are challenges for many Aboriginal people due to lack of access to basic health infrastructure, differing levels of service provision, geographic isolation, cost of health care and cultural barriers that can reduce or prevent access to treatment (ABS/AIHW, 2008b).

In NSW in the period 2002-2006 combined, among Aboriginal people diagnosed with cancer, around 15% of all new cases were lung cancer; 14% were female breast cancer (28% of all Aboriginal female cancers); 11% were colorectal cancer; and 8% were prostate cancer (15% of all Aboriginal male cancers) (DOH, 2008). Although the most common cancer types were similar in the non-Aboriginal population, the relative burden differed. In NSW in the period 2002-2006, prostate cancers were the most common type of new cancer registered for non-Aboriginal men, accounting for 29% of non-Aboriginal new male cancer cases, compared with 15% of Aboriginal male new cancer cases. Cervical cancers represented a higher proportion of new cases of cancer among Aboriginal women, accounting for 6% of female Aboriginal cancer cases, compared with 2% of non-Aboriginal female new cancer cases. By contrast, melanoma of the skin made up a greater proportion of cases in the non-Aboriginal population (10%) compared with 3% in the Aboriginal population (DOH, 2008).

Figure 7.9  Ever told have cancer

In the 2009 IHS, women had higher rates of having been told by a doctor that they had cancer, with the highest rate found among Aboriginal women (11%), compared to 8% of non-Aboriginal women and about 3% of men. However, none of these were statistically significant between Aboriginal and non-Aboriginal people. In the 2009 IHS, the most common cancer mentioned among women was cervical cancer. There were no clear trends in prevalence of cancer among inmates from 1996 to 2009.
Summary

Aboriginal people in the community have a higher burden of chronic disease than non-Aboriginal people, which impacts upon them at a younger age. Considering the younger age of Aboriginal inmates in the survey (median age 28 years for Aboriginal women and 32 years for Aboriginal men), Aboriginal inmates had unacceptably high rates of chronic diseases and risk factors. Aboriginal inmates were found to have higher rates of diabetes and kidney disease and having ever been told by a doctor they had heart problems or cancer. Women were more likely to report kidney disease or cancer than men. No significant differences were found for obesity, physical activity, having a long-term disability or illness by Aboriginality. The prevalence of many of these chronic diseases was by self-report so it is possible that cancer rates and heart disease are under-reported due to asymptomatic disease or under-testing. Two chronic diseases which were significantly higher in Aboriginal inmates included diabetes (and its precursors such as high blood sugar) among men, and asthma among Aboriginal women. Aboriginal men also had elevated levels of GGT and ALP suggestive of possible liver disease, which is likely to be related to excessive alcohol consumption and/or viral hepatitis.
8. Blood borne viruses

Aboriginal people are over-represented in Hepatitis B and C virus notifications. It is estimated that 4% of Indigenous Australians are living with Hepatitis C, compared with 1% in the broader community (NCHECR, 2009; DOHA, 2010). In 2007, 16% of the Australian population living with chronic Hepatitis B (HBV) infection identified as Indigenous with higher rates in rural populations. In 2008, the diagnosis rate for newly acquired HBV infection was between one and five times higher than that of the non-Aboriginal population in NSW. Vaccination is a primary measure to control the transmission of HBV and routine screening of people with chronic HBV should be a feature of ongoing management (DOHA, 2010).

Imprisonment is a risk factor for Hepatitis C (HCV) transmission (Butler et al., 2004, Dolan et al., 2010). A recent study in NSW prisons found HCV transmission to be alarmingly high (34 per 100 prison years) (Dolan et al., 2010). HCV transmission was found to be independent of drug type used, frequency of injecting in prison or sharing injecting equipment. Prisons have been found to play a crucial role in sustaining the epidemic given the high rate of imprisonment of people who inject drugs, typically for short periods of time with limited harm minimisation strategies (Dolan et al., 2010).

Figure 8.1  Hepatitis C antibody positive

In the 2009 IHS, Aboriginal inmates had higher rates of HCV infection. In particular, Aboriginal men were significantly more likely than non-Aboriginal men to be HCV antibody positive (36% vs 24%, p<0.01), while over half (54%) of Aboriginal women who took part in the 2009 IHS were HCV antibody positive, compared to 43% of non-Aboriginal women, though this was not statistically significant. This was a decrease of about 50% from 2001, when the proportion of women who were Hepatitis C antibody positive was extremely high with 76% among Aboriginal women and 61% among non-Aboriginal women. The primary reason for this is that the proportion of injecting drug users also decreased significantly since 2001. The decrease in HCV infection was not to the same magnitude for Aboriginal women, indicating that harm minimisation strategies have not been as targeted or as effective for Aboriginal women who inject drugs.

Figure 8.2  Hepatitis B core antibody positive

In 2009 NSW INMATE HEALTH SURVEY: ABORIGINAL HEALTH REPORT
Exposure to Hepatitis B virus was measured by whether the participant was HBV core antibody positive. Significantly more Aboriginal men than non-Aboriginal men (37% vs 17%, p<0.01) were found to be HBV core antibody positive, while no difference was found between Aboriginal and non-Aboriginal women (both around one-third). This trend decreased for all groups between 2001 and 2009 except for Aboriginal men where it increased from 31% to 37%.

**Figure 8.3**  Hepatitis B characteristics

No women were found to be Hepatitis B surface antigen positive, which is a marker of current chronic Hepatitis B infection. By contrast, twice as many Aboriginal men (3.6%) as non-Aboriginal men (1.5%) were Hepatitis B surface antigen positive, though this was not statistically significant. Over two-thirds of Aboriginal participants were found to be Hepatitis B surface antibody positive, indicating the participants had cleared the virus or had responded to Hepatitis B vaccination. This finding was statistically higher in Aboriginal men compared to non-Aboriginal men (69% vs 50%, p<0.01), but not significant by Aboriginality among women.

Vaccine-conferred immunity to HBV is demonstrated when an individual tests positive for HBV surface antibody (≥10 mIU/ml) while testing negative for HBV core antibody. This was found in nearly half (48%) of Aboriginal women and just over a third (37% to 39%) of all other population groups, with no significant difference by Aboriginality.
The majority of participants reported that they had ever been tested for a blood borne virus (such as HBV, HCV or HIV) in prison, with significantly more Aboriginal men reporting having been tested than non-Aboriginal men (61% vs 47%, p<0.01). Participants were asked to indicate three ways that Hepatitis C was transmitted and approximately half of participants responded with all three answers correct with little difference by gender or Aboriginality.

**Summary**

Aboriginal inmates were found to have a higher exposure to both the Hepatitis C and Hepatitis B viruses compared to non-Aboriginal people. While Aboriginal women had the highest rate of exposure to HCV this was not significantly different. One possible explanation for these higher rates of past or current infection are high rates of sharing equipment for injecting drugs and unprotected sex (Hepatitis B). Encouragingly, Aboriginal men were significantly more likely than non-Aboriginal men to have been tested for a blood borne virus while in prison, leading to opportunities for health promotion and treatment. Aboriginal men were also significantly more likely than non-Aboriginal men to test positive to Hepatitis B surface antibody, indicating they had cleared the virus or had responded to Hepatitis B vaccination.
9. Sexual health

Sexual history

Aboriginal men were twice as likely as anyone else to have first had sex by the age of 13 years, which 42% of inmates reported, compared to 25% of non-Aboriginal men (p<0.01), 22% of Aboriginal women and 17% of non-Aboriginal women. When asked the age of their first sexual partner, over a third (37%) of non-Aboriginal women indicated their first sexual partner was five or more years older than they were, compared with 23% of Aboriginal women and approximately 13% of all men. Nearly one-quarter (24%) of Aboriginal men reported having 40 or more sexual partners in their lifetime, compared with 22% of non-Aboriginal men. By comparison, only 2% of Aboriginal women reported having this many sexual partners compared to 11% of non-Aboriginal women. Aside from Aboriginal men having sex at a younger age than non-Aboriginal men, no other sexual history indicator was statistically significant when compared by Aboriginality.

The majority of participants indicated they never used condoms or dental dams in the year before prison, with the highest found among non-Aboriginal women (71%) and the least among non-Aboriginal men (59%), though there were no significant differences by Aboriginality. The reason for never using condoms was often because the participant had a spouse or regular partner, or because they were deliberately trying to conceive a child.

Figure 9.1 Sexual health characteristics
Sexually transmissible Infections (STIs)

Aboriginal people in the community have sustained unacceptably high rates of bacterial STIs. Exacerbating these infection rates is the lack of access for many communities to primary health care services that are able to provide culturally appropriate treatment, care and support services. There are also significant gaps in the workforce to adequately deal with these issues (DOHA, 2010).

Chlamydia, gonorrhoea and syphilis are curable STIs, but are often asymptomatic in those affected and can lead to serious complications if untreated for long time periods. Furthermore, untreated STIs have the potential to enhance the sexual transmissibility of HIV infection, which so far has remained a confined epidemic in Aboriginal communities (NCHECR, 2009).

The rates of STIs are highest in young people of child bearing age who tend to be more sexually active. With the exception of infectious syphilis, NSW does not routinely collect STI prevalence data by Aboriginality. Nationally in 2008, the rates of STIs comparing the Indigenous to non-Indigenous population were: chlamydia (1,131 vs 273 cases per 100,000), gonorrhoea (806 vs 22 cases per 100,000), syphilis (34 vs 6 cases per 100,000), and newly acquired Hepatitis B (5 vs 1 case per 100,000) (NCHECR, 2009). Remote and very remote communities continue to experience significantly higher rates of chlamydia, gonorrhoea and infectious syphilis compared with regional and metropolitan communities in Australia (NCHECR, 2009).

In the 2009 IHS, there was little difference by gender or Aboriginality about self-reports of ever being diagnosed with a sexually transmissible infection, which ranged from 26% to 32% for participants. The majority of participants provided a urine sample to test for sexually transmissible infections, which resulted in very low detection rates. This included chlamydia, detected in N=13 participants, with higher rates among Aboriginal people (2.5% of Aboriginal men, 2.4% of Aboriginal women) compared to non-Aboriginal participants (1.7% of non-Aboriginal men, 0% of non-Aboriginal women). Syphilis was detected in N=11 participants, which was highest in Aboriginal women (7.7%), followed by Aboriginal men (2.6%) then 0.8% among non-Aboriginal men and 0% in non-Aboriginal women. Gonorrhoea was only detected in one Aboriginal man and no women. It should be noted that STI rates among inmates are likely to be lower than anticipated due to routine screening and treatment by Justice Health.

Between 2004 and 2008, population rates of HIV diagnosis among the Aboriginal and Torres Strait Islander population (3.8 per 100,000) were similar to those in the non-Indigenous population (4.8 per 100,000) (NCHECR, 2009). Transmission patterns differ to non-Aboriginal infections with 22% of HIV infection found to be through injecting drug use compared to 3% in the general community (NCHECR, 2009). Only one participant (who was not of Aboriginal origin) in the 2009 IHS was found to be infected with HIV and he was aware of his HIV status.
Women’s health

A higher proportion of non-Aboriginal women have ever examined their breasts for lumps than Aboriginal women (62% vs 53%), but this was not statistically significant. Similar proportions of Aboriginal and non-Aboriginal women (94% vs 91%) reported ever having a pap smear and having had their last pap smear in the past two years (87% Aboriginal compared to 89% non-Aboriginal), which may be partly as a result of women’s health services provided in custody.

Figure 9.2

Women’s health characteristics

Most women (81% of Aboriginal women, 83% of non-Aboriginal women) reported at least one pregnancy. The same proportion of Aboriginal and non-Aboriginal women (42%) reported having at least four pregnancies in their lifetime. A higher proportion (47%) of Aboriginal women reported at least one miscarriage, compared to 38% of non-Aboriginal women. By contrast, non-Aboriginal women were more likely (46% vs 36%) to report having had a pregnancy termination than Aboriginal women. None of these women’s health-related variables were statistically significant between Aboriginal and non-Aboriginal women.

Summary

STI rates among marginalised people, particularly Aboriginal people, are unacceptably high with treatable STIs such as chlamydia continuing to rise in the community. The results of this survey were lower than may be found in the community due to routine screening and treatment while in prison. While there were few differences by Aboriginality for any of the sexual health indicators in the 2009 Inmate Health Survey, the high rate (8%) of Aboriginal women who have been exposed to syphilis is of concern. A significant difference was found for Aboriginal men who were more likely to have had sex by age 13 compared to non-Aboriginal men. There were no significant differences between Aboriginal and non-Aboriginal women for pregnancy and reproductive health. The success of prison STI screening, treatment and health promotion programs is an encouraging step towards reducing the spread of sexually transmitted infections, although the risk of infection in the community remains high due to the higher prevalence of STIs among Aboriginal people, low rates of screening and treatment in the community and high rates of unprotected sex.
10. Health service utilisation

In addition to Aboriginal people having a higher burden of preventable illness than the general population, they are more likely than non-Aboriginal Australians to live in rural or regional areas which experience a disproportionate amount of the health gap (Vos et al., 2008). Less access to health care in rural or regional areas compared to metropolitan areas has implications for access to preventative, treatment and other support services, as well as to basic health infrastructure (Cunningham et al., 2008; AIHW, 2008b). Accessing needed services may be dependent on an ability to travel to that service from an outlying area or to a major town or city if relying on visiting specialists. Data from the most recent national social survey highlight the issue of transportation for Aboriginal respondents with over one in ten people reporting difficulty getting to places they needed, which is three times higher than for non-Aboriginal respondents AIHW, 2008b). Travel can be particularly difficult for people who lack transport and money; this is more commonly the situation for Aboriginal families and communities (ABS, 2006b).

In addition to the geographical barriers affecting access to health care services, differences in the utilisation of services by Aboriginal and other Australians may also be related to differences in health care status, differing levels of service provision, the cost of health care and/or language and cultural barriers (Reath & Carey, 2008). Therefore, Aboriginal people require not only access to culturally appropriate local services, but also adequate coverage by mainstream health care services. Recent research supports current systems being adapted to incorporate community participation methods to improve participation of Aboriginal women in areas such as child and maternal health and cancer screening (Reath & Carey, 2008).

Aboriginal people have reported finding the health care system alienating and intimidating, particularly because much of their contact with it is for emergency and acute care (Williamson et al., 2010). Familiarity with services and an Aboriginal workforce have been found to be important factor for accessing services (Hunter Centre for Health Advancement, 2003; Williamson et al., 2010). Research in Queensland found that regardless of health knowledge, Aboriginal people are more likely to access and comply with health treatment if the service staff not only care for them physically but generate trust and show nurturing holistic care (Harrington et al., 2006). Differing expectations between patients and health care providers was found to be a significant factor in patients not attending the service for treatment, therefore rendering services not as effective as they could have been in meeting their needs.
Despite the extra burden of poor health, Aboriginal men who participated in the 2009 IHS were significantly less likely to access health services in the community than non-Aboriginal men. In particular, one in four (27%) Aboriginal men had never accessed healthcare outside prison compared to 12% of non-Aboriginal men ($p<0.01$). This finding is reversed however in prison, with Aboriginal people being significantly more likely to access healthcare in prison compared to the community. This finding is consistent with the 2001 Inmate Health Survey (Karaminia et al., 2007). Aboriginal inmates were also significantly less likely to have ever seen a general practitioner in the community compared to non-Aboriginal inmates, including both men (40% vs 69%, $p<0.01$) and women (39% vs 87%, $p<0.01$).

Aboriginal women were less likely to have visited an emergency department in the past year (27%), compared to non-Aboriginal women who were the most likely (30%) followed by non-Aboriginal men (20%) and Aboriginal men (17%). Aboriginal women had the highest proportion (33%) of inmates who had been admitted to hospital in the past year, compared with 22% of non-Aboriginal women and 13% of all men. Over two-thirds (71%) of Aboriginal women indicated they regularly visited the prison clinic for repeat medications, compared to 61% of non-Aboriginal women. There was no difference in regular prison clinic visits for men for repeat medications by Aboriginality (46% vs 47%). No significant differences were found by Aboriginality for recent hospital admissions, emergency department presentations or visiting the prison clinic for repeat medications.

Aboriginal participants were asked specifically if they had ever accessed Aboriginal health services in the community. Over half (56%) of Aboriginal men and 60% of Aboriginal women indicated they had accessed these services. Many participants commented on the need for more Aboriginal-specific health services to be available in prison.
Summary

Despite high rates of illness, a high proportion of Aboriginal men had never accessed healthcare outside of prison and fewer Aboriginal inmates had ever seen a general practitioner in the community compared to non-Aboriginal inmates. More than half of Aboriginal inmates had ever visited an Aboriginal specific health service. There were no significant differences by Aboriginality for having been admitted to hospital or attending the emergency department in the past year. Similarly, Aboriginal people are just as likely as or more likely to receive health care in prison than non-Aboriginal people. Access to Aboriginal specific health services in the community and adequate coverage by culturally competent mainstream health care services could create opportunities for large health gains and reduce the gap in health inequalities of Aboriginal people.
Conclusions

Meeting the health needs of the inmate population in NSW constitutes a significant challenge. Provision of health care in custody is not only carried out in a complex environment but, as the 2009 Inmate Health Survey: Key Findings Report demonstrated, inmates are a complex, high-need population (Indig et al., 2010a). This 2009 Inmate Health Survey: Aboriginal Health Report, the first report on prisoner health to focus on Aboriginal prisoners, documents the social determinants of health, the physical and mental health, and the risk and protective behaviours, of Aboriginal inmates in NSW prisons.

This survey was conducted among a stratified random sample of 996 inmates, with an over-representation of women and of Aboriginal people, including 259 Aboriginal men and 53 Aboriginal women. It included a detailed physical health assessment, together with a self-report component covering a number of domains. The incorporation of indicators included in one or both of the 1996 and 2001 IHSs has allowed for an examination of trends over time in a range of aspects of prisoner health, thus providing an appropriate evidence base from which to develop, implement, evaluate and improve service and policy advances within Justice Health and agencies working to improve the health of people in the criminal justice system. This sound empirical evidence is imperative as a basis to target services towards the areas of greatest need among Aboriginal inmates in NSW prisons and to evaluate interventions designed to improve their health and well-being.

The social and health inequities and associated higher rates of incarceration experienced by Aboriginal people have been documented extensively. Poorer health is often a consequence of social determinants of health, including macro-level influences such as history, access to education, employment, housing as well as individual influences (protective and risk factors) and the environment in which one lives. The 2009 IHS found that while prisoners in NSW experience significantly poorer health than the general community, for Aboriginal people this is associated with a higher prevalence of risk factors such as tobacco smoking, poor diet and hazardous alcohol and drug use. Prison inmates have well documented histories of disrupted family and social backgrounds; abuse, neglect and trauma; poor educational attainment and consequent limited employment opportunities and poverty; unstable and over-crowded housing; parental incarceration; juvenile detention; family violence; and previous episodes of imprisonment, all amplified among Aboriginal inmates surveyed for this report. With such multiple risk factors for poor health, it is not surprising that Aboriginal inmates were more likely to score poorly for nearly every health and social indicator measured in this survey.

Recent investments in targeted health initiatives for Aboriginal people appear to have been successful. Aboriginal men who participated in the survey were found to have better immunity to Hepatitis B through vaccination, were more likely to have ever been tested for a blood borne virus and were significantly more likely to have ever participated in a methadone treatment program than non-Aboriginal participants. Aboriginal men also smoked fewer cigarettes. Potentially protective resilience factors for Aboriginal inmates included being significantly more likely to be married or in a de-facto relationship and having more children than non-Aboriginal inmates.

Changes to the criminal justice system have also facilitated the trend of increasing incarceration of Aboriginal people. In an environment of decreasing or stable crime across major crime categories, Aboriginal people are less likely to receive bail and receive longer prison sentences than before changes introduced in 2002 (Fitzgerald, 2009). The greatest impact of these changes in NSW has most affected Aboriginal women and young people. Exposure to the criminal justice system is a risk factor in itself for further incarceration and trans-generational incarceration, further marginalising Aboriginal families and communities.
In light of these findings, there are genuine opportunities to achieve large health gains for Aboriginal people by addressing risk factors for poor health and crime, both in the community for those at risk of incarceration and in prison. Strengthening our response to reduce inequities and associated poor health among Aboriginal people requires all sections of government to work together in partnership with Aboriginal people. Access to culturally competent alcohol and other drug treatment and mental health services, addressing family violence, stable housing and improving opportunities within a human rights framework could make a significant contribution to improving the health of those involved in the criminal justice system and reducing risk factors associated with the causes of crime. While the prison environment provides a unique opportunity to improve the health status of a group who suffer poorer health and may have minimal contact with health services in the community, it is also an opportunity to improve health literacy, self-management skills and strengthen links with community services to integrate those leaving prison back into the community. Importantly, the 2009 Inmate Health Survey: Aboriginal Health Report provides Justice Health, its key stakeholders and the community with reliable evidence of the health needs of Aboriginal people incarcerated in NSW. As such, the key findings from this report provide all agencies and sectors involved in the provision of services to Aboriginal people in custody with evidence to guide policy and practice to improve their health and well-being, assist their re-integration into the community and reduce the factors associated with crime to create hope for longer and better futures for individuals and their communities.
References


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Front Cover Illustration:
Original Artwork

Story: The painting illustrates two goannas aware that there are a number of hunters in their territory, three camped around a fire and two waiting near their drinking hole. The goannas have been feeding at one of their favourite eating areas, which can be reached by using their travelling tracks. These two goannas have a number of caves that they can hide in symbolised at the bottom left and right hand top of the painting. The goannas are marked similar to the area they live in.

Uncle Les is a Wiradjuri Man and was National NAIDOC Artist of the Year in 2008. Uncle Les is an Aboriginal Artist well known for his work with Aboriginal peoples within the New South Wales educational and criminal justice system. Of late, Uncle Les is known for his art teaching to Aboriginal men at both St Helers and Gosford Correctional Centres.

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