UNSW SYDNEY

New South Wales Needle and Syringe Program Enhanced Data Collection

2019-2023

A report for the NSW Ministry of Health
by the Kirby Institute, UNSW Sydney

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Acronyms

ACON	AIDS Council of NSW
DAAs	Direct-acting antivirals
HCV	Hepatitis C virus
LHD	Local Health District
NNEDC	New South Wales Needle and Syringe Program Enhanced Data Collection
NSP	Needle and syringe program
NSW	New South Wales
NUAA	NSW Users and AIDS Association
OOS	Occasions of service
OAT	Opioid agonist therapy
PIEDs	Performance and image enhancing drugs
PWID	People who inject drugs
RSS	Receptive syringe sharing

Key findings

A total of 3,079 occasions of service (OOS) were recorded over the two-week data collection period in February/March 2023, equating to approximately 1,550 OOS per week. *During the data collection period, 74% of NSP attendees completed the NNEDC; 15% were repeat attendees, and 11% declined to participate. After excluding repeat attendees, the state-wide response rate was 87% in 2023.*

The median age of respondents was 42 years in 2023. One in twenty respondents (6%) were aged less than 25 years, consistent with proportions reported in the previous five year period (2019-2023) (p-trend=0.096).

One in five respondents (22%) reported an Aboriginal background in 2023, consistent with proportions reported in the previous five years (p-trend=0.054).

In the previous 12 months, one in five respondents (21%) had experienced homelessness, one in four (23%) reported a mental health issue, one in ten (9%) reported being imprisoned, and one in five (21%) had been prescribed opioid agonist therapy.
The proportion of respondents who reported a mental health issue in the previous 12 months, remained stable over the five-year period (p-trend=0.270). Conversely, a significant decline was observed in the proportion of respondents who reported recent homelessness, from 25% in 2019 to 21% in 2023 (p-trend=0.005).

As in previous years, opioids were the most common class of drug last injected in 2023, reported by two in five respondents (39%), followed by stimulants (34%) and performance and image enhancing drugs (23%).
A significant decline was observed in the proportion of respondents who reported last injecting an opioid, from 47% in 2019 to 39% in 2023 (p-trend<0.001). The proportion of respondents who reported last injecting a stimulant was stable over the five-year period (p-trend=0.420). Methamphetamine was the most commonly reported drug last injected in 2023, reported by 33% of respondents.

One in two respondents (50%) reported injecting daily or more frequently in 2023, a significant increase from 40% in 2019 (p-trend<0.001).

One in ten (12%) respondents reported initiating injecting in the previous three years, a significant increase from 10% in 2019 (p-trend=0.048).

In 2023, one in five respondents (17%) reported at least one episode of receptive syringe sharing (RSS) in the month prior to data collection, consistent with previous years (p-trend=0.108).
Factors independently associated with an increased risk of recent RSS in 2023 were recent imprisonment and identifying as bisexual.

Almost three quarters of respondents (70%) reported a lifetime history of hepatitis C virus (HCV) testing, including 34% who reported testing in the previous 12 months.
Over the last five years, there was a significant decline in the proportion of respondents who reported a HCV test in the previous 12 months, from 46% in 2019 to 34% in 2023 (p-trend<0.001).

Among respondents who reported ever receiving a HCV diagnosis and who did not report spontaneous clearance, the proportion who reported a lifetime history of HCV direct acting antiviral (DAA) treatment was 81%.
A significant increase was observed in the proportion of respondents who reported a lifetime history of HCV DAA treatment, from 61% in 2019 to 81% in 2023 (p-trend<0.001).

In 2023, one in three respondents who had a lifetime history of DAA treatment reported accessing treatment through public-sector community settings (32%).

Background

The NSW NSP is a public health initiative that aims to reduce the transmission of blood borne viruses and other harms related to injection drug use through the provision of sterile injecting equipment and health related information and support. The NSP operates within the principles of harm minimisation embedded in both the National and NSW HIV and Hepatitis C Strategies. The NSW public sector program is delivered through a mix of primary and secondary NSP outlets in health, welfare and pharmacy settings, augmented by mobile and outreach services and syringe dispensing machines and chutes.

The NSW Ministry of Health established the NSW NSP Enhanced Data Collection (NNEDC) as a mechanism to provide an annual snapshot of the NSW NSP client population in 2004. The NNEDC was subsequently repeated in 2008 and in a revised format annually in all years since 2013. The 2023 NNEDC was conducted at 47 NSPs over a two-week period (20th February to 5th March) and was the eleventh consecutive data collection in the new format. This report presents data from the previous five years, 2019 to 2023. Details on the study methodology, participating sites and data collection instrument are included at Appendices A, B and C, respectively.

Respondents and Occasions of Service

Key findings:

- **3,079 occasions of service were recorded over the two-week data collection period in 2023:**
  - 74% (n=2,274) completed the NNEDC, a significant increase from 69% in 2019 (p-trend<0.001).
  - 15% (n=472) were repeat attendees, a significant decline from 19% in 2019 (p-trend<0.001).
  - 11% (n=333) declined to participate, consistent with previous years (p-trend=0.844).
- **After excluding repeat NSP attendees, the state-wide response rate in 2023 was 87%.**

Forty-seven sites participated in the NNEDC in 2023, representing all 15 Local Health Districts (LHDs, see Appendix B). The number of participating sites varied by LHD and ranged from one site in the Far West, Illawarra Shoalhaven and Nepean Blue Mountains LHDs to seven sites in the Northern NSW LHD.

The methodology of the NNEDC was amended in 2019 to encourage all NSP attendees to complete a minimum of the first four questions in the data collection instrument. This report includes data collected from both NSP attendees who completed all questions on the data collection instrument and those who elected to respond to the first four questions only. As a result, the proportion of respondents who did not respond to subsequent questions (from question 5) varies. In order to examine trends over time in a consistent manner, missing data are excluded when calculating proportions for all variables.

In 2023, a total of 3,079 occasions of service (OOS) were recorded during the data collection period, with approximately 1,550 NSP OOS record in each week.

Increases in OOS were observed across eight of the fifteen LHDs, however seven LHDs (Illawarra Shoalhaven, Northern Sydney, South Western Sydney, Far West, Western NSW, Hunter New England and Southern NSW LHDs) recorded a decline in OOS in 2023, compared to 2022.

Of the 3,079 OOS recorded in 2023, approximately three quarters (74%, n=2,274, Table 1) of NSP attendees agreed to participate in the NNEDC (hereafter referred to as respondents), and this was a significant increase from 69% in 2019 (p-trend<0.001). Furthermore, of the 2,274 respondents recorded in 2023, three quarters (72%, n=1,644) completed all questions in the data collection instrument. While consistent with the proportion reported in 2022 (74%, p=0.190), a significant increase in the proportion of respondents who completed all questions in the NNEDC was observed over the five-year period (from 67% in 2019 to 72% in 2023, p<0.001).

In order to reduce bias towards frequent NSP attendees, those who completed the NNEDC at a previous attendance (repeat attendees) are ineligible to complete the NNEDC at subsequent NSP attendances during the annual data collection period. In 2023, approximately one in six NSP attendees (15%, n=472) were repeat NSP attendees. Over the 5-year period, a significant decline was observed in the proportion of repeat attendees, from 19% in 2019 to 15% in 2023 (p-trend<0.001).

Approximately one in ten NSP attendees (11%, n=333) declined to participate in the NNEDC in 2023 and did not provide any data regarding their demographic characteristics and drug use. Between 2019 and 2023, the proportion of NSP attendees who declined to participate was stable, from 12% in 2019 to 11% in 2023 (p-trend=0.844).

The 2023 state-wide response rate, which excludes repeat respondents, was 87%. Between 2019 and 2023, the response rate was stable, (range 81% to 87%, p-trend=0.260).

Metropolitan LHDs

Consistent with previous years, three quarters of state-wide OOS (77%, n=2,386) were recorded at NSPs in metropolitan LHDs. Of the n=2,386 OOS recorded in metropolitan LHDs, 73% (n=1,739) were NSP attendees who agreed to participate in the NNEDC, 17% (n=405) were repeat attendances, and 10% (n=242) were OOS where the NSP attendee declined to participate. The response rate of metropolitan LHDs in 2023 was 88%, which was consistent with previous years (p-trend=0.925).

As shown in Figure 1, among metropolitan LHDs, South Eastern Sydney LHD had the highest number of OOS in 2023 (n=847), and the highest response rate was recorded by Nepean Blue Mountains LHD (100%).

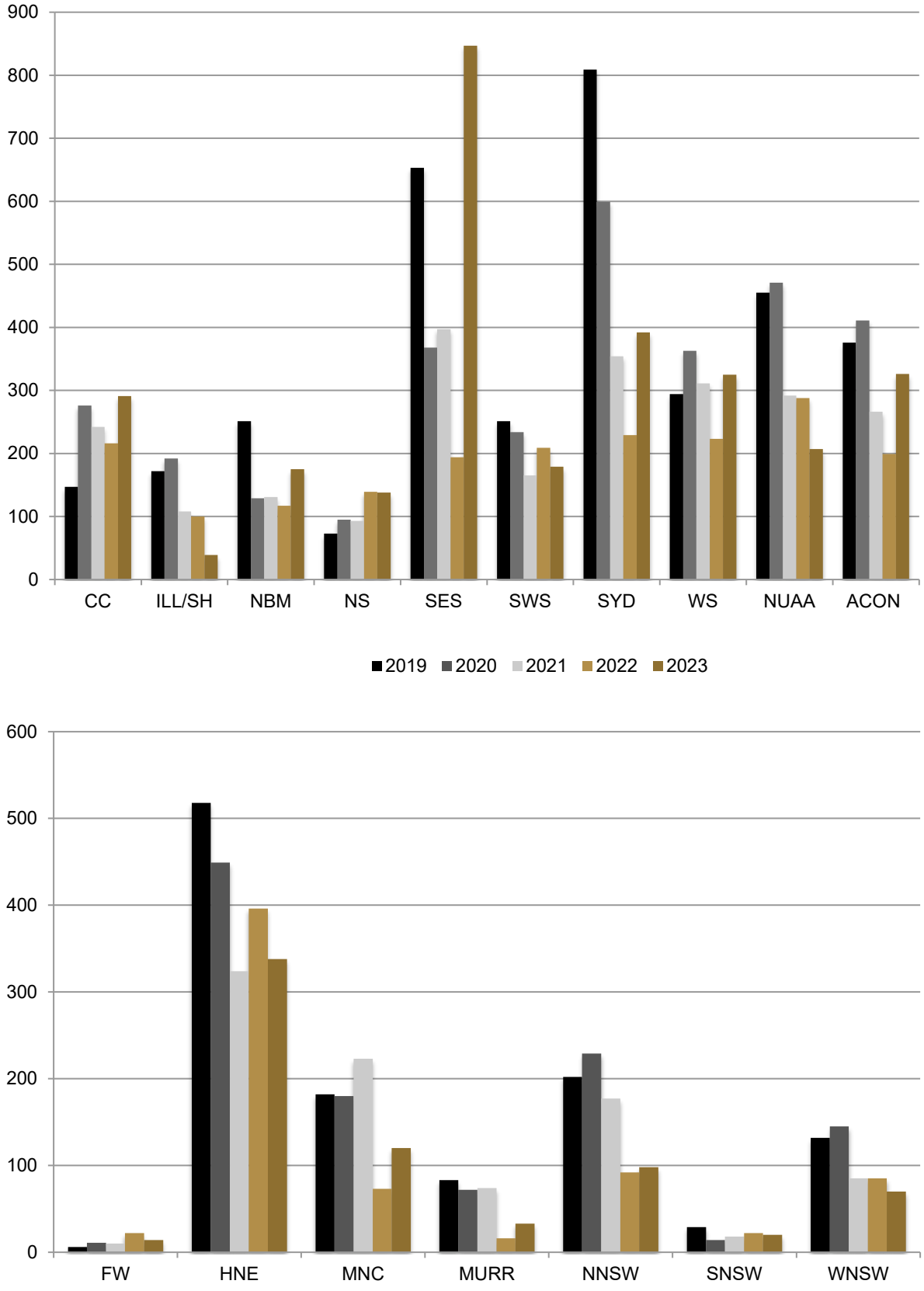
Rural and regional LHDs

The remaining quarter (23%, n=693) of state-wide OOS recorded in 2023 were recorded at NSPs in rural and regional LHDs. Of the n=693 OOS recorded in rural and regional LHDs, 77% (n=535) were NSP attendees who agreed to participate in the NNEDC, 10% (n=67) were repeat attendances, and 13% (n=91) were OOS where the NSP attendee declined to participate. The response rate of rural and regional LHDs in 2023 was 86%, which was consistent with previous years (p-trend=0.137).

Among rural and regional LHDs, Hunter New England LHD recorded the highest number of OOS (n=338) in 2023, and the highest response rate was recorded by Far West LHD (100%).

Differences in NSP service delivery modalities may account for variations observed in the number of OOS recorded in metropolitan and rural/regional LHDs. In general, rural and remote LHDs are more reliant on secondary NSPs and syringe dispensing machines (vending machines and chutes), in order to provide access to injecting equipment over large geographic areas. For this reason, staff interaction with NSP attendees may be limited, impacting their ability to participate in NNEDC data collection.

Figure 1 Occasions of service by LHD, NUAA & ACON Sydney, 2019-2023



Demographic characteristics

Key findings:

- **Over the five-year period, the key demographic characteristics of respondents (gender, sexual identity) remained stable.**
- **One in twenty respondents (6%) were aged less than 25 years in 2023, consistent with previous years (p-trend=0.096).**
- **One in five respondents (22%) reported an Aboriginal background in 2023, consistent with previous years (p-trend=0.054).**
- **One in twenty respondents (5%) reported that their parents spoke a language other than English in 2023, a significant decline from 7% in 2019 (p-trend=0.004).**

Gender

As in previous years, three quarters of respondents (75%, n=1,683) in 2023 were men. The remaining quarter of respondents were (24%, n=540) women, and a minority of respondents (1%, n=27) identified their gender as other. The distribution of gender was stable over the five-year period. In 2023, men comprised the majority of respondents in all LHDs. However, women comprised a significantly greater proportion of respondents from rural and regional LHDs compared to metropolitan LHDs (30% vs 23%, p=0.001).

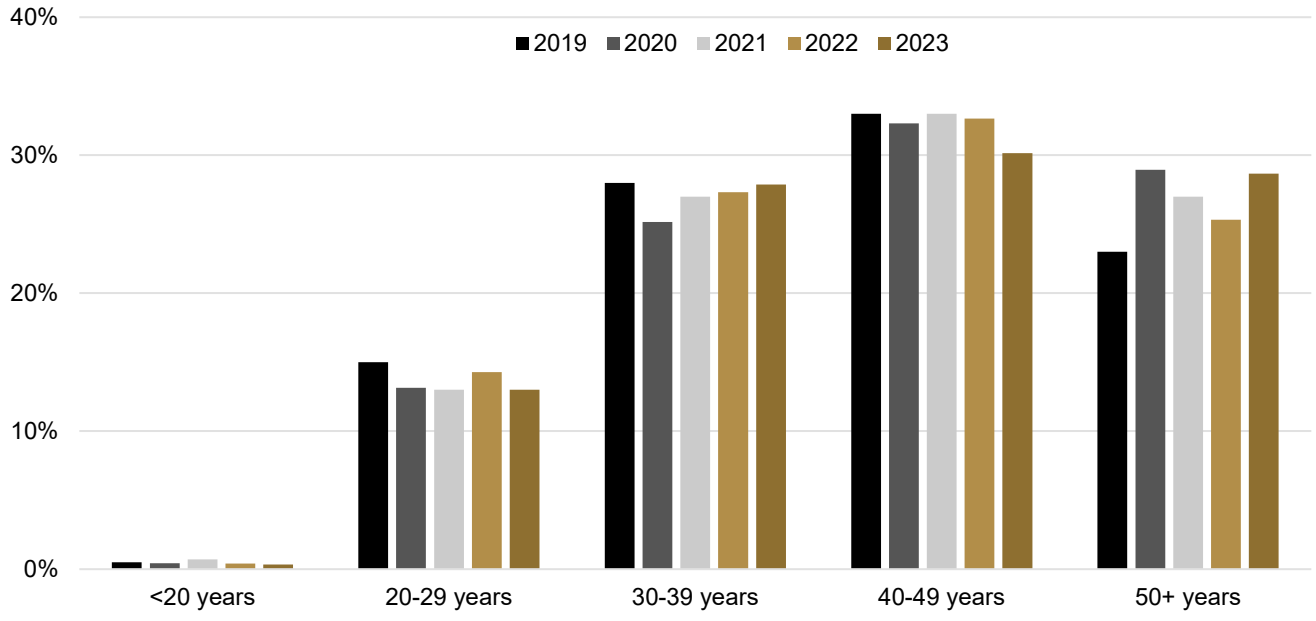
Age

The median age of respondents was 42 years (range 17 to 83 years) in 2023, and this was consistent with the median age reported since 2019. In 2023, the lowest median age (36 years) was recorded in Nepean Blue Mountains LHD, while the highest (49 years) was recorded in Northern NSW LHD.

In 2023 there was no significant difference in the median age between respondents who completed the NNEDC in rural or regional LHDs or metropolitan LHDs (42 vs 42 years, p=0.981).

As in previous years, in 2023 there was no significant difference in the median age of men and women (42 years for men, 43 years for women p=0.070). However, among respondents who reported last injecting a psychoactive drug

Figure 2 Proportion of respondents by age category, 2019-2023



(defined as all drugs excluding performance and image enhancing drugs [PIEDs]), the median age of men was significantly higher than that of women (46 years vs 43 years, p<0.001). This association has been observed in each of the last five-years.

As observed in previous years, in 2023, respondents who reported last injecting PIEDs had a significantly lower median age compared to respondents who reported last injecting a psychoactive drug (32 years vs 45 years, p<0.001).

In 2023, one in twenty respondents (6%, n=136) were aged less than 25 years (young people), and this was consistent with proportions reported in previous years (p-trend=0.096, Figure 2). The highest proportion of young people in 2023 was observed in Far West LHD (21%), while Southern NSW LHD recorded no young people attending NSPs during the 2023 data collection period.

Sexual identity

Approximately four in five respondents (82%, n=1,289) identified as heterosexual in 2023, while approximately one in ten respondents identified as either bisexual (8%, n=125) or homosexual (7%, n=117). Over the five-year period, there was a significant decrease in both the respondents identifying as bisexual, from 10% in 2019 to 8% in 2023 (p=0.031) and homosexual, from 10% in 2019 to 7% in 2023 (p=0.025). The proportion of respondents identifying as heterosexual remained stable.

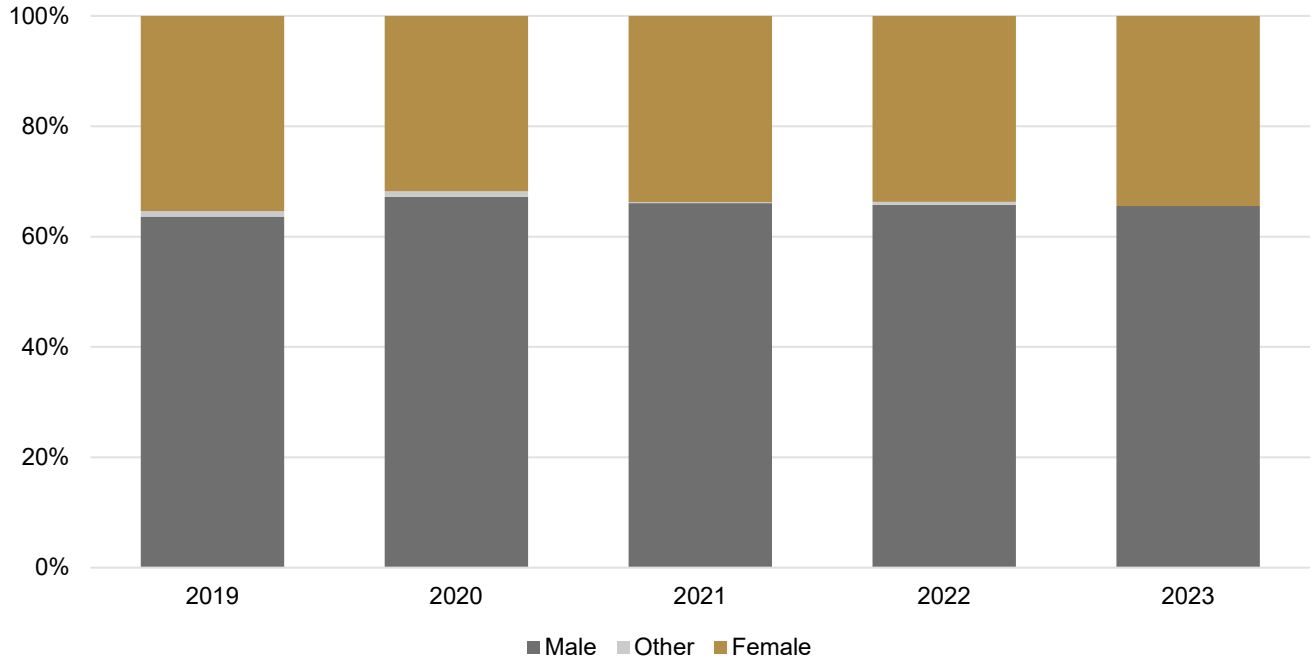
As in previous years, in 2023 women were significantly more likely than men to identify as bisexual (17% vs 5%, p<0.001), while men were significantly more likely than women to identify as homosexual (8% vs 5%, p=0.021). In 2023, the proportion of respondents who identified as homosexual or bisexual ranged from 3% in Mid North Coast LHD to 50% in Far West LHD.

Cultural and linguistic diversity

In 2023, one in five respondents (22%, n=480) reported an Aboriginal background, consistent with proportions reported in previous years (p-trend=0.054). Smaller proportions of respondents reported either an Aboriginal and Torres Strait Islander background (1%, n=20) or a Torres Strait Islander background (<1%, n=11).

In 2023, the proportion of Indigenous respondents (Aboriginal and/or Torres Strait

Figure 3 Aboriginal and Torres Strait Islander respondents by gender, 2019-2023



Islander background) ranged from 7% in Illawarra Shoalhaven LHD to 47% in Western NSW LHD. The proportion of Indigenous respondents was significantly higher in rural and regional LHDs compared to metropolitan LHDs in 2023 (26% vs 21%, p=0.017), and this was observed in all years over the five-year period.

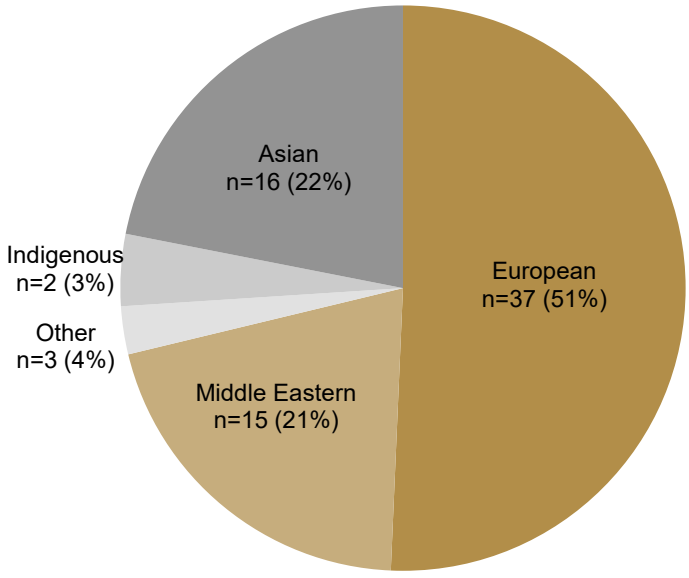
As in previous years, in 2023, women were significantly more likely than men to report an Indigenous background (32% vs 19%, p<0.001, Figure 3).

In 2023, one in twenty respondents (5%, n=79) reported a language other than English as the main language spoken by their parents at home. Over the five-year period, a significant decline was observed in this sub-population, from 7% in 2019 to 5% in 2023 (p-trend=0.004).

Among respondents who reported that their parents spoke a language other than English, European languages were most commonly reported in 2023, reported by one in two respondents (51%, n=37, Figure 4). This was followed by one in five respondents who reported either an Asian language (22%, n=16) or a Middle Eastern language (21%, n=15). Smaller proportions of respondents reported that their parents spoke another language (4%, n=3) or an Indigenous language (3%, n=2).

The highest proportion of respondents who reported a language other than English as the main language spoken at home by their parents was recorded in South Western Sydney LHD (27%) in 2023, while six LHDs (Far West, Murrumbidgee, Western NSW, Mid North Coast, Illawarra Shoalhaven and Southern NSW) had no respondents who reported that their parents spoke a language other than English at home.

Figure 4 Languages other than English spoken at home by parents in 2023



Social, legal and health issues

Key findings:

- **In the previous 12 months:**
  - In 2023 one in five respondents (21%) had experienced homelessness, a significant decline from 25% in 2019 (p-trend=0.005).
  - One in four respondents (23%) reported living with or being diagnosed with a mental health issue, consistent with previous years (p-trend=0.270).
  - One in ten respondents (9%) reported recent imprisonment, consistent with previous years (p-trend=0.073).
  - One in five respondents (21%) reported recent opioid agonist therapy, a significant decline from 24% in 2019 (p-trend=0.003).

Homelessness

Recent (in the previous 12 months) homelessness was reported by one in five respondents (21%, n=333, Figure 5) in 2023. Over the five-year period, a significant decline in this sub-population was observed, from 25% in 2019 to 21% in 2023, (p-trend=0.005, Table 3).

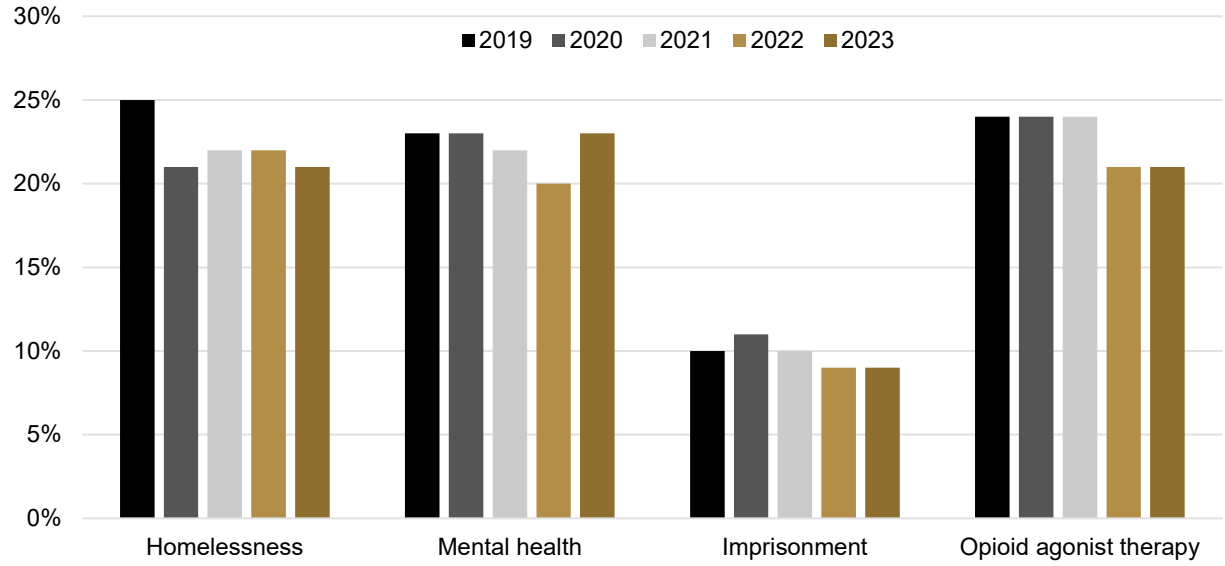
As in previous years, in 2023, the majority of respondents who reported recent homelessness were men (65%, n=215), identified as heterosexual (76%, n=252), and completed the NNEDC at a NSP in a metropolitan LHD (67%, n=223). The median age of respondents who reported recent homelessness was 43 years (range 17-69), and 4% (n=12) of respondents who reported recent homelessness were young people.

Mental health

Living with, or being diagnosed with a mental health issue, in the preceding 12 months was reported by one in four respondents (23%, n=368) in 2023, consistent with previous years (p-trend=0.270).

The majority of respondents who reported a mental health issue in 2023 were men (60%, n=221), identified as heterosexual (71%, n=263) and completed the NNEDC at an NSP in a metropolitan LHD (67%, n=247). These characteristics remained stable across the 5-year period. The median age of respondents who reported a recent mental health issue was 43 years (range 17-69 years) in 2023, and 7% (n=24) of respondents who reported a mental health issue were young people.

Figure 5 Social, legal and health issues in the previous 12 months, 2019-2023



Imprisonment

One in ten respondents (9%, n=149) reported recent (in the previous 12 months) imprisonment in 2023. Despite reported declines in the NSW prison population since COVID-19 was declared a global pandemic in March 2020 (Chan, 2020) the proportion of respondents who reported recent imprisonment in 2023 was consistent with proportions reported in previous years (p-trend=0.073).

As in previous years, in 2023, the majority of respondents who reported imprisonment in the previous 12 months were men (81%, n=120), identified as heterosexual (83%, n=118), and completed the NNEDC at a NSP in a metropolitan LHD (68%, n=102). The median age of respondents who reported recent imprisonment was 40 years (range 19-66), while 3% (n=5) of respondents who reported recent imprisonment were young people.

Opioid agonist therapy

In 2023, one in five respondents (21%, n=332) reported that they were prescribed opioid agonist therapy (OAT) in the previous 12 months. However, when the data were restricted to the n=596 respondents who reported last injecting an opioid and completed the social, legal and health questions, two in five respondents (36%, n=217) reported being prescribed OAT in the previous 12 months. The proportion of respondents who reported being prescribed OAT in 2023 (21%) represented a significant decline from 24% in 2019 (p-trend=0.003).

The majority of respondents who reported being prescribed OAT in the previous 12 months were men (59%, n=197), identified as heterosexual (81%, n=269), and completed the NNEDC at a NSP in a metropolitan LHD (68%, n=227). These characteristics remained stable across the 5-year period. The median age of respondents who reported recent OAT in 2023 was 46 years (range 20-69), and nine respondents (3%) who reported being prescribed OAT were young people.

Drug last injected

Key findings:

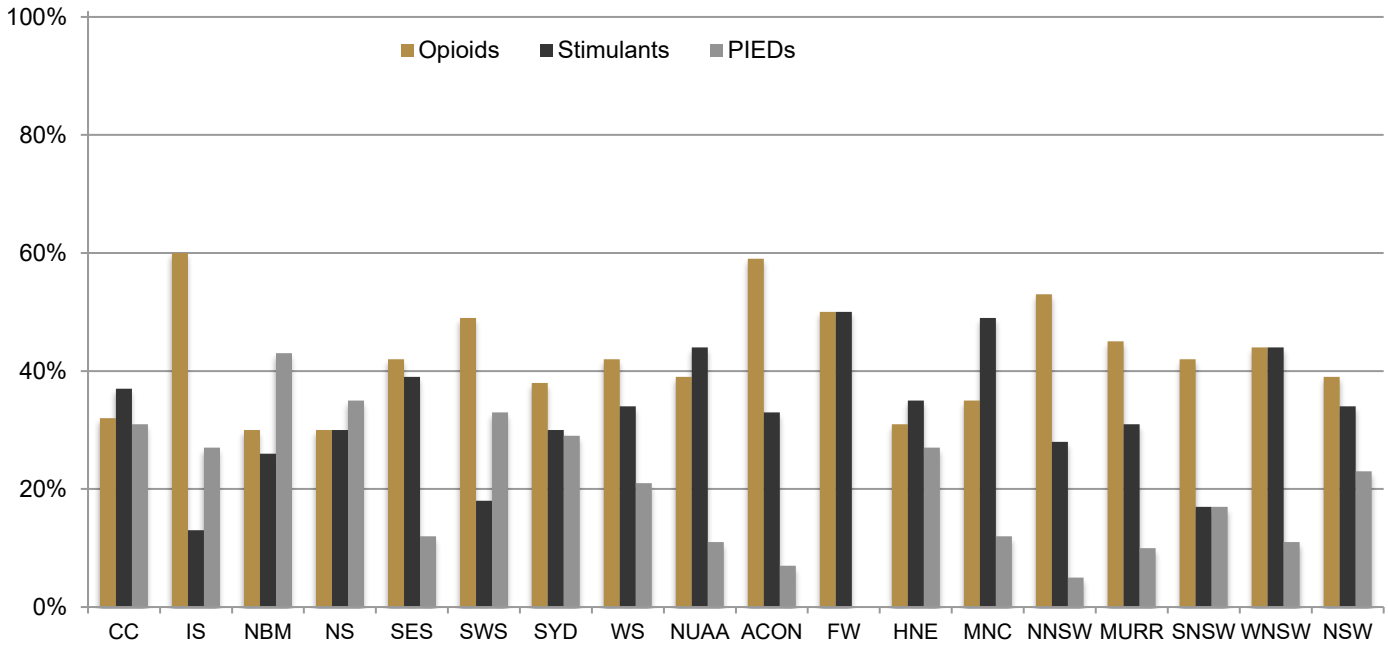
- **As in previous years, opioids were the most common class of drug last injected in 2023, reported by two in five respondents (39%).**
- **One in four respondents in 2023 reported last injecting heroin (27%, n=594), a significant decline from 34% in 2019 (p-trend<0.001).**
- **Approximately one in three respondents (34%) reported last injecting a stimulant in 2023, consistent with previous years (p-trend=0.420).**
- **Methamphetamine was the most commonly reported drug last injected in 2023, reported by 33% of respondents, consistent with previous years (p-trend=0.740).**
- **One in four respondents (23%) reported last injecting PIEDs in 2023, a significant increase from 13% in 2019 (p-trend<0.001).**

Opioids

Opioids (heroin, opioid pharmacotherapies and pharmaceutical opioids) were the most common class of drug last injected by NNEDC respondents in 2023, reported by approximately two in five respondents (39%, n=849, Figure 6). Over the five-year period, a significant decline was observed in the proportion of respondents who reported last injecting an opioid (from 47% in 2019 to 39% in 2023, p-trend<0.001, Table 2). Opioids were the most commonly reported class of drug last injected in ten of the fifteen LHDs in 2023, and the proportion of respondents who reported last injecting an opioid ranged from 30% in Nepean Blue Mountains LHD and Northern Sydney LHD to 60% in Illawarra Shoalhaven LHD.

Heroin was the most commonly reported opioid last injected in 2023, reported by approximately one in four respondents (27%, n=594, Figure 7). This was followed by methadone (8%, n=167) and pharmaceutical opioids (2%, n=43), while smaller proportions of respondents reported last injecting buprenorphine (1%, n=20), other opioids or more than one opioid (1%, n=16), and buprenorphine-naloxone (<1%, n=9).

Figure 6 Opioids, stimulants and PIEDs as the drug last injected in NSW and by LHD in 2023



Over the five-year period a significant increase was observed in the proportion of respondents who reported last injecting methadone (from 6% in 2019 to 8% in 2023, p-trend=0.015). Conversely, significant declines were observed in the proportion of respondents who reported last injecting heroin (from 34% in 2019 to 27% in 2023, p-trend<0.001), other or more than one opioid (from 1.14% in 2019 to 0.72% in 2023, p-trend=0.034) and pharmaceutical opioids (from 5% in 2019 to 2% in 2023, p-trend<0.001). All other opioids last injected remained stable over the five-year period.

Stimulants

Approximately one in three respondents (34%, n=747) reported last injecting a stimulant (predominantly methamphetamine) in 2023. Over the five-year period, the proportion of respondents who reported last injecting a stimulant was stable (p-trend=0.420). Stimulants were the most common class of drug last injected in five of the fifteen LHDs, and the proportion of respondents who reported last injecting a stimulant ranged from 13% in Illawarra Shoalhaven LHD to 50% in Far West LHD.

Methamphetamine was the most commonly reported stimulant last injected in 2023, with the injection of methamphetamine reported by one third of respondents (33%, n=716). Smaller proportions of respondents reported last injecting cocaine (1%, n=31).

Over the five-year period, a significant decline was observed in the proportion of respondents who reported last injecting other or more than one stimulant, from <1% in 2019 to 0% in 2023 (p-trend=0.015). All other stimulants remained stable over the five-year period.

Performance and image-enhancing drugs

PIEDs (predominantly anabolic steroids, peptides and growth hormone) were the third most common class of drug last injected in 2023, reported by approximately one in four respondents (23%, n=503), a significant increase from 13% in 2019 (p-trend<0.001). The highest proportion of PIEDs injection was recorded in Nepean Blue Mountains LHD (43%), while Far West LHD recorded no respondents who reported last injecting PIEDs.

Anabolic steroids were the most commonly reported PIED last injected in 2023, reported by approximately two in ten respondents (17%, n=375). Smaller proportions of respondents reported last injecting growth hormone (2%, n=45), peptides (2%, n=45), and more than one or other PIEDs (2%, n=38).

Over the five-year period, significant increases were observed in the proportion of respondents who reported last injecting anabolic steroids (from 9% in 2019 to 17% in 2023, p-trend<0.001), peptides (from 1% in 2019 to 2% in 2023, p-trend=0.004) and growth hormone (from 1% in 2019 to 2% in 2023, p-trend=0.029). The prevalence of all other PIEDs as the last drug injected remained stable over the five-year period.

In 2023, a small proportion of respondents reported last injecting more than one class of drug (3%, n=73), while 1% (n=23) reported last injecting other drugs, for example vitamin B12.

The proportion of respondents who reported last injecting more than one class of drug or other drugs remained stable over the five-year period.

Drug last injected among young people

Consistent with prevalence reported in previous years, approximately three in five young people (63%, n=83) reported last injecting PIEDs in 2023. This was followed by one in five young people (21%, n=28) who reported last injecting a stimulant and one in seven (13%, n=17) who reported last injecting an opioid.

While the pattern of drug last injected among young men mirrored the overall pattern for young people, among young women stimulants were the most commonly reported class of drugs last injected, reported by one in two young women (52%, n=13) in 2023, followed by opioids (32%, n=8), and PIEDs (12%, n=3).

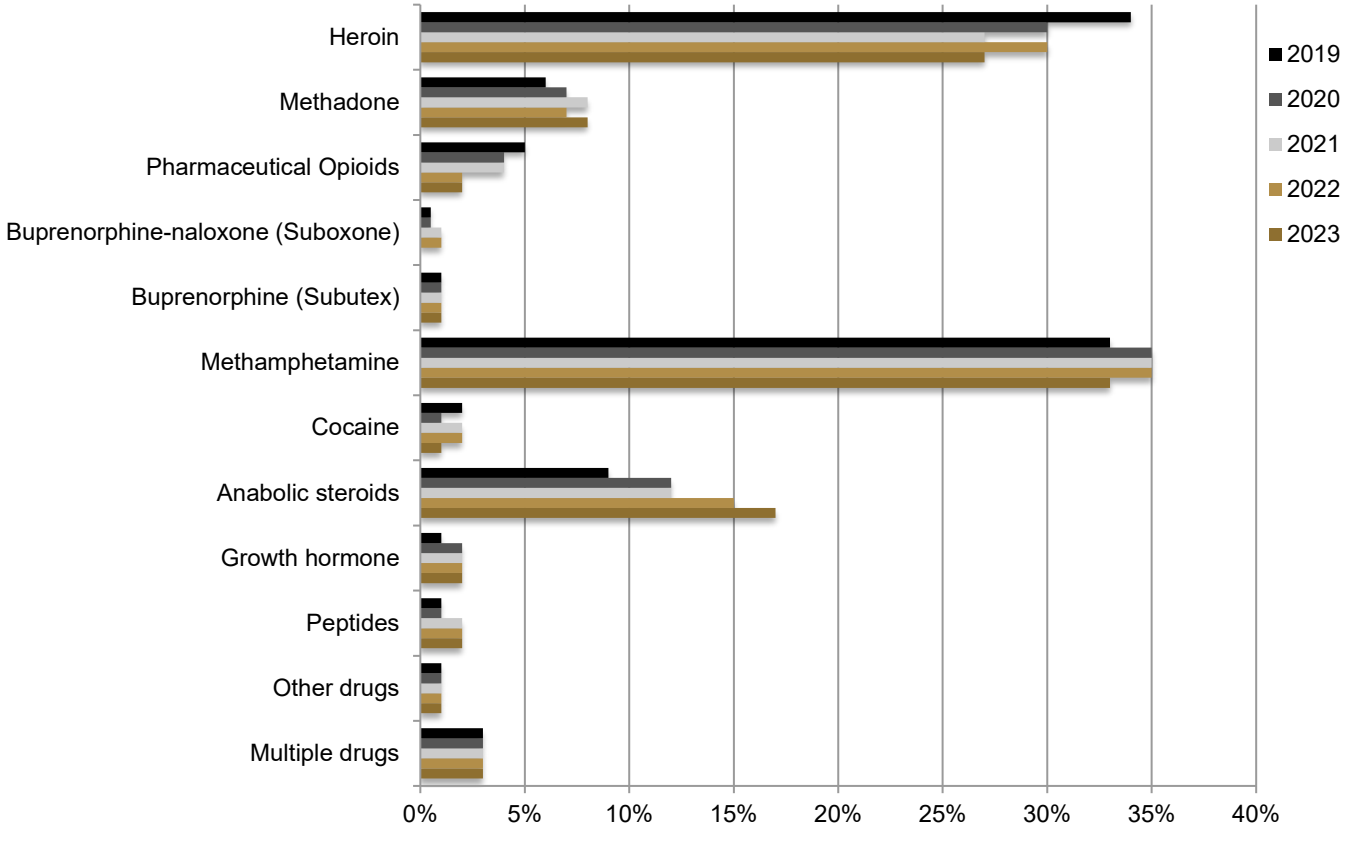
Drug last injected by location

The pattern of drug last injected among both metropolitan respondents and those who completed the NNEDC at a rural or regional LHD mirrored that of the overall pattern for the state.

Among those respondents who completed the NNEDC in a metropolitan LHD, opioids were the most commonly reported class of drug last injected, reported by approximately two in five respondents (39%, n=649).

This was followed by approximately one in three respondents (33%, n=551) who reported last injecting a stimulant, and one in four respondents (25%, n=412) who reported last injecting PIEDs. Among those respondents who completed the NNEDC in a rural or regional LHD, opioids were the most commonly reported class of drug last injected, reported by approximately two in five respondents (38%, n=200). This was followed by approximately two in five respondents (37%, n=196) who reported last injecting a stimulant, and one in five respondents (17%, n=91) who reported last injecting PIEDs.

Figure 7 Drug last injected, 2019-2023



Injecting behaviour

Key findings:

- **Approximately one in two respondents (50%) reported injecting daily or more frequently in 2023, a significant increase from 40% in 2019 (p-trend<0.001).**
- **The median number of years since first injection was 20 years (range 0-57 years) and the median age at first injection was 20 years (range 11-67 years).**
- **One in ten respondents (12%) reported injection initiation within the previous three years, a significant increase from 10% in 2019 (p-trend=0.048).**

Frequency of injection

Approximately one in two respondents (50%, n=795) reported injecting daily or more frequently in 2023, which was a significant increase from 40% in 2019 (p-trend<0.001). This was followed by one in four respondents (23%, n=360) who reported injecting more than weekly, but not daily, and one in five respondents (16%, n=255) who reported injecting less than weekly. Finally, one in ten respondents (12%, n=185) reported no injection in the month prior to data collection.

Over the five-year period, significant increases were observed in the proportion of respondents who reported injecting daily or more frequently, from 40% in 2019 to 50% in 2023 (p-trend<0.001), less than weekly, from 12% in 2019 to 16 % in 2023 (p-trend<0.001) and not injecting in the last month, from 9% in 2019 to 12% in 2023 (p-trend=0.030) Conversely, a significant decline was observed in the proportion of respondents who reported injecting more than weekly but not daily (from a peak of 40% in 2019 to 23% in 2023, p-trend<0.001).

Time since first injection and new initiates

In 2023, the median number of years since first injection was 20 years (range 0-57 years), and the median age at first injection was 20 years (range 11-67 years).

One in ten respondents (12%, n=185) reported injection initiation within the previous three years (new initiates) in 2023, a significant increase from 10% in 2019 (p-trend=0.048).

As in previous years, the majority of new initiates in 2023 were men (89%, n=165), identified as heterosexual (85%, n=157), and completed the NNEDC at an NSP in a metropolitan LHD (63%, n=116). The median age of new initiates was 27 years (range 17-68), and one in three new initiates (33%, n=61) were aged less than 25 years.

PIEDs was the most commonly reported class of drug last injected among new initiates in 2023, reported by approximately three in four new initiates (78%, n=144). This was followed by stimulants (14%, n=26) and opioids (6%, n=12). Injecting weekly or more frequently was the most commonly reported frequency of injection among new initiates, reported by one in three (36%, n=67). This was followed by less than weekly (22%, n=41), and daily or more frequently (21%, n=38). Approximately one in five new initiates (20%, n=37) reported no injection in the month prior to data collection.

Recent receptive syringe sharing

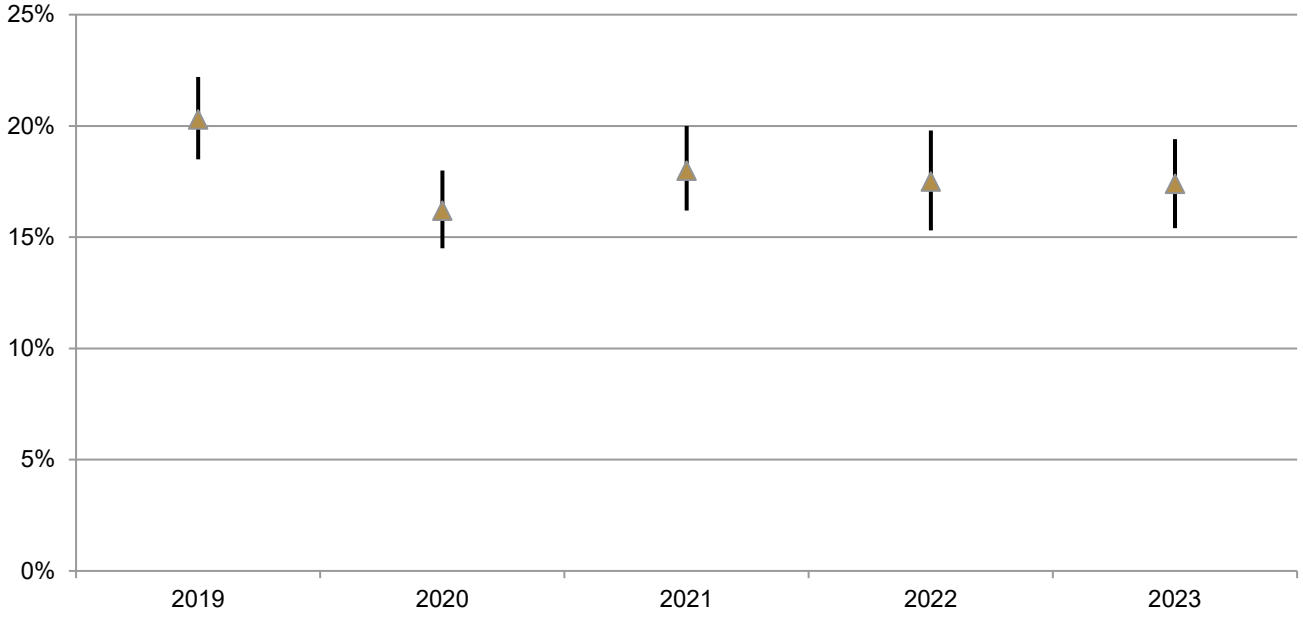
Key findings:

- **One in five respondents (17%) reported at least one episode of receptive syringe sharing (RSS) in the month prior to data collection in 2023.**
- **Of the 244 respondents who reported RSS in 2023:**
  - One in four (28%) reported five or more occasions of RSS.
  - One in four (28%) reported a single occasion of RSS.
  - One in four (24%) reported two occasions of RSS.
  - One in five (20%) reported between three and five occasions of RSS.
- **The proportion of respondents who reported recent RSS was stable over the five-year period (p-trend=0.108).**
- **Factors associated with an increased risk of recent RSS in 2023 were recent imprisonment and identifying as bisexual.**

In 2023, of the 1,410 respondents who reported at least one injection episode in the month prior to data collection, approximately one in five (17%, n=244, Figure 8) reported at least one occasion of receptive syringe sharing (RSS) in the previous month. Over the five-year period, the proportion of respondents who reported RSS was stable (p-trend=0.108).

Among respondents who reported RSS in the previous month in 2023, approximately one in four (28%, n=69, Figure 9) reported that RSS had occurred on five or more occasions, which was a significant decrease from 36% in 2019 (p-trend=0.002). This was followed by one in four who reported that RSS had occurred once (28%, n=68), a significant increase from 19% in 2019 (p-trend=0.002). Consistent with prevalence in previous years, one in four respondents reported that RSS had occurred twice (24%, n=59) and the remaining one fifth of respondents (20%, n=48) reported that RSS had occurred on between three and five occasions.

Figure 8 RSS in the previous month with 95% confidence intervals, 2019-2023



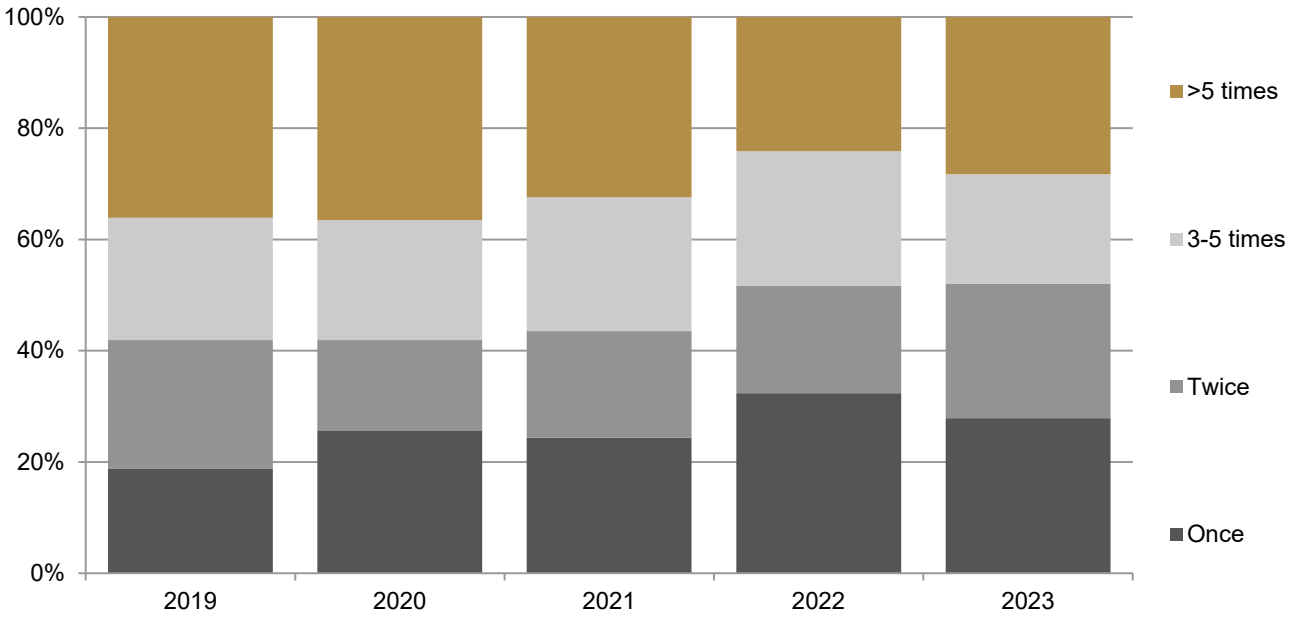
Consistent with previous years, in 2023 approximately one in three respondents (30%, n=690) required assistance with the completion of the NNEDC data collection instrument. As RSS is a highly stigmatised behaviour, reporting may be affected by social desirability bias (White et. al., 2007). Respondents who were assisted to complete the NNEDC by either NSP staff or other NSP attendees in 2023, were significantly less likely to report RSS, compared to respondents who did not require assistance (11% vs 20%, p<0.001). As this observation has been reported in all years in the five-year period, it is likely that the observed RSS prevalence of 17% is an under-estimate of the actual prevalence of this behaviour.

Factors independently associated with recent RSS

As shown in Table 5, in 2023 no associations were observed between recent RSS and gender, language spoken at home by parents, geographic location, recent homelessness, living with a mental health issue or injecting daily or more frequently.

In adjusted analysis, respondents who reported recent imprisonment and those who identified as bisexual were significantly more likely to report recent RSS, compared to respondents who did not report recent imprisonment or those who do not identify as bisexual. Respondents who were aged 36 years and older, reported recent prescription of OAT and last injected PIEDs were less likely to report RSS than those who were aged under 36 years old, last injected a drug other than PIEDs and did not have a recent history of OAT prescription.

Figure 9 Frequency of RSS among respondents who reported RSS in the previous month, 2019-2023



Hepatitis C testing and treatment uptake

Key findings:

- **In 2023 three quarters of respondents (70%) reported a lifetime history of hepatitis C (HCV) testing, including 34% who reported testing in the previous 12 months.**
  - **One in three respondents (30%) reported never having had a test for HCV.**
- **Among respondents who reported ever receiving a HCV diagnosis and who did not report spontaneous clearance, the proportion in 2023 who reported a lifetime history of HCV direct acting antiviral (DAA) treatment was 63%, a significant increase from 44% in 2019 (p-trend<0.001).**
- **One in three respondents in 2023 who ever accessed HCV DAA treatment did so through public-sector community settings (32%), while one in four (26%) accessed treatment through tertiary facilities.**
- **Factors associated with lower lifetime HCV DAA treatment uptake in 2023 were completing the NNEDC in a rural/regional area, recent imprisonment and injecting daily or more frequently.**

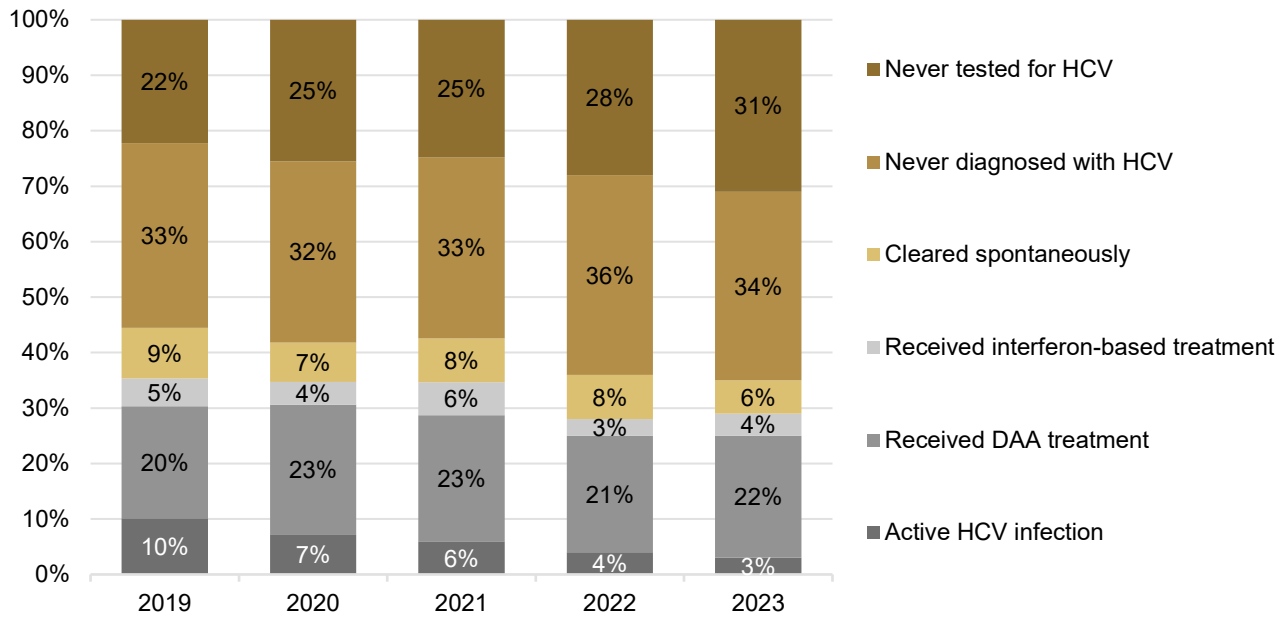
Since 2018, additional items were included in the NNEDC data collection instrument to assess the uptake of hepatitis C virus (HCV) direct-acting antiviral (DAA) treatment among people who inject drugs (PWID) attending NSPs in NSW and to identify the range of settings where treatment was accessed. In 2019, further questions were added to determine the proportion of respondents who had received a HCV diagnostic test and the year of HCV treatment.

HCV Testing

A total of 1,587 respondents completed the additional HCV questions in 2023. Of these, approximately three in four (70%, n=1,108, Table 4) reported a lifetime history of HCV testing, including 34% (n=543) who reported that they had been tested in the previous 12 months. One in three respondents (30%, n=479, Figure 10) reported never having had a diagnostic test for HCV.

Over the five-year period that data were collected on HCV diagnostic testing, a significant decline was observed in the proportion of respondents who reported a lifetime history of HCV diagnostic testing, from 78% in 2019 to 70% in 2023 (p-trend=<0.001). Of those who reported a lifetime history of HCV diagnostic testing, a significant decline was observed in the proportion of

Figure 10 Self-reported HCV status and treatment uptake, 2019-2023



respondents who reported a HCV diagnostic test in the previous 12 months, from 46% in 2019 to 34% in 2023 (p-trend<0.001).

As shown in Table 6, in 2023 no associations were observed between the lifetime uptake of HCV diagnostic testing and gender, sexual identity, language spoken at home, geographic location, recent homelessness, reporting RSS in the previous month and injection frequency.

In adjusted analysis, respondents were significantly more likely to report a lifetime history of HCV testing if they were aged 36 years and older, reported recent (in the previous 12 months) imprisonment, reported a mental health issue or were prescribed OAT compared to those aged less than 36 years and those who did not report recent imprisonment, mental health issues or prescription of OAT, respectively. Compared to respondents who reported last injecting an opioid or live in a metropolitan area, respondents who reported last injecting a PIED or live in a rural/regional area were significantly less likely to report a lifetime history of HCV testing.

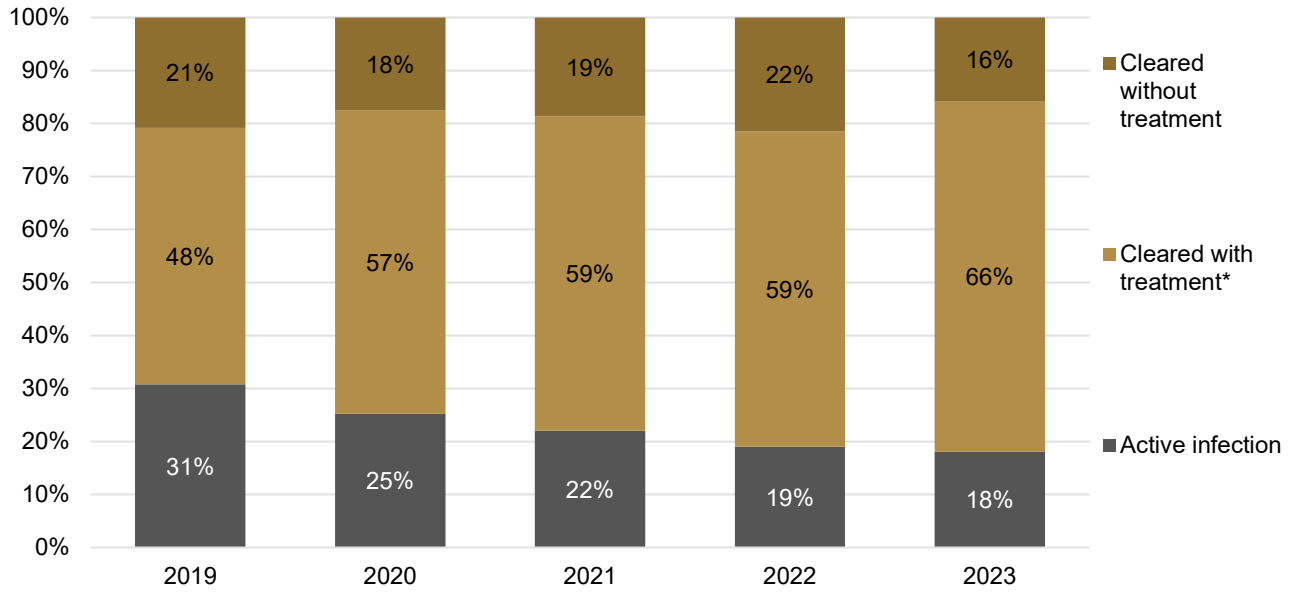
Exposure to HCV

In 2023, approximately one in two respondents (51%, n=560) reported a previous HCV diagnosis. Over the five-year period, the proportion of respondents who reported a previous HCV diagnosis represented a significant decrease from 57% in 2019 (p-trend<0.001). The declining proportion of respondents who reported a previous HCV diagnosis in 2023 was also consistent with data reported by the Australian NSP Survey (ANSPS), where the prevalence of serologically confirmed HCV antibody among NSW respondents decreased from 43% to 31% between 2019 and 2022 (Heard et. al. 2023).

Current HCV status

Among the n=560 respondents who reported a HCV diagnosis, and after excluding respondents (n=11) who did not report their HCV treatment status, one in five respondents (16%, n=87, Figure 11) reported that they had spontaneously cleared their HCV infection. Over the five-year period that data were collected on HCV status, the proportion of respondents who reported that they had spontaneously cleared their HCV infection remained stable (p-trend=0.163).

Figure 11 Self-reported HCV status among respondents who reported a previous HCV diagnosis, 2019-2023



* Assumes 55% cure among respondents who reported Interferon-based therapy and 90% cure among respondents who reported receiving treatment with DAAs.

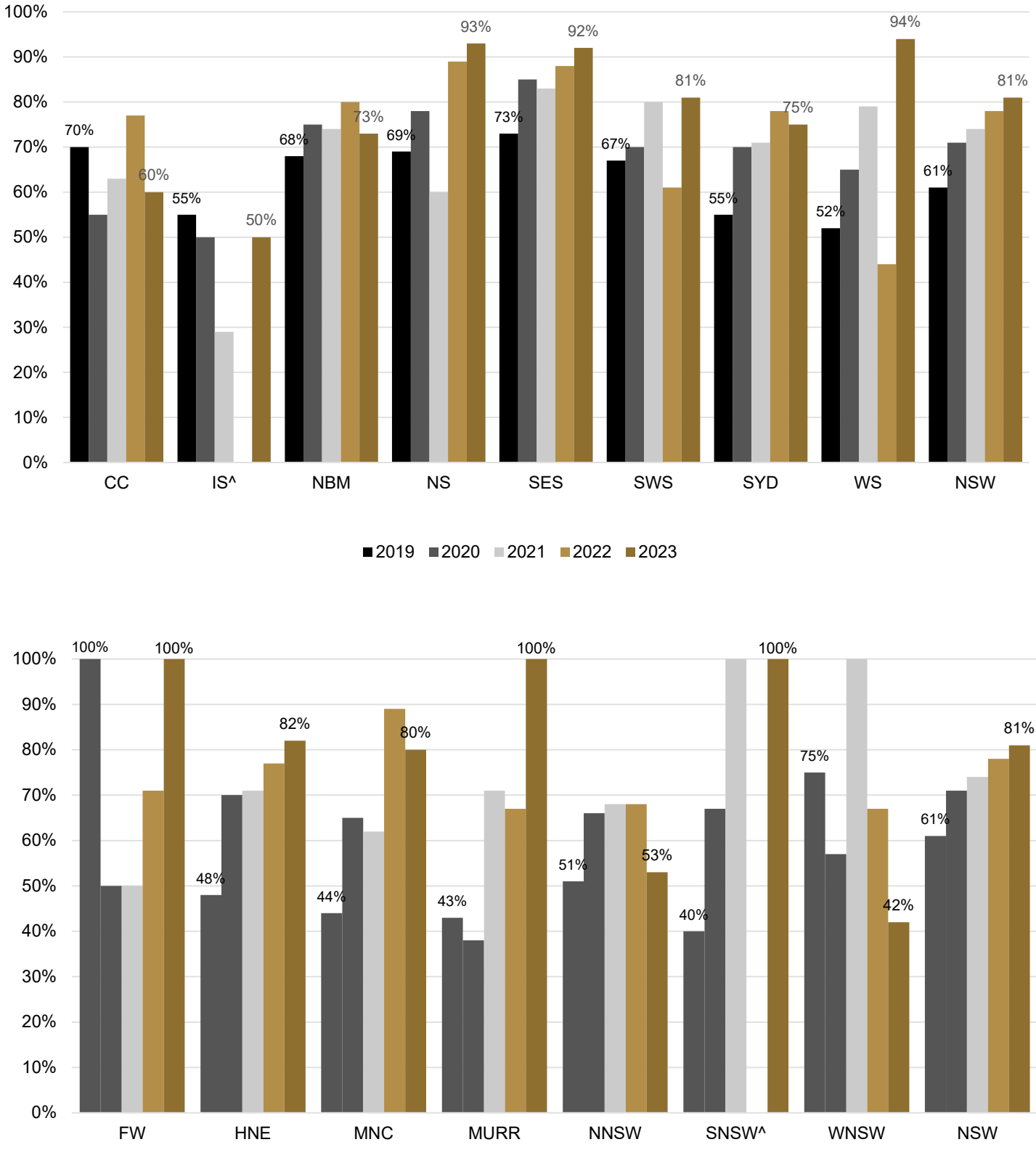
Approximately one in ten (12%, n=65) respondents reported a history of Interferon-based HCV treatment, consistent with prevalence reported in previous years (p-trend=0.947), and comparable to findings by Iversen et. al. (2014), where ~10% of HCV antibody positive PWID in Australia had engaged in treatment in the Interferon-based therapy era. Given ~55% cure rates among people engaged in HCV Interferon-based treatment (Fried et. al. 2002), n=29 respondents were assumed to be eligible for DAA therapy as a result of unsuccessful Interferon-based therapy.

Lifetime HCV DAA treatment uptake

Among n=426 respondents who reported ever receiving a HCV diagnosis and who did not report spontaneous clearance (including an estimated n=29 with unsuccessful Interferon-based treatment), approximately four in five (81%, n=344) reported they had ever accessed DAA treatment. This is consistent with the 74% of NSW ANSPS respondents who reported a lifetime history of HCV treatment in 2022 (Heard et. al. 2023). Over the five-year period, 2019 to 2023, the proportion of respondents who reported that they had accessed DAA treatment increased significantly, from 61% in 2019 to 81% in 2023 (p-trend<0.001).

As shown in Figure 12, lifetime DAA treatment uptake by LHD ranged from 42% to 100%. Uptake was highest in Southern NSW, Far West and Murrumbidgee LHDs (100%), followed by Western Sydney LHD (94%), Northern Sydney LHD (93%) and South Eastern Sydney LHD (92%).

Figure 12 Lifetime HCV DAA treatment uptake* by LHD, 2019-2023



* Denominator comprised those who self-reported ever receiving a HCV diagnosis, excluding those who reported spontaneous clearance, and those with successful Interferon-based treatment

^ No respondents from IS or SNSW LHDs reported HCV exposure in 2022

HCV DAA treatment uptake by year

One quarter of respondents (27%, n=88) reported they had accessed DAA treatment in the 12 months prior to data collection (in 2022 or later), while one in five respondents (19%, n=63) reported accessing treatment in 2021. One in seven respondents (14%, n=45) reported accessing treatment in 2020, while one in ten respondents (11%, n=37) reported accessing treatment in 2019. Similar proportions of respondents reported accessing treatment in 2018 (9%, n=30), 2017 (10%, n=32) or prior to 2017 (11%, n=36). DAA therapy became available in Australia through the Pharmaceutical Benefits Scheme from March 2016 (Iversen et. al, 2019), and it is likely that those who reported having accessed DAA treatment prior to 2016 did so either privately or through clinical trials.

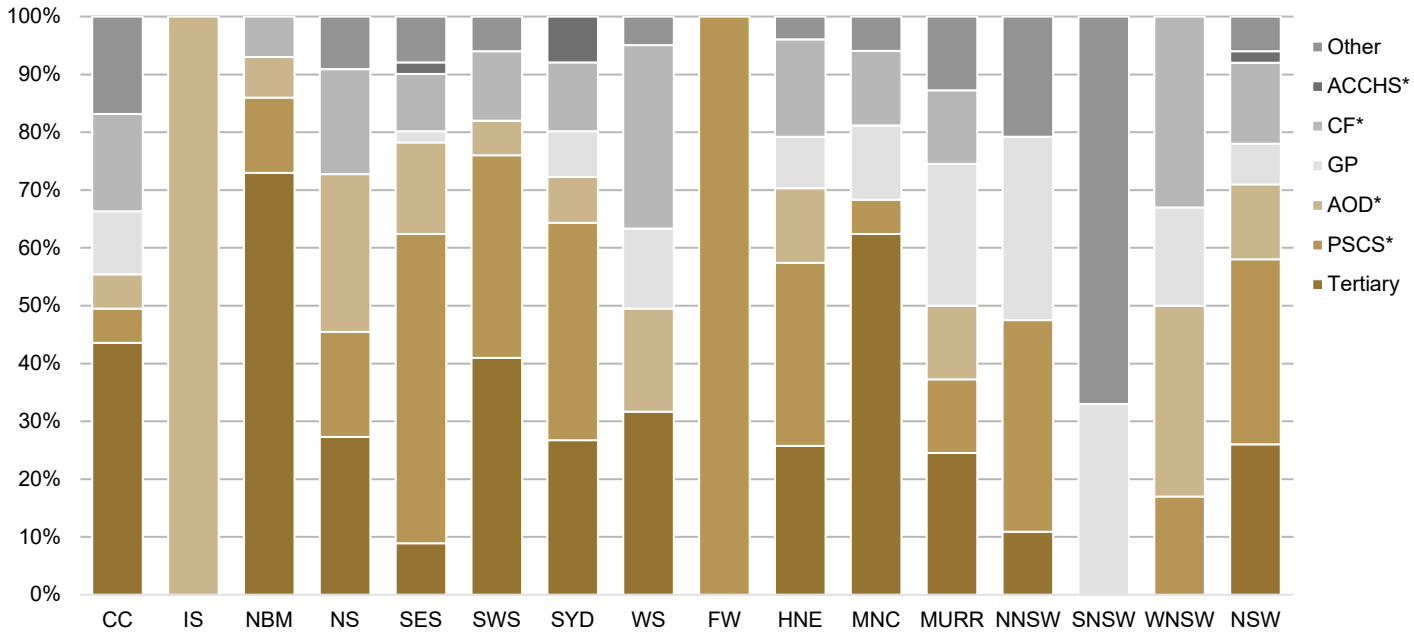
Lifetime HCV DAA treatment uptake by health care setting

In 2023 more than 155 different health care settings were reported by respondents who reported ever accessing DAA treatment. Health care settings identified by respondents were subsequently categorised into seven broad groups according to service type.

Among n=293 respondents who reported lifetime DAA treatment and provided health care setting data, one in three (32%, n=95) reported accessing DAA treatment through public-sector community settings (community health centres, sexual health services, community-based liver clinics and NSPs). This was followed by one in four respondents (26%, n=75) who reported accessing treatment through tertiary facilities, including hospitals and tertiary liver clinics. Smaller proportions of respondents reported accessing treatment through alcohol and other drug services (both public and private sector including OAT and residential rehabilitation services, 13%, n=39), general practitioners (7%, n=20), and correctional facilities (14%, n=40). One in fifteen respondents (6%, n=19) reported accessing DAAs through 'other' settings, including settings located outside NSW (n=1).

Over the five-year period, 2019 to 2023, treatment uptake in all health care settings remained stable. Figure 13 provides a breakdown of access to lifetime DAA treatment by health care setting and LHD (based on the LHD where the NNEDC was completed).

Figure 13 Lifetime HCV DAA treatment uptake by health care setting and LHD in 2023



*PSCS: Public sector community setting
*CF: Correctional facility
*AOD: Alcohol and other drug setting
*ACCHS: Aboriginal Community Control Health Service

Lifetime uptake of HCV DAA treatment among key populations of NSP attendees

As shown in Table 7, in 2023, no significant associations were observed at the adjusted level between lifetime uptake of HCV DAA treatment and gender, sexual identity, age, language spoken at home by parents, recent homelessness, living with a mental health issue, prescribed OAT, drug last injected or reporting RSS in the previous month.

In the adjusted analysis, respondents who completed the NNEDC in a rural or regional area, experienced recent imprisonment (in the last 12 months) and injected daily or more frequently were significantly less likely to report lifetime DAA treatment in 2023 compared to respondents from a metropolitan area, those who did not report recent imprisonment and those who reported injecting less than daily.

New South Wales

Table 1: Demographics characteristics, by year

	2019	2020	2021	2022	2023	5 year p-trend
Number of sites	**49**	**50**	**48**	**43**	**47**	--
Number surveyed (OOS)	**4,633 (%)**	**4,238 (%)**	**3,310 (%)**	**2,620 (%)**	**3,079 (%)**	--
Completed survey	3,195 (69)	2,730 (65)	2,340 (71)	1,824 (70)	2,274 (74)	**<0.001**
Previously completed (repeat NSP attendee)	902 (19)	889 (21)	575 (17)	369 (14)	472 (15)	**<0.001**
Declined to participate	536 (12)	619 (15)	395 (12)	427 (16)	333 (11)	0.844
Response rate	86%	82%	86%	81%	87%	--
N° surveyed (individuals)	**3,195**	**2,730**	**2,340**	**1,824**	**2,274**	
Gender						
Male	2,310 (74)	1,996 (75)	1,710 (74)	1,344 (75)	1,683 (75)	0.401
Female	799 (25)	666 (25)	587 (25)	442 (25)	540 (24)	0.230
Other	25 (1)	15 (1)	12 (1)	15 (1)	27 (1)	0.080
Not reported	61 --	53 --	31 --	23 --	24 --	--
Sexual identity						
Heterosexual	1,498 (80)	1,590 (84)	1,309 (83)	1,047 (82)	1,289 (82)	0.303
Bisexual	193 (10)	150 (8)	128 (8)	103 (8)	125 (8)	**0.031**
Homosexual	178 (10)	149 (8)	135 (9)	91 (7)	117 (7)	**0.025**
Other	-- --	-- --	-- --	31 (2)	33 (2)	--
Not reported	1,326 --	841 --	768 --	552 --	710 --	--
Age (years)						
Median age (range)	42 (17-78)	42 (13-75)	42 (18-72)	42 (17-78)	42 (17-83)	--
Less than 25 years	155 (5)	135 (5)	101 (5)	94 (5)	136 (6)	0.096
25 years or more	2,870 (95)	2,442 (95)	2,143 (96)	1,648 (95)	2,010 (94)	0.096
Not reported	170 --	153 --	96 --	82 --	128 --	--
Aboriginal and/or Torres Strait Islander						
Yes, Aboriginal	594 (19)	507 (19)	471 (21)	350 (19)	480 (22)	0.054
Yes, Torres Strait Islander	14 (<1)	16 (1)	7 (<1)	10 (1)	11 (1)	0.982
Yes, both Aboriginal and Torres Strait Islander	21 (1)	17 (1)	14 (1)	21 (1)	20 (1)	0.120
No	2,442 (80)	2,077 (79)	1,760 (78)	1,417 (79)	1,707 (77)	**0.026**
Not reported	124 --	113 --	88 --	26 --	56 --	--
Main language spoken at home by parents						
English	1,951 (93)	1,921 (93)	1,675 (95)	1,246 (95)	1,524 (95)	**0.004**
Other	138 (7)	134 (7)	88 (5)	64 (5)	79 (5)	**0.004**
Not reported	1,106 --	675 --	577 --	514 --	671 --	--

NB: Percent excludes not reported

Table 2: Last drug injected and injecting behaviours, by year

	2019	2020	2021	2022	2023	5 year p-trend
Number surveyed (individuals)	**3,195 (%)**	**2,730 (%)**	**2,340 (%)**	**1,824 (%)**	**2,274 (%)**	--
Last drug injected						
Opioids	**1,421 (47)**	**1,125 (43)**	**931 (42)**	**718 (41)**	**849 (39)**	**<0.001**
Heroin	1,011 (34)	784 (30)	611 (27)	524 (30)	594 (27)	**<0.001**
Pharmaceutical opioids	146 (5)	103 (4)	79 (4)	28 (2)	43 (2)	**<0.001**
Methadone	182 (6)	169 (7)	181 (8)	127 (7)	167 (8)	**0.015**
Buprenorphine (Subutex)	39 (1)	34 (1)	26 (1)	20 (1)	20 (1)	0.167
Buprenorphine-naloxone (Suboxone)	9 (<1)	2 (<1)	12 (1)	7 (<1)	9 (<1)	0.149
Other opioids/ more than 1 opioid	34 (1)	33 (1)	22 (1)	12 (1)	16 (1)	**0.034**
Stimulants	**1,060 (35)**	**937 (36)**	**816 (37)**	**639 (36)**	**747 (34)**	0.420
Methamphetamine	995 (33)	898 (35)	775 (35)	610 (35)	716 (33)	0.740
Cocaine	56 (2)	34 (1)	35 (2)	27 (2)	31 (1)	0.319
Other stimulants/ more than 1 stimulant	9 (<1)	5 (<1)	6 (<1)	2 (<1)	0 (0)	**0.015**
Performance image-enhancing drugs	**397 (13)**	**425 (16)**	**390 (17)**	**344 (19)**	**503 (23)**	**<0.001**
Anabolic steroids	267 (9)	311 (12)	268 (12)	263 (15)	375 (17)	**<0.001**
Growth hormone	37 (1)	41 (2)	51 (2)	28 (2)	45 (2)	**0.029**
Peptides	37 (1)	29 (1)	37 (2)	32 (2)	45 (2)	**0.004**
Others PIEDs/ more than 1 PIED	56 (2)	44 (2)	34 (2)	21 (1)	38 (2)	0.332
Other drugs	**40 (1)**	**37 (1)**	**31 (1)**	**15 (1)**	**23 (1)**	0.135
More than one category	**76 (3)**	**68 (3)**	**67 (3)**	**51 (3)**	**73 (3)**	0.079
Not reported	**201 --**	**138 --**	**105 --**	**57 --**	**79 --**	--
Frequency of injection last month						
Not last month	182 (9)	197 (10)	155 (9)	116 (9)	185 (12)	**0.030**
Less than weekly	239 (12)	314 (15)	335 (19)	196 (15)	255 (16)	**<0.001**
More than weekly, not daily	828 (40)	512 (25)	453 (26)	343 (26)	360 (23)	**<0.001**
Daily or more	824 (40)	1,018 (50)	819 (46)	661 (50)	795 (50)	**<0.001**
Not reported	1,122 --	689 --	578 --	508 --	679 --	--
Age at first injection						
Median (range)	20 (10-65)	21 (10-66)	20 (10-65)	20 (10-62)	20 (11-67)	--
Not reported	1,089 --	701 --	592 --	538 --	733 --	--
Years since first injection						
Median (range)	20 (0-59)	19 (0-54)	20 (0-59)	21 (0-56)	20 (0-57)	--
Less than 3 years since first injection	202 (10)	191 (10)	181 (11)	117 (9)	185 (12)	**0.048**
3 or more years since first injection	1,819 (90)	1,765 (90)	1,519 (89)	1,123 (91)	1,300 (88)	**0.048**
Not reported	1,174 --	774 --	640 --	584 --	789 --	--

NB: Percent excludes not reported

Table 3: Receptive syringe sharing and psychosocial factors in the previous 12 months

	2019	2020	2021	2022	2023	5 year p-trend
Number who injected last month	**1,891 (%)**	**1,844 (%)**	**1,607 (%)**	**1,200 (%)**	**1,410 (%)**	--
Receptive syringe sharing last month (RSS)						
No	1,478 (80)	1,532 (84)	1,306 (82)	978 (83)	1,159 (83)	0.108
Yes	377 (20)	296 (16)	287 (18)	207 (17)	244 (17)	0.108
Not reported	36 --	16 --	14 --	15 --	7 --	--
Ocassions of RSS last month among respondents who reported RSS						
Once	71 (19)	76 (26)	70 (24)	67 (32)	68 (28)	**0.002**
Twice	87 (23)	48 (16)	55 (19)	40 (19)	59 (24)	0.688
3-5 times	83 (22)	64 (22)	69 (24)	50 (24)	48 (20)	0.823
More than 5 times	136 (36)	108 (36)	93 (32)	50 (24)	69 (28)	**0.002**
Number surveyed (individuals)[#]	**2,089 (%)**	**2,053 (%)**	**1,767 (%)**	**1,309 (%)**	**1,597 (%)**	--
Psychosocial factors in previous 12 months						
Homelessness	529 (25)	424 (21)	394 (22)	284 (22)	333 (21)	**0.005**
Living with, or diagnosed with, a mental health issue	489 (23)	463 (23)	395 (22)	258 (20)	368 (23)	0.270
Imprisoned	216 (10)	226 (11)	175 (10)	121 (9)	149 (9)	0.073
Prescribed OAT	507 (24)	490 (24)	424 (24)	279 (21)	332 (21)	**0.003**

NB: Percent excludes not reported

[#] Excludes respondents who did not complete entire survey

Table 4: Hepatitis C status and treatment uptake, by year

	2019	2020	2021	2022	2023	5 year p-trend
Number surveyed (individuals)	**2,074 (%)**	**2,035 (%)**	**1,757 (%)**	**1,314 (%)**	**1,587 (%)**	
Previous hepatitis C test						
Yes, ever	1,618 (78)	1,520 (75)	1,324 (75)	952 (72)	1,108 (70)	**<0.001**
In the previous 12 months	956 (46)	855 (42)	636 (36)	459 (35)	543 (34)	**<0.001**
>12 months	662 (32)	665 (33)	688 (39)	493 (38)	565 (36)	**<0.001**
Never	456 (22)	515 (25)	433 (25)	362 (28)	479 (30)	**<0.001**
Self-reported ever hepatitis C infection	**N=1,618**	**N=1,520**	**N=1,324**	**N=952**	**N=1108**	
No	690 (43)	650 (43)	559 (43)	465 (49)	540 (49)	**<0.001**
Yes	928 (57)	850 (57)	733 (57)	481 (51)	560 (51)	**<0.001**
Not reported	0 --	20 --	32 --	6 --	8 --	--
Ever received treatment	**N=928**	**N=850**	**N=733**	**N=481**	**N=560**	
No, still hepatitis C positive	215 (23)	150 (17)	95 (13)	58 (12)	53 (10)	**<0.001**
No, cleared spontaneously	191 (21)	148 (18)	134 (19)	103 (22)	87 (16)	0.163
Yes, received interferon based treatment	103 (11)	90 (11)	97 (14)	43 (9)	65 (12)	0.947
Yes, received treatment with DAAs	407 (44)	456 (54)	392 (55)	275 (57)	344 (63)	**<0.001**
Not reported	12 --	6 --	15 --	2	11 --	--
Ever eligible for DAA treatment^	**N=668**	**N=646**	**N=530**	**N=352**	**N=426**	
Yes, received treatment with DAAs	407 (61)	456 (71)	392 (74)	275 (78)	344 (81)	**<0.001**
Eligible for DAA treatment, previous 12 months^	**N=502**	**N=387**	**N=244**	**N=160**	**N=170**	
Yes, received treatment with DAAs	241 (48)	197 (51)	106 (43)	83 (52)	88 (52)	
HCV DAA treatment year	**N=407**	**N=456**	**N=392**	**N=275**	**N=344**	
Since 2022	-- --	-- --	-- --	-- --	88 (27)	--
2021	-- --	-- --	-- --	83 (31)	63 (19)	--
2020	-- --	-- --	106 (28)	40 (15)	45 (14)	--
2019	-- --	197 (44)	106 (28)	58 (22)	37 (11)	--
2018	241 (60)	120 (27)	73 (19)	26 (10)	30 (9)	--
2017	99 (25)	68 (15)	52 (14)	25 (9)	32 (10)	--
2016/ Prior to 2017	39 (10)	40 (9)	21 (6)	16 (6)	36 (11)	--
Prior to 2016	23 (6)	24 (5)	21 (6)	17 (6)	-- --	--
Not reported	5 --	7 --	13 --	10 --	13 --	--
HCV DAA treatment uptake by health care setting	**N=407**	**N=456**	**N=392**	**N=275**	**N=344**	
Aboriginal Community Controlled Health Service	0 (0)	2 (<1)	1 (<1)	2 (1)	5 (2)	0.008
Alcohol and Other Drug services[1]	57 (16)	51 (13)	47 (16)	27 (11)	39 (13)	0.276
Correctional Facilities	25 (7)	56 (14)	31 (10)	27 (11)	40 (14)	0.069
General Practitioner	35 (10)	48 (12)	32 (11)	26 (10)	20 (7)	0.162
Public sector community services[2]	113 (32)	118 (29)	97 (32)	80 (32)	95 (32)	0.588
Tertiary services	86 (24)	78 (19)	57 (19)	42 (17)	75 (26)	0.956
Other[3]	39 (11)	52 (13)	36 (12)	44 (18)	19 (6)	0.422
Not reported	52 --	51 --	91 --	27 --	51 --	--

^ Assumes 55% cure among respondents who reported Interferon-based therapy. Denominator excludes this group, those who reported spontaneous clearance and those with no valid response

[1] Alcohol and other drugs services includes both public and private sector including OAT and residential rehabilitation services

[2] Public sector community services includes community health centres, sexual health services, community-based liver clinics and NSPs

[3] Other services includes housing services and settings located outside of NSW

Table 5: Factors independently associated with recent receptive syringe sharing

Factor	Crude			Adjusted		
	OR	95% CI	*p value*	OR	95% CI	*p value*
Gender						
Male (reference)	--			--		
Female	1.19	(0.87-1.63)	0.271	--		
Sexual Identity						
Heterosexual (reference)	--			--		
Bisexual	1.96	(1.25-3.08)	**0.003**	1.85	(1.16-2.93)	**0.009**
Homosexual	1.13	(0.67-1.91)	0.639	1.14	(0.67-1.95)	0.632
Age (quartiles)						
<36 years (reference)	--			--		
36-43 years	0.73	(0.49-1.08)	0.120	0.66	(0.43-1.00)	**0.049**
44-51 years	0.77	(0.52-1.15)	0.205	0.65	(0.42-1.00)	**0.048**
>51 years	0.71	(0.48-1.06)	0.097	0.66	(0.42-1.03)	0.064
Language spoken at home by parents						
English (reference)	--			--		
Other	0.91	(0.47-1.77)	0.787	--		
Geographic location						
Metropolitan (reference)	--			--		
Rural/Regional	0.84	(0.62-1.14)	0.276	--		
Recent homelessness*						
No (reference)	--			--		
Yes	1.48	(1.08-2.04)	**0.015**	--		
Recent imprisonment*						
No (reference)	--			--		
Yes	2.26	(1.52-3.36)	**<0.001**	2.05	(1.35-3.10)	**0.001**
Recent OAT*						
No (reference)	--					
Yes	0.78	(0.55-1.12)	0.178	0.67	(0.45-0.98)	**0.038**
Living with a mental health issue*						
No (reference)	--			--		
Yes	1.22	(0.89-1.68)	0.219	--		
Drug class last injected						
Opioids (reference)	--			--		
Stimulants	1.02	(0.74-1.40)	0.914	0.86	(0.62-1.21)	0.396
PIEDs	0.63	(0.41-0.98)	**0.038**	0.50	(0.31-0.82)	**0.006**
Daily or more frequent injection						
No (reference)	--					
Yes	1.49	(1.12-1.99)	**0.006**			

* In the previous 12 months

Table 6: Factors independently associated with lifetime uptake of HCV testing

Factor	Crude			Adjusted		
	OR	95% CI	*p value*	OR	95% CI	*p value*
Gender						
Male (reference)	--			--		
Female	2.01	(1.53-2.65)	**<0.001**	--		
Sexual Identity						
Heterosexual (reference)	--			--		
Bisexual	1.95	(1.23-3.09)	**0.005**	--		
Homosexual	1.40	(0.90-2.17)	0.132	--		
Age (quartiles)						
<36 years (reference)	--			--		
36-43 years	2.76	(2.06-3.70)	**<0.001**	1.60	(1.12-2.27)	**0.009**
44-51 years	4.96	(3.57-6.89)	**<0.001**	2.40	(1.63-3.53)	**<0.001**
>51 years	6.43	(4.56-9.07)	**<0.001**	2.78	(1.85-4.17)	**<0.001**
Language spoken at home by parents						
English (reference)	--			--		
Other	0.99	(0.60-1.62)	0.963	--		
Geographic location						
Metropolitan (reference)	--			--		
Rural/Regional	0.84	(0.67-1.06)	0.142	0.64	(0.48-0.84)	**0.001**
Recent homelessness*						
No (reference)	--			--		
Yes	2.16	(1.60-2.92)	**<0.001**			
Recent imprisonment*						
No (reference)	--			--		
Yes	3.28	(1.98-5.44)	**<0.001**	2.19	(1.26-3.83)	**0.006**
Recent OAT*						
No (reference)	--			--		
Yes	4.96	(3.40-7.24)	**<0.001**	2.36	(1.56-3.57)	**<0.001**
Living with a mental health issue*						
No (reference)	--			--		
Yes	2.82	(2.07-3.83)	**<0.001**	1.55	(1.09-2.19)	**0.013**
Drug class last injected						
Opioids (reference)	--			--		
Stimulants	0.76	(0.56-1.04)	0.085	0.94	(0.68-1.31)	0.733
PIEDs	0.07	(0.05-0.09)	**<0.001**	0.14	(0.09-0.20)	**<0.001**
Daily or more frequent injection*						
No (reference)	--			--		
Yes	2.10	(1.68-2.62)	**<0.001**	--		
Receptive syringe sharing*						
No (reference)	--			--		
Yes	0.92	(0.67-1.25)	0.577			

* In the previous 12 months

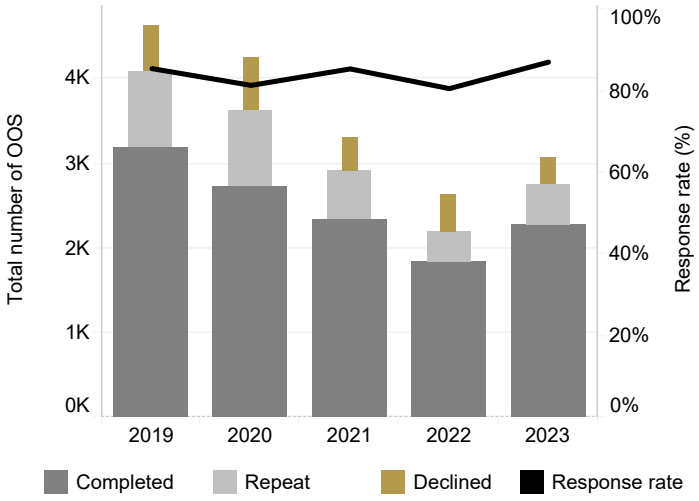
Table 7: Factors independently associated with lifetime uptake of DAA treatment

Factor	Crude			Adjusted		
	OR	95% CI	*p value*	OR	95% CI	*p value*
Gender						
Male (reference)	--			--		
Female	1.02	(0.54-1.91)	0.956	--		
Sexual Identity						
Heterosexual (reference)	--			--		
Bisexual	2.00	(0.59-6.77)	0.265	--		
Homosexual	3.43	(0.45-26.18)	0.234	--		
Age (quartiles)						
<42 years (reference)	--			--		
42-48 years	0.94	(0.45-1.98)	0.878	--		
49-55 years	2.34	(0.92-5.99)	0.076	--		
>55 years	1.67	(0.70-4.00)	0.252	--		
Language spoken at home by parents						
English (reference)	--			--		
Other	1.41	(0.32-6.27)	0.65	--		
Geographic location						
Metropolitan (reference)	--			--		
Rural/Regional	0.42	(0.24-0.76)	**0.004**	0.39	(0.21-0.72)	**0.003**
Recent homelessness*						
No (reference)	--			--		
Yes	0.72	(0.38-1.36)	0.310	--		
Recent imprisonment*						
No (reference)	--			--		
Yes	0.34	(0.17-0.66)	**0.002**	0.35	(0.18-0.70)	**0.003**
Recent OAT*						
No (reference)	--			--		
Yes	1.39	(0.74-2.60)	0.304	--		
Living with a mental health issue*						
No (reference)	--			--		
Yes	0.80	(0.43-1.50)	0.485	--		
Drug class last injected						
Opioids (reference)	--			--		
Stimulants	0.69	(0.38-1.27)	0.231	--		
PIEDs	--			--		
Daily or more frequent injection						
No (reference)	--			--		
Yes	0.25	(0.12-0.55)	**0.001**	0.25	(0.11-0.57)	**0.001**
Receptive syringe sharing*						
No (reference)	--			--		
Yes	0.74	(0.36-1.50)	0.401	--		

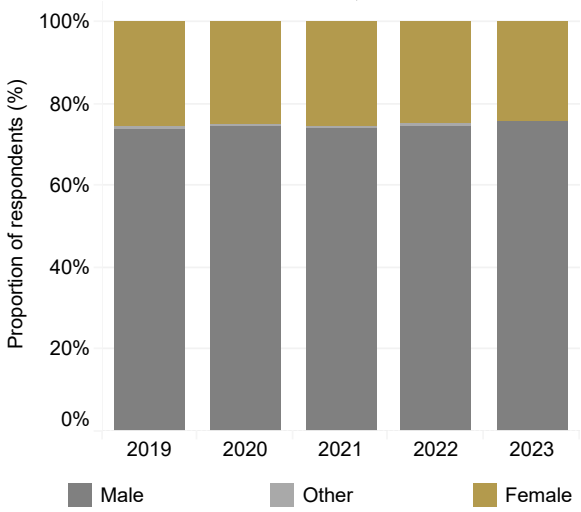
* In the previous 12 months

Graphs: New South Wales

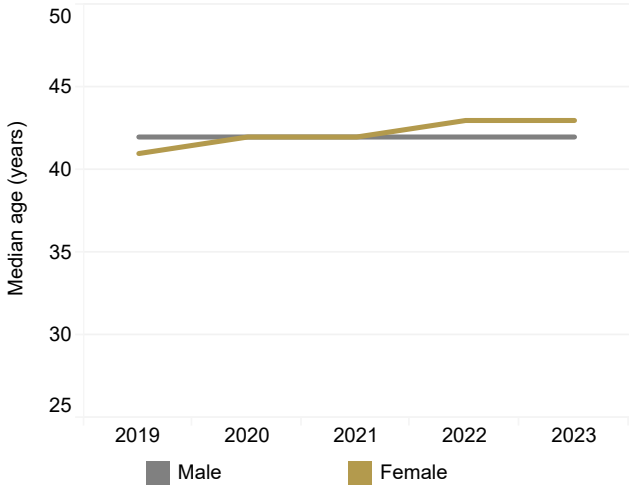
Occasions of service, 2019-2023



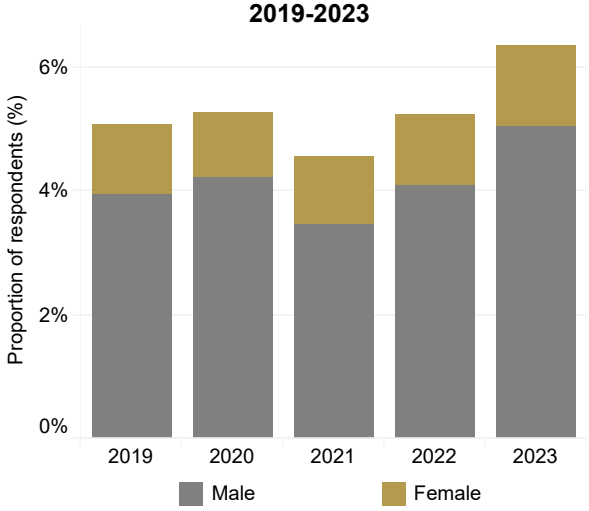
Gender distribution, 2019-2023



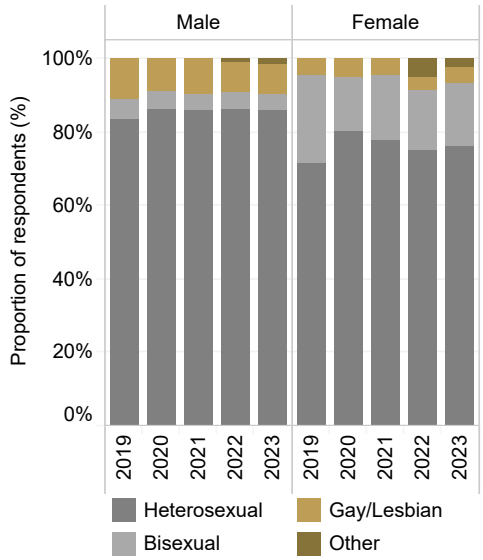
Median age of respondents by gender, 2019-2023



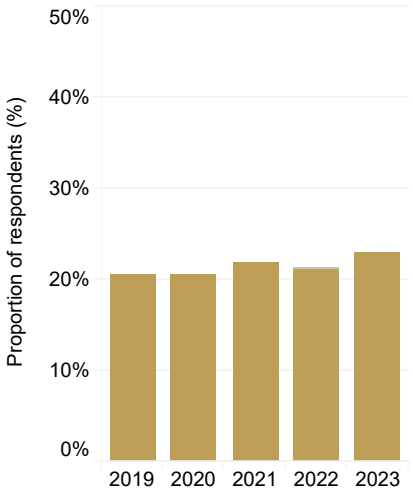
Proportion of respondents under 25 years, 2019-2023



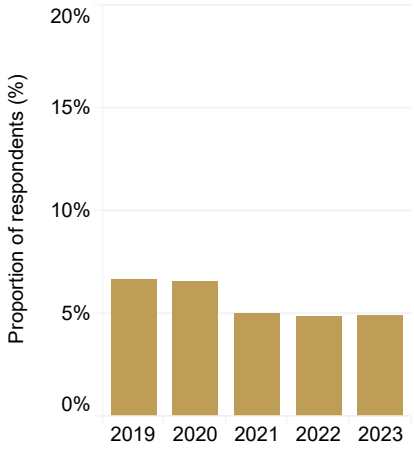
Sexual identity by gender, 2019-2023



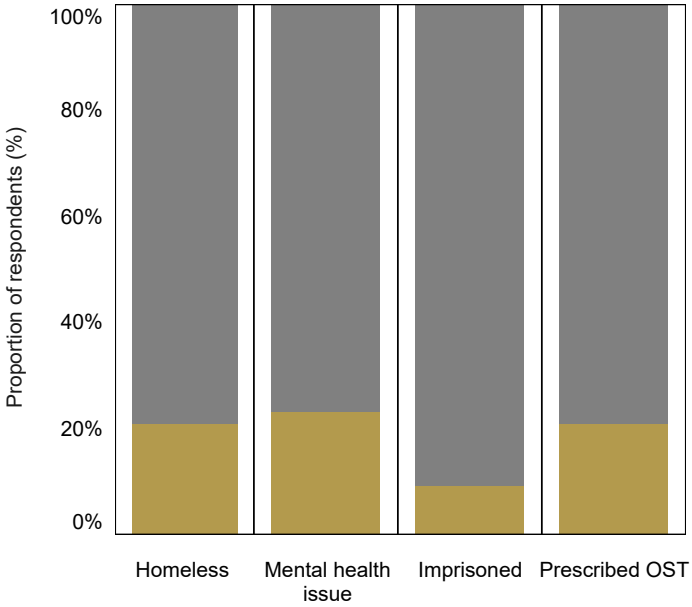
Indigenous background, 2019-2023



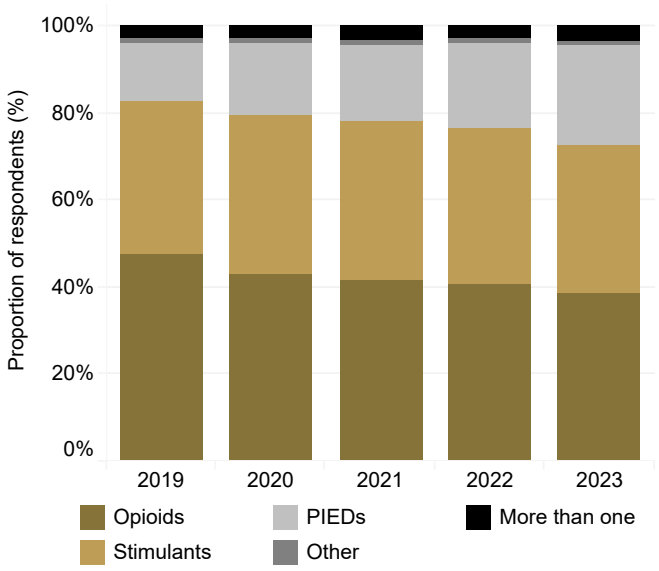
Language other than English spoken at home, 2019-2023



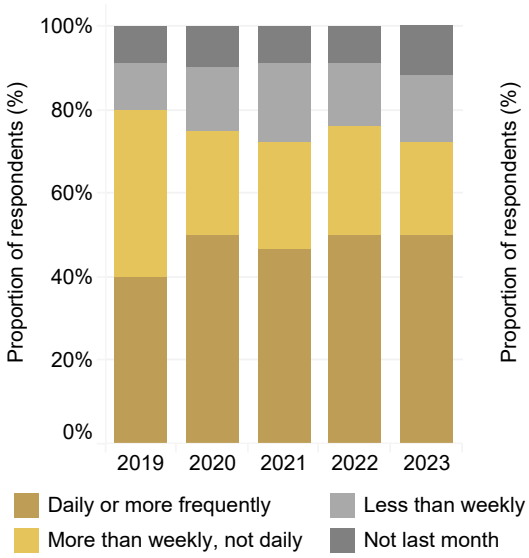
Social, legal and health characteristics in the previous 12 months in 2023



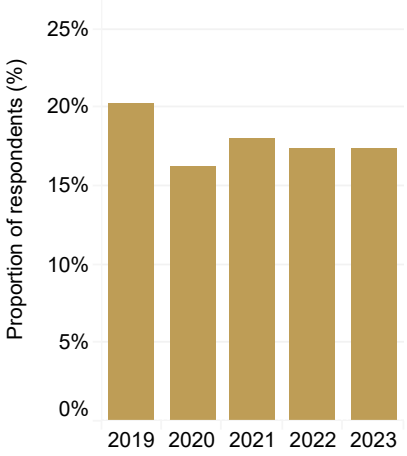
Class of drug last injected, 2019-2023



Frequency of injection, 2019-2023

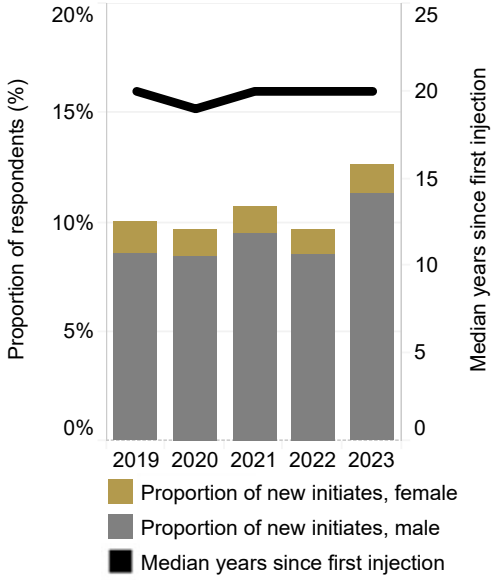


Proportion of respondents who reported RSS*, 2019-2023

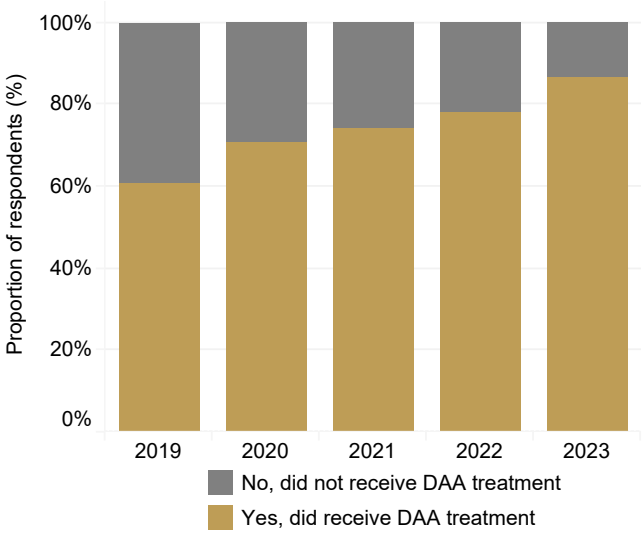


* Among respondents who reported injecting in the month prior to data collection

Years since first injection, 2019-2023

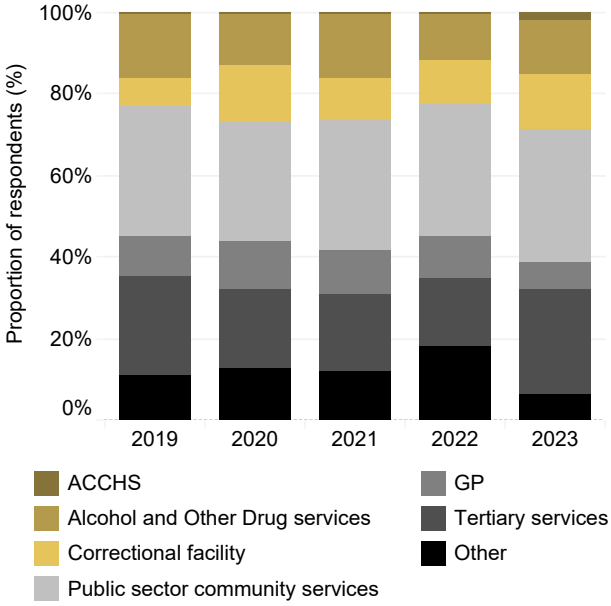


HCV DAA treatment uptake^, 2019-2023



^ Denominator comprised those who self-reported ever receiving a HCV diagnosis, excluding those who reported spontaneous clearance, and those with successful Interferon-based treatment

HCV DAA treatment uptake by health care setting, 2019-2023



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Appendix A

Study methodology

Data collection

The NNEDC was conducted over a two-week period in late February/early March over the past eleven years, 2013 to 2023. A minority of low volume NSPs in rural/regional areas extended the data collection period for an additional week to increase sample size and facilitate data analysis. All primary and some secondary NSP services in NSW were involved in the collection of demographic and drug use information from all NSP attendees. Appendix B provides detail on participating services by year.

The data collection instrument consisted of one A4 page and was designed to be self-completed (see Appendix C). To provide an estimate of the proportion of the broader NSP population, NSP staff submitted a blank NNEDC form on each OOS when a client elected not to participate in the NNEDC. NSP attendees who had previously contributed to the data collection (repeat attendees) were recorded as an OOS but were excluded from re-contributing to the data collection to avoid skewing the data collection towards frequent NSP attendees.

Data analysis

The data presented in this report were electronically scanned and validated. Stata, Version 14.2 (Stata Corporation, College Station TX) was used to analyse data. Percentage values exclude the proportion of respondents who didn't answer the question and may not add to 100 because of rounding.

Ethical approvals for the data collection were obtained from Sydney LHD Ethics Review Committee (RPAH Zone) and the Aboriginal Health and Medical Research Council (AH&MRC). Site Specific Assessment Forms were completed for all Local Health Districts.

Limitations

In some LHDs, NSP services are predominantly or entirely delivered through secondary NSPs and some LHDs distribute a large proportion of injecting equipment via vending machines and dispensing chutes. This may limit opportunities for staff to engage NSP attendees to participate in the data collection in some services and LHDs. The number of NSP attendees who participated in the NNEDC is not an indicator of needle and syringe distribution or NSP coverage. It should also be noted that changes to staffing levels and changes to service delivery may impact on NNEDC participation.

Appendix B

Participating NSP services by LHD

Metropolitan	2019	2020	2021	2022	2023
Central Coast LHD					
Gosford Needle and Syringe Program	✓	✓	✓	✓	✓
Long Jetty Needle and Syringe Program	✓	✓	✓	✓	✓
Woy Woy Needle and Syringe Program	✓	✓	✓	✓	✓
Wyong Hospital Needle and Syringe Program	✓	✓	✓	✓	✓
Wyong Central Needle and Syringe Program					✓
Illawarra Shoalhaven LHD					
First Step: Port Kembla	✓	✓	✓	✓	✓
First Step: Wollongong	✓	✓			
Nepean Blue Mountains LHD					
South Court Primary Care	✓	✓	✓	✓	✓
Northern Sydney LHD					
Manly RUSH	✓	✓	✓	✓	✓
RUSH Royal North Shore Hospital	✓	✓	✓	✓	✓
South Eastern Sydney LHD					
ACON Sydney	✓	✓	✓	✓	✓
Clinic 180	✓	✓			
KRC Kellett Street					✓
Kirketon Road Centre	✓	✓	✓	✓	✓
Kirketon Road Centre Outreach Bus	✓	✓	✓	✓	✓
KRC South	✓	✓	✓	✓	✓
Medically Supervised Injecting Centre	✓	✓	✓	✓	✓
New South Wales Users and AIDS Association (NUAA)	✓	✓	✓	✓	✓
South Western Sydney LHD					
Bankstown Harm Minimisation Program	✓	✓	✓	✓	✓
Liverpool Harm Minimisation Program	✓	✓	✓	✓	✓
Sydney LHD					
Canterbury Harm Minimisation Program	✓	✓	✓	✓	✓
Marrickville Harm Minimisation Program	✓	✓			
Redfern Harm Minimisation Program	✓	✓	✓	✓	✓
Western Sydney LHD					
Blacktown Needle and Syringe Program	✓	✓	✓	✓	✓
Kelly Close Needle and Syringe Program	✓	✓	✓	✓	✓
Parramatta Needle and Syringe Program	✓	✓	✓	✓	✓

Rural and Regional	2019	2020	2021	2022	2023
Far West LHD					
Broken Hill Sexual Health Service	✓	✓	✓	✓	✓
Hunter New England LHD					
ACON Hunter	✓	✓	✓	✓	✓
Coledale Community Centre	✓	✓	✓	✓	
Eastlakes Community Health Centre	✓	✓	✓	✓	✓
Maitland Neighbourhood Centre	✓	✓	✓		
Newcastle Community Health Centre	✓	✓	✓	✓	✓
Taree Community Health Centre	✓	✓	✓	✓	
Mid North Coast LHD					
Coffs Harbour Needle and Syringe Program	✓	✓	✓	✓	✓
Grafton Needle and Syringe Program	✓	✓	✓	✓	✓
Kempsey Needle and Syringe Program	✓		✓	✓	✓
Port Macquarie Population Health	✓	✓	✓	✓	✓
Murrumbidgee LHD					
Albury Community Health Centre	✓	✓	✓	✓	✓
Griffith Needle and Syringe Program	✓	✓	✓	✓	✓
Wagga Wagga Community Health Centre	✓	✓	✓	✓	✓
Northern NSW LHD					
ACON Lismore	✓	✓	✓		✓
Ballina Needle and Syringe Program	✓	✓	✓		✓
Byron Bay Needle and Syringe Program	✓	✓	✓	✓	✓
Lismore Needle and Syringe Program	✓	✓	✓	✓	✓
Lismore Sexual Health Service (SHAIDS)	✓	✓	✓		✓
Nimbin Hospital Needle and Syringe Program	✓	✓	✓	✓	✓
Tweed Needle and Syringe Program	✓	✓	✓	✓	✓
Southern NSW LHD					
Batemans Bay Community Health Centre	✓	✓	✓	✓	✓
Moruya Community Health Centre	✓	✓	✓		✓
Narooma Community Health Centre	✓	✓	✓	✓	✓
Western NSW LHD					
Bathurst Sexual Health Clinic	✓	✓	✓	✓	
Dubbo Sexual Health Centre	✓	✓	✓	✓	✓
Cowra Community Health Centre					✓
Orange Sexual Health Clinic	✓	✓	✓	✓	✓

Appendix C

NSW NSP ENHANCED DATA COLLECTION 2023

Please MARK LIKE THIS: ○ ● ○ ○
To be completed for **every** client attending the NSP during the designated data collection period.
If the client has already completed the data collection at this or another NSP, mark this circle: ○ Already completed
If this questionnaire was completed with the assistance of staff, mark this circle: ○ Assisted

Today's date: ____/____/2023

1. **How do you describe your gender?**
   - ○ Man or male
   - ○ Woman or female
   - ○ Non-binary
   - ○ I use a different term, please specify ____
   - ○ Prefer not to answer

2. **How old are you?** ____

3. **Are you?**
   - ○ Aboriginal
   - ○ Torres Strait Islander
   - ○ Both Aboriginal & Torres Strait Islander
   - ○ Neither

4. **What was the last drug you injected?**
   Mark only one. *If more than one drug was injected at your last injection, mark "other" and specify the drugs injected.*
   - ○ Heroin
   - ○ Morphine
   - ○ Oxycodone
   - ○ Methadone
   - ○ Subutex/Buprenorphine
   - ○ Suboxone
   - ○ Methamphetamine (Speed, base, ice)
   - ○ Cocaine
   - ○ Anabolic steroids
   - ○ Growth hormone
   - ○ Peptides
   - ○ Other, please specify ____

5. **How old were you when you first injected drugs?** ____

6. **How often did you inject in the last month?**
   - ○ More than 3 times most days
   - ○ 2 to 3 times most days
   - ○ Once a day
   - ○ More than weekly, not daily
   - ○ Less than weekly (on 1 to 5 days)
   - ○ Did not inject in the last month ☛*Go to Q8*

7. **How many times in the last month have you used a needle/ syringe after someone else had already used it?**
   - ○ None
   - ○ Once
   - ○ Twice
   - ○ 3-5 times
   - ○ More than 5 times

8. **At any time in the last 12 months were you?**
   Mark all that apply
   - ○ Homeless
   - ○ Living with or diagnosed with a mental health issue
   - ○ In prison
   - ○ Prescribed methadone or bupe
   - ○ None of the above

9. **What was the main language spoken at home by your parents?**
   - ○ English
   - ○ Other, please specify ____

10. **How do you describe your sexual orientation?**
    - ○ Straight (heterosexual)
    - ○ Bisexual
    - ○ Gay or lesbian
    - ○ I don't know
    - ○ I use another term, please specify ____
    - ○ Prefer not to answer

11. **Have you EVER had a hepatitis C test?**
    - ○ Yes, in 2023 (in last 2 mths)
    - ○ Yes, in 2022 (last year)
    - ○ Yes, in 2021 (a year ago)
    - ○ Yes, in 2020 or before
    - ○ No, I have never been tested ☛*End of questions.*

11a. **Have you EVER been told that you have hepatitis C infection?**
    - ○ Yes
    - ○ No ☛*End of questions.*

11b. **Have you EVER received treatment for your hepatitis C?**
    - ○ No, I still have hepatitis C ☛*End of questions.*
    - ○ No, I cleared without treatment ☛*End of questions.*
    - ○ Yes, I received the new treatment (tablets only)
    - ○ Yes, I received the old treatment (with injections)

11c. **What year did you START your LAST course of treatment?**
    - ○ 2023 (in last 2 months)
    - ○ 2022 (last year)
    - ○ 2021 (a year ago)
    - ○ 2020 (2 years ago)
    - ○ 2019 (3 years ago)
    - ○ 2018 (4 years ago)
    - ○ 2017 (5 years ago)
    - ○ 2016 (6 years or more ago)

11d. **What was the name of the clinic or service where you were LAST prescribed your hepatitis C treatment?** ____

End of questions, thank you for your time

This information is being collected by the Kirby Institute for the NSW Ministry of Health.
If you have any questions or concerns please contact Professor Lisa Maher, Kirby Institute on phone (02) 9385 0900.

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