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Jocelyn Grace


Ineke Krom
Edith Cowan University

Caitlin Maling
Edith Cowan University

Tony Butler

Richard Midford
Edith Cowan University

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Review of Indigenous offender health

Jocelyn Grace¹, Ineke Krom², Caitlin Maling², Tony Butler¹ and Richard Midford²

¹National Drug Research Institute, Curtin University ²Australian Indigenous HealthInfoNet

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Preface

This review provides an overview of health issues facing the Indigenous offender population, including some of the social and historical factors relevant to Indigenous health and incarceration. In doing so, it is important to first understand how Indigenous people conceptualise health. Health as it is understood in western society is a fairly discrete category, which differs from the traditional Indigenous perspective of health as holistic [1]. This is made explicit in the 1989 *National Aboriginal health strategy* that states 'health to Aboriginal peoples is a matter of determining all aspects of their life, including control over their physical environment, of dignity, of community self-esteem, and of justice' [1, p.ix]. For this reason, considering health in a justice context is of particular relevance to Indigenous people, as the restrictions imposed upon offenders represent a threat to individual and community health.

Some of the sources referred to in this review originally used only the term Aboriginal, even though it is evident that in many, if not most, cases the reporting did not differentiate between Australian Aborigines and Torres Strait Islander people. Population figures reveal that substantial numbers of Torres Strait Islanders or people of both Aboriginal and Torres Strait Islander descent

live in all jurisdictions, except the Australian Capital Territory (ACT). Therefore, the term Indigenous has been used throughout this review to refer to both the Aboriginal and the Torres Strait Islander populations.

This review is largely structured under key topic headings, such as chronic disease or the social determinants of health. Much of the general information about offenders refers to both men and women, and, in some instances, to some juveniles, but specific sections are also devoted to women and juveniles.

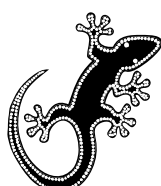
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Introduction

The offender¹ population is one of the most stigmatised and socially excluded groups in Australian society, and is characterised by extreme socio-economic and psychological disadvantage. Those exposed to the criminal justice system are typically poorly educated, unemployed, socially isolated, and financially dependent [2]. Epidemiological surveys of prisoners for instance, consistently find high levels of physical ill health, psychiatric illness, communicable diseases, and engagement in health risk behaviours (such as tobacco use, violence, increased alcohol consumption, and illicit drug use) [3, 4]. In the case of Indigenous offenders, disadvantage is further compounded. Indigenous Australians suffer more ill-health, die at much younger ages, have lower levels of educational attainment and income, higher rates of unemployment, and poorer housing conditions than the rest of the Australian population [5].

According to the June 2009 prison census, the prisoner population in Australia was 29,317, most of whom were men (93%). Indigenous prisoners accounted for 25% of the total prisoner population (Table 1) [6]. Indigenous people were 14 times more likely than non-Indigenous people to be imprisoned [6]. Indigenous imprisonment rates vary significantly between the states and territories in the rates of Indigenous imprisonment, ranging from 471 prisoners per 100,000 population for Tasmania (Tas) to 3,329 per 100,000 for Western Australia (WA) (Table 2) [6].

Between 2008 and 2009, the total number of prisoners increased by 6%, and the number of Indigenous prisoners by 10% [6]. The offender population is even greater if those in the wider criminal justice system are taken into consideration; these include people under arrest and held in lock-ups, those appearing before the courts, periodic detainees, juvenile offenders not in detention, and those serving community orders. For example, in 2008-09 an average of 56,972 offenders per day were serving community corrections orders [7].

The overall imprisonment rate for Australia in 2009 was 175 prisoners per 100,000 adult population (Table 2) [6]. The Northern Territory (NT) had by far the highest imprisonment rate in Australia and the ACT the lowest: 658 and 75 prisoners per 100,000 adult population respectively. Over the past decade, imprisonment rates have increased in all states and territories, with the exception of Queensland (Qld) and the ACT [6]. Tas recorded the largest increase (45%), followed by the NT (44%) and South Australia (SA) (29%). The imprisonment rate for the ACT decreased by 8%, and that for Qld by 6%. From 2008 to 2009, WA had the highest proportional increase in prisoner numbers (17%), followed by the NT (11%), and New South Wales (NSW) (7%). The 6% increase nationally was

strongly affected by the increase in WA.

Many individuals have ongoing contact with the criminal justice system. In 2009, 56% of adult prisoners in Australia had previously served a prison sentence [6]. This percentage does not reflect the 'flow population', the number of people going in and out of prison over a year. As the majority of people incarcerated full-time spend less than 12 months in prison [6], the flow population is much larger than the census data reveal. Taking the flow population into consideration would show that the recidivism rate is even higher than the 56% suggested from the prison census population. A more accurate figure of re-imprisonment can be obtained when following a cohort of releases. This shows that within 10 years of their release, two in five people in a five-year release cohort had been re-imprisoned [8]. The rate of re-imprisonment increased relatively rapidly in the early years following release, then levelled out over time.

Prisons provide an important, but overlooked, public health opportunity to engage with those who may not access health services while in the community. Previous research has found that Indigenous prisoners are more likely to use a range of health services when in prison than in the community [2]. Prisoners are often viewed as being isolated from the community, but this fails to recognise that all but a few return to the community after relatively short periods of incarceration. It is in everyone's interest that they return in good physical and mental health.

As noted above, the offender population consists of more than sentenced prisoners detained in prisons and juvenile detention centres and those on remand. Information about the prison population is more readily available, and this is reflected in this review. However, where available, information about the broader offender population has been included.

Historical factors

The arrival of the First Fleet and the establishment of a penal settlement in Sydney Cove in 1788 heralded major changes for Australia's Indigenous peoples. Indigenous people had their own laws and customs, but, after being declared subjects of the British Empire, they were subjected to a legal system which often ran counter to their own [9]. As European settlement spread across the country dispossessing Indigenous people of their land and its natural resources, police expeditions were mounted to protect the interests of the settlers. This involved enforcing laws of which the Indigenous population were largely unaware and which bore no relation to their own methods of social control [10]. This included rounding up and relocating large groups of people (for example, to Palm Island in Qld). In many instances, this relocation involved violence. During the period of 'colonial' expansion, Indigenous people were incarcerated across Australia for a variety of criminal offences. In Vic, for example, many Indigenous people were incarcerated for killing animals and stealing, and Indigenous

1 The term offender is used in this review to refer to sentenced offenders currently serving sentences, those on remand prior to sentencing and prior offenders

incarceration in WA occurred for stealing flour, sheep and cattle, and for assault and murder [9]. 'Aborigines of the time seem to have afforded little legitimacy to imprisonment as an appropriate form of punishment and the escape rate was extremely high' [9, p.169]. In WA², the high escape rate led to the establishment of a prison on Rottnest Island, off the coast of Perth, and prisoners in the Kimberley region were fitted with neck chains. Many died in these prisons, from the inadequate and inappropriate diet, and introduced diseases [9].

A more liberal attitude emerged at the turn of the twentieth century, with the 1899 Royal Commission on Native Welfare acknowledging

2 WA is often referred to specifically throughout this review due to the high standard of documentation kept on historical interactions between Indigenous Australians and the 'colonisers'. Due to commonality of the colonial experience it is likely these findings will be generalisable to other jurisdictions.

the incompatibility of British and Indigenous legal systems, and the futility of imprisoning Indigenous people [9]. Nevertheless high rates of imprisonment persisted. For example, in WA in 1949, Indigenous people were overrepresented in the prisoner population, making up 9% of male and 12% of female prison population [11]. This situation worsened in WA into the 1950s and 1960s with the prisoner population continuing to rise in the latter half of the 20th century. In 2007, Indigenous people comprised 43% of the prison population WA, when Indigenous people made up only 4% of the general population [12].

In the 1970s and 1980s, an important measure was taken to reduce the rate of incarceration – the decriminalisation of public drunkenness, initially in the NT (1974), followed by NSW (1979), SA (1984), WA (1990) and Tas (2003) [13]. In WA, the change in legislation was spurred on by a state inquiry into Aboriginal

Table 1. Numbers of prisoners by jurisdiction, sex and Indigenous status, Australia, 30 June 2009¹

	Sex		Indigenous status ²		All people	
	Males	Females	Indigenous	Non-Indigenous	Number	%
Australia	27,192	2,125	7,389	21,554	29,317	100
NSW	10,273	854	2,374	8,376	11,127	38
Vic	4,068	282	241	4,109	4,350	15
Qld	5,251	416	1,576	4,091	5,667	19
WA	4,078	341	1,790	2,629	4,419	15
SA	1,839	121	449	1,511	1,960	7
Tas	492	43	66	469	535	2
ACT	180	23	26	177	203	1
NT	1,011	45	864	192	1,056	4

Source: ABS, 2009 [6]

Notes: 1 There were 377 prisoners in NSW with Indigenous status not recorded/reported

2 Published numbers for the states and territories were not broken down by sex and Indigenous status

Table 2. Age-standardised imprisonment rates, by Indigenous status and jurisdiction, and Indigenous:non-Indigenous rate ratios, Australia, 2009

	Indigenous status ²		Rate ratio	Total population
	Indigenous	Non-Indigenous		
Australia	1,891	136	12.0	175
NSW	2,153	164	13.1	204
Vic	968	101	9.6	104
Qld	1,427	129	11.1	168
WA	3,329	163	20.4	261
SA	2,072	133	15.5	155
Tas	471	146	3.2	140
ACT	760	63	12.0	75
NT	1,700	153	11.1	658

Source: ABS, 2009 [6]

Notes: 1 There were 377 prisoners in NSW with Indigenous status not recorded/reported

2 Rates per 100,000 population

3 Rate ratios are Indigenous rates divided by non-Indigenous rates

deaths in custody and then the Royal Commission into Aboriginal Deaths in Custody (RCIADC). The latter recommended that, in addition to decriminalisation, 'alternative facilities for the care of intoxicated persons should be urgently established and maintained to meet demonstrated needs' [14, p.31]. Sobering-up centres were subsequently established in Perth and a number of regional locations throughout the state. The number of people imprisoned for public drunkenness had already fallen prior to its decriminalisation in WA, as policy shifted toward a social welfare approach to the issue of public drunkenness. Indigenous people, in particular, benefitted from this change [13].

Understanding the historical interaction of Indigenous Australians with the colonial criminal justice system, and the wider processes of colonisation and dispossession, is essential to any interpretation of the current context of offender health [15]. The overrepresentation of Indigenous people in contemporary justice institutions should be viewed 'within a historical framework formed by processes of colonial dispossession, genocide and assimilation, and forms of resistance to these processes' [15, p.1]. From this viewpoint, criminal justice institutions are conceived as 'nodal points in a broader fabric of colonial relationships' [15, p.2]. This is especially important when considering ways to 'de-colonise' the justice system and provide agency to Indigenous people in determining their own justice outcomes [15]. From a broader perspective, the overall poor health status of Indigenous people in Australia can be viewed as arising from the processes of colonisation and dispossession. Recognition of this history is essential for all health professionals, and is a necessary first step towards the de-colonisation of health service delivery related to Indigenous health [16].

The social context of health

The factors contributing to the poor health status of Indigenous people should be seen within the broad context of the 'social determinants of health' [17, 18]. These determinants, which are complex and interrelated, include income, education, employment, stress, social networks and support, social exclusion, working and living conditions, gender and behavioural aspects. Related to these are cultural factors, such as traditions, attitudes, beliefs, and customs. Together, these social and cultural factors have a major influence on a person's behaviour.

Within the Indigenous population, it has been shown that certain social determinants affect imprisonment rates. Data from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) indicated that respondents to the survey were more likely to have been imprisoned if they had not completed Year 12 education, were unemployed, experienced financial stress, lived in crowded conditions, were a member or had a relative who was a member of the stolen generation, lived in more remote areas, or misused drugs or alcohol [19].

From 1997 to 2004, Indigenous people in NSW were nine times more likely than non-Indigenous people to appear in court, in particular for violent crimes. Indigenous people appeared in court 11 times more frequently than non-Indigenous people for sexual assault, 19 times more frequently for aggravated assault, and 17 times more frequently for robbery [20]. A 2006 study found no evidence to suggest that Indigenous people are more likely to be sent to prison due to racial bias in sentencing, rather that the high Indigenous imprisonment rates are due to the high rates of violent offences and re-offending [20]. A wide range of research has taken place to either confirm or contest this conclusion, with varying results [21]. The most comprehensive study into sentencing disparity was completed in 2009 in South Australia using data from both District and Supreme Court case files [22]. In a matched sample of 148 Indigenous offenders and non-Indigenous offenders sentenced during the period 2005-2006, Indigenous offenders were less likely to receive a prison sentence than their matched non-Indigenous counterparts. When sentenced to prison, however, Indigenous offenders were sentenced to longer periods of imprisonment than were their non-Indigenous counterparts.

Findings regarding disparity in police diversion of young offenders stand in opposition to the research into adult sentencing outlined above. A 2010 study analysed an offender cohort of young people born in 1990 currently residing in Queensland, including their contacts for formal police cautioning, police-referred conferencing and finalised juvenile court appearances [21]. This study reported that Indigenous young people were much less likely to receive diversionary outcomes and more likely than non-Indigenous young people to appear in court. As juvenile incarceration is a strong predictor for incarceration in adulthood, it is important to consider the impact that disparity in juvenile outcomes might have on later overrepresentation of Indigenous adults in the correctional system [23].

Children whose parents are incarcerated are at high risk of negative health outcomes and are at greater risk than other children of becoming offenders themselves [24]. In NSW in 2001 an estimated 14,500 children under 16 years experienced parental incarceration, and it was estimated that in that year there were 60,000 children in NSW who had ever experienced parental incarceration in their lifetime, including 4.3% of all children, and 20.1% of Indigenous children [24].

The key surveys of prisoner health have highlighted the social disadvantage of offenders. The *2009 NSW inmate health survey* reported that, of 996 inmates surveyed, 52% of men and 45% of women had not finished year 10 of schooling [3]. Further, 11% had no fixed abode prior to their current incarceration, and 50% of men and 67% of women had been unemployed in the six months prior to their incarceration. The childhood experiences of incarcerated offenders showed similar disadvantage with 30% having a history of being placed in care before the age of 16 years, and around one-

in-five having had a parent incarcerated during childhood [3]. *The health of Australia's prisoners 2009* reported that, for the 749 prison entrants surveyed, 86% of Indigenous entrants and 71% of non-Indigenous entrants had not completed their year 10 of schooling [2].

When considering Indigenous overrepresentation at all levels of contact with the criminal justice system, it is necessary to mention the contributing broader socio-legal and socio-political factors. The report of the Royal Commission into Aboriginal Deaths in Custody (RCIADC) highlighted racism as a fundamental problem, finding racism to be 'institutionalised and systemic' [25, p.124]. Commissioner Johnston concluded that 'an institution, having significant dealings with Aboriginal people, which has rules, practices, habits which systematically discriminate against or in some way disadvantage Aboriginal people, is clearly engaging in institutional discrimination or racism' [25, p.161]. Public drunkenness legislation is an often cited example of institutional discrimination. How institutional factors, such as racism, contribute to Indigenous offending and to offender health is a very complex and largely unexplained relationship, but is something that must be considered in concert with the interventionist history of colonialism when addressing the health of Indigenous offenders [26].

Provision of health services in prisons

Prisons throughout Australia are the responsibility of state or territory government departments of justice or corrective services. Prison health services are managed in different ways in the various jurisdictions. In NSW, Qld, SA, Tas and the ACT, prison health services are the responsibility of the health department. In WA, prison health services are the responsibility of the Department of Corrective Services, and they are contracted in Vic and the NT out to private companies. In Vic, this includes all health services, and currently there are several companies servicing the 14 prisons in that state. One company delivers primary health care services in the two NT prisons, while mental health services are the responsibility of territory health department. (*The health of Australia's prisoners 2009* [2] provides further details of health services provided throughout Australia.)

At selected prisons across Australia certain community-controlled health services also deliver medical and other health-related services (for example, alcohol and other drug interventions) for Indigenous prisoners. Non-government organisations also deliver services to offenders in prison, post-release, and as part of diversion programs.

Many Australian prisons are at capacity, and overcrowding creates a range of issues around the maintenance of a safe and healthy environment for prisoners [27]. One consequence of overcrowding

is the frequent movement of prisoners between facilities, making it difficult to maintain continuity of physical and mental health interventions. In many cases this also makes it very difficult for family members to visit prisoners. In overcrowded prisons, there is an elevated risk of transmission of airborne and respiratory infections, which can pose a danger to pregnant women and those who are HIV positive [27].

Deaths in custody

The RCIADC was established in October 1987 as a result of growing public concern about a large number of Indigenous people having died in custody during the 1980s [28]. It was the death of John Pat in the Roebyrne lock-up in regional WA in 1983 that triggered a campaign by Indigenous activists, which gained momentum as more such deaths occurred around the country. The initial brief of the commission was to thoroughly re-investigate each of these deaths, but the brief was extended to also try to 'find larger social and economic factors to explain Aboriginal deaths in custody' [29, p.2]. The RCIADC's final report, completed in April 1991, contained 339 recommendations [29]. An analysis of the processes and outcomes of the RCIADC, conducted using data from interviews conducted with 48 people associated with it, found it to have been flawed in a number of ways, but

over half of those interviewed believe that the inquiry managed to achieve some positive outcomes. Many of these outcomes, however, are a reflection of the extent to which governments have implemented the recommendations made, rather than a reflection of the suitability of the investigative procedures. [28, p.124]

Positive outcomes from the inquiry include some improvement in the treatment of Indigenous people when arrested and in detention, the establishment of Aboriginal visitor schemes in some jurisdictions, the establishment of RCIADC watch committees in some jurisdictions, and the ongoing monitoring of deaths occurring in custody by the Australian Institute of Criminology. The Indigenous people interviewed stated that the most important overarching outcome was that the recommendations support their requests for policy reforms [28]. The review of the processes and outcomes of the RCIADC concluded that despite its flaws, 'the RCIADC remains the most comprehensive investigation ever undertaken into the deep disadvantage experienced by Indigenous people as a result of colonisation' [28, p.125].

The RCIADC reviewed the rates of deaths in custody and found that the rate among Indigenous people was no higher than among the non-Indigenous population. It was not that they were more likely to die in custody than non-Indigenous Australians, rather that Indigenous people were significantly overrepresented in custody. The problem was simply 'too many Aboriginal people are in custody too often' [12, p.1].

Of the 74 deaths that occurred in custody in 2007 (45 in prison custody, 29 in police custody and custody-related operations), nine (12%) were Indigenous (five in prison custody, and four in police custody and custody-related operations). In the 27 year period from 1980 to 2007 there were 1,206 deaths in prison, 745 in police custody and custody-related operations, and 17 deaths in juvenile detention centres. Indigenous people accounted for 19% of these deaths. Since the RCIADC, Indigenous people have increasingly been overrepresented in custody in all Australian states and territories while comprising less than 3% of the total Australian population [6, 12].

The health of Indigenous prisoners

GENERAL HEALTH ISSUES

The general health status of offenders is poorer than that of the general population. This is reflected in the *2009 NSW inmate health survey*, in which 966 inmates were sampled on their self-reported general health status; of these only 33% rated their overall health to be very good or excellent compared with 56% of the general population sampled in the *National health survey 2007-2008 (NHS)* [3, 30].

The most comprehensive national picture of offender health is *The health of Australia's prisoners 2009*, the first major report relating to national prisoner health indicators [2]. The data in this report came mostly from the *National prisoner health census* during which detailed data were collected for 549 prison entrants, over 3,700 prisoners in custody who visited a clinic, and over 4,900 prisoners who were taking prescribed medication [2]. Of the prison entrants, 141 (26%) were Indigenous. The general self-reported levels of chronic diseases in this survey tended to be lower than comparable national prevalences with few exceptions. Sixteen percent of Indigenous and non-Indigenous entrants reported currently having asthma compared with 10% of the general public who reported asthma in the *2004-05 NHS* [31]. Four percent of Indigenous and 6% of non-Indigenous entrants reported arthritis, a much lower prevalence than the 15% of the general public reporting arthritis in the *2004-05 NHS* [31]³. Similarly, only 3% of both Indigenous and non-Indigenous prisoners reported cardiovascular disease compared with 18% of the general public [31]. The rate of diabetes was similar to the national prevalence of 3.6% with 4% of Indigenous and 2% of non-Indigenous entrants reporting having been diagnosed as having diabetes [31]. Cancer prevalence was reported by less than 1% of all entrants compared with national prevalence of 2% [31].

3 Asthma and cardiovascular disease prevalence increase with age, this is one possible explanation for the differences found between the inmate population and the general population.

Of the 996 prisoners who participated in the *2009 NSW inmate health survey*, approximately 26% identified as Indigenous men. (The breakdown of the female prisoners by Indigenous status was not undertaken). Across all dimensions of self-assessed health measures, prisoners' scores were lower than those of the general community [3]. This disparity was more pronounced for women than men in almost all categories. For example, 13% of women had been told by a doctor they had kidney problems, but only 5% of men had. Overall, these data indicate high levels of chronic illness among prisoners, despite most being below the age of 40 years (62%), and 33% younger than 25 years. In another study of 740 prison entrants, 85% reported they were current tobacco smokers; the median age of first smoking was 14 years [32].

A recent study of prisoners in NSW found few differences between Indigenous and non-Indigenous prisoners with regard to a range of self-reported chronic health conditions [33]. Indigenous prisoners were found to be more likely to report seeing health professionals (doctors, dentists, drug and alcohol counsellors) while in prison than when in the community, highlighting the fact that, for many, prison offers an important opportunity to access treatment and engage with health professionals. An analysis of mental health also found few differences between Indigenous and non-Indigenous male prisoners, but Indigenous women had higher rates of some mental health conditions than non-Indigenous women [34].

The prevalence of chronic diseases among inmates of a regional prison in WA was undertaken using a cross-sectional audit of medical notes [35]. The records of 185 predominantly young prisoners were examined; 170 were male, and 84% were Indigenous. Fifty-three percent had a least one chronic disease and 19% two or more, with hypertension, psychiatric conditions and diabetes being the most prevalent.

In the recent *Bridges and barriers: addressing Indigenous incarceration and health* report, the National Indigenous Drug and Alcohol Committee (NIDAC) called for an improvement in the level of health services for Indigenous prisoners and juvenile detainees [36]. Specific recommendations for improvement included: the provision of comprehensive health screening on reception, encouraging acceptance of recommended treatments, and providing throughcare by allowing Indigenous health and other services access to Indigenous people during their incarceration. The report stated:

The provision of 'one health service fits all', as in the case for many corrections systems, creates a disjointed and unsuitable approach to addressing the complex issues of alcohol and other drug misuse among Indigenous offenders. Limited access currently exists for offenders to engage with Indigenous-specific alcohol and drug programs. In areas where there are Aboriginal community-controlled health services or Aboriginal alcohol and drug services, there are opportunities to involve these services in the health care of offenders and in their ongoing care post-release. [36, p.9]

MENTAL HEALTH

Mental health is one of the most important issues affecting prisoner populations and impacting on the criminal justice system. There is an overrepresentation of mental health conditions in the prisoner population, with the rates of some psychiatric conditions being up to five times higher than those of the general community [37]. In 2001, there were approximately 15,000 people with major mental illnesses in Australian institutions (including psychiatric hospitals, prisons and gaols); of these, one-third were in prisons [38]. A review of epidemiologic data in 2003 found that 20% of female prisoners, and 14% of male prisoners reported having had a prior admission for a psychiatric illness [39]. These findings show the disproportionate impact of mental health issues on the prison population when compared with the general population, where only 0.8% of the population was hospitalised for mental health problems in 2003 [40]. There are a number of suggested factors that may have contributed to the higher prevalence of mental illness in the prison population, including de-institutionalisation of people with mental illnesses, the lack of capacity of community-based mental health services to meet their needs, and an increase in the use of drugs and alcohol among those experiencing mental health problems [37].

The *2007 National survey of mental health and wellbeing* estimated that 41% of people who had ever been incarcerated had a mental disorder in the previous 12 months, compared with only 19% of people who had never been incarcerated. This was striking for substance use disorders, including alcohol related disorders, among those who had been incarcerated (23%) compared with those who had never been incarcerated (4.7%) [41]. *The health of Australia's prisoners 2009* reported a similar prevalence of self-reported mental health disorders among prison entrants, with 41% of non-Indigenous and 26% of Indigenous prisoners reporting having been told by a medical professional at any time that they had a mental disorder [2]. Twenty percent of non-Indigenous and 9% of Indigenous entrants reported currently taking medication for a mental health disorder.

The largest epidemiological survey of prisoner mental health, conducted in NSW prisons in 2004, found that 43% of prisoners screened were diagnosed with psychosis, anxiety disorder and/or affective disorders [42]. Of the female prisoners, 61% had some form of psychiatric illness, compared with 39% of the male prisoners. A more recent study, comparing the prevalence of 18 mental disorders among inmates of Sydney metropolitan area prisons with that of a sample from the general population, found a strong connection between being a prisoner and reporting symptoms of psychosis or post-traumatic stress disorder in the previous twelve months [43]. The most pronounced difference was in the prevalence of substance use disorders, being 66% among prisoners compared with 18% in the community sample.

Few quantitative studies have been conducted specifically on Indigenous prisoners' mental health in Australia. The largest survey to date was carried out in NSW prisons where 277 Indigenous prisoners were part of a sample of 1,470 [34]. No significant difference was found among the male prisoners on the basis of Indigenous status, with the exception of depression, which was higher among non-Indigenous male prisoners. Indigenous women prisoners, however, were 'more likely to screen positive for symptoms of psychosis ... and had higher psychological distress scores' [34, p.429].

A systematic review of eight quantitative studies on the mental health of Indigenous prisoners in Australia concluded that the available literature suggests high rates of mental problems, and that the rates among women are of particular concern [44]. The authors called for more research that focuses on the emotional wellbeing of Indigenous people in custody, using culturally appropriate methods, including 'culturally validated mental health research tools' [44, p.49].

Co-occurring mental health and substance use is common among the offender population. According to the Human Rights and Equal Opportunity Commission's Joint Standing Committee on Mental Health and Human Rights, people with mental illness are often incarcerated rather than treated, largely because of the lack of appropriate mental health and other services [45]. Substance misuse and co-existing mental illness are closely linked to the high level of Indigenous offending, in particular violent offending [46]. This results in high levels of incarceration as violent offenders are often not eligible for diversion programs due to the severity of the offence, multiple charges and/or previous convictions [36]. Ideally, these barriers to receiving substance misuse treatment through diversion programs in the community should be overcome wherever possible. There will also clearly continue to be an urgent need for more substance misuse interventions for Indigenous offenders while incarcerated, combined with culturally appropriate diagnosis and treatment of mental health problems.

SUBSTANCE USE

Substance use represents a distinct and substantial issue in offender health with people reporting having been incarcerated being over five times as likely to have a substance use disorder than people who had never been incarcerated [41]. The high level of co-morbidity between mental health and substance use disorders is emphasised in the *National drug strategy: Australia's integrated framework 2004-2009* [47]. Indeed, the strategy identified the need for specialised services for people within the criminal justice system to coordinate the need for closer ties between mental health and substance use services. Overwhelming evidence exists that substance misuse is responsible for a considerable proportion of offending behaviour. A study conducted in NSW in 2001 found that 55% of prisoners had an ICD-10 [48] substance use

diagnosis [49]. *Drug use monitoring in Australia: 2007 annual report on drug use among police detainees* reported that approximately 68% of Indigenous adults who were tested while detained by the police had positive results for a range of drugs [50]. Approximately 64% of people arrested across Australia said they had consumed alcohol within the 48 hours prior to their arrest. Australia-wide, women prisoners were more likely than men to test positive to any drug. There is a significant overlap of harmful drinking and testing positive to illicit drugs, with 65% of those self-reporting that they drink at a harmful level, testing positive to one or more other drug.

Of the 740 prison entrants screened across Australia as part of the *2007 national prison entrants bloodborne virus survey*, 55% had injected drugs at some time in their lives, and of these 60% had injected in the previous month [32]. Injecting drug use was more common for Indigenous entrants (61%) than for non-Indigenous entrants (53%), and for female entrants (73%) than for male entrants (53%). The most common drug injected in the previous month was amphetamine (59%), followed by heroin (31%). Over 90% of injecting drug users interviewed had injected for more than three years, which suggests that the prisoner population has a higher concentration of serious, long-term drug users than does the general community. Amphetamine was the most frequently reported drug last injected by those entering prison, highlighting the importance of staff receiving 'training in recognising and managing amphetamine withdrawal on entry to prison' [32, p.9].

There is a well-established link between alcohol and offending behaviour, with the prisoner population often characterised by high rates of risky drinking [51]. *The health of Australia's prisoners 2009* highlighted this, finding that 65% of Indigenous entrants and 47% of non-Indigenous entrants reported consumption of alcohol at harmful levels in the previous 12 months [2]. Tobacco smoking was very common among offenders, with 72% of Indigenous entrants and 74% of non-Indigenous entrants being daily smokers. *Drug use monitoring in Australia: 2007 annual report on drug use among police detainees* reported the lowest rates of 'hard drug' use (heroin, methamphetamine) in Alice Springs and Darwin, and the highest rates of detainees reporting having drunk alcohol prior to their arrest in Alice Springs (77%) and Darwin (69%) [50]. These statistics are interesting, in view of the high concentration of Indigenous residents in both Alice Springs and Darwin regions [52]. Across Australia, 43% of the most recent participants believed their drinking had contributed to their having committed the offence for which they were being detained, the highest proportions being in Parramatta (67%) and Alice Springs (65%) [53]. Indigenous offenders were more likely than non-Indigenous offenders to report being under the influence of alcohol at the time of an offence or arrest [46]. Similarly, Indigenous male detainees were significantly more likely than non-Indigenous male detainees to report being dependent on alcohol (25% and 17% respectively) [54]. 'There is a great deal of evidence to suggest that alcohol plays a major role in much of the offending by Indigenous people,' and that more than

one-half of the incidents of violent and serious assaults involved alcohol [46, p.10].

One of the key recommendations in the NIDAC report *Bridges and barriers: addressing Indigenous incarceration and health* is to ensure 'access to a full range of effective drug and alcohol treatments, as well as mental health services, which are well suited to treating Indigenous offenders (and their families), as are available to the wider community' [36, p.11]. There is strong evidence that enabling Indigenous communities to restrict the sale of alcohol reduces alcohol-related crime, but at the same time investing in alcohol treatment for Indigenous people should not be neglected [55]. In WA, in a written submission to a parliamentary inquiry into the adequacy and appropriateness of prevention and treatment services for alcohol and illicit drug problems, the Western Australia Network of Alcohol and other Drug Agencies (WANADA) wrote:

WANADA member agencies state that the workload associated with Department of Corrective Services clients is significantly higher than for clients in the general community with drug-related problems. WANADA is concerned that the Department of Corrective Service client workload is impacting on the availability of services to non-mandated clients. This must be a concern to state and commonwealth agencies involved in funding alcohol and other drug services in Western Australia ... If the funding shortfall is not addressed, access to services is likely to decline further and the prospects of meeting the already significant and clearly demonstrated unmet need ... will be negligible. [56, p.7-8]

BLOOD-BORNE VIRUSES

Estimates suggest that between 7,500 and 10,000 prisoners in 2005 were hepatitis C (HCV) antibody positive [57]. Transmission of HCV in prison has been documented, but few prisoners receive treatment for this virus [58, 59]. Additionally, high-risk behaviours for blood-borne virus (BBV) transmission, such as injecting drug use, tattooing, physical violence, body piercing and unprotected sex, are more common in prisons than in the wider community [58]. The *2004 national prison entrants' bloodborne virus survey* was conducted among offenders as they were entering seven prisons in NSW, Qld, WA, and Tas [58]. Blood test results revealed that less than 1% of the sample was HIV positive, whereas 34% were positive for HCV. Levels of HCV were higher among injecting drug users in the sample (56%), particularly among female injecting drug users (83% compared with 54% for male injecting drug users). The proportions of Indigenous and non-Indigenous participants with HCV were similar (37% and 34% respectively). These levels are well above those for the general population and place those not infected with HCV at great risk of becoming infected while in prison.

The *2007 national prison entrants' bloodborne virus survey* included all jurisdictions except the NT and covered 18 reception centres across Australia [32]. HIV prevalence was low in both men and

women (less than 1%). The prevalence of HCV was 35%, being highest in NSW and Vic (42% and 41%), and lowest in WA (21%). The prevalence of HCV was much higher (60%) among those with a history of injecting drug use than among non-injectors (4%). Women who had injected had higher levels than did male injectors (78% compared with 58%). The prevalence of hepatitis B core-antibody was highest in WA (28%) and lowest in Qld and Tas (9%). The authors recommend that 'culturally appropriate prevention strategies including education, hepatitis B vaccination, and hepatitis C treatment should target this group' [32, p.9].

The 2007 national prison entrants' bloodborne virus and risk behaviour survey reported that 43% of Indigenous prison entrants tested positive for hepatitis C antibody, compared with 33% of non-Indigenous entrants. Similarly, 42% of Indigenous prison entrants tested positive for the hepatitis B core antibody compared with 17% of non-Indigenous entrants [2, 32]. Of particular note is that almost three-quarters (72%) of Indigenous female entrants tested positive for HCV. In comparison, the national lifetime prevalence rates of both hepatitis B and HCV for the total population is less than 1% [2].

Male and female prisoners entering SA prisons over eleven months in 2004-05 were tested for HCV infection and completed a survey in order to determine the prevalence of infection and identify risky behaviours [60]. Of the 662 participants, 10% were women, and 17% were Indigenous, 42% were HCV positive, and 64% had a history of injecting drug use. There was a significant association between being HCV positive and being female, being older, Indigenous status, and having a history of previous imprisonment. Prison injecting and tattooing were both associated with significantly higher risk than among those not reporting these behaviours. Those who were HCV positive were more likely to have commenced injecting when in prison, and to have shared needles that 'will almost certainly be contaminated with HCV, which has serious implications for prison staff and also for susceptible prisoners' [60, p.207].

An audit of medical records in a regional prison in WA was undertaken to evaluate the coverage of public health interventions, including testing for hepatitis C [35]. Seventy-nine percent had been tested for HIV, 84% for hepatitis B and 82% for hepatitis C. Of those tested, seven Indigenous prisoners and six non-Indigenous inmates were HCV positive. Eight of the HCV positive prisoners had a history of injecting drug use. Five of the six hepatitis B positive prisoners were Indigenous. The audit also found that vaccination rates were low, with only 36% being vaccinated against influenza, and 12% against pneumococcal disease. The authors concluded that ongoing monitoring is critical in order to take advantage of the opportunity prison presents for improving public health interventions, including BBV screening and vaccination.

Research in NSW on the prevalence of, and risk factors for HCV in Indigenous and non-Indigenous adolescent offenders (12 to 19

years) was conducted using a physical and mental health survey and blood testing [61]. Of the 1,042 participants, 25% identified as Indigenous. The Indigenous participants had higher levels of hepatitis B (9.6%) than the non-Indigenous adolescents (5.2%). For both groups, HCV levels were quite high (7.3% and 5.3% respectively), but knowledge about its transmission was very poor. The Indigenous participants were younger, more likely to be in detention, more frequently had a parent in custody, and more likely to have been placed in care. The levels of drug use were similar, but non-Indigenous participants were more likely to drink alcohol at hazardous levels. This is in contrast with what is found with the general (non-prison) population, where hazardous alcohol consumption is more common among Indigenous people than among non-Indigenous people (even though the overall proportion of people consuming alcohol is lower for Indigenous people than for non-Indigenous people) [62]. Adolescents currently serving custodial sentences had two times the prevalence of HCV of those on community orders [61]. This means that Indigenous adolescents, who are over-represented in the youth offender population and in detention centres, are particularly at risk [61]. The authors conclude that alternatives to custodial sentences should be considered whenever feasible, and that there is an urgent need for prevention, education and treatment programs.

A retrospective audit of prisoner medical records from the beginning of 2005 to the end of 2007 was carried out to determine the extent and results of testing for blood-borne viruses on admission to correctional facilities in WA [63]. The cohort of 946 people included 544 (58%) Indigenous detainees. Of the 286 prisoners tested for hepatitis B, 4.5% had positive results. All of these were adults, 92% of whom were male. One-quarter (25%) of the 330 people tested for HCV returned a positive result, with the level being much higher for non-Indigenous prisoners (38%) than for Indigenous prisoners (15%). Twenty-six percent of adults tested positive for HCV compared with 11% of juveniles. Prison location was also significantly associated with positive HCV results, with Indigenous prisoners released from regional prisons having much lower levels than those in metropolitan prisons (4% compared with 34%). Among the 314 people tested, only two people (0.6%) were HIV positive.

Given the high rate of prisoners testing positive for HCV, significant numbers of unexposed are at risk due to engagement in risk behaviours in prison (see above). Giving HCV positive prisoners access to treatment (such as interferon) is a public health intervention that not only addresses their health needs but, given the high rates of HCV transmission among those in custody, also reduces the risk of infection for other inmates, and for the wider community after their release [64].

SEXUAL HEALTH

Sexual behaviour in prisons is a sensitive and controversial subject, as prisons are 'deeply moralistic environments characterised by power relationships and low interpersonal trust' [27, p.69]. There are a number of key issues of concern with respect to the sexual health of prisoners, including prisons being used as an opportunity to screen for and treat STIs, the provision of condoms to prevent the transmission of STIs between prisoners, conjugal visits, sexual assault and related victim trauma. Conjugal visits are allowed to a limited extent in some prisons in Vic and Tas [27].

Sexually Transmitted Infections

Prisoners are a high-risk group for sexual ill-health [4, 65], which can have consequences for the health of the wider community. This population group is characterised by engagement in a range of risk-taking behaviours, such as substance abuse, alcohol consumption, tobacco smoking, and being involved in acts of violence [32]. Prisoners are generally drawn from the most disadvantaged groups in the community, which are recognised as having poor sexual health [66]. High rates of STIs, such as syphilis, HIV, hepatitis B, and herpes simplex virus type-2, have been reported in the prisoner population [67-69].

As part of a cross-sectional audit of medical records in a regional prison in WA, patient records were scrutinised for patient treatment for STIs [35]. Less than one-half (44%) of the 185 predominantly Indigenous participants had been screened for chlamydia and gonorrhoea during the first month of their incarceration, but 71% had been tested by the end of the first year. Eight people, all Indigenous, were positive for chlamydia. Six people, five of whom were Indigenous, tested positive for gonorrhoea. In addition, four Indigenous prisoners had a medical record note that they had previously had syphilis.

Again in WA, a study was conducted on the testing and prevalence of *Sexually Transmitted Infections* among people being admitted into correctional facilities [63]. A retrospective audit of medical records from the beginning of 2005 to the end of 2007 was conducted, including 946 individuals of whom 58% were Indigenous. Fifty percent had been tested for chlamydia and gonorrhoea, with significantly higher levels of testing among the juveniles (84%), and among Indigenous adult prisoners (58%) than non-Indigenous prisoners (40%). Of the 466 tested, 7% had tested positive for chlamydia, with juvenile females having a significantly higher level (20%) than juvenile males (2%). Indigenous females had approximately twice the level of non-Indigenous females, while non-Indigenous males had a higher level than Indigenous males.

The 2005-2007 audit in WA found that less than one-half of the adults being admitted to prison during this three-year period had undergone STI and BBV testing, but a significantly higher

percentage of juveniles had been tested. Only a small percentage of those not tested had refused to be screened. Given that most prisoners serve short sentences of twelve months or less, 'deficiencies in prisoner health assessment practices represent missed opportunities to improve disease control in prisoners and in the wider population' [63, p.8]. Standardised assessment and referral for treatment on admission to a correctional facility is an important strategy for improving the provision of health care for the high-risk prison population.

Condom use

Condoms are available in prisons in all jurisdictions except Qld and the NT, and can be accessed anonymously across jurisdictions except in Vic where they are available only on request [2]. Those opposed to condoms being made available to prisoners were worried it would encourage prisoners to have sex, lead to sexual assault, would be used to conceal drugs, and would be used as weapons [70]. Legal action was taken against the NSW Government in 1993 by 52 Indigenous prisoners for denying them access to condoms. Being advised that the prisoners had a strong case, the NSW Department of Corrective Services piloted the distribution of condoms in three men's prisons [70]. A full condom distribution program was implemented in November 1997, and evaluated the following year [71]. All male prisoners in NSW were sent a reply-paid postal survey about sexual behaviour and condom use, and, while the response rate was only 9%, the 556 responses were representative of the prison population with respect to age, offence and length of sentence. Eighty-four percent of the respondents were in favour of condoms being provided. A small percentage (14%) thought that the availability of condoms would increase the incidence of rape, but 72% did not believe that it would 'mainly due to the opportunistic nature of prison rape' [71, p.126].

To assess whether the availability of condoms increased sexual assaults, data from the NSW inmate health surveys undertaken in 1996 and 2001, and reports from the NSW Department of Corrective Services, were examined [70]. The data from the two NSW inmate health surveys show a decrease in non-consensual and consensual sex for both men and women (Table 3) [3, 4, 72].

The department's records showed that reported incidents of sexual assault in prisons in NSW decreased slightly between 1996 (0.3/100) and 2001 (0.2/100). In terms of condoms being used as weapons:

only three incidents of condoms being used against prison officers were recorded between 1996 and 2005, which were mostly of a mischievous nature. [70, p.221]

In 2006-2007, 1,118 male and 199 female prisoners in NSW participated in a computer-assisted telephone survey about their sexual attitudes, behaviours and health [73]. Eighteen percent of the men, and 25% of the women were Indigenous. Prior to being

detained, the majority of both men and women (80% and 70%) had been in a relationship with someone of the opposite sex, but only a minority (42% men, 29% women) had been using contraception. Participants were asked about their use of condoms while in prison and most men (94%) said they had access to a condom machine. Only one-half of participants reported having taken a condom packet from a machine, and only 2% reported having used one for sex in prison. Similarly, women had access to dental dams, but only 4% reported having used one for sex in prison. Thirty-seven men reported having had anal intercourse with an inmate, and 25 had used a condom at least once for anal sex. Male prisoners also reported using condoms for masturbation.

SEXUAL ASSAULT

A survey of 300 male prisoners aged 18-25 years, conducted in NSW in 1995-1996, found that 77 (26%) had been sexually assaulted at some time while in prison, and even more had been threatened with sexual assault or violence [74]. Fifty percent reported having been physically but not sexually assaulted. The author – a researcher and magistrate – explains:

Sexual assault in prison is not about sex, sexual frustration or latent homosexuality – it is about power. Rigid hierarchical stratifications develop within the closed environment of a prison, and the penis is a weapon of control, ownership and domination. [74, p.287]

In the short-term, sexual assault negatively effects prisoners' psychological state, including increasing suicidal tendencies [74]. In the long-term, it may result in increased drug use, 'sexual violence and an inability to form lasting relationships', thereby increasing the likelihood of re-offending and re-imprisonment [74, p.287]. The increasing rate of imprisonment over the period since this study was carried out is an issue for concern, given that overcrowding in prisons increases the frequency of sexual assault [74]. In the 2006-2007 NSW prisoner telephone sex survey, cited above, participants were asked whether they were afraid of or had experienced sexual assault or coercion while in prison [73]. Of the male prisoners interviewed, 7.3% said they were concerned about being sexually assaulted, 5.7% that they had been threatened with sexual assault, and 2.4 % reported having been sexually assaulted or coerced into sex while in prison. Fear of sexual assault among

the women prisoners was slightly lower at 6.5%, but 7% reported having been threatened with, and 4% actually having been sexually assaulted or frightened into having sex. Physical assault was more common: 34% of men and 27% of women reported having been physically assaulted while in prison [73].

A more recent WA study involved in-depth interviews with a convenience sample of 150 ex-prisoners and some prison officers to explore the issues around sexual assault in prisons [75]. All participants were male, 22% identified themselves as Indigenous, and 9% as gay. Fifty-four percent of participants said they knew of sexual assaults taking place in WA prisons, 23% had been under pressure to take part in unwanted sexual acts, and 14% said they had been sexually assaulted. The majority said they were aware of sexual assaults taking place in WA prisons, but 5% said they were unsure whether this was true, and 3% said that it did not occur. Ninety percent of those interviewed thought that sexual assault in prison is 'grossly under-reported' [75, p.26]. As the author of the NSW study explains, 'it leaves no visible bruises or scars; and shame, fear and a culture of silence mean that it is easily hidden from or denied by authorities' [74, p.287].

Many of the participants who identified themselves as victims of sexual assault in the WA study said they had been 'targeted and abused by others over a prolonged period' [75, p.29]. In many cases, the experience 'appeared to challenge their personal identity and reduce the likelihood of them coping with future close relationships' [75, p.29]. Victims said they had received little or no support, and were often left in situations where known sexual predators had access to them. The gay men interviewed felt particularly vulnerable in prison. They were often considered 'fair game' by predators, and they tried to conceal their sexual orientation. Those most at risk were young men (aged 18 to 30 years), gay men, men who are in prison for the first time, and those newly arrived at a prison having been transferred from a lock-up or another prison.

The prison officers interviewed expressed concern about training and support to deal with violence generally, 'drugs and sex trading' being under resourced 'at the coal face', and not having the time to deal with victims or known predators [75, p.37]. Two industrial officers referred to 'the code of silence among their peers not to disclose events that had not been reported to the unit officer'

Table 3. Percentages of prisoners reporting sex in prison, by sex, consensual nature of sex, and year, NSW, 1996-2009

Year	Men		Women	
	Consensual sex	Non-consensual sex	Consensual sex	Non-consensual sex
1996	6.3	2.6	15.2	1.5
2001	2.4	0.4	20.4	1
2009	2.1	<.01	12.0	0.01

Source: Indig et al, 2010 [3]; Butler & Milner, 2003 [4]; Butler, 1997 [73]

Note: There were 538 males and 132 females interviewed in 1996, 747 and 167 in 2001, and 780 and 184 in 2009

[75, p.37]. The authors note that many of the prisoners and prison officers they interviewed who had witnessed a sexual assault, or helped a victim after one, had experienced vicarious trauma. 'Little is known of the impact of male prisoner rape on peers and prison officers, and its impact upon the victim's close relatives and loved ones goes unreported' [75, p.42].

Women prisoners

According to the June 2009 prison census, there were 2,125 female prisoners in Australia (Table 1) [6]. The imprisonment rate for females was much less than the rate for males: 25 female prisoners per 100,000 female adults, compared with 329 prisoners per 100,000 male adults. However, imprisonment rates in the last decade have increased more for women than for men: between 1999 and 2009 the imprisonment rate for females increased by 57% compared with an increase of 35% for males. The increase in female incarceration rates occurred in all states and territories; the increase in the NT was the highest, increasing from 38 to 58 female prisoners per 100,000 adult females. The rate increased, in WA from 33 to 41 per 100,000, and in Tasmania from 10 to 22 per 100,000.

The overall rate of imprisonment for Indigenous females in Australia in 2009 was 360 per 100,000 population, 20 times the rate of 18 per 100,000 for non-Indigenous females. The Indigenous:non-Indigenous rate ratio for imprisonment of females was highest for those aged 18-19 years. This highlights the fact that Indigenous female prisoners tend to be younger than non-Indigenous female prisoners. The median age of all female prisoners was 34.2 years, 2.5 years older than the median age of 31.7 years for Indigenous female prisoners. The median age for all male prisoners was 33.4 years [6]. In *The health of Australia's prisoners 2009*, the average age of first pregnancy for Indigenous entrants was 17 years compared with 19 years for non-Indigenous entrants [2]. The proportion of the female prison population that was Indigenous ranged from less than 10% in Victoria to more than 80% in the NT [6]. The age-standardised imprisonment rate for Indigenous females has increased steadily over the past decade while the rate for non-Indigenous females has been relatively stable [6, 76-82].

The patterns of serious offences leading to imprisonment were different for Indigenous males and females in 2009: for men the highest proportion was for acts intended to cause injury (17%), followed by sexual assault (14%) and unlawful entry with intent (12%), while for women it was for illicit drug offences (16%), followed by acts intended to cause injury (13%) and fraud, deception and related offences (13%). Interestingly, the most serious offences for which Indigenous and non-Indigenous women are imprisoned differ as well. The most frequent serious offences for Indigenous women were 'acts to cause injury' (31% of the most serious offence/charge) and 'offences against justice procedures, government security and operations' (14%). For non-Indigenous women these were 'illicit drug offences' (22%) and 'fraud, deception and related

offences' (15%) [6]. Indigenous and non-Indigenous male prisoners did not differ in the most common serious offence ('acts intended to cause injury').

Female prison entrants differ from male prison entrants on a variety of health indicators [2]. More female entrants reported a history of mental health problems (57%) than did male entrants (35%). This is reflected in a history of self-harm, which was present for almost one-third of female entrants (31%) and 16% of male entrants. Female entrants had a much higher prevalence of HCV (60%) than did male prison entrants (33%). As mentioned above, almost three-quarters (72%) of Indigenous female entrants tested positive for HCV. In this survey female entrants also had higher prevalence (28%) of hepatitis B compared with male entrants (21%).

The health of Australia's prisoners 2009 reported that female entrants had higher rates of all chronic diseases than male entrants [2]. For asthma, 43% of female entrants reported the condition, compared with 28% of male entrants. More than twice as many female prison entrants (13%) reported arthritis compared with male entrants (6%). Similarly, just over two times as many female entrants (10%) reported cardiovascular disease compared with male entrants (4%). Again, in the case of diabetes, female entrants were over two times (7%) as likely as male entrants to report diabetes (3%).

Finally, *The health of Australia's prisoners 2009* assessed the two-year participation rate in a cervical screening program, finding that only 57% of Indigenous entrants and 43% of non-Indigenous entrants had been screened [2]. In comparison, the 2007-08 two-year participation rate for the general populace in the *National cervical screening program* was 61% [83].

A *Women prisoners' health survey* was conducted in all three Qld correctional facilities for women in 2002 [84]. The survey was based on the in-depth survey used in the NSW Inmate Health Surveys in 1996 and 2001. There were 212 participants, 25% of whom were Indigenous. This was relatively representative of the female Indigenous prison population in Qld in 2002, when Indigenous women made up 29% of the female prison population in that state. (Indigenous people made up 3.5% of the Qld population in 2002). The survey found that 57% of all the participants reported having been diagnosed at some time with a mental illness, 39% had suffered from depression, and 69% had scores on the Beck Depression Inventory that were consistent with mild to severe depression. Participants reported high levels of substance use, more than one-half had a history of injecting drug use, 38% had been drinking at harmful levels prior to being imprisoned, and 83% were tobacco smokers. Harmful levels of drinking were most prevalent among Indigenous women incarcerated in the north of the state (71%). Harmful levels of drinking were much less prevalent among non-Indigenous women in northern prisons (12%) and among both Indigenous (33%) and non-Indigenous (14%) women in southern prisons. Cannabis was the most common illicit drug used in the year prior to incarceration (36%), followed by amphetamines

(35%) and opiates (33%). Of the 43% who tested positive for HCV, of these 92% were or had been injecting drug users [84].

Qld women prisoners reported high levels of behaviours which put their health at risk [84]. Poor nutrition, little exercise, high levels of being overweight or obese, high rates of smoking and harmful levels of alcohol consumption put them at increased risk of chronic and acute diseases. Many women (43%) reported having been coerced into sexual activities before the age of 16 years, and 38% had been physically or emotionally abused before that age. Other risk factors reported were needle sharing, unprotected sex and unplanned pregnancies.

It is important to consider the short duration of imprisonment and high rates of repeat offences for the majority of women incarcerated in Qld. The health status of these women is not merely a reflection of the health care they receive in prison, but is a continuing manifestation of their on-going health status both within the community and in prison. [84, p.iii]

A study on anger and differences among prisoners was conducted with male and female inmates of seven prisons in SA and WA [85]. Fifty women and 121 men participated; 30% of the women and 29% of the men were Indigenous. A demographic questionnaire and two measures were used – the State Trait Anger Expression Inventory (STAXI) and the Novaco Anger Scale (NAS). The former assesses state or intensity of anger (how they feel right now), trait anger (how they generally feel), and reactions when angered (expression of anger). The NAS measures cognitive, physiological and behavioural anger (including deficits in anger-regulation), and individual anger patterns.

The results indicated a significant difference between women and men in both the way they experience and express anger. On the NAS, women scored higher than men on anger arousal, cognitions and behaviours, and a significant difference was found with respect to triggers. Women prisoners' scores were higher than men prisoners' on the 'unfair treatment' sub-scale, and they tended to be angrier in nature than the male prisoners. The authors believe this is possibly due to their having had traumatic experiences which 'created a sense of inequality ... Such resentment toward unfairness and injustice may be understandable in light of the social disadvantages' the majority of female prisoners have experienced [85, p.1095]. The implication of this research for correctional service providers is that interventions which have been developed for male prisoners will not necessarily be appropriate for women offenders. Their needs in the area of anger expression (including self-harm) will not be the same as those of male prisoners, and so gender-specific interventions and management strategies need to be developed and implemented to effectively address this area of need of women in Australian prisons.

Juvenile offenders

The overrepresentation in the criminal justice system of Indigenous youth is even more pronounced than of Indigenous adults. Only about 5% of young Australians are Indigenous, but 54% of young people in juvenile detention are Indigenous [12]. During 2007-08 WA had the highest Indigenous youth detention rate in Australia at 880 per 100,000 persons aged 10-17 years, followed by NSW at 585 per 100,000 and SA at 442 per 100,000 [7]⁴. In NSW data from 2004 indicated that Indigenous young people are more likely than their non-Indigenous peers to be taken to court (64% compared with 48%), and less likely to receive a caution from police (14% compared with 28%) [86]. An examination of the 2006-2007 data from all Australian jurisdictions found that a disproportionately high number of Indigenous young people came into contact with the police, and that Indigenous juveniles were less likely to be dealt with using diversionary measures rather than proceeding to court than their non-Indigenous peers [87].

On an average day in 2007-08, 40% of juveniles under supervision (that is, on a community supervision order or the like) were Indigenous, as were over one-half of those in detention and 60% of those who were in remand yet to be sentenced [88]. In the same year, Indigenous juveniles were 29 times more likely than non-Indigenous juveniles to be detained, and 15 times more likely to be under community-based supervision [88].

Indigenous offenders are more likely than their non-Indigenous peers to begin regularly offending at younger ages, to commit a property or violent offence at an earlier age, and are therefore significantly more likely to have a history of juvenile detention and incarceration as an adult [46]. It is for these reasons that NIDAC recently recommended that amendments be made to the current eligibility criteria of jurisdictional diversion programs so as to provide:

A greater incentive for the justice system and Indigenous people to participate by accepting Indigenous people (including those who have received advice to plead not guilty to avert a criminal record) into diversion programs. [36, p.11]

There is some evidence that, due to compounding factors of social disadvantage, there is a higher prevalence of cognitive disability among Indigenous youth than among non-Indigenous youth [89]. Cognitive disability is often cited as a factor in offending behaviour, so this disparity has been highlighted as a primary reason for addressing young Indigenous offenders through diversionary measures [89].

A cross-sectional survey of young offenders' physical and mental

4 Jurisdictional comparisons must be treated with caution, as some states and territories have very low Indigenous populations where small number effects can introduce extreme statistical variations. For this reason the ACT was not reported.

health in NSW juvenile detention centres was conducted in 2003 using interviews conducted by health professionals [90]. Nineteen female and 223 male young offenders participated. Overall 40% identified as Indigenous, with 63% of the female participants doing so. None tested positive for HIV, 9% tested positive for HCV and 11% for hepatitis B. The indicators of social disadvantage were pronounced among these young offenders, with 28% having been placed in care, and 43% having experienced parental incarceration. The Indigenous adolescents who participated in this survey were three times more likely than their non-Indigenous peers to have had a parent in prison. The authors concluded that the contact these marginalised groups of young people have with the criminal justice system should be seen as an opportunity to screen and treat them while in detention, and to encourage them to access health services when they return to their communities.

Another study of 179 male Indigenous adolescents and 530 male non-Indigenous adolescents in custody or serving community orders in NSW between 2002 and 2005 also reported high levels of HCV [61]. Indigenous adolescents had significantly higher levels of hepatitis B than non-Indigenous adolescents. Indigenous adolescents were also more than twice as likely as non-Indigenous adolescents to have had a parent ever be incarcerated and over 1.5 times as likely to have ever been placed in care.

These findings are similar to those of an analysis of cultural group differences in social disadvantage and psychopathology in incarcerated juvenile offenders in NSW using data from the 2002 *Young people in custody health survey* [91]. The analysis compared three groups of juveniles, 102 Indigenous, 40 from culturally and linguistically diverse backgrounds and 102 non-Indigenous from an English-speaking background. Indigenous juveniles significantly differed from other juveniles in social disadvantage only on measures of parents' marital status and history of parental imprisonment. Levels of substance use were similarly high for Indigenous juveniles and non-Indigenous juveniles from an English-speaking background, and significantly higher than those for juveniles from culturally and linguistically diverse background. In terms of psychopathology, Indigenous juveniles had significantly higher scores than non-Indigenous juveniles from English-speaking or culturally diverse backgrounds on culturally appropriate scales assessing conduct disorder and substance use [91].

Incarcerated juvenile offenders have been found to have a similar mental health burden to adult incarcerated offenders. A study comparing 159, 13-17 year olds remanded in SA, with the 1283 13-17 year olds who participated in the child and adolescent component of *Mental health and well-being in Australia survey*, and the 1100, 13-17 year olds who participated in the *Western Australian Aboriginal child health survey*, found adolescents on remand had significantly worse health-related quality of life on several measures than adolescents in the community, even after adjusting for differences in the demographics of the groups [92]. Troublingly

19.1% of adolescents on remand reported making a suicide attempt during the previous 12 months compared with 4.3% of adolescents in the community. This study further highlighted the disparity in the social determinants of health experienced by adolescent offenders, with those on remand more likely to have greater family adversity and poorer school attendance than those in the community [92]. Similarly in a study of 402 adolescent (212 Indigenous and 190 non-Indigenous) admitted into detention in Qld 82% of Indigenous and 75% of non-Indigenous adolescents scored above the clinical cut-off for at least one scale of the Massachusetts Youth Screening Instrument Version 2 [93].

Post-release

International and Australian research has consistently found the immediate post-release period to be a time of vulnerability to recidivism, suicide and overdose. A systematic review of the evidence in North America of 'what works' in facilitating the re-entry of prisoners into the community after release concluded that the most effective programs are those which include vocational training and work release programs, halfway houses, and drug treatment programs (intensive plus aftercare) [94]. Numerous studies carried out since 1990 in the United States and Canada also demonstrated the link between good education programs in prisons and lower rates of recidivism [95]. Effective counselling programs are those that take place 'mostly in the community rather than in institutional settings, that are intensive (at least six months long); focus on high-risk offenders, use cognitive behavioural treatment, and match therapists and programs to the specific learning styles and characteristics of individual offenders [94, p.6]. In a best-practice intervention:

Positive reinforcers would outweigh negative reinforcers in all program components. Every program begun in jail would have an intensive and mandatory aftercare component. [94, p.6-7]

In a study on the effect of housing on social reintegration in NSW and Vic, prisoners were interviewed prior to release, and then three, six and nine months after release [96]. Participants (194 in NSW, 145 in Vic) were asked questions about their housing and social experiences, why they thought things had gone as they had, and asked to comment on any other aspect of their post-release situation. Seventy percent of participants were retained to completion of the study and 50% had moved two or more times between post-release interviews. Being highly transient 'was found, using logistic regression, to be a predictor of return to prison. Increasing problematic use of heroin post-release was also found to be a predictor of return to prison' [96, p.i]. There was a significant association between staying out of prison and not moving at all, or only once in the three months between interviews, and living with a partner, parents, or close family. Many participants made comments about not meeting the criteria of housing agencies and not being able to find accommodation they could afford

without assistance. Commenting on the policy implications of their findings, the authors suggest that every prisoner needs 'a trained case-worker for housing, personal and advocacy support prior to and post-release', and that a multi-agency team approach is required [96, p.iii].

Another review of the literature on best practice for strategies to prevent re-offending similarly found that programs need to be sufficiently intense if they are to have a positive impact on offending rates: 'Canadian researchers recommend that programs should be at least 100 hours and take place over a minimum of 3-4 months' [97, p.20]. They also argue that prison-based programs should be integrated with community services, particular in the immediate post-release period. The review cited a New Zealand study [98], which found that recidivists reported experiencing more difficulties and poorer skills for dealing with these difficulties. They also had poorer strategies for managing anger, anxiety and depression than those who had not re-offended.

A study of the risk of death after release from prison in WA found Indigenous prisoners have a significantly lower survival rate than did non-Indigenous releasees [99]. The cohort included all prisoners released between January 1994 and December 1999, numbering 9,381 individuals, of whom 326 had died since being released. Indigenous women prisoners aged 20-40 years were 3.4 times more likely to die than other WA Indigenous women in the same age group, and Indigenous male prisoners (20-40 years) were 2.9 times more likely to die than other WA Indigenous men in the same age group. Non-Indigenous women in the same age range released from prison were 115.9 times more likely to die than their non-Indigenous women counterparts in WA due to alcohol and other drug-related causes. The main causes of death overall were related to drug and/or alcohol use. Among Indigenous men aged 20-40 years, there was an elevated risk of death by suicide or motor vehicle accident compared with non-Indigenous men. The authors suggested that addressing this situation will require coordinated programs, both pre- and post-release from prison [99].

The key theme that emerged from a study on mortality and morbidity in prisoners after release in WA between 1995 and 2003 was the inter-relationship between social disadvantage, mental health problems and the poor physical health of many prisoners [100]. It was found that women prisoners were at higher risk of mental disorders than male prisoners, and that Indigenous prisoners often had multiple, long-standing health issues, including those linked to alcohol and drug use. The authors argued there is a need to resource multiple and specific services in and out of the prison system to address these health problems. In order to do so, there needs to be closer cooperation between mental health and prison health services to ensure continuity of treatment of prisoners after their release, and effective discharge planning to ensure community linkage and continuity of care, especially for prisoners with multiple problems [99].

A study in Qld explored the health experiences post-release of 160 prisoners (108 male, 52 female) by conducting interviews prior to release, and again on two occasions after their release [101]. Within five weeks of release 37% of the women, and 64% of the male participants reported having used illicit drugs, in particular cannabis and amphetamines. They also reported significant levels of risky alcohol consumption. Mental health was assessed using the Kessler Psychological Distress Scale: prior to being released, approximately 50% had moderate or high scores. A higher proportion of males had high or very high levels of distress when first interviewed post-release, but distress levels declined for both men and women by the time of the second follow-up interview. A decline in physical health after leaving prison was reported by both men and women, but the decline was not statistically significant. The author pointed out that there are pre-release programs in prisons to assist people making the transition back into the community, and in some jurisdictions post-release support services exist, but 'the few programs for ex-prisoners in Australia are fragmented, often under-funded and usually based on limited evidence' [101, p.5].

The concept of 'throughcare' – a model where interventions begin while an offender is in custody, and continue after their release – has been widely accepted as the best approach to reducing recidivism in Europe, North America and Australia [102]. Implementation of the throughcare model in prisons and service agencies around Australia was assessed in 2005 by the Australian Government Office of the Attorney General [102]. It was found that a variety of interventions were being implemented, and that 'a throughcare ethos dominates in terms of the stated policy of Australian adult correctional authorities, although this is not necessarily the manner in which all programs are delivered' [102, p.111]. Despite this, there was still strong evidence that at least 'a lynchpin of throughcare delivery – collaborative partnerships between government and non-government providers – is employed' [102, p.111].

Concluding comments

Almost two decades have passed since the RCIADC first highlighted the overrepresentation of Indigenous people at all levels of the criminal justice system. However, the rate of Indigenous imprisonment has increased and the proportion of Indigenous deaths in custody has remained unchanged in these two decades. In fact, the situation in some aspects appears to be worsening. For example, the number of Indigenous juveniles in detention in Australia increased by 65% between 2001 and 2007; the number of non-Indigenous juveniles in detention increased by only 1.3% in the same period [103]. It is clear from the evidence presented in this review that Indigenous offenders represent a growing marginalised population within the wider community.

The offender population is characterised by poor health outcomes across nearly all health indicators. Offenders have been shown to

have higher rates of chronic disease, mental illness, communicable diseases, and substance use than those in the community [2, 32]. Within the prison population, Indigenous offenders are at a further disadvantage, entering prison with poorer health than non-Indigenous offenders, and leaving prison to face poorer health outcomes and life expectancies than their non-Indigenous counterparts [100]. This is shaped by the wider socio-economic context, with those exposed to the criminal justice system typically poorly educated, unemployed, socially isolated, and financially dependent [2]. Indigenous offenders are at a substantial disadvantage compared with their non-Indigenous counterparts across all these areas.

Contact with the criminal justice system presents an opportunity to identify and treat the physical and mental health problems of a population that is predominantly economically disadvantaged and socially marginalised. But, prison health services still largely operate without a rehabilitative focus, with the rehabilitation that is offered often under-funded and poorly designed [104]. Further, the health services offered often fail to account for the specific needs of Indigenous offenders, despite the large proportion of Indigenous offenders within the criminal justice system [104]. There are, however, some good signposts on how to proceed in updating the prison health services. The development of national prison health indicators provides an increasing evidence base on which to base interventions, while the *Inspection standards for Aboriginal Prisoners*, for example, outline exemplarily how custodial facilities should be adapted to meet the specific needs of Indigenous offenders [104]. These standards acknowledge the holistic nature of the Indigenous concept of health and provide practical recommendations on how correctional facilities can recognise this, for example recommendation A7 which states that 'culturally appropriate criteria for leave to attend family funerals should be established and implemented for Aboriginal prisoners' [104, p.10].

There is a clear need to embrace more diversionary measures when dealing with Indigenous offenders, a fact which is entrenched in the RCIADC's finding that prison should always be a last resort [105]. A new approach to dealing with high rates of offending in some Indigenous communities has been advocated by the Aboriginal and Torres Strait Islander Social Justice Commissioner of the Australian Human Rights Commission [106]. 'Justice reinvestment' is an approach to reducing rates of incarceration (and the enormous associated financial costs). Here, a portion of the funds spent on imprisonment is diverted to local communities that have a high concentration of offenders, to be spent on programs and services that address the underlying causes of crime. Diversion for young offenders into programs that help build their skills and resilience, and prevent them entering a cycle of recidivism, is crucial to reducing the hugely disproportionate Indigenous incarceration rate in Australia.

THE IMPORTANCE OF CLOSING THE GAP

At the beginning of this review, the holistic nature of the Indigenous concept of health was explained. The solutions to bettering the health and other outcomes of Indigenous offenders must also be viewed holistically. Indigenous offenders are part of an Indigenous population that has vastly lower health outcomes and life expectancies than the wider Australian community. This vast gap was highlighted in the *Social Justice Report 2005*, which called on Australian governments to commit to achieving Indigenous health equality within 25 years [107]. In 2007, Australian governments, through the Council of Australian Governments (COAG) committed to 'closing the gaps' in disadvantage between Indigenous and other Australians [108].

COAG has agreed on a number of specific targets for reducing Indigenous disadvantage in the areas of education, early childhood development, health and employment. The targets are to:

- Close the life expectancy gap within a generation;
- Halve the gap in mortality rates for Indigenous children under five within a decade;
- Ensure access to early childhood education for all Indigenous four year olds in remote communities within five years;
- Halve the gap in reading, writing and numeracy achievements for children within a decade;
- Halve the gap for Indigenous students in year 12 attainment rates by 2020; and
- Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade [109].

COAG has committed \$4.6 billion over four years across early childhood development, health, housing, economic participation and remote service delivery, and has also achieved a number of supportive commitments by the corporate and community sectors [109]. Agreement has been reached also on the establishment of a new national Indigenous representative body.

This is the first time that such a high level of commitments has been made by the Australian, state and territory governments and others, raising the prospects of real improvements in the health of Indigenous people, including Indigenous offenders. However, there still needs to be specific commitment to reducing Indigenous disadvantage through eradicating the overrepresentation of Indigenous people at all levels of the criminal justice system. Reforms currently underway in the criminal justice system need to be thoroughly implemented, and further work needs to be undertaken to address the burdens that corrective health services currently face across Australia. The gaps between Indigenous and other Australians will only be closed when all aspects of Indigenous disadvantage are addressed, and this includes tackling the specific health issues of Indigenous offenders.

References

1. National Aboriginal Health Strategy Working Party (1989) *A National Aboriginal Health Strategy*. Canberra: Department of Aboriginal Affairs
2. Australian Institute of Health and Welfare (2010) *The health of Australia's prisoners 2009*. (AIHW Catalogue no PHE 123) Canberra: Australian Institute of Health and Welfare
3. Indig D, Topp L, Ross B, Mamoon H, Border B, Kumar S, McNamara M (2010) *2009 NSW inmate health survey: key findings report*. Sydney: Justice Health
4. Butler T, Milner L (2003) *The 2001 New South Wales inmate health survey*. Sydney: New South Wales Corrections Health Service
5. Australian Bureau of Statistics, Australian Institute of Health and Welfare (2008) *The health and welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2008*. (ABS Catalogue no. 4704.0 and AIHW Catalogue no. IHW 21) Canberra: Australian Bureau of Statistics and Australian Institute of Health and Welfare
6. Australian Bureau of Statistics (2009) *Prisoners in Australia, 2009*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics
7. Steering Committee for the Review of Government Service Provision (2010) *Report on Government Services 2010*. (Vol.1,2) Canberra: Productivity Commission
8. Australian Bureau of Statistics (2010) *Repeat imprisonment*. Canberra: Australian Bureau of Statistics
9. Midford R (1988) Imprisonment: the Aboriginal experience in Western Australia. *Australian and New Zealand Journal of Criminology*;21(3):168-178
10. Reynolds H (1982) *The other side of the frontier: Aboriginal resistance to the European invasion of Australia*. Ringwood, Victoria: Penguin Books
11. Thomas JE, Stewart A (1978) *Imprisonment in Western Australia: evolution, theory and practice*. Perth, WA: University of Western Australia Press
12. Curnow J, Joudo Larsen J (2009) *Deaths in custody in Australia: National Deaths in Custody Program 2007*. (Monitoring reports series, no. 03) Canberra: Australian Institute of Criminology
13. Midford R (1993) The decriminalisation of public drunkenness in Western Australia. *Australian Journal of Social Issues*;28(1):62-78
14. Muirhead JH (1988) *Royal Commission into Aboriginal Deaths in Custody*. Canberra:
15. Blagg H (2008) *Crime, Aboriginality and the decolonisation of justice*. Annandale, NSW: Hawkins Press
16. Sherwood J, Edwards T (2006) Decolonisation: a critical step for improving Aboriginal health. *Contemporary Nurse*;22(2):178-190
17. Marmot M, Wilkinson R, eds. (1999) *Social determinants of health*. Oxford: Oxford University Press
18. Carson B, Dunbar T, Chenhall RD, Bailie R, eds. (2007) *Social determinants of Indigenous health*. Crows Nest, NSW: Allen and Unwin
19. Weatherburn D, Snowball L, Hunter B (2006) *The economic and social factors underpinning Indigenous contact with the justice system: results from the 2002 NATSISS survey*. (Crime and justice bulletin: contemporary issues in crime and justice, no. 104) Sydney: NSW Bureau of Crime Statistics and Research
20. Snowball L, Weatherburn D (2006) *Indigenous over-representation in prison: the role of offender characteristics*. (Crime and justice bulletin: contemporary issues in crime and justice, no. 99) Sydney: NSW Bureau of Crime Statistics and Research
21. Allard T, Stewart A, Chrzanowski A, Ogilvie J, Birks D, Little S (2010) *Police diversion of young offenders and Indigenous over-representation*. (Trends & issues in crime and criminal justice no. 390) Canberra: Australian Institute of Criminology
22. Jeffries S, Bond C (2009) Does Indigeneity matter? Sentencing Indigenous offenders in South Australia's Higher Courts. *Australian and New Zealand Journal of Criminology*;42(1):47-71
23. Joudo J, Curnow J (2008) *Deaths in custody in Australia: National Deaths in Custody Program annual report 2006*. (Research and public policy series no. 85) Canberra: Australian Institute of Criminology
24. Quilty S, Levy MH, Howard K, Barratt A, Butler T (2004) Children of prisoners: a growing public health problem. *Australian and New Zealand Journal of Public Health*;28(4):339-343
25. Johnston E (1991) *Royal Commission into Aboriginal Deaths in Custody: national report: overview and recommendations*. Canberra: Australian Government Publishing Service
26. Cunneen C (2006) Racism, discrimination and the over-representation of Indigenous people in the criminal justice system: some conceptual and explanatory issues. *Current Issues in Criminal Justice*;17(3):329-346
27. Levy M (2005) Prisoner health care provision: reflections from Australia. *International Journal of Prisoner Health*;1(1):65-73
28. Marchetti E (2005) Critical reflections upon Australia's Royal Commission into Aboriginal Deaths in Custody. *Macquarie Law Journal*;5(2005):103-125
29. National Archives of Australia (2008) *Royal Commission into Aboriginal Deaths in Custody – fact sheet 112*. Canberra: National Archives of Australia
30. Australian Bureau of Statistics (2009) *National Health Survey: summary of results, 2007-2008 (reissue)*. (ABS Catalogue no. 4364.0) Canberra: Australian Bureau of Statistics
31. Australian Bureau of Statistics (2006) *National Health Survey: summary of results, Australia, 2004-05*. (ABS Catalogue no. 4364.0) Canberra: Australian Bureau of Statistics
32. Butler T, Papanastasiou C (2008) *National prison entrants' bloodborne virus and risk behaviour survey report 2004 & 2007*. Perth, WA: National Drug Research Institute
33. Kariminia A, Butler T, Levy M (2007) Aboriginal and non-Aboriginal health differentials in Australian prisoners. *Australian and New Zealand Journal of Public Health*;31(4):366-371
34. Butler T, Allnutt S, Kariminia A, Cain D (2007) Mental health status of Aboriginal and non-Aboriginal Australian prisoners. *Australian and New Zealand Journal of Psychiatry*;41(5):429-435
35. Gilles M, Swingler E, Craven C, Larson A (2008) Prison health and public health responses at a regional prison in Western Australia. *Australia and New Zealand Journal of Public Health*;32(6):549-553

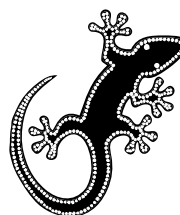
36. National Indigenous Drug and Alcohol Committee (2009) *Bridges and barriers: addressing Indigenous incarceration and health*. Canberra: Australian National Council on Drugs
37. Ogloff JRP, Davis MR, Rivers G, Ross S (2007) *The identification of mental disorders in the criminal justice system*. (Trends & issues in crime and criminal justice no. 334) Canberra: Australian Institute of Criminology
38. Ogloff JRP (2002) Identifying and accommodating the needs of mentally ill people in gaols and prisons. *Psychiatry, Psychology and Law*;9(1):1-33
39. Mullen PE, Holmquist CL, Ogloff JRP (2003) *National forensic mental health scoping study*. Canberra: Department of Health and Ageing, Australia
40. Australian Institute of Health and Welfare (2004) *Australian hospital statistics 2002-03*. (AIHW catalogue no. HSE 32) Canberra: Australian Institute of Health and Welfare
41. Australian Bureau of Statistics (2008) *National survey of mental health and wellbeing: summary of results, 2007*. (ABS Catalogue no 4326.0) Canberra: Australian Bureau of Statistics
42. Butler T, Allnutt S, Cain D, Owens D, Muller C (2005) Mental disorder in the New South Wales prisoner population. *Australian and New Zealand Journal of Psychiatry*;39(5):407-413
43. Butler T, Andrews G, Allnutt S, Sakashita C, Smith NE, Basson J (2006) Mental disorders in Australian prisoners: a comparison with a community sample. *Australian and New Zealand Journal of Psychiatry*;40(3):272-276
44. Heffernan E, Andersen K, Kinner S (2009) The insidious problem inside: mental health problems of Aboriginal and Torres Strait Islander people in custody. *Australasian Psychiatry*;17(S1):S41 - S46
45. Calma T (2008) *Preventing crime and promoting rights for Indigenous young people with cognitive disabilities and mental health issues*. (Report no. 3) Canberra: Australian Human Rights Commission
46. Joudo J (2008) *Responding to substance abuse and offending in Indigenous communities: review of diversion programs*. (Research and Public Policy series no. 88) Canberra: Australian Institute of Criminology
47. Ministerial Council on Drug Strategy (2004) *National drug strategy: Australia's integrated framework 2004-2009*. Canberra: Ministerial Council on Drug Strategy
48. World Health Organization (1992) *The ICD-10 classification of mental and behavioural disorders*. Geneva: World Health Organization
49. Butler T, Allnutt S (2003) *Mental illness among New South Wales prisoners*. Sydney: New South Wales Corrections Health Service
50. Adams K, Sandy L, Smith L, Triglone B (2008) *Drug use monitoring in Australia: 2007 annual report on drug use among police detainees*. (Report no. 93) Canberra: Australian Institute of Criminology
51. Australian Institute of Health and Welfare (2006) *Towards a national prisoner health information system*. (AIHW Catalogue no PHE 79) Canberra: Australian Institute of Health and Welfare
52. Australian Bureau of Statistics (2007) *Population distribution, Aboriginal and Torres Strait Islander Australians, 2006*. (ABS Catalogue no. 4705.0) Canberra: Australian Bureau of Statistics
53. Gaffney A, Jones W, Sweeney J, Payne J (2010) *Drug use monitoring in Australia: 2008 annual report on drug use among police detainees*. (Monitoring reports no.9) Canberra: Australian Institute of Criminology
54. Putt J, Payne J, Milner L (2005) *Indigenous male offending and substance abuse*. (Trends and issues in crime and criminal justice no. 293) Canberra: Australian Institute of Criminology
55. Weatherburn DJ (2008) The role of drug and alcohol policy in reducing Indigenous over-representation in prison. *Drug and Alcohol Review*;27(1):91-94
56. Western Australian Network for Alcohol and other Drugs (2009) *Submission to the Education and Health Standing Committee inquiry into the adequacy and appropriateness of prevention and treatment services for alcohol and illicit drug problems in Western Australia*. Perth, WA: Parliament of Western Australia
57. Hepatitis C Virus Projections Working Group (2006) *Estimates and projections of the hepatitis C virus epidemic in Australia 2006*. Canberra: Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis C Sub-Committee
58. Butler T, Boonwaat L, Hailstone S, Falconer T, Lems P, Ginley T, Read V, Smith N, Levy M, Dore G, Kaldor J (2007) The 2004 Australian prison entrants' blood-borne virus and risk behaviour survey. *Australian and New Zealand Journal of Public Health*;31(1):44-50
59. Vescio MF, Longo B, Babudieri S, Starnini G, Carbonara S, Rezza G, Monarca R (2008) Correlates of hepatitis C virus seropositivity in prison inmates: a meta-analysis. *Journal of Epidemiology and Community Health*;62(4):305-313
60. Miller ER, Bi P, Ryan P (2009) Hepatitis C virus infection in South Australian prisoners: seroprevalence, seroconversion, and risk factors. *International Society for Infectious Diseases*;13(2):201-208
61. Van der Poorten D, Kenny D, George J (2008) Prevalence of and risk factors for hepatitis C in Aboriginal and non-Aboriginal adolescent offenders. *Medical Journal of Australia*;188(10):610-614
62. Gray D, Stearne A, Wilson M, Doyle M (2010) *Indigenous-specific alcohol and other drug interventions: continuities, changes and areas of greatest need*. (ANCD research paper 20) Canberra: Australian National Council on Drugs
63. Watkins RE, Mak DB, Connelly C (2009) Testing for Sexually Transmitted Infections and blood borne viruses on admission to Western Australian prisons. *BMC Public Health*;9. Retrieved 13 October 2009 from <http://www.biomedcentral.com/content/pdf/1471-2458-9-385.pdf>
64. Boonwaat L, Haber PS, Levy MH, Lloyd AR (2010) Establishment of a successful assessment and treatment service for Australian prison inmates with chronic hepatitis C. *Medical Journal of Australia*;192(9):496-500
65. Butler T, Boonwaat L, Hailstone S (2005) *National prison entrants' bloodborne virus survey, 2004*. (CHRCJ Research Report No. 1) Sydney: Centre for Health Research in Criminal Justice & National Centre in HIV Epidemiology and Clinical Research
66. Fairley CK, Bowden FJ, Gay NJ, Paterson BA, Garland SM, Tabrizi SN (1997) Sexually transmitted diseases in disadvantaged Australian communities. *Journal of the American Medical Association*;278(2):117-118
67. Butler T, Donovan B, Taylor J, Cunningham AL, Mindel A, Levy M, Kaldor J (2000) Herpes simplex virus type 2 in prisoners, New South Wales, Australia. *International Journal of STD & AIDS*;11(11):743-747

68. Butler T, Robertson P, Kaldor J, Donovan B (2001) Syphilis in New South Wales (Australia) prisons. *International Journal of STD & AIDS*;12(6):376-379
69. Hammett TM (2009) Sexually transmitted diseases and incarceration. *Current Opinion in Infectious Diseases*;22(1):77-81
70. Yap L, Butler T, Richters J, Kirkwood K, Grant L, Saxby M, Ropp F, Donovan B (2007) Do condoms cause rape and mayhem? The long-term effects of condoms in New South Wales' prisons. *Sexually Transmitted Infections*;83(3):219-222
71. Dolan K, Lowe D, Shearer J (2004) Evaluation of the condom distribution program in New South Wales Prisons, Australia. *Journal of Law, Medicine & Ethics*;32(1):124-8
72. Butler T (1997) *Preliminary findings from the inmate health survey (ie physical and mental health status) of the inmate population in the New South Wales correctional system*. Matraville, NSW: Corrections Health Service
73. Richters J, Butler T, Yap L, Kirkwood K, Grant L, Smith AMA, Schneider K, Donovan B (2008) *Sexual health and behaviour of New South Wales prisoners*. Sydney: School of Public Health and Community Medicine, University of New South Wales
74. Heilpern D (2005) Sexual assault of prisoners: reflections. *University of NSW Law Journal*;11(1)
75. Steels B, Goulding D (2009) *Predator or prey? An exploration of the impact and incidence of sexual assault in WA prisons*. Perth, WA: Centre for Social & Community Research, Murdoch University
76. Australian Bureau of Statistics (2008) *Prisoners in Australia, 2008*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics
77. Australian Bureau of Statistics (2007) *Prisoners in Australia, 2007*. (ABS Cat. no. 4517) Canberra: Australian Bureau of Statistics
78. Australian Bureau of Statistics (2006) *Prisoners in Australia, 2006*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics
79. Australian Bureau of Statistics (2005) *Prisoners in Australia, 2005*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics
80. Australian Bureau of Statistics (2004) *Prisoners in Australia, 2004*. (ABS Catalogue no. 4517.0) Canberra: Australian Bureau of Statistics
81. Australian Bureau of Statistics (2003) *Prisoners in Australia, 2003*. (ABS Catalogue no 4517.0) Canberra: Australian Bureau of Statistics
82. Australian Bureau of Statistics (2001) *Prisoners in Australia, 2001*. Canberra: Australian Bureau of Statistics
83. Australian Institute of Health and Welfare (2010) *Cervical screening in Australia 2007-2008: data report*. (AIHW Catalogue no CAN 50, Cancer series no 54) Canberra: Australian Institute of Health and Welfare
84. Hockings BA, Young M, Falconer A, O'Rourke PK (2002) *Queensland women prisoners' health survey*. Brisbane: Queensland Department of Corrective Services
85. Sutera JM, Byrne MK, Byrne S, Howells K, Day A (2002) Anger in prisoners: women are different from men. *Personality and Individual Differences*;32(6):1087-1100
86. Chan J, Barga J, Luke G, Clancey G (2004) Regulating police discretion: an assessment of the impact of the NSW Young Offenders Act 1997. *Criminal Law Journal*;28(2):74-92
87. Richards K (2009) *Juveniles' contact with the criminal justice system in Australia*. (Monitoring reports no. 7) Canberra: Australian Institute of Criminology
88. Australian Institute of Health and Welfare (2009) *Juvenile justice in Australia 2007-08*. (AIHW Catalogue no JUV 5) Canberra: Australian Institute of Health and Welfare
89. Aboriginal and Torres Strait Islander Social Justice Commissioner (2005) *Indigenous young people with cognitive disabilities and Australian juvenile justice systems*. Sydney: Aboriginal and Torres Strait Islander Social Justice Commissioner, Human Rights and Equal Opportunity Commission
90. Butler T, Belcher JM, Champion U, Kenny D, Allerton M, Fasher M (2008) The physical health status of young Australian offenders. *Australian and New Zealand Journal of Public Health*;32(1):73-80
91. Kenny DT, Lennings CJ (2007) Cultural group differences in social disadvantage, offence characteristics, and experience of childhood trauma and psychopathology in incarcerated juvenile offenders in NSW, Australia: implications for service delivery. *Psychiatry, Psychology and Law*;14(2):294-305
92. Sawyer MG, Guidolin M, Schulz KL, McGinnes B, Zubrick SR, Baghurst PA (2010) The mental health and wellbeing of adolescents on remand in Australia. *Australian and New Zealand Journal of Psychiatry*;44(6):551-559
93. Stathis S, Letters P, Doolan I, Fleming R, Heath K, Arnett A, Cory S (2008) Use of the Massachusetts Youth Screening Instrument to assess mental health problems in young people within an Australian youth detention centre. *Journal of Paediatrics and Child Health*;44(7-8):438-443
94. Petersilia J (2004) *What works in prison re-entry? reviewing and questioning the evidence*. Washington: United States Courts
95. Vacca JS (2004) Educated prisoners are less likely to return to prison. *Journal of Correctional Education*;December 2004
96. Baldry E, Maplestone P (2003) Aboriginal prison releasees in New South Wales: preliminary comments based on ex-prisoner research. *Indigenous Law Bulletin*;5(22):7-8
97. Howells K, Day A, Bryne M, White L, Hart K, Nakos J (1999) *Rehabilitative strategies for preventing re-offending*. Adelaide: The Forensic and Applied Psychology Research Group, University of South Australia
98. Zamble E, Quinsey VL (1997) *The criminal recidivism process*. Cambridge: Cambridge University Press
99. Stewart LM, Henderson CJ, Hobbs MS, Ridout SC, Knuiman MW (2004) Risk of death in prisoners after release from jail. *Australian and New Zealand Journal of Public Health*;28(1):32-36
100. Hobbs MS, Krazlan K, Ridout S, Mai Q, Knuiman M, Chapman R (2006) *Mortality and morbidity in prisoners after release from prison in Western Australia, 1995-2003*. (Research and public policy series no. 71) Canberra: Australian Institute of Criminology
101. Kinner SA (2006) The post-release experience of prisoners in Queensland. *Trends & issues in crime and criminal justice*;September 2006(Trends & issues in crime and criminal justice no. 325):1-6
102. Borzycki M (2008) *Interventions for prisoners returning to the community*. Canberra: Australian Institute of Criminology

103. Steering Committee for the Review of Government Service Provision (2009) *Overcoming Indigenous disadvantage: key indicators 2009*. Canberra: Productivity Commission, Australia
104. Office of the Inspector of Custodial Services (2008) *Inspection standards for Aboriginal prisoners*. Perth, WA: Office of the Inspector of Custodial Services
105. Royal Commission into Aboriginal Deaths in Custody (1991) *Royal Commission into Aboriginal Deaths in Custody: National reports [Vol 1-5], and regional reports*. Canberra: Australian Government Publishing Service
106. Calma T (2009) *Investing in Indigenous youth and communities to prevent crime*. Presented at Indigenous young people, crime and justice conference 31 August 2009, Canberra
107. Aboriginal and Torres Strait Islander Social Justice Commissioner (2005) *Social justice report 2005*. Sydney: Human Rights & Equal Opportunity Commission
108. Council of Australian Governments (2009) *National Indigenous reform agreement (closing the gap)*. Canberra: Council of Australian Governments
109. Department of Families Housing Community Services and Indigenous Affairs (FaHCSIA) (2009) *Closing the gap on Indigenous disadvantage: the challenge for Australia*. Canberra: Commonwealth of Australia



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Director Professor Neil Thomson

Address Australian Indigenous *HealthInfoNet*
Kurongkurl Katitjin, Centre for Indigenous
Australian Education and Research
Edith Cowan University
2 Bradford Street
Mount Lawley, WA 6050

Telephone (08) 9370 6336

Facsimile (08) 9370 6022

Email healthbulletin@ecu.edu.au

Web www.healthbulletin.org.au

CORE FUNDING



Australian Government
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