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Abstract | This study uses data from two state-wide surveys conducted in NSW prisons and youth justice centres in 2015 to examine the epidemiology of intergenerational incarceration. One in six (16.9%) adults in prison and over half (52.6%) of young people in youth justice centres reported that a parent had been imprisoned. For Aboriginal participants, 32.0 percent of adults and 66.4 percent of young people reported a previously incarcerated parent. Women were more than twice as likely as men to report that their mother had been in prison. Younger participants, those who had completed fewer years of schooling, and those previously in out-of-home care were more likely to report that a parent had been incarcerated. The high prevalence of intergenerational incarceration in NSW correctional settings, particularly among young people in youth justice centres and Aboriginal peoples in custody, highlights the need for interventions to support parents in prison and at-risk children whose parents are incarcerated.

Intergenerational incarceration in New South Wales: Characteristics of people in prison experiencing parental imprisonment

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Introduction

Parents in the Australian criminal justice system

In the June quarter of 2021, the average daily number of people detained in prisons in Australia was 43,073 (Australian Bureau of Statistics 2021a). Many of these people in prison are parents; a recent report from the Australian Institute of Health and Welfare notes that two in five (38%) people entering prison in Australia have dependent children in the community, with this proportion being higher for women (54%) than men (36%; Australian Institute of Health and Welfare 2019). In addition, 85 percent of women entering Australian prisons reported that they had been pregnant at some stage and almost one in 50 was pregnant at the time of entering custody (Australian Institute of Health and Welfare 2019).

While data regarding the number of Australian children directly affected by parental incarceration are not routinely reported, in 2013 Dennison and colleagues estimated that approximately four percent of children in Queensland experienced paternal imprisonment in their lifetime (Dennison, Stewart & Freiberg 2013). They also reported that Aboriginal children were four times more likely to experience paternal imprisonment than non-Aboriginal children. A later study by Dowell and colleagues in Western Australia estimated that 18.8 percent of Aboriginal children and 0.7 percent of non-Aboriginal children born between 1992 and 1996 experienced their mother being imprisoned during their childhood (Dowell, Preen & Segal 2017).

Intergenerational incarceration

The incarceration of parents has the potential to significantly impact on the health and wellbeing of their children (Bartlett & Trotter 2019; Dennison & Besemer 2018; Tzoumakis et al. 2019; Whitten et al. 2019; Wildeman, Goldman & Turney 2018). Moreover, there is strong criminological evidence that criminal behaviour may be transmitted between generations of the same family (intergenerational offending; Besemer & Bui 2019; Dennison, Stewart & Freiberg 2013; Justice Health & Forensic Mental Health Network 2015; Troy et al. 2018) and that the imprisonment of parents can increase the risk of their children experiencing incarceration themselves (intergenerational incarceration; Beaver 2013; Farrington, Coid & Murray 2009; Frisell, Lichtenstein & Långström 2011; Tzoumakis et al. 2019).

These intergenerational linkages between offending of parents and their children are likely to be a result of complex processes and associated with a multitude of factors (Giordano & Copp 2015). These factors include:

- genetics (Frisell, Lichtenstein & Långström 2011);
- the gender of the parent and child (Frisell, Lichtenstein & Långström 2011);
- parental characteristics such as younger maternal age and marital status at birth (Wand et al. 2018);
- exposure to pro-criminal thinking and behaviour (role-modelling, normalisation and acceptance of antisocial behaviours; Hjalmarsson & Lindquist 2012);
- exposure to socio-economic disadvantage such as unemployment, systemic racism and financial stress (Farrington, Coid & Murray 2009);
- housing instability, lack of education, family instability, as well as interpersonal violence and trauma (Stinson, Quinn & Levenson 2016); and
- problematic gambling and drug and/or alcohol abuse (Australian Institute of Health and Welfare 2019; Jones & Crawford 2007).

Bias in policing and statutory responses to crime may compound these factors (Flynn 2013).

The specific mechanisms that underlie intergenerational offending and incarceration remain difficult to identify given the intersection between criminal offending and factors more generally associated with socio-economic disadvantage (Bartels 2020). This intersection is further complicated by other processes that have been suggested as being associated with intergenerational transmission of offending including social learning, criminogenic environments, biological proneness, and criminal justice bias (Besemer & Bui 2019). The Cambridge Study in Delinquent Development, which tracked 411 south London males from age 8 to age 48, revealed significant intergenerational transmission of convictions from fathers and mothers to their sons and from these sons to their own biological sons and daughters (Farrington, Coid & Murray 2009). However, in logistic regression modelling, the predictive efficiency of fathers' convictions on sons' convictions was reduced when controlling for socio-economic risk factors such as large family size and poor housing, family factors such as poor parental supervision and coming from a disrupted family, and individual factors such as low school attainment and high propensity for risk-taking (Farrington, Coid & Murray 2009). The authors conclude that while criminal parents still directly predicted convictions of their sons, it is possible that part of this intergenerational offending link is indirect and mediated through family and other risk factors (Farrington, Coid & Murray 2009).

A later study by Wildeman and Andersen (2017) aimed to determine the effect of parental incarceration on a child's future criminal behaviour, independent of other factors, by examining the impact on intergenerational incarceration of law reforms in Denmark that promoted the use of community service rather than incarceration for adults sentenced to less than a year for specific crimes. The authors conducted a 10-year follow up of young people (12–18 years old) whose fathers were eligible for a non-custodial sentence instead of incarceration under the reform and compared their risk of being charged with a criminal offence to that of matched children whose fathers were convicted of similar crimes but were ineligible for a non-custodial sentence (Wildeman, Goldman & Turney 2018). They reported that boys whose fathers received a non-custodial sentence under the reform were approximately 15 percent less likely to be charged with a crime in the next 10 years than boys whose fathers committed comparable crimes but who were incarcerated. This, they argue, suggests that the incarceration of fathers, over and above the impact of paternal criminality, has an independent effect on their sons' risk of having contact with the criminal justice system. That is, incarceration of fathers is a cause of criminality in their sons.

Nonetheless, other researchers have argued that the effects of parental incarceration on subsequent offending and incarceration of children must not be examined in isolation using statistical techniques to control for other co-occurring sources of disadvantage; rather, parental incarceration must be examined in the broader family context to better understand what causes intergenerational incarceration. For example, Giordano and colleagues (2019) argue that a parent's criminal behaviour is a specific kind of disadvantage that may have a greater impact on the risk of criminal offending in their children than any actual periods of parental incarceration. More specifically, they argue that 'ongoing conditions' of family life—such as parental antisocial behaviour, drug use and criminal behaviour, along with the impact of these on a child's social learning and development of network ties with, for example, peers and romantic partners—are critically important in a child's future risk of criminal involvement.

Aim

Despite this broad body of published research relating to intergenerational incarceration, there is limited published information regarding the prevalence of intergenerational incarceration in the NSW criminal justice system and the characteristics of people in NSW prisons who have experienced parental imprisonment. In 2015, the Justice Health and Forensic Mental Health Network (Justice Health NSW) and Juvenile Justice NSW conducted state-wide surveys of adults in prison in NSW correctional centres and young people in youth justice centres (Justice Health & Forensic Mental Health Network 2015; Justice Health & Forensic Mental Health Network and Juvenile Justice NSW 2015). The aim of this study was to analyse aggregate data from these surveys to describe the epidemiology of intergenerational incarceration in relation to adults in prison and young people in youth justice centres in New South Wales. A better understanding of the characteristics of adults in prison and young people in youth justice centres who have experienced parental incarceration may help inform future research and interventions to disrupt the intergenerational cycle of offending behaviour, thereby reducing the risk of children of incarcerated parents becoming incarcerated themselves.

Methods

Data sources

This analysis is based upon aggregate data provided by the custodians of primary data derived from two state-wide surveys conducted by the Justice Health and Forensic Mental Health Network and Juvenile Justice NSW in 2015:

- the NSW Network Patient Health Survey (NPHS; Justice Health & Forensic Mental Health Network 2015)—a large cross-sectional survey of a stratified random sample of all adults in prison in NSW correctional centres; and
- the Young People in Custody Health Survey (YPICHS; Justice Health & Forensic Mental Health Network and Juvenile Justice NSW 2015)—a cross-sectional survey of the NSW youth justice population.

These surveys included face-to-face interviews, physical measurements, pathology testing, access to medical records and linkage with other health and justice records held by the NSW Government. Participation was voluntary and participants were able to opt into part of the study only.

Results generated from the primary analysis of the data collected for the NPHS and YPICHHS have previously been reported (Justice Health & Forensic Mental Health Network 2015; Justice Health & Forensic Mental Health Network and Juvenile Justice NSW 2015). For this study, the research team analysed secondary aggregate data obtained from the custodians of the NPHS and YPICHHS primary data. To obtain this data, the research team provided empty table shells with pre-determined variables to the data custodians, who then interrogated their primary data and provided aggregate counts for each of these pre-defined variables, stratified by participant groups where appropriate. The research team for this study did not have permission to access or analyse the primary data from the NPHS and YPICHHS.

Data management and analysis

For the purposes of this analysis, survey participants were defined as having had a parent in prison (ie to have experienced intergenerational incarceration) if at least one parent had been incarcerated in the past or was in prison at the time the participant completed the survey.

Aggregate data obtained from the NPHS related to sociodemographics of survey participants, prior incarceration in youth detention, most serious offence, and experience of out-of-home care (OOHC) before the age of 16 years. Analysis of this data involved weighting calculations, as the sampling methodology used in the NPHS deliberately over-represented women and Aboriginal peoples. As outlined in the NPHS report:

The weighting ensures that findings in this report for the total population or for gender groups reflect all data gathered but avoid the potential for bias by disproportionate numbers of participants in specific demographic groups. (Justice Health & Forensic Mental Health Network 2015: 20)

That is, the weighting factors were used to ensure that the survey data were representative of the entire NSW prison population at the time of the survey. The weighting factors used for total population findings and gender findings were obtained from the NPHS report (see Justice Health & Forensic Mental Health Network 2015: p 20) while the weighting factor for ethnicity findings were calculated from the 2015 NSW prison population numbers and sample numbers provided in the NPHS report (Justice Health & Forensic Mental Health Network 2015: 20). These weighting factors are presented in Table A1. Descriptive statistics derived from analyses of NPHS data are presented as percentages only. Counts are not presented as weighting calculations provided a total number of weighted cases that did not equate to the number of cases in the sample. Hence, presenting counts could be misleading.

Aggregate data obtained from the YPICHS related to sociodemographics of survey participants, the number of times they had experienced youth detention, and experiences of trauma. Analysis of these data did not involve any weighting calculations. Descriptive statistics derived from YPICHS data are presented as counts and percentages as no weighting was used.

To describe the epidemiology of intergenerational incarceration in NSW prisons, we calculated the overall proportion of adults in prison and young people in youth justice centres who had experienced parental incarceration. To explore potential differences in intergenerational incarceration rates for different subgroups of participants, we stratified participants by sociodemographic factors (sex, age group, educational attainment, and Aboriginal status) and calculated the prevalence of intergenerational incarceration in each subgroup. We also explored potential differences in the sex of incarcerated parent(s) of participants who reported an imprisoned parent. Further analyses were performed to investigate potential associations between intergenerational incarceration and other variables including violent offending, previous experience of OOHC, and previous experiences of trauma.

Note that as the authors only had access to weighted aggregate data rather than the primary datasets, confidence intervals for the variables or outcomes presented in this report were not able to be calculated. Nor was statistical testing undertaken to test for differences between groups. Furthermore, to preserve the privacy of individuals, any findings with counts less than five are not reported (Centre for Epidemiology and Evidence 2015).

Ethical approvals

Ethical approval to conduct the NPHS was provided by the Justice Health Human Research Ethics Committee (Ref: G365/14), the Corrective Services NSW Ethics Committee (Ref: D15/227697), and the Aboriginal Health and Medical Research Council Ethics Committee (1080/15). Ethical approval to conduct the YPICHS was provided by the Justice Health Human Research Ethics Committee (Ref: G365/14), the Juvenile Justice NSW Research and Evaluation Steering Committee (Ref: 15/03200–17/01403), and the Aboriginal Health and Medical Research Council Ethics Committee (Ref: 1080/15). For this study, no further ethical approval was required as the participant information sheet and consent form for the initial surveys included provisions stating that participants agreed to allow future access to and linkage of their data, provided that the participants' confidentiality was maintained. The current study complied with these provisions as the aggregate data derived from the NPHS and YPICHS by the data custodians and provided to the authors was de-identified/anonymised.

Results

Data were available for 1,132 adults in prison who took part in the NPHS. Of these, 375 (33.1%) were female and 499 (44%) were Aboriginal. Data were available for 213 young people in youth justice centres who participated in the YPICHS. Of these, 19 (8.9%) were female and 119 (55.9%) were Aboriginal.

Prevalence of intergenerational incarceration

One in six (16.9%) adults reported that at least one of their parents had been imprisoned; 14.8 percent reported that their father had been in prison while 3.9 percent reported that their mother had been in prison (Table 1). Of those adults in prison with a previously imprisoned parent, the majority (76.8%) reported that only their father had been imprisoned, while 12.1 percent reported that only their mother had been imprisoned and 11.1 percent that both their parents had been imprisoned.

Just over half of young people in youth detention (112/213, 52.6%) reported that at least one of their parents had been imprisoned; 45.5 percent reported that their father had been in prison while 14.6 percent reported that their mother had been in prison (Table 1). Of those young people in youth detention with a previously imprisoned parent, the majority (81/112, 72.3%) reported that only their father had been imprisoned, while 15 (13.4%) reported that their mother had been imprisoned and 16 (14.3%) that both their parents had been imprisoned.

Table 1: History of parental imprisonment reported by adults in prison and young people in youth justice centres in NSW in 2015 (%)

	Adults in prison	Young people in youth justice centres
Father only incarcerated	13.0	38.0
Mother only incarcerated	2.1	7.0
Father and mother incarcerated	1.9	7.5
Neither parent incarcerated	81.1	40.8
Not stated	2.0	6.6

Sex

Women in prison (21.0%) were more likely than men in prison (16.6%) to report that at least one of their parents had been imprisoned. Women in prison were also more likely to report that only their mother had been imprisoned than men in prison (4.9% vs 1.8%) or that both their parents had been imprisoned (3.7% vs 1.7%). Men in prison were more likely than women in prison to report that only their fathers had been imprisoned (13.0% vs 12.4%).

An analysis limited to those adults in prison with a previously incarcerated parent is presented in Table 2 and reveals more clearly this pattern in sex differences of previously incarcerated parents of women and men in prison. Almost double the proportion of women in prison with a previously incarcerated parent reported that their mother had been incarcerated compared to men in prison with a previously incarcerated parent. Similarly, a higher proportion of women in prison with a previously incarcerated parent reported that both their parents had been incarcerated than men in prison with a previously incarcerated parent.

Table 2: Adults in prison in NSW in 2015 with a history of parental incarceration, by sex of prisoner (%)

	Women in prison with previously incarcerated parent	Men in prison with previously incarcerated parent
Mother (+ father) incarcerated ^a	41.1	21.5
Father (+ mother) incarcerated ^b	76.8	88.9
Both parents incarcerated	17.8	10.4
Mother only incarcerated	23.2	11.1
Father only incarcerated	58.9	78.5

a: This group comprises adults in prison who reported that only their mothers had been imprisoned or who reported that both their parents had been imprisoned

b: This group comprises adults in prison who reported that only their fathers had been imprisoned or who reported that both their parents had been imprisoned

A greater percentage of female than male young people in youth justice centres reported that at least one of their parents had been imprisoned (14/19, 73.7% vs 98/194, 50.5%). Female young people in youth justice centres were more likely than males to report that their mothers had been imprisoned (4/19, 21.1% vs 27/194, 13.9%) or that their fathers had been imprisoned (13/19, 68.4% vs 84/193, 43.3%).

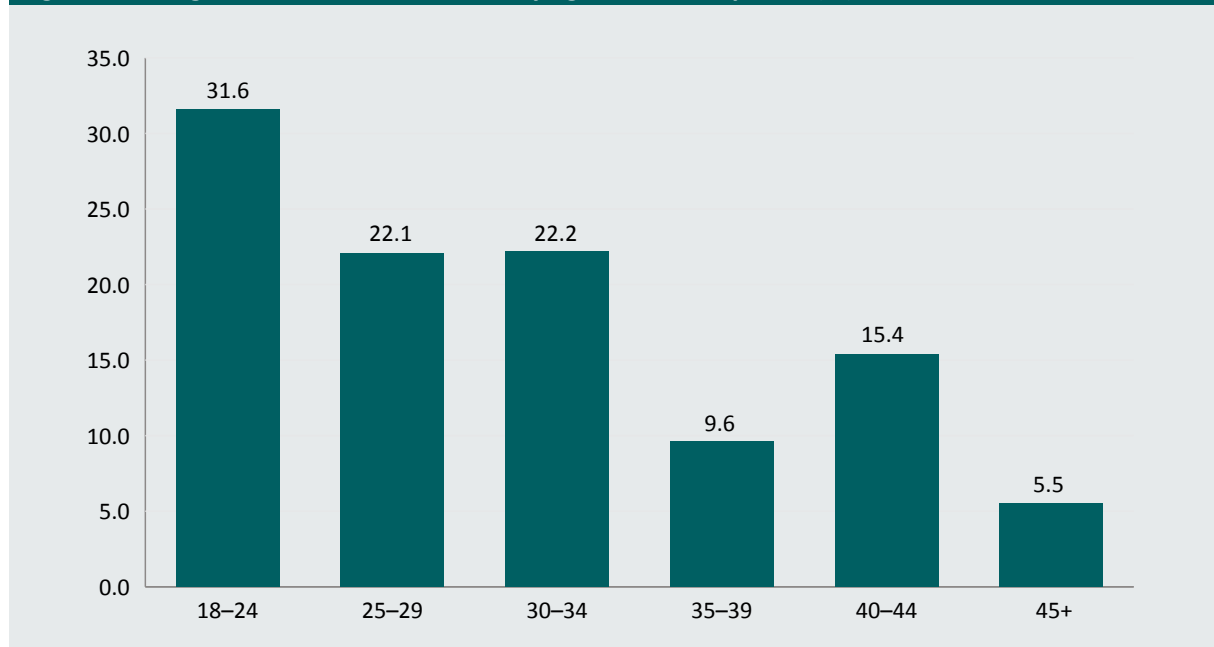
Aboriginal status

Aboriginal participants were more likely to report that a parent had been imprisoned than non-Aboriginal participants. For adults in prison, almost one-third (32.0%) of Aboriginal participants reported that a parent had previously been incarcerated, a proportion 2.5 times higher than that of non-Aboriginal adults (12.2%). Similarly, for young people in youth justice centres, Aboriginal participants were almost twice as likely as non-Aboriginal participants to have a previously incarcerated parent (66.4% vs 35.1%).

Age and schooling

Younger adults in prison were more likely than older adults to report that at least one of their parents had been imprisoned (Figure 1). For example, while 31.6 percent of adults in prison aged 18–24 years reported a previously imprisoned parent, this decreased to 22.2 percent for those aged 30–34 years and to only 5.5 percent for those aged 45 years or over.

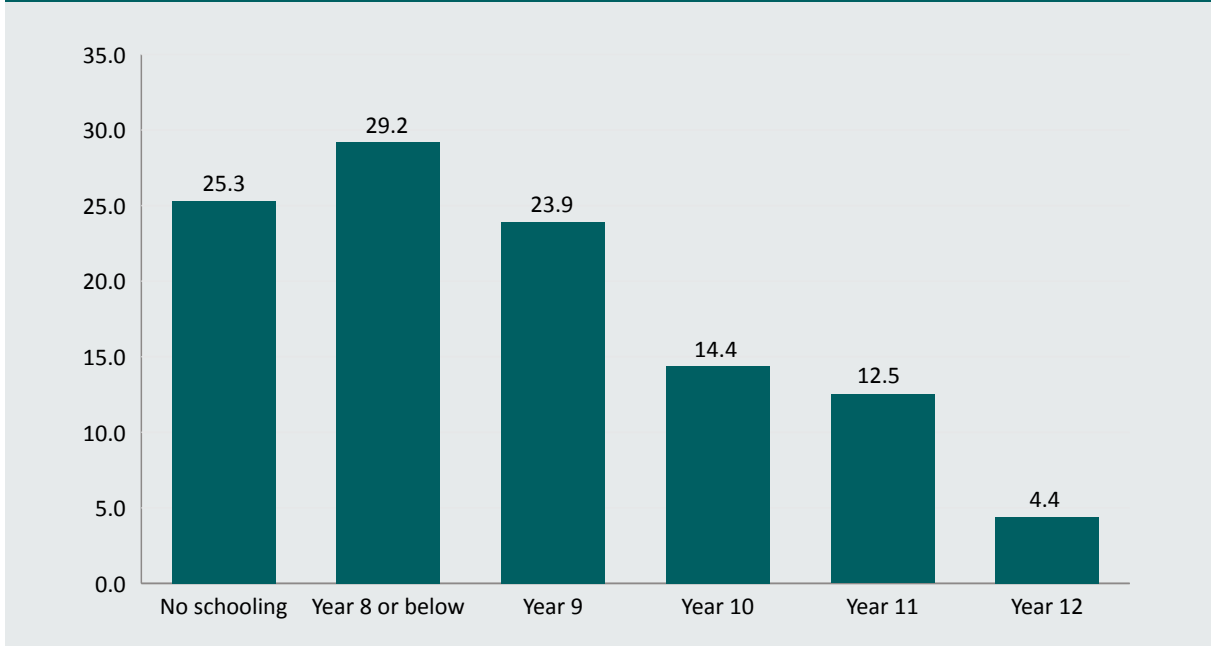
Figure 1: Intergenerational incarceration by age of adult in prison (%)



A similar trend was observed in young people in youth justice centres. Hence, while 66.7 percent (32/48) of those aged 14–15 years reported a previously imprisoned parent, this decreased to 52.4 percent (55/105) for those aged 16–17 years, and to 41.7 percent (25/60) for those aged 18–21 years.

This association between participant age and intergenerational incarceration status was reflected in findings relating to years of school completed. That is, there was a trend suggesting that adults in prison who had completed less schooling were more likely to have a previously incarcerated parent. Thus, 29.2 percent of adults in prison who had completed year 8 or below reported a previously incarcerated parent, compared to only 4.4 percent of adults in prison who had completed year 12 (Figure 2). Furthermore, those adults in prison who had completed year 10 (school leaving certificate) were much less likely to report that a parent had been imprisoned than those who finished schooling prior to year 10 (11.0% vs 26.5%).

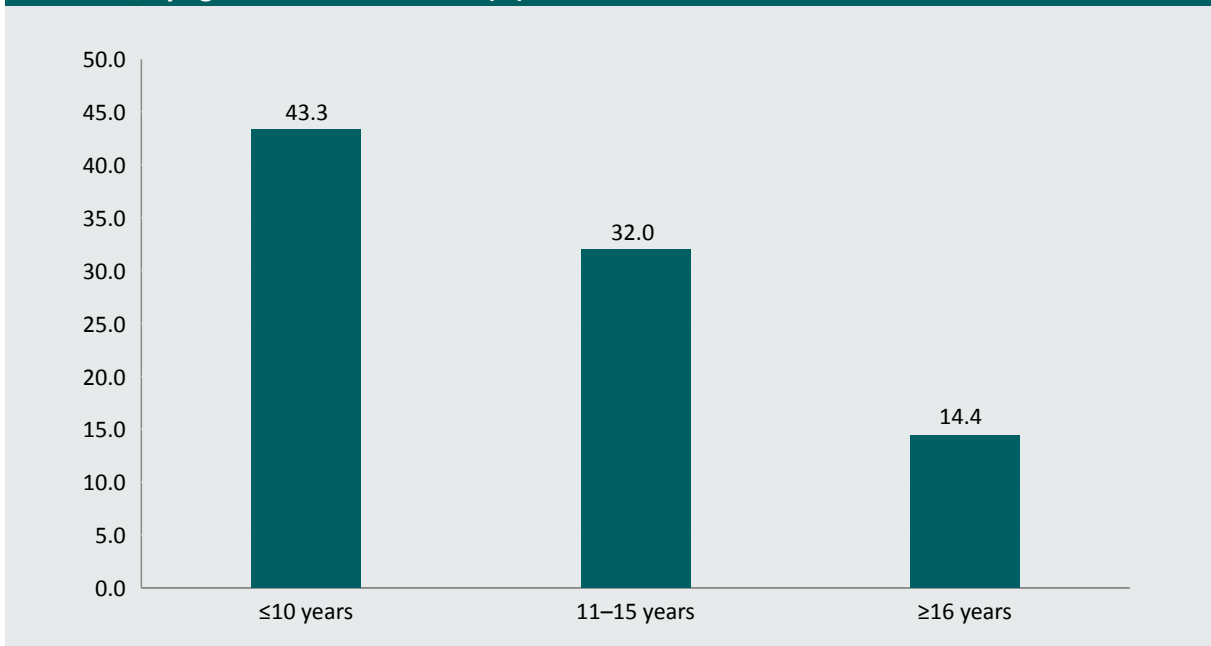
Figure 2: Intergenerational incarceration by highest year of schooling completed (%)



Experience of youth detention

Adults in prison who had previously been held in youth detention were more than twice as likely to report that at least one parent had been in prison compared to adults in prison who had never been in youth detention (27.0% vs 12.1%). Of those who had previously been in youth detention, the younger the age at first incarceration the more likely that they had a parent who had been in prison (Figure 3).

Figure 3: Intergenerational incarceration for adults in prison previously incarcerated in youth detention, by age at first incarceration (%)



An analysis of the number of times that young people in youth justice centres had previously been incarcerated revealed that those who reported a previously imprisoned parent were more likely than those whose parents had never been in prison to have been incarcerated multiple times in youth justice centres. Of the 19 participants in the YPICHs who had been detained on more than 10 separate occasions, 84.2 percent ($n=16$) reported that at least one of their parents had been imprisoned. In comparison, of the 147 participants who had previously been detained between two and 10 times, 53.1 percent ($n=78$) reported a previously incarcerated parent, while only 31.4 percent ($n=11$) of the 35 participants detained for the first time reported a previously incarcerated parent. When stratifying by which parent had been in prison, the most striking difference between the groups was that 31.6 percent of young people in youth justice centres who had been incarcerated more than 10 times reported that both parents had been in prison, compared to only 2.9 percent to 4.8 percent for the other groups.

Young people in youth justice centres who were first detained at a younger age were more likely to report that a parent had been imprisoned. Thus 59.1 percent of participants first detained at the age of 14 years or younger reported that a parent had been imprisoned, compared to 44.9 percent of participants first detained at the age of 15 years or over.

Violent offending

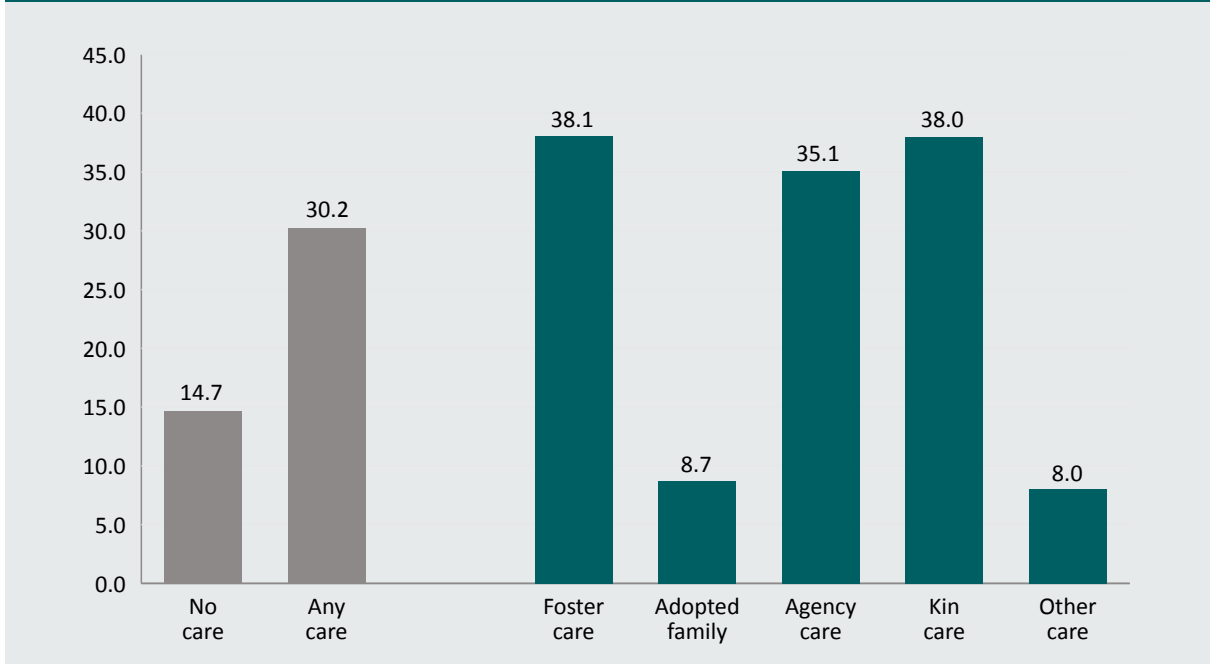
When adults in prison were stratified by the most serious offence they had committed, the groups least likely to have had an incarcerated parent were those convicted of non-violent crimes not necessarily directed against individual persons, including public order offences (1.4% had a previously incarcerated parent), illicit drug offences (7.1%), offences against government procedures/security/operations (5.8%), and traffic and vehicle regulatory offences (13.0%). An outlier to this trend was that only 5.1 percent of adults in prison convicted of a sexual offence reported a previously incarcerated parent.

Higher proportions of parental incarceration were reported by adults in prison convicted of violent crimes against others. Examples include those adults in prison convicted of abduction/harassment/other offences against the person (41.3% had a previously incarcerated parent), acts intended to cause injury (25.2%), robbery/extortion and related offences (24.6%), and prohibited and regulated weapons and explosives offences (24.0%). However, of adults in prison convicted of homicide or related offences, only 14.9 percent reported that a parent had been in prison.

Out-of-home care

Adults in prison who reported that they had been placed in any type of OOHC before the age of 16 years were twice as likely to report that at least one of their parents had been in prison compared to adults in prison who had not been placed in care before that age (30.2% vs 14.7%; Figure 4).

Figure 4: Intergenerational incarceration by care type received by participants before the age of 16 years (%)



When restricting our analysis to adults who had been in OOHC and who had a previously incarcerated parent, there were differences in sex ratios of incarcerated parents for female and male adult prisoners. Thus, of those women in prison who had been in OOHC and reported a previously incarcerated parent, almost half (47.0%) reported that their mother had been imprisoned. In contrast, only one-quarter (23.6%) of men in prison who had been in OOHC and reported a previously incarcerated parent reported that their mother had been in prison.

Experience of trauma

Young people in youth justice centres were asked whether they had ever experienced trauma in their lives. Those who had a least one parent who had been in prison were more likely to report that they had experienced trauma than those whose parents had not been in prison (51.8% vs 40.2%).

Discussion

Key findings

Intergenerational transmission of incarceration is occurring in New South Wales, with one in six (16.9%) adults in prison and just over half (52.6%) of young people in youth justice centres reporting at least one of their parents had previously been imprisoned. These findings are consistent with those of previous local and international studies (Beaver 2013; Farrington, Coid & Murray 2009; Frisell, Lichtenstein & Långström 2011; Tzoumakis et al. 2019) and are strongly suggestive of an association between the imprisonment of parents and the subsequent contact of their children with the criminal justice system. This association is particularly apparent among younger people in prisons and youth justice centres, and adults who had been placed in OOHC while children.

A common theme among Aboriginal peoples in prisons and youth justice centres revealed in this study is their collective experience of prior parental incarceration. This demonstrates the intergenerational impact of the over-representation of Aboriginal and Torres Strait Islander peoples in the Australian criminal justice system. Aboriginal and Torres Strait Islander peoples are currently being imprisoned at 10 times the Australian national rate (2,333/100,000 vs 208/100,000; Australian Bureau of Statistics 2021b). The burden of incarceration faced by Aboriginal and Torres Strait Islander peoples is one of the critical factors that must be structurally addressed to interrupt the current pipeline of intergenerational imprisonment.

Sex

Adult and young participants were more likely to report that their father had been in prison than that their mother had been in prison. This finding is partially explained by the current and historic gender disparity in the Australian prison population; in 2021, males comprised 92 percent and females eight percent of the Australian adult prison population, a ratio of 12 males to one female (Australian Bureau of Statistics 2021b). Nonetheless, this gendered effect was not fully reflected in our findings, as 14.8 percent of adults in prison reported paternal incarceration compared to 3.9 percent maternal, equating to a ratio of approximately 4:1. This may reflect the impact of maternal incarceration on family stability (Farrington, Coid & Murray 2009). Similarly, almost half of young people in youth detention centres in our study reported a history of paternal imprisonment compared to one in seven reporting maternal imprisonment, a ratio of approximately 3:1 (45.5%:14.6%). These findings suggest mother–child transmission of incarceration may be stronger than father–child transmission, which is of considerable concern given the rapid rise in the number of women (and therefore mothers) incarcerated in New South Wales over recent years (Ooi 2018).

Previous studies suggest that both paternal and maternal criminality are risk factors for the development of criminality among both male and female offspring, but the evidence is unclear whether paternal offending has a greater impact on offspring offending (Farrington, Coid & Murray 2009) or whether the risk conferred by fathers and mothers is similar (Beaver 2013). A recent Australian study by Tzoumakis and colleagues (2019) reported that both maternal and paternal offending were associated with adverse developmental outcomes in offspring and that associations between maternal and paternal offending and offspring aggression were similar in magnitude.

Another Australian study (Wand et al. 2018) evaluated the individual- and population-level impact of a combination of factors, including certain maternal characteristics, on subsequent criminal conviction. The authors reported that young maternal age (<20 years), being a single parent, and multiparity (having had two or more previous pregnancies) had a significant impact on subsequent offending by their children (Wand et al. 2018).

Findings from our study of adults in prison indicate that there may be a stronger association between incarceration of mothers and the subsequent incarceration of their daughters than between mothers and sons. Thus, 8.6 percent of women in prison reported maternal incarceration compared to only 3.6 percent of men in prison. There was no such trend observed with paternal incarceration, as similar proportions of female (16.1%) and male (14.8%) adults in prison reported that their father had been incarcerated. When restricting analyses to adults in prison who did report parental incarceration, women in prison were almost twice as likely as men in prison to report that their mother had been incarcerated (41.1% vs 21.5%).

Published research suggests that maternal imprisonment is associated with a higher rate of family instability, including placing of the mother's children with a relative or in foster care (Tasca, Rodriguez & Zatz 2011). The incarceration of the primary caregiver has also been associated with a higher risk of delinquency in their offspring (Aaron & Dallaire 2010). Such findings may partly explain our finding that maternal incarceration appears to be associated with greater risk of intergenerational incarceration than paternal incarceration.

Of concern, our analysis of young people in youth justice centres found a stronger association between incarceration of either parent and subsequent incarceration of daughters compared to sons. Thus, 21.1 percent (4/19) of female young people in youth justice centres reported that their mother had been in prison compared to 13.9 percent (27/194) of male young people in youth justice centres, while 68.4 percent (13/19) of female young people in youth justice centres reported that their father had been in prison compared to 43.3 percent (84/194) of male young people in youth justice centres. Although these data are not conclusive and are limited by the small number of females in the survey of young people in youth justice centres, they raise critical policy questions around the changing demographic and feminisation of the prison population.

Age and schooling

We found that, for both adults in prison and young people in youth justice centres, younger participants were more likely to report parental incarceration than older participants. Similarly, there was a trend suggestive of an association between lower educational attainment and a previously incarcerated parent. Together these findings suggest that children of incarcerated parents may be at increased risk of leaving school early and/or having contact with the criminal justice system at a younger age. A number of possible mechanisms may explain this apparent association, with some studies suggesting that poor parent-child attachment, inappropriate parenting practices and inadequate parental supervision may be contributing factors (Hoeve et al. 2009; Leschied et al. 2008).

Previous research does indicate that parental incarceration is associated with poorer educational attainment in their children (Miller & Barnes 2015; Turney & Goodsell 2018). A review by Turney and Goodsell (2018) reported that older children of previously incarcerated fathers are absent more often from school, have lower educational attainment and poorer academic achievement than peers with no history of an incarcerated father. Jacobsen (2019) reported that children whose fathers were incarcerated after the child's first birthday but before first grade were at increased risk of being suspended or expelled from elementary school and were more likely to display behaviour problems and experience weakened social bonds than children whose fathers had not been imprisoned. Jacobsen also reported that this affected some subgroups more than others. African American and Hispanic children in the study cohort were more likely to be affected by paternal incarceration (54% and 41%) and to be suspended or expelled by nine years of age (29% and 10%) than white or other-race children (28% paternal incarceration, 6% suspension or expulsion).

In a study investigating the impact of 'mass imprisonment' in the United States on educational attainment, Hagan and Foster (2012) reported that, in schools with a high incidence of parental incarceration, the educational outcomes of all children, not just those with an incarcerated parent, are affected. They further reported that this finding persists even when controlling for both school- and individual-level mediating processes and extraneous or selective predispositions in their analyses. Hagan and Foster concluded that, in American schools with elevated levels of paternal imprisonment, the impact of that imprisonment 'spills over' from their children into the attainments of other students and leads to a negative association with college completion rates in all students.

The apparent association between parental incarceration and poorer educational outcomes is not universally reported in the literature. One study of youth in Pittsburgh, in the United States, reported that parental criminal behaviour was not associated with poor academic performance in their children (Murray, Loeber & Pardini 2012). A systematic review and meta-analysis by Murray and colleagues was more equivocal (Murray, Farrington & Sekol 2012). This meta-analysis of 13 relevant studies indicated that parental incarceration was significantly associated with poor educational performance in their children (odds ratio=1.4, 95% confidence interval=[1.1, 1.8]; Murray, Farrington & Sekol 2012). However, they also reported that many of the studies in this area were of poor methodological quality and that when they restricted their analysis to the most rigorous studies that controlled for covariates, the average effect size for educational performance showed almost zero association with parental incarceration. The apparent lack of consensus among these studies indicates that further rigorous research is required that focuses on children of incarcerated parents and that identifies differences between those children who do end up in custody and those who do not.

We found that 81.1 percent of adults in prison reported that neither of their parents had been imprisoned, compared to 40.8 percent of young people in youth justice centres. This suggests that a history of parental incarceration has more influence on young people's offending behaviour and subsequent incarceration than is the case for adults.

Out-of-home care

Adults in prison who had been placed in OOHC before the age of 16 years were more likely to report parental incarceration than those not placed in care at that age. The major exception to this trend was that adults in prison who had been adopted prior to the age of 16 were less likely than other adults in prison to report a previously incarcerated parent. These findings reflect the impact of parental incarceration on family cohesion, with imprisoned parents facing the prospect of losing custody of their child while incarcerated (Geller et al. 2009; Johnson & Waldfogel 2002; Tasca, Rodriguez & Zatz 2011). Research suggests that children in OOHC are at higher risk of involvement with the criminal justice system (DeGue & Spatz Widom 2009; Lindquist & Santavirta 2012; McFarlane 2017; Mendes & Baidawi 2012; Turpel-Lafond & Kendall 2009).

For example, McFarlane (2017) analysed a representative sample of 160 children who appeared on criminal charges before the NSW Children's Court at Parramatta between 2008 and 2010 and reported that 49.5 percent had spent time in OOHC. This constituted a gross over-representation, as only a very small number of children in New South Wales are in care (approximately 1% in 2009). McFarlane also reported that 44 percent of the OOHC group identified as Indigenous compared to only 14 percent of the non-care group, that the OOHC group was significantly younger than the non-care group, and that the OOHC group experienced significant additional disadvantage within the care environment (McFarlane 2017).

Youth detention

Adults in prison who had previously been held in youth detention were twice as likely as the other adults in prison to have a parent who had been in prison. This is unsurprising given that the proportion of young people in youth justice centres who reported having a previously incarcerated parent was over twice as high as the proportion of adults in prison who reported a previously incarcerated parent.

Violent offending

When adults in prison were grouped by the most serious offence they had committed, those convicted of violent crimes against others were more likely to have had an imprisoned parent than those convicted of non-violent crimes not necessarily directed against individual persons. These findings support previous research reporting that the intergenerational transmission of offending may be more pronounced for violent than non-violent crimes and that exposure to parental violence, including domestic violence (Murrell, Christoff & Henning 2007), may play an important role in the intergenerational transmission of violent offending (Frisell, Lichtenstein & Långström 2011; Van de Weijer, Bijleveld & Blokland 2014).

In a study published in 2014, Van de Weijer and colleagues reported that when sons are exposed during their childhood or adolescence to violent behaviour by their fathers, this increases the risk of intergenerational transmission of violent offending; however, paternal violent offending before a son's birth did not have a similar effect (Van de Weijer, Bijleveld & Blokland 2014). This latter finding, they argue, suggests that social learning is more important than hereditary factors in the intergenerational transmission of violent crime. This is further supported by their finding that violence is specifically transmitted from father to son, and not from grandfather to grandson.

In a later study, Van de Weijer and colleagues explored the effects of parental divorce on the intergenerational transmission of crime (Van de Weijer et al. 2015). In that study, the authors reported that parental divorce had a moderating influence on the intergenerational transmission of violent crime. That is, intergenerational transmission of violent crime occurred if a violent father remained married to the mother during the youth of the child, and violent offending was not transmitted if parental divorce occurred during the child's youth. The authors argue that, as children usually remain with their mother after parental divorce, it is likely that children of married parents are more exposed to the violent behaviour of their fathers than children of divorced parents. This finding further supports social learning theories in respect of the intergenerational transmission of violence.

While the trend observed in our cohort was that those convicted of violent crimes against others were more likely than those convicted of less serious crimes to have had an imprisoned parent, an outlier did not fit this trend. Specifically, relatively few adults in prison convicted of a sexual offence reported a previously incarcerated parent. This latter finding should be treated cautiously, as previous research suggests that sexual offending may involve familial clustering, with Långström and colleagues (2015) reporting strong familial aggregation of sexual crime among father–son dyads (odds ratio=3.7, 95% confidence interval=[3.2, 4.4]) in a 37-year nationwide study of sexual convictions in Sweden.

Age at first detention and number of times in youth detention

Young people who were first detained in youth justice centres aged 14 years or younger were more likely to report that their mother alone, or both parents, had been imprisoned than those first detained at 15 years or over. In contrast, there was no difference in the proportions of young people with incarcerated fathers. This provides further evidence that the imprisonment of mothers may have a greater impact on the likelihood of a child interacting with the youth justice system than paternal incarceration. It is consistent with the finding that those young people in youth justice centres who had been incarcerated numerous times were more likely to report that both their parents had been imprisoned.

Can intergenerational incarceration be prevented?

Perhaps the most pressing question in the context of intergenerational incarceration is whether, and to what extent, interventions can be designed and implemented to disrupt the intergenerational cycle of offending behaviour so as to reduce the risk of children of incarcerated parents themselves becoming involved in the criminal justice system (Thornberry 2020). Designing any such potential preventive measures is particularly challenging without a clear understanding of the specific mechanisms involved in the transmission of offending behaviour. Nonetheless, any such interventions will necessarily be multi-systemic given the intersection between multiple aspects of socio-economic disadvantage and interaction with the criminal justice system.

It has been argued that there is clear evidence of effective interventions to address the intersection between disadvantage and the criminal justice system. For example, Bartels (2020) highlights six interconnected means of addressing disadvantage that would improve criminal justice outcomes:

- addressing the over-representation of Indigenous peoples in the criminal justice system;
- investing in community-based rather than prison-based sentences;
- raising the minimum age of criminal responsibility from 10 to 14 years;
- supporting families to stay together;
- supporting and funding best-practice health, education and housing; and
- addressing family and sexual violence and the attitudes that underpin such violence.

The majority of these suggested interventions directly relate to factors highlighted in this study as being associated with intergenerational incarceration: Aboriginal status, OOHC, younger age and fewer years of completed schooling, and previous involvement in youth detention. It is therefore likely that effectively addressing such social disadvantage will reduce the cycle of intergenerational incarceration. In particular, the findings that a high percentage of young people in youth justice centres reported a previously incarcerated parent, that entering a youth justice centre at a younger age is associated with intergenerational incarceration, and that adults in prison who had previously been in youth justice centres were much more likely to have experienced parental imprisonment strongly suggest that increasing the age of criminal responsibility is a crucial step in breaking the cycle of intergenerational incarceration.

At the same time, our findings demonstrate the importance of intervening with children whose parents are incarcerated or at risk of incarceration. Any such interventions must be holistic and ‘wraparound’ in nature to encompass the broad social needs of children at risk of experiencing the cycle of intergenerational transmission of offending. Moreover, interventions should be tailored to the needs of individuals and specific communities. In particular, given the disproportionate impact of intergenerational incarceration on Australia’s Aboriginal and Torres Strait Islander peoples, there is a pressing need for culturally appropriate programs developed and delivered in partnership with Aboriginal and Torres Strait Islander organisations and communities (Roettger, Lockwood & Dennison 2021).

While programs and interventions are required to address intergenerational incarceration, it has been noted that ‘Locally and internationally, there is a lack of rigorous, long-term evaluations of policies or programs addressing the intergenerational impacts of incarceration’ (Roettger, Lockwood & Dennison 2021: 2). Hence, rigorous monitoring and evaluation of existing and future interventions to address intergenerational offending is critical to improve the evidence base in respect of the effectiveness of such interventions (Roettger, Lockwood & Dennison 2021).

Limitations and caveats

In Australia, there are no comprehensive, population-wide data relating to the prevalence of parental incarceration and what proportion of children and young people who experience parental imprisonment do, or do not, go on to commit criminal offences or become incarcerated in prison or youth justice centres. Furthermore, as part of the NPHS and YPICHS there were no matched control groups of non-incarcerated individuals who may have experienced parental imprisonment. For these reasons, we were unable to compare results for participants in these surveys against the wider population or a control group. Hence, any suggestion based on the findings presented in this report that adult prisoners and young people in youth detention are more likely to have a previously incarcerated parent than adults or youth who have never been incarcerated should be treated with caution. Furthermore, given the small number of participants included in the YPICHS, particularly female participants, generalisation of results from this survey to a broader context should be avoided.

This is a descriptive report only. Confidence intervals for the variables/outcomes presented in this report were not able to be calculated, nor was statistical testing undertaken to compare outcomes by prisoners' parental history of incarceration, as the authors were not authorised to access primary data from the surveys. Rather, all presented findings were calculated based upon aggregate weighted counts for specific variables provided to the authors by the data custodians. For this reason, any findings suggestive of differences between subgroups of participants, as well as potential associations that are discussed, must be treated with caution and should be considered as hypotheses that require further testing. In addition, it should be noted that analyses were limited to data collected as part of the surveys and did not consider the impact of unreported external factors including environmental variables, peer influence, and family structure.

Conclusion

This epidemiological snapshot of intergenerational incarceration in NSW prisons and youth justice centres reveals that one-sixth of adults in prison and half of young people in youth justice centres are impacted by the previous incarceration of a parent. The prevalence of parental incarceration among these groups is likely to be far higher than the overall prevalence in the general population, suggesting that the incarceration of a parent is associated with an increased risk of intergenerational transmission of incarceration.

Findings from this report are consistent with those of published research revealing that intergenerational incarceration is associated with socio-economic disadvantage. This social disadvantage is characterised by leaving school at a younger age, unstable accommodation, placement in OOHC prior to the age of 16, and earlier contact with the justice system. There is some indication that incarceration of mothers may increase the risk of future incarceration more for their daughters than for their sons. Lastly, the excess burden on Aboriginal communities is evident, with Aboriginal peoples in prison and in youth detention reporting higher levels of parental incarceration than non-Indigenous people.

The direction of these findings suggests that parental incarceration, particularly of mothers with young children, opens a pipeline through which their children are often funnelled into the criminal justice system. Factors important in this process include the loss of parental support for children of incarcerated parents, experiences of OOHC, and lower educational attainment. As a starting point in addressing this issue, the findings of this report suggest that programs to support children with parents in prison or at risk of imprisonment should be a priority, with culturally safe programs developed in partnership with Aboriginal communities. It is also vital that in situations where mothers are incarcerated, they are supported in their mothering roles to provide the necessary care to their children (Breuer et al. 2021). More generally, further work is required to implement a whole-of-government approach to disrupt the cycle of intergenerational incarceration and develop policies and programs to address systemic disadvantage.

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Appendix

Table A1: Weighting factors used to calculate findings based on NPHS 2015 data

	% of 2015 NSW prison population	% of NPHS participants	Weighting for gender findings	Weighting for ethnicity findings	Weighting for total population findings
Aboriginal men	21.9	30.3	0.52	1.32	0.72
Non-Aboriginal men	71.2	36.6	1.40	1.43	1.95
Aboriginal women	2.4	13.9	0.81	0.31	0.17
Non-Aboriginal women	4.6	19.2	1.14	0.18	0.24

Note: NPHS=Network Patient Health Survey

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