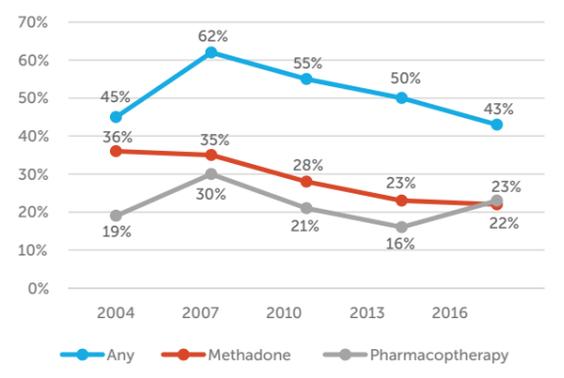


The reported last drug injected remained stable since 2004 with methamphetamine being the most common, followed by heroin. From 2004-2016, there was an increase in methamphetamine being the last used drug, while heroin use decreased.

Overall, self-reported drug treatment and therapy for PWID had decreased since 2007. While there has been an increase in the use of pharmacotherapy, methadone use decreased, and the overall reported use of therapy for people who use drugs has not increased.

FIGURE 6. Treatment and therapy for drug use among PWID currently or previously, 2004-2016



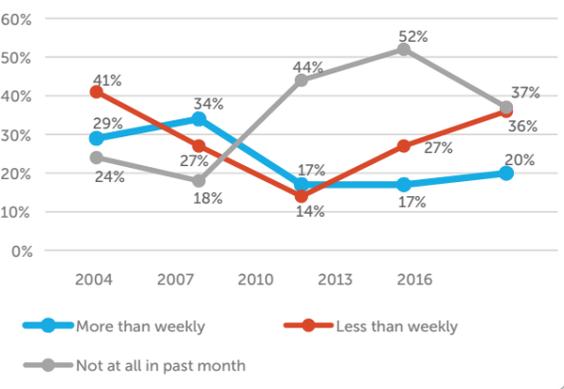
> Injecting Related Behaviours

The majority of prisoners reported using sterile needles and syringes when they inject. In 2004, 85% of participants used a clean needle most of the time or every time they injected. This rose to 9 in 10 prison entrants in 2016.

In 2016, clean needles and syringes were mostly obtained from Needle and Syringe Program (NSP) outlets in the community.

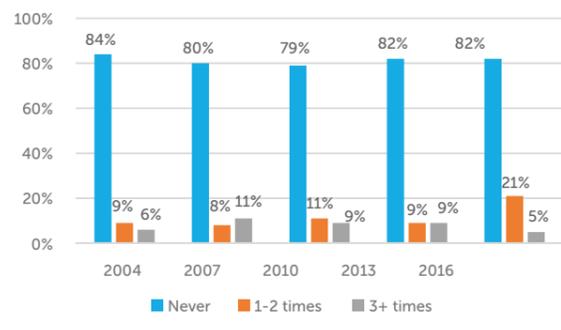
However, while NSPs are the most common location for needle and syringe acquisition, the use of NSP outlets are decreasing and other sources are being utilised. Of PWID, 42% reported they obtained a needle or syringe from an NSP, while 38% said their needle or syringe was obtained from a chemist or pharmacy, 11% from a vending machine and 11% from a personal source.

FIGURE 7. Acquisition of needle and syringe from NSP in last month



Despite this, the majority of prison entrants reported they used clean needles. More than four in five prisoners report never re-using someone else's needle. This has remained stable over the 5 years surveyed.

FIGURE 8. Use of someone else's used needle among PWID, 2004-2016



IMPLICATIONS

Among the prisoner population, the prevalence of HCV has decreased, HBV immunity is increasing and HIV remains low. However, HCV treatment coverage remains low in this population, and HBV among Indigenous prisoners is disproportionately high.

Overall, the prisoner population continues to have a greater risk of exposure to bloodborne viruses compared to the general community due to a higher involvement in injecting drug use. The decline in self-reported drug treatment is concerning.

To reduce the risk of contracting bloodborne viruses, there must be a greater focus on availability of drug treatment. While there has been an increase in the use of methamphetamine among PWID, treatment has decreased.

Prisoners are often unaware of their health status. Therefore, testing needs to be prioritised to inform inmates of their health status in order to obtain treatment if required.

Furthermore, as prisoner populations generally have a high turnover rate, the correctional setting represents an important opportunity to screen and treat this population and to improve the health of the community.

Continuous surveying of the health of this at-risk group is important to inform policy and health services to address their needs, with a specific focus on PWID as well as the Indigenous prisoner population who are disproportionately represented in the justice system.

> A copy of the 2004-2016 NPEBBVS reports can be found at:

<https://kirby.unsw.edu.au/project/npebbvs> and

https://kirby.unsw.edu.au/sites/default/files/kirby/report/JHP_National-Prison-Entrants-Report-2004-2007-2010-2013-2016.pdf

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2016 National Prison Entrants' Bloodborne Virus Survey Bulletin

Caitlin Bennett, Melanie Simpson, Tony Butler (The Kirby Institute, UNSW Sydney) and the NPEBBVS Steering Group.[^]

KEY FINDINGS

- Overall, the prevalence of hepatitis C decreased since 2004 but remains high among people who inject drugs compared to those who don't.
- Hepatitis B immunity is increasing along with a rise in frequency of vaccinations since 2007. However, hepatitis B prevalence remains high among Indigenous prisoners, with the highest rates in NT.
- No inmates tested positive for HIV antibodies, compared with 3 in 2004 and 4 in 2007. Moreover, the number of inmates being tested for HIV has increased.

- Methamphetamine was the most commonly reported illicit drug last injected.
- Tobacco and cannabis were the most used substances in the past month.
- There has been an increase in inmates reporting that in the community, a sterile needle was used for every injection. This increased from 69% in 2004 to 76% in 2016.
- 80% of inmates in 2016 reported never using someone else's needle when injecting in the community, and instead, needles were obtained mostly from needle and syringe programs or chemists.

> The NPEBBVS

The National Prison Entrants' Blood Borne Virus Survey (NPEBBVS) was first conducted in 2004 to determine the prevalence of bloodborne viruses in Australian prisons and to examine risk factors associated with exposure. It aimed to provide information on prison entrants at risk of contracting bloodborne viruses as a result of injecting or other behaviours conducted prior to imprisonment. The first survey included New South Wales, Queensland, Western Australia and Tasmania. In 2007, Victoria, the Australian Capital Territory and South Australia also participated, followed by the Northern Territory in 2010. In 2013, all Australian jurisdictions participated in the survey. The most recent survey in 2016 included all jurisdictions except Western Australia and New South Wales.

The NPEBBVS is internationally unique in providing a national snapshot of the prevalence of bloodborne viruses such as HIV, hepatitis B and hepatitis C in this at-risk population which is generally under-researched. Prior to the NPEBBVS, monitoring bloodborne virus infections among Australian prisoners occurred only through ad hoc prevalence surveys. The NPEBBVS also provides valuable information on patterns of drug use of those entering prison.

> Background

The prisoner population has an increased risk of exposure to bloodborne viruses compared to the general community due to their engagement in risk behaviours such as injecting drugs, amateur tattooing and unsafe sexual practices.

Prisons are increasingly viewed as an important point of contact for hard-to-access groups to screen, initiate treatment, and connect this group with health services. For example, the prison setting is

seen as an opportunity to treat hepatitis C with the new, highly effective, direct acting antiviral medications.

This bulletin aims to highlight the key findings of the 2016 NPEBBVS. The survey used a cross-sectional sample of prison entrants over a 2-week period. Of the 862 Australian prison entrants offered the survey, 431 (50%) participants provided sufficient survey or pathology data to be used within the triennial report. This bulletin reports the findings of these participants.

> Method

The sample was selected from 19 sentinel sites in six Australian jurisdictions (excluding NSW and WA) and included only new receptions entering prison from the community.

Questionnaires were conducted following routine health and welfare assessments to minimise disruption. Potential participants had the survey explained to them, emphasising that involvement was voluntary and information would remain confidential. They were also assured that efforts would be made to follow up the results of the blood test with them. Screening involved recruitment, obtaining consent, administration of the questionnaire, pre-test counselling and collection of the blood and urine specimens. Participants were informed that post-test counselling would be available.

The blood testing screened for HIV antibody and antigen, hepatitis B surface-antibody, surface-antigen and core-antibody, hepatitis c antibody and syphilis antibody. The questionnaire was modelled on the Australian Needle and Syringe Program survey instrument.

Approval for the project was obtained from the health-based human research ethics committees (HREC), corrective services and Aboriginal Health Ethics Committees in each state and territory, and the UNSW HREC.

[^] Professor Tony Butler and Dr Melanie Simpson (Kirby Institute); Professor Michael Levy (ACT); Jeanette Smith and Julie Pedersen (NT); Robert Kemp and Marie Finley, David Harris, Anissa Jaros, Rachel Craig and Stephen Joyce (QLD); Andrew Wiley, Susan O'Neill and Natalie Hewitt (SA); Deborah Siddall and Dr Chris Wake (Tas); Camilla Preston, Helen Meyer-Tinning and David Rodda (Vic).

TABLE 1: Demographic Characteristics, prison history and injecting history

	2004 (n=604)	2007 (n=740)	2010 (n=811)	2013 (n=665)	2016 (n=389)
DEMOGRAPHICS					
Male (%)	88	90	93	91	87
Indigenous (%)	16	17	32	37	34
Median age (range)	31 (17-75)	31 (17-77)	30 (16-80)	31 (17-72)	33 (17-70)
PRISON HISTORY					
1st time in prison (%)	25	32	31	39	29
Imprisonment in past 12 months (%)	53	44	41	44	46
INJECTING HISTORY					
Ever injected (%)	59	55	43	45	46
Men ever injected (%)	57	53	42	43	56
Women ever injected (%)	72	73	56	58	58

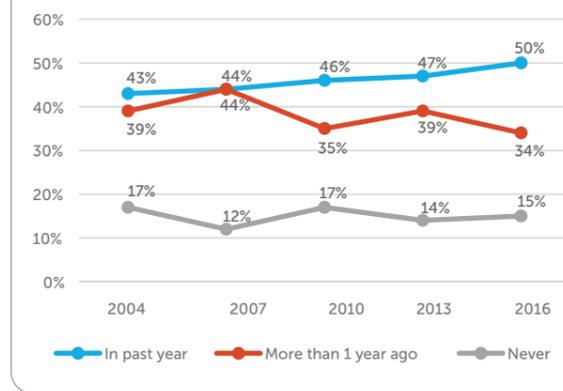
Note. Excludes those who provided pathology data.

Across all survey years, around 9 in 10 participants were men, in line with the overall prisoner population (Table 1).

However, the proportion of Indigenous respondents increased since 2004 as a result of the participation of the Northern Territory in 2010 and 2016. In the most recent survey, the median age increased by two years from 2013, which had previously been stable.

The proportion of respondents with a history of injecting drug use decreased from 59% in 2004 to 46% in 2016, and for women, this reduced by 14%. Imprisonment trends remained similar over the surveyed years.

FIGURE 2. PWID tested for HCV, 2004-2016



While HCV testing has increased, treatment remains low. Only 10 participants (17%) in 2016 and 9 participants (11%) in 2013 with HCV reported ever receiving treatment.

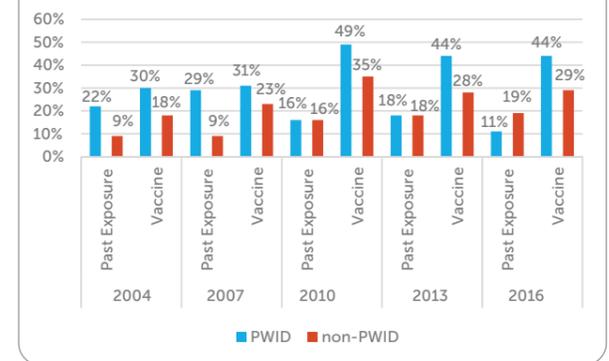
However, recent advances in HCV treatment (less complex treatment regimens and increased effectiveness) combined with increased accessibility via the Pharmaceutical Benefits Scheme are likely to result in increased HCV treatment uptake. While 57% of PWID were aware of new treatments being available, only one-third understood what these treatments involved (i.e., no injections, fewer side effects and shorter treatment length compared with Interferon).

> Hepatitis B (HBV)

The 2016 survey data revealed that the prevalence of HBV is decreasing nationally among prisoners. In 2004, 20% of prison entrants tested positive for HBV core-antibody, while in 2016, this decreased to 15%. The prevalence was significantly higher among Indigenous offenders with a substantially higher rate of HBV core-antibody in the Northern Territory. In 2013, the Northern Territory had a prevalence of 44%, NSW 17% and WA 20%. In 2016 HBV core-antibody remained the highest in the Northern Territory (39%).

Hepatitis B immunity increased due to efforts to increase vaccination coverage since 2004. Among PWID, this rose from 30% in 2004, to 44% in 2016.

FIGURE 4. HBV Immunity among prison entrants, 2004-2016



Just under half (46%) of all prison entrants were vulnerable to HBV in 2016 as they were not immune by either vaccination or past exposure.

> HIV

In 2016, no inmates were found to have the HIV antibody. Testing for HIV (in the past year) increased from 35% in 2004 to 43% in 2016.

> Drug Use

Overall, tobacco, cannabis and methamphetamine are the most commonly used substances by prison entrants. For those who inject drugs, methamphetamine use increased from 70% in 2013 to 79% in 2016. While 88% of prison entrants identify as a current smoker, among PWID, tobacco was the most common substance used in the past month (90%). Among those who had never injected drugs, 84% had used tobacco in the past month. In this time, cannabis and tobacco have decreased from 65% to 58% and 93% to 90% respectively. However, methamphetamine use is significantly lower at 41% among those who have never injected drugs.

RESULTS

> Hepatitis C (HCV)

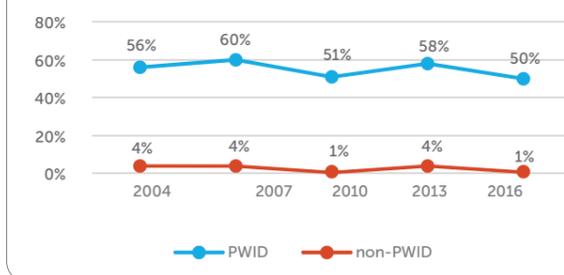
While HCV antibody prevalence has been fairly stable, an overall decrease since 2004 was observed in people who inject drugs (PWID) and those who don't. Among PWID, 56% tested positive for HCV in 2004, decreasing to 50% in 2016.

In 2016, South Australia had the highest prevalence of participants with HCV antibody (44%), followed by Queensland (28%).

Approximately one in four inmates in the ACT, Tasmania and Victoria tested positive to HCV. There were no cases of HCV in the NT.

The prevalence of HCV antibody among PWID was higher in men than women in 2016 - 52% versus 45%. However, across the surveys from 2004-2013, women had a higher overall prevalence ranging from 67-83% with males ranging from 49-56%.

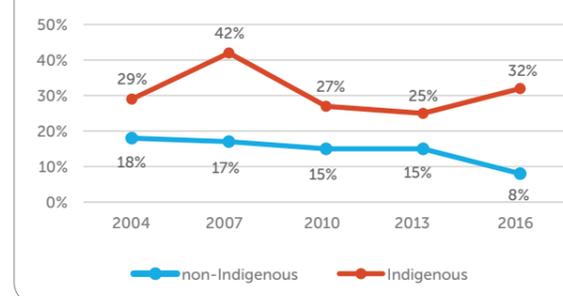
Figure 1. Prevalence of HCV antibody among PWID and non-PWID, 2004-2016



Among Indigenous people who had a history of injecting drugs, the prevalence of HCV antibody increased from 54% in 2013 to 66% in 2016. In 2016, 62% of those who used someone else's needle tested positive to HCV.

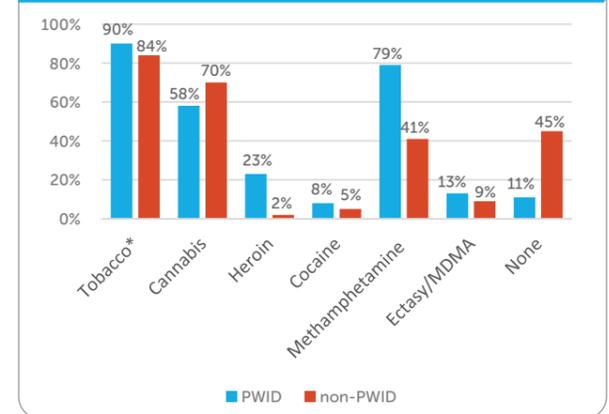
Since 2010, the number of those reporting they had ever been tested for HCV increased from 81% to 86% in 2013 and 84% in 2016. Among PWID who were tested for HCV, 59% were tested in the past year representing an increase from 53% in 2004.

FIGURE 3. Respondents with HBV core anti-body by Indigenous status, 2004-2016



Across all surveyed years, Indigenous prisoners had a substantially higher prevalence of HBV core-antibody than the non-Indigenous population. In 2016, 8% of non-Indigenous respondents reported HBV in contrast to 32% of Indigenous respondents.

FIGURE 5. Substance use in the past month among PWID and non-PWID, 2016



* Those who identify as a current smoker