Australian Prison Reform Journal

Effect of prison on life expectancy

Australian Prison Reform Journal

Volume 4, Issue 2, Article 1, 2024

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URL: www.aprj.com.au/articles/APRJ-4(2)-1-Life-expectancy.pdf

Abstract

This article provides a quick review of studies examining the effect of incarceration on the life expectancy.

Introduction

A number of studies have examined how incarceration affects life expectancy. This article provides a quick overview of the research. A number of articles in the Australian Prison Reform Journal have already referred to the poor health and higher mortality rate of Australian prisoners compared with that of the general Australian population. Overcrowding and unsanitary conditions lead to higher rates of communicable diseases and the violent environment contributes to physical injuries, mental health problems, drug abuse, depression and suicide (AMA 2012; Deloitte Consulting 2003:4). The same is the situation in other countries including the United States (Daza et al. 2020). Upon release, the poor health and greater likelihood of death continue. For example, drug overdose is a heightened risk following release from prison, particularly soon after release (Kirwan et al. 2019:406).

How incarceration affects life expectancy in the US

In the United States, Binswanger et al. (2007), conducted a retrospective cohort study of all people released from the Washington State Department of Corrections between July 1999 and December 2003. After adjusting for age, sex and ethnicity, it was found that during the first 2 weeks following release, the risk of death among former inmates was 12.7 times that of Washington State residents. The mortality rate of former inmates within 2 to 5 years

after release was still 3.5 times higher than the rate for the general State population. The leading causes of death among released people were drug overdose, cardiovascular disease, homicide and suicide.

Rosen, Schoenbach, and Wohl (2008) compared deaths of male ex-prisoners and the male population in North Carolina between 1980 and 2005. After adjusting for age, ethnicity and educational attainment, they concluded that former prisoners experienced more deaths than expected among other residents. The standardized mortality ratio (SMR), (defined as the observed number of deaths per year divided by the expected number of deaths per year) was 2.08 for white ex-prisoners and 1.03 for black ex-prisoners. The causes of death that were higher for the ex-prisoners than for the state were homicide, accidents, substance use, HIV, liver disease and liver cancer (and for white ex-prisoners only, deaths from cardiovascular disease, lung cancer, respiratory diseases, and diabetes).

In a study of 23,510 people imprisoned in the state of Georgia (Spaulding et al. 2011), the SMR during incarceration was 0.85. This SMR of less than one may possibly be due to people entering prison with poor health and receiving better healthcare and a more restrictive daily regime than they would have in their community (Daza et al. 2020). There can also be the possibility that moribund prisoners are released on compassionate grounds (Daza et al. 2020; Spaulding et al. 2011). Following release, the SMR was much higher at 1.54. The main causes of death during incarceration were homicide, transportation, accidental poisoning and suicide; and the main causes of death after release were human immunodeficiency virus infection, cancer, cirrhosis, homicide, transportation and accidental poisoning.

Using data on parolees from 1989 to 2003, Evelyn J. Patterson (2013) found that each additional year in prison was associated with a 15.6% increase in the likelihood of death for parolees, which was equivalent to a 2-year decline in life expectancy for each year served in prison. The risk was highest upon release from prison and decreased over time (the time to

recovery, or the lowest risk level, was approximately two thirds of the time served in prison).

Daza et al. (2020) estimated the long-term association between incarceration and adult mortality using panel and longitudinal data to follow ex-prisoners over nearly 40 years. They found that a person aged 18 who is incarcerated will have a 0.37 probability of dying after 40 years, compared with someone who is not incarcerated who will have an 0.20 probability of dying. They calculated that this equates to a loss of 4 to 5 years of life expectancy at age 40.

Wildeman (2016) investigated the macro-level consequences of incarceration in 21 developed democracies. He found that the United States, far more than the other democracies, suffers significantly poorer health and life expectancy figures. The author attributed this to the sheer size of the prison population. When the study concluded, incarceration in the US had peaked at over 2.3 million people. Wildeman found that from 1981 to 2007, the US life expectancy increased by 3.5 years, but it would have increased by more than five years (from 74.1 to 79.4 years) if it had not been for mass incarceration (Widra 2017). Other studies, including Farrell and Marsden 2007; Loeffler 2013; Massoglia et al. 2014; Fazel and Baillargeon 2011; and Massoglia and Pridemore 2015, support the findings that former inmates die at a far higher rate than do demographically similar adults, especially immediately after release.

How incarceration affects life expectancy in Australia

The Australian literature on the life expectancy of ex-prisoners is far more limited than the US literature. It is known that the prison population in Australia has been ageing more rapidly than the general population over the past two decades (AIHW 2020; Angus 2015; Ginnivan et al. 2018; 2022). Various reasons for the older prisoners have been put forward, including the ageing of the general population; higher rates of imprisonment of older

people; mandatory minimum sentencing; reduced options for early release; and longer prison terms for older people due to the greater likelihood of more serious crimes. This has implications for the design, adequacy and cost of justice healthcare (the costs are projected to increase by 17% to 90% depending on whether the ageing continues as it has in the past decade) (Ginnivan et al. 2022, p. 325,328-329). The ageing also has implications for the greater vulnerability of prisoners who are being released due to their age, frailty and greater likelihood that they will need to suddenly deal with serious health issues and other challenges (Ginnivan et al. 2022, p. 326). This is particularly so because the health of prisoners is known to deteriorate more quickly due to the stressful environment. Whereas a person in the general community might be considered 'older' around the age of 55, a person in prison would commonly be considered 'older' at 45 due to 'accelerated ageing' or the early onset of age-related conditions (AIHW 2020, p. 1).

In Western Australia, the health and use of health services of 13,667 prisoners in Western Australia were tracked during and after prison. It was found that ex-prisoners had significantly higher age-adjusted risks of death than the general population, with a much higher difference for indigenous female prisoners, and for the younger (20-39) age group than the 40-59 age group. Deaths due to injury or poisoning or acute and chronic effects of alcohol or drug addiction accounted for over 60 percent of all deaths and much of the excess risk in mortality in released people (Hobbs et al. 2006)

The US and Australian studies show that the risk of death of released people is highest soon after release from prison, and the high SMR has the effect of decreasing the life expectancy of people who have been incarcerated. Continued improvement of justice health; continuity of health care after release; multi-faceted throughcare and aftercare services; alternative sentences; and justice diversion are some of the means by which this damage to the lives of released people may be addressed.

References

AIHW (Australian Institute of Health and Welfare) (2020) 'Health and ageing of Australia's prisoners 2018', catalogue number PHE 269, AIHW, Australian Government.

AMA (Australian Medical Association) (2012) 'Health and the criminal justice system', accessed 26 May 2024.

Angus C (2015) 'Older prisoners: Trends and challenges' e-brief, NSW Parliament.

Binswanger IA, Stern MF, Deyo RA, et al. (2007) 'Release from prison - a high risk of death for former inmates', *New England Journal of Medicine*, 356(2):157–165. doi: 10.1056/NEJMsa064115

Daza S, Palloni, A and Jones J, 'The Consequences of Incarceration for Mortality in the United States', *Demography* (2020) 57 (2): 577–598. https://doi.org/10.1007/s13524-020-00869-5

Deloitte Consulting (2003a) 'Victorian prisoner health study-parts 1&2', Corrections Victoria, accessed 26 May 2024.

Farrell M and Marsden J (2008) 'Acute risk of drug-related death among newly released prisoners in England and Wales', *Addiction*, 103(2):251-255.

Fazel S and Baillargeon J (2011) 'The health of prisoners', Lancet, 377(9769):956-965.

Ginnivan NA, Butler TG and Withall AL (2018), 'The rising health, social and economic costs of Australia's ageing prisoner population', *Medical Journal of Australia,* 209(10):1.

Ginnivan NA, Chomik R, Hwang Y, et al. (2022) 'The ageing prisoner population: demographic shifts in Australia and implications for the economic and social costs of health care', *International Journal of Prisoner Health,* 18(4):325-334.

Hobbes M, Krazlan K, Ridout S, et al. (2006) 'Mortality and morbidity in prisoners after release from prison in Western Australia 1995-2003', *Trends & issues in crime and criminal justice* no. 320. Australian Institute of Criminology, Canberra.

Kirwan A, Curtis M, Dietze P, et al. (2019) 'The Prison and Transition Health (PATH) cohort study: Study protocol and baseline characteristics of a cohort of men with a history of injecting drug use leaving prison in Australia', *Journal of Urban Health: Bulletin of the New York Academy of Medicine,* 96:400–410 https://doi.org/10.1007/s11524-019-00353-5, accessed 26 May 2024.

Loeffler CE (2013) 'Does imprisonment alter the life course? Evidence on crime and employment from a natural experiment', *Criminology,* 51(1):137-66.

Massoglia M and Pridemore WA (2015) 'Incarceration and health', *Annual Review of Sociology*, 41:291-310.

Massoglia M, Pare P-P, Schnittker J, et al. (2014) 'The relationship between incarceration and premature adult mortality: Gender specific evidence', *Social Science Research*, 46:142-154.

Patterson EJ (2013) 'The Dose-response of Time Served in Prison on Mortality: New York State, 1989–2003', *American Journal of Public Health*, 103(3):523–528.

Rosen DL, Schoenbach VJ and Wohl DA (2008) 'All-cause and cause-specific mortality among men released from state prison, 1980–2005', *American Journal of Public Health*, 98(12):2278–2284. https://doi.org/10.2105/AJPH.2007.121855

Spaulding AC, Seals RM, McCallum VA, et al. (2011) 'Prisoner survival inside and outside of the institution: Implications for health-care planning', *American Journal of Epidemiology*, 173(5):479–487. https://doi.org/10.1093/aje/kwq422

Widra E (2017) 'Incarceration shortens life expectancy', Prison Policy Initiative, accessed 27 May 2024.

Wildeman C (2016) 'Incarceration and population health in wealthy democracies', Criminology, 54(2):360-382. https://doi.org/10.1111/1745-9125.12107