



New South Wales Needle and Syringe Program Enhanced Data Collection

2018

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Table of Contents

Acknowledgements	1
Acronyms	2
Key points	3
Background	4
Respondents and occasions of service	5
Demographic characteristics	8
Social, legal and health	11
Drug last injected	13
Injecting behaviour	17
Receptive syringe sharing	19
Hepatitis C treatment uptake	21
NSW demographic and drug use tables	24
NSW graphs	31
References	33
Appendix A: Study methodology	34
Appendix B: Participating NSP services by LHD	35
Appendix C: 2018 data collection instrument	37

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Acronyms

ACON AIDS Council of NSW

DAAs Direct-acting antivirals

HCV Hepatitis C virus

LHD Local Health District

NGO Non-Government organisation

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

OCCasions of service

OST Opioid substitution therapy

PIED Performance and image enhancing drug

PWID People who inject drugs

RSS Receptive syringe sharing

Key findings

A total of 4,817 occasions of service (OOS) were recorded over the two-week data collection period in 2018, equating to approximately 2,400 OOS per week.

In 2018, 68% of NSP attendees completed the NNEDC, while 22% were repeat attendees and 10% declined to participate. The state-wide response rate was 87% in 2018. Three quarters of OOS were recorded in metropolitan LHDs, with one quarter recorded in rural and regional LHDs.

One in five respondents (20%) reported an Aboriginal background in 2018, a significant increase from 14% in 2013 (p-trend<0.001).

The median age of respondents was 41 years in 2018. The median age of respondents has increased in one-year increments since 2016. One in twenty respondents (5%) were aged less than 25 years, while one in five (22%) were aged 50 years or older.

All social, legal and health issues were stable over the period 2016 to 2018.

In the previous 12 months, one in four respondents (24%) had experienced homelessness, one in five (20%) reported a mental health issue, one in ten (10%) reported being imprisoned and one in four (25%) was prescribed opioid substitution therapy.

Opioids were the most common class of drug last injected in 2018, reported by one in two respondents (48%).

Heroin was the most commonly reported drug last injected in 2018, reported by 34% of respondents. Significant increases were observed in the proportion of respondents who reported last injecting heroin, methamphetamine and fentanyl, over the six-year period (2013 to 2018).

Reports of daily or more frequent injection significantly declined over the six-year period (p-trend=0.003), from 49% in 2013 to 40% in 2018.

In 2018, two in five respondents (41%) reported injecting more than weekly, but not daily. One in ten respondents (9%) reported injection initiation within the previous three years (new initiates), a significant decline from 11% in 2013 (p-trend=0.012).

In 2018, one in five respondents (20%) reported at least one episode of receptive syringe sharing (RSS) in the month prior to data collection.

Factors associated with an increased risk of RSS included homosexual identity, homelessness and imprisonment in the previous 12 months. Factors associated with a decreased risk of RSS included a language other than English as the main language spoken at home by parents, completion of the NNEDC in a rural or regional LHD, living with a mental health issue or prescription of OST in the previous 12 months.

Among respondents determined as likely to be eligible for HCV direct-acting antiviral (DAA) treatment, the proportion who reported a lifetime history of DAA treatment was 53%.

HCV DAA treatment uptake was highest in South Eastern Sydney LHD (64%), followed by Northern NSW LHD (57%) and Hunter New England LHD (54%). The majority of respondents accessed DAA treatment through tertiary facilities (29%) or public-sector community settings (29%).

Background

The NSW NSP is a public health initiative that aims to reduce the transmission of blood borne viruses and other harms related to injecting 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 a systematic 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 2018 NNEDC was conducted at 50 NSPs over a two-week period (19th February to 4th March) and was the sixth consecutive data collection in the new format. This report presents data from all of the previous years, 2013 to 2018. Details on the study methodology, data collection instrument and participating sites are included at Appendices A, B and C respectively.

Respondents and Occasions of Service

Key findings:

- A total of 4,817 occasions of service (OOS) were recorded over the two-week data collection period in 2018, equating to approximately 2,400 OOS per week:
 - 68% (n=3,264) completed the NNEDC, a significant increase from 54% in 2013 (p-trend<0.001).
 - 22% (n=1,054) were repeat attendees, consistent with previous years (p-trend=0.824).
 - 10% (n=499) declined to participate, a significant decline from 21% in 2013 (p-trend<0.001).
- Three quarters of OOS were recorded in metropolitan LHDs, with one quarter recorded in rural and regional LHDs.
- The state-wide response rate (which excludes repeat attendees) was 87% in 2018.

All 15 Local Health Districts (LHDs) participated in the NNEDC in 2018. The number of participating sites varied by LHD, and ranged from seven in South Eastern Sydney and Northern NSW LHDs to one in Far West LHD.

Since 2017, the methodology of the NNEDC was amended to encourage all NSP attendees to complete a minimum of four questions of 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, including data collected in previous years (2013 to 2016).

Over the two-week 2018 data collection period, a total of 4,817 occasions of service (OOS) were recorded. This equates to approximately 2,400 NSP OOS per week (~2,500 OOS recorded during the first week and ~2,300 OOS were recorded during the second week). The number of OOS recorded in 2018 was the lowest number of OOS recorded in the six-years that the NNEDC has been conducted. Although an overall statewide decline in OOS was observed over the six-year period, increases in OOS were observed in four LHDs (Hunter New England, Southern NSW, Western NSW and Sydney LHDs, Figure 1) and

two non-Government organisations ([NGOs] ACON Sydney and NUAA) during this period.

As in 2017, additional efforts were made by LHDs and NSP services to increase the number of NSP attendees who completed the NNEDC in 2018. This resulted in a total of 3,264 NSP attendees who agreed to participate in the NNEDC (hereafter referred to as respondents). As occurred in 2017, a significant increase was observed in the proportion of respondents who agreed to participate in the NNEDC over the sixyear period, from 54% in 2013 to 68% in 2018 (ptrend<0.001). Of the 3,264 NNEDC respondents in 2018, the majority (81%, n=2,643) completed all questions included in the data collection instrument, while 19% (n=162) attempted completion of only the first four questions. The response rate in 2018 was 87%, comparable to the response rate reported in 2017 (90%).

NSP attendees who completed the NNEDC at a previous attendance (repeat attendees) were ineligible to repeat the NNEDC in order to reduce bias towards frequent NSP attendees. In 2018, approximately one in five OOS (22%, n=1,054) were repeat attendances and this was consistent with previous years (p-trend=0.824). As expected, the proportion of repeat attendances was higher in the second week of data collection (31%, n=719) compared to the first week (13%, n=335).

One in ten OOS (10%, n=499) recorded during the data collection period were from NSP attendees who declined to participate in the NNEDC, and did not provide any data regarding their demographic characteristics and drug use. A significant decline in the proportion of NSP attendees who declined to participate in the NNEDC was observed over the six-year period, from 21% in 2013 to 10% in 2018 (p-trend<0.001).

Metropolitan LHDs

Approximately three quarters of state-wide OOS (76%, n=3,640) were recorded at NSPs in metropolitan LHDs. Of these, n=2,515 (69%) were NSP attendees who agreed to participate in the NNEDC, one in four OOS (22%, n=837) were repeat attendances, and one in ten (8%, n=288) were OOS where the NSP attendee declined to participate. The response rate of metropolitan LHDs in 2018 was 90%.

Among metropolitan LHDs in 2018, Sydney LHD recorded the highest number of OOS (n=787), while Illawarra Shoalhaven LHD recorded the lowest number of OOS (n=91). Sydney LHD also recorded the highest number of respondents (n=484), while the lowest number of respondents was recorded at Illawarra Shoalhaven LHD (n=52). Response rates among metropolitan LHDs ranged from 57% (Illawarra Shoalhaven LHD) to 100% (Nepean Blue Mountains LHD) in 2018.

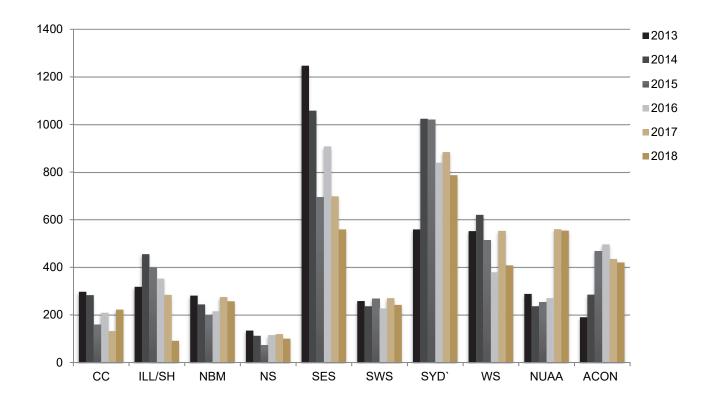
Rural and regional LHDs

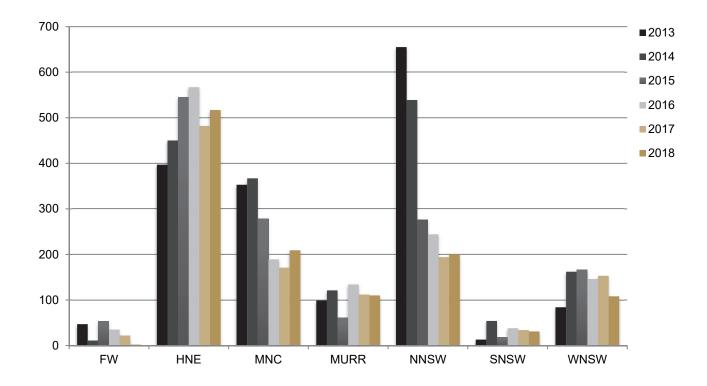
Approximately one in four OOS (24%, n=1,177) recorded during the 2018 data collection period were recorded at NSPs in rural and regional LHDs. Of the 1,177 OOS recorded at rural and regional LHDs in 2018, two in three OOS (64%, n=749) were NSP attendees who agreed to participate in the NNEDC, one in five OOS (18%, n=217) were repeat attendances, and one in five (18%, n=211) were OOS where the NSP attendee declined to participate. The response rate of rural and regional LHDs in 2018 was 78%, and this was significantly lower than the response rate of metropolitan LHDs (78% vs 90%, p<0.001).

Among rural and regional LHDs in 2018, Hunter New England LHD recorded the highest number of OOS (n=517), while Far West LHD recorded the lowest number of OOS (n=2). Hunter New England LHD also recorded the highest number of respondents (n=377), while the lowest number of respondents was recorded at Far West LHD (n=2). Response rates among rural and regional LHDs ranged from 47% (Western NSW LHD) to 100% (Far West LHD) in 2018.

Differences in NSP service delivery modalities can account for the variation in the number of OOS recorded in metropolitan and rural/regional LHDs. Generally, 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 and may impact their ability to collect data. Far West LHD collected data from less than five respondents in 2018, and to protect the anonymity of these respondents, LHD level data for Far West LHD will not be presented in this report.

Figure 1 Occasions of service by LHD, NUAA & ACON Sydney, 2013-2018





Demographic characteristics

Key findings:

- The median age of respondents was 41 years in 2018. The median age of respondents has increased in one-year increments since 2016.
- One in twenty respondents (5%) were aged less than 25 years in 2018. A significant decline from 9% in 2013 (p-trend<0.001).
- One in five respondents (22%) were aged 50 years or older in 2018. A significant increase, from 14% in 2013 (p-trend<0.001).
- One in five respondents (20%) reported an Aboriginal background in 2018. A significant increase from 14% in 2013 (p-trend<0.001).
- Approximately one in ten respondents (7%) reported a language other than English as the main language spoken by their parents at home in 2018, a significant increase from 5% in 2013 (p-trend<0.001).
- Compared to respondents in metropolitan LHDs, respondents in rural and regional LHDs were significantly younger (42 years vs 39 years, p=0.001) and were more likely to be women (24% vs 30%, p<0.001).

Gender

Consistent with previous years, three quarters of NNEDC respondents (74%, n=2,400) were men in 2018 (p-trend=0.354). Women accounted for the remaining quarter of respondents (25%, n=813), while a minority of respondents (1%, n=20) identified as other. The proportion of women and respondents who identified as other was stable over the six-year period (p-trend=0.083 and p-trend=0.501).

In all LHDs, men comprised the majority of respondents in 2018. The proportion of men ranged from 62% in Mid North Coast LHD to 83% in Northern Sydney and Southern NSW LHDs. Women comprised a significantly greater proportion of respondents from rural and regional LHDs compared to metropolitan LHDs (30% vs 24%, p<0.001).

Age

The median age of respondents was 41 years (range 16-74 years) in 2018. Since 2016, the median age of respondents has increased in one-year intervals. The median age of men was significantly higher than that of women in 2018 (42 years vs 40 years, p=0.007). Respondents who completed the NNEDC in a metropolitan

LHD had a significantly higher median age compared to respondents who completed the NNEDC in a rural or regional LHD (42 years vs 39 years, p=0.001). In 2018, the highest median age was recorded at Southern NSW LHD (49 years), while the lowest was recorded at Hunter New England LHD (37 years).

As in previous years, respondents who reported last injecting performance and image enhancing drugs (PIEDs) had a significantly lower median age compared to respondents who reported last injecting a psychoactive drug (all drugs excluding PIEDs, 30 years vs 43 years, p<0.001). Consistent with findings from previous years, among respondents who last injected a psychoactive drug, the median age of men was significantly higher than women (44 years vs 40 years, p<0.001).

One in twenty respondents (5%, n=169) were aged less than 25 years (young people) in 2018. A significant decline was observed in this subpopulation over the six-year period, from 9% in 2013 to 5% in 2018 (p-trend<0.001, Figure 2). Consistent with previous years, approximately three quarters of young people (73%, n=119)

were men in 2018. The proportion of young people was significantly higher in rural and regional LHDs compared to metropolitan LHDs in 2018 (7% vs 5%, p=0.014). The highest proportion of young people in 2018 was observed in Hunter New England and Western Sydney LHD (9%), while the lowest was observed in Southern NSW LHD, where no respondents were aged less than 25 at the time of data collection.

Approximately one in five respondents (22%, n=693) were aged 50 years or older (older respondents) at the time of data collection in 2018. The proportion of older respondents significantly increased over the six-year period, from 14% in 2013 to 22% in 2018 (ptrend<0.001). The proportion of respondents was significantly higher in metropolitan LHDs compared to rural and regional LHDs (23% vs 19%, p=0.031). The highest proportion of older respondents was observed in Southern NSW LHD (42%), while the lowest proportion was observed in Hunter New England LHD (13%).

Sexual identity

Approximately four in five respondents (84%, n=1,833) identified as heterosexual in 2018, and this was stable over the five-year period in which data regarding sexual identity was collected (ptrend=0.207). Approximately one respondents (9%, n=188) identified as bisexual, and a further 8% (n=173) identified homosexual. Significant increases the proportions of respondents who identified as either bisexual or homosexual were observed over the five-year period (from 7% in 2014 to 9% in 2018, p-trend=0.013, and from 6% in 2014 to 8% in 2018, p-trend=0.002, respectively).

As in previous years, women were significantly more likely to identify as bisexual, compared to men (19% vs 5%, p<0.001) in 2018. In contrast, men were significantly more likely to identify as homosexual compared to women (6% vs 3%, p=0.002), again consistent with findings in previous years. The proportion of respondents who identified as either bisexual or homosexual was highest in South Eastern Sydney LHD (30%) and lowest in Western NSW LHD, where no respondents identified as either bisexual or homosexual.

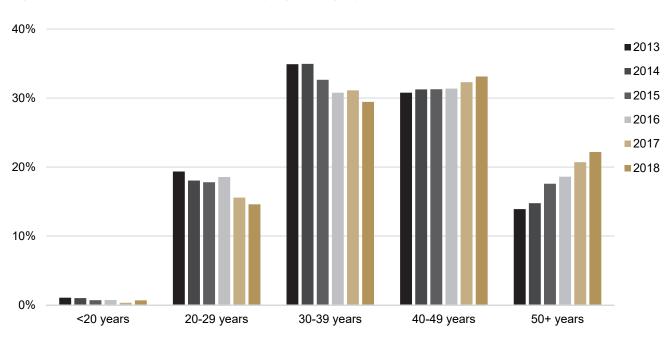


Figure 2 Proportion of respondents by age category, 2013-2018

Cultural and linguistic diversity

In 2018, one in five respondents (20%, n=620) reported an Aboriginal background, and this was a significant increase from the proportion reported in 2013 (14%, p-trend<0.001). A further 1% (n=24) reported both an Aboriginal and Torres Strait Islander background, and another 1% (n=18) reported a Torres Strait Islander background. The proportion of these two subpopulations remained stable over the six-year period (p-trend=0.279 and p-trend=0.270).

As in previous years, women were significantly more likely to report an Indigenous background (Aboriginal or Aboriginal and Torres Strait Islander background) in 2018, compared to men (29% vs 17%, p<0.001, Figure 3). The proportion of Indigenous respondents was significantly higher in rural and regional LHDs compared to metropolitan LHDs in 2018 (25% vs 19%, p=0.001). Consistent with findings from 2016 and 2017, Western NSW LHD recorded the highest proportion of Indigenous respondents in 2018 (38%), while Northern Sydney LHD recorded the lowest (6%).

Approximately one in ten respondents (7%, n=164) reported a language other than English as

the main language spoken at home by their parents in 2018. A significant increase in this subpopulation of respondents was observed over the six-year period, from 5% in 2013 to 7% in 2018 (p-trend<0.001). Among respondents reported a language other than English as the main language spoken at home by their parents, approximately half (43%, n=69, Figure 4) reported a European language. This was followed by one third (32%, n=51) who reported a Middle Eastern language and one fifth (17%, n=27) who reported an Asian language. A small proportion of respondents (4%, n=6) reported an Indigenous language or another language (4%, n=6) spoken at home.

Consistent with previous years, in 2018, men were significantly more likely to report that their parents spoke a language other than English compared to women (8% vs 3%, p<0.001). The highest proportion of respondents who reported a language other than English as the main language spoken by their parents was recorded in South Western Sydney LHD (21%) in 2018, while three LHDs (Murrumbidgee, Southern NSW and Northern NSW) had no participants reporting that their parents mainly spoke a language other than English at home.

Figure 3 Indigenous respondents by gender in 2018

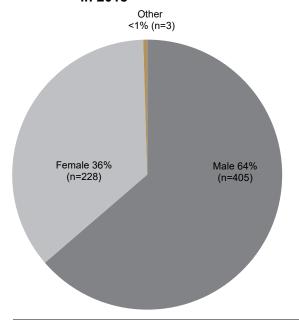
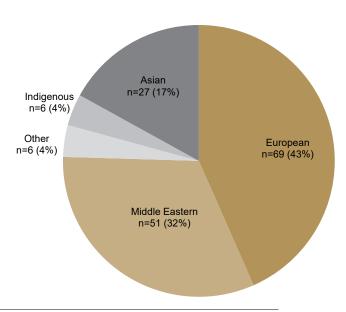


Figure 4 Languages other than English spoken at home by parents in 2018



Social, legal and health issues

Key findings:

- One in four respondents (24%) had experienced homelessness in the previous 12 months.
- One in five respondents (20%) reported living with or being diagnosed with a mental health issue in the previous 12 months.
- One in ten respondents (10%) reported being imprisoned in the previous 12 months.
- One in four respondents (25%) reported being prescribed opioid substitution therapy in the previous 12 months.
- All social, legal and health issues were stable over the period 2016 to 2018.

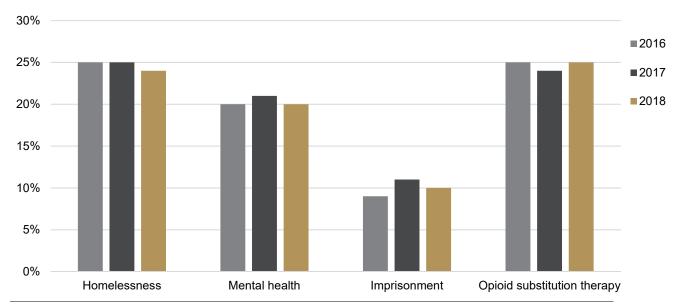
Homelessness

Consistent with previous years, in 2018, approximately one in four respondents (24%, n=584, Figure 5) had experienced homelessness in the previous 12 months (p-trend=0.700). Of the 548 respondents who had experienced homelessness in the previous 12 months, 71% (n=409) were men and 28% (n=163) were women. The majority (81%, n=415) identified as heterosexual, while 14% (n=72) identified as bisexual 6% (n=13) identified and homosexual. The median age of respondents who had experienced homelessness in the previous 12 months was 41 years (range 18-74 years), and one in twenty respondents (5%, n=27) were young people. Three quarters of respondents (75%, n=437) who homelessness in the previous 12 months completed the NNEDC at an NSP in a metropolitan LHD.

Mental health

One fifth of respondents (20%, n=481) reported living with, or being diagnosed with a mental health issue in the preceding 12 months in 2018, and this was stable over the period 2016 to 2018 (p-trend=0.680). Of the 481 respondents who reported a mental health issue in 2018, 64% (n=303) were men and 35% (n=165) were women. Three quarters identified heterosexual (74%, n=336), while 14% (n=63) identified as bisexual and 10% (n=42) identified as homosexual. The median age of respondents who reported a mental health issue was 42 years (range 19-64 years), and 3% (n=15) were young people. Approximately three quarters respondents (73%, n=351) who reported a mental health issue completed the NNEDC in a metropolitan LHD.





Imprisonment

One in ten respondents (10%, n=245) reported that they had been imprisoned in the previous 12 months in 2018, and this was stable over the period 2016 to 2018 (p-trend=0.128). Of the 245 respondents who reported being imprisoned in the previous 12 months in 2018, 70% (n=167) were men and 28% (n=67) were women. Four in five respondents (82%, n=186) identified as heterosexual, while 11% (n=26) identified as 7% (n=16) identified bisexual and homosexual. The median age of respondents who reported imprisonment in the previous 12 months was 37 years (range 18-58 years), and 6% (n=15) were young people, while one in ten (10%, n=25) were older respondents. The majority of respondents (71%, n=173) who reported recent imprisonment completed the NNEDC in a metropolitan LHD.

Opioid substitution therapy

One in four respondents (25%, n=619) reported that they were prescribed opioid substitution therapy (OST) in the previous 12 months (recent OST) in 2018. The proportion of respondents who were prescribed OST was stable over the period 2016 to 2018 (p-trend=0.949). Consistent with findings from 2017, approximately two in five respondents (39%, n=432) who reported last injecting an opioid reported recent OST in 2018. Of the 619 respondents who reported being prescribed OST in 2018, 66% (n=405) were men and 34% (n=206) were women. The majority of respondents (85%. n=494) identified heterosexual, while one in ten (10%, n=57) identified as bisexual and one in twenty (5%, n=32) identified as homosexual. The median age of respondents who reported recent OST was 43 years (range 21-74 years), and 2% (n=11) were young people. Three quarters of respondents (78%, n=483) who reported recent OST completed the NNEDC in a metropolitan LHD.

Drug last injected

Key findings:

- Opioids were the most common class of drug last injected in 2018, reported by one in two respondents (48%).
- One in three respondents (34%) reported last injecting a stimulant in 2018, a significant increase from 29% in 2013 (p-trend=0.007).
- 15% of respondents reported last injecting PIEDs in 2018, a significant decline from a peak of 19% in 2014 (p-trend=0.031).
- Heroin was the most commonly reported drug last injected in 2018, reported by 34% of respondents.
- A significant increase was observed in the proportion of respondents who reported last injecting heroin over the six-year period, from 29% in 2013 to 34% in 2018 (p-trend<0.001).
- A significant increase was observed in the proportion of respondents who reported last injecting methamphetamine over the six-year period, from 26% in 2013 to 32% in 2018 (p-trend=0.001).
- 1% of respondents reported last injecting fentanyl in 2018, a significant increase from 0.4% in 2013 (p-trend=0.002)

Opioids

As in previous years, opioids (predominantly opioid pharmacotherapies pharmaceutical opioids) were the most common class of drug last injected in 2018, reported by approximately one in two respondents (48%, n=1,448, Figure 6). The proportion respondents who reported last injecting an opioid remained stable over the six-year period (ptrend=0.909). Opioids were the most common class of drug last injected in 10 of the 14 LHDs (excluding Far West LHD) in 2018. Northern NSW LHD recorded the highest proportion of respondents who reported last injecting an opioid in 2018 (73%) while the lowest proportion was recorded at Hunter New England LHD (31%).

Heroin was the most commonly reported drug last injected in 2018, reported by one in three respondents (34%, n=1,033, Figure 7). A significant increase in the proportion of respondents who reported last injecting heroin was observed over the six-year period, from 29% in 2013 to 34% in 2018 (p-trend<0.001).

As in previous years, methadone was the second most commonly reported opioid last injected (6%,

n=180), followed by pharmaceutical opioids (5%, n=186). Significant declines were observed in the proportion of respondents who reported last injecting either methadone or pharmaceutical opioids over the period 2013 to 2018 (9% to 6% p-trend<0.001 and 10% to 5% p-trend<0.001 respectively).

Buprenorphine and buprenorphine-naloxone were both reported by a minority of respondents (1%, n=31 and 1%, n=16 respectively) in 2018. The proportion of respondents who reported last injecting buprenorphine or buprenorphine-naloxone remained stable over the six-year period (p-trend=0.920 and p-trend=0.171 respectively).

In 2018, 26 respondents reported last injecting fentanyl, and a further three respondents reported last injecting fentanyl in combination with other opioids (two with methadone and one with oxycodone). It should be noted that fentanyl is not listed as a drug option on the data collection instrument, and the number of respondents who reported last injecting fentanyl may be underestimated.

The proportion of respondents who specified they had last injected fentanyl significantly increased over the six-year period, from 0.4% (n=12) in 2013 to 1% (n=29) in 2018 (p-trend=0.002). Fentanyl was specified as last drug injected in 10 of the 14 LHDs (excluding Far West LHD), with no reports in Hunter New England, Illawarra Shoalhaven, South Western Sydney and Southern NSW LHDs. Western Sydney LHD recorded the highest number of respondents who specified fentanyl as last drug injected (n=6), followed by South Eastern Sydney and Mid North Coast LHDs (n=5) and Western NSW LHD (n=4).

Stimulants

Stimulants (predominantly methamphetamine and cocaine) were the second most common class of drug reported by respondents in 2018, reported by one in three respondents (34%, n=1,031). A significant increase in the proportion of respondents who reported last injecting a stimulant was observed over the six-year period, from 26% in 2013 to 34% in 2018 (p-trend=0.007). Stimulants were the most common class of drug reported in four of the 14 LHDs in 2018 (excluding Far West LHD). Southern NSW LHD recorded the highest proportion of respondents who reported last injecting a

stimulant in 2018 (56%), while the lowest proportion was recorded at Northern Sydney LHD (13%).

As in previous years, methamphetamine was the most commonly reported stimulant last injected in 2018, reported by one third of respondents (32%, n=966). A significant increase in the proportion of respondents who reported last injecting methamphetamine was observed over the sixyear period, from 26% in 2013 to 32% in 2018 (p-trend=0.001).

A minority of respondents (2%, n=58) reported last injecting cocaine in 2018. There was a significant decline in the proportion of respondents who reported last injecting cocaine over the six-year period, from 3% in 2013 to 2% in 2018 (p-trend=0.001).

Performance and image-enhancing drugs

PIEDs (predominantly anabolic steroids, peptides and growth hormone) were the third most commonly reported class of drug last injected in 2018, reported by 15% (n=448) of respondents. A significant decline in the proportion of respondents who reported last injecting PIEDs was observed over the six-year period, from 15%

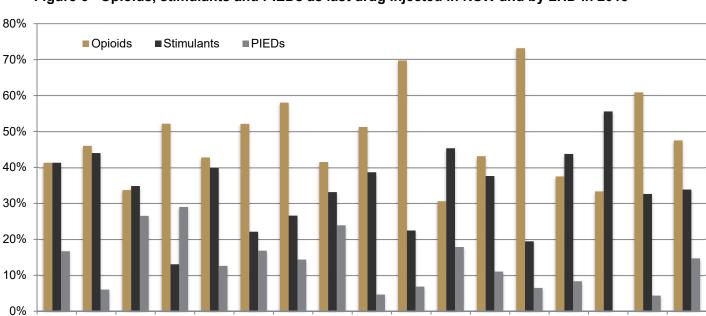


Figure 6 Opioids, stimulants and PIEDs as last drug injected in NSW and by LHD in 2018

NNSW MURR SNSW WNSW NSW

NS

SES

SWS

SYD

WS

NUAA ACON

HNE

MNC

ILL/SH

NBM

CC

in 2013 to 15% in 2018 (peak of 19% in 2014, ptrend=0.031).

One in ten respondents (10%, n=309) reported last injecting anabolic steroids in 2018. The response options for the drug last injected question were expanded in 2017 to include growth hormone and peptides. This change in methodology resulted in an artificial decline in the proportion of respondents who reported last injecting anabolic steroids over the six-year period. For this reason, trend analysis for anabolic steroids was restricted to the years since the methodological change. The proportion of respondents who reported last injecting anabolic steroids remained stable over the two-year period 2017 and 2018 (10% in both years, p=0.883).

A minority of respondents reported last injecting peptides and growth hormones in 2018 (2%, n=63 and 1%, n=31 respectively), and these proportions were consistent with proportions reported in 2017 (p=0.145 and p=0.477 respectively).

In 2018, a minority of respondents reported last injecting more than one drug (3%, n=87) or a drug other than those listed on the data collection instrument (1%, n=34). Significant declines were observed in both of these categories over the six-year period, from 5% in 2013 to 3% in 2018 (p-trend=0.011) and from 2% in 2013 to 1% in 2018 (p-trend=0.035) respectively.

Drug last injected by gender

As in previous years, men were significantly more likely to report PIEDs as drug last injected in 2018, compared to women (19% vs 3%, p<0.001). A total of 21 women reported PIEDs as drug class last injected in 2018. Nonetheless, there was a significant increase in the proportion of women who reported last injecting PIEDs over the six-year period, from 1% in 2013 to 3% in 2018 (p-trend=0.015).

Among respondents who reported last injecting psychoactive drugs, there were no significant differences between men and women with regard to the last drug injected.

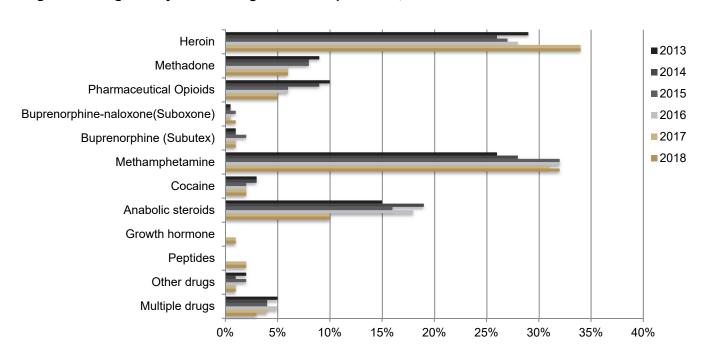


Figure 7 Drug last injected among NNEDC respondents, 2013-2018

Drug last injected among young people

Consistent with previous years, PIEDs were the most commonly reported class of drug last injected among young people in 2018, reported by approximately two in three (60%, n=94) young people. This was followed by opioids (20%, n=31) and stimulants (17%, n=27). Three guarters (76%, n=84) of young men reported last injecting PIEDs in 2018, and consistent with the general NNEDC sample, young men were significantly more likely to report last injecting PIEDs compared to voung women (76% vs 23%. p<0.001). The second most common class of drug last injected by young men was opioids (14%, n=16) followed by stimulants (9%, n=10). Among young women, opioids and stimulants were the most common classes of drugs reported, and were both reported by 35% (n=14) of young women.

Drug last injected among older respondents

Opioids were the most common class of drug reported by respondents over the age of 50 in 2018 (59%, n=398). This was followed by stimulants (36%, n=243) and PIEDs (2%, n=14). Patterns of drug class last injected were similar among both older men and women, with opioids the most common class of drug last injected (58%, n=300 and 65%, n=91, respectively), followed by stimulants (37%, n=191 and 32%, n=45, respectively).

Drug last injected by location

Respondents who completed the NNEDC in a rural or regional LHD were significantly more likely to report last injecting a stimulant compared to their metropolitan counterparts (39% vs 32%, Conversely, p<0.001). respondents who completed the NNEDC in a metropolitan LHD were significantly more likely to report last injecting an opioid, compared to their rural or regional counterparts (42% vs 49%, p=0.001). There was no significant difference between respondents who completed the NNEDC in a metropolitan or rural and regional LHD with regard to reports of PIEDs as last drug class injected (15% vs 13%, p=0.124).

Injecting behaviour

Key findings:

- Reports of daily or more frequent injection significantly declined over the six year period (p-trend=0.003), from 49% in 2013 to 40% in 2018.
- The median number of years since first injection was 19 years (range 0-62 years).
- The median age at first injection was 20 years (range 10-66 years).
- 9% of respondents reported injection initiation within the previous three years, a significant decline from 11% in 2013 (p-trend=0.012).

Frequency of injection

There was a significant increase in the proportion of respondents who reported injecting weekly, but not on a daily basis, over the six-year period, from 24% in 2013 to 41% in 2018 (p-trend<0.001). Furthermore, 2018 was the first year in which weekly injection was the most common injection frequency reported by NNEDC respondents. Daily or more frequent injection was the second most commonly reported frequency of injection in 2018, reported by two in five respondents (40%, n=975). The was a significant decline in the proportion of respondents who reported daily or more frequent injection (daily hereafter) over the six-year period, from 49% in 2013 to 40% in 2018 (p-trend=0.003). Approximately one in ten respondents (11%, n=272) reported injecting monthly or more, but not on a weekly basis and 8% (n=203) reported not injecting in the previous month. Significant declines were observed in both of these sub-populations, from 16% in 2013 to 11% in 2018 (p-trend=0.011) and from 11% in 2013 to 8% in 2018 (p-trend<0.001) respectively.

Time since first injection

The median number of years since first injection was 19 years (range 0-62 years) in 2018, and the median age at first injection was 20 years (range 10-66 years). Men had a significantly higher median age at first injection, compared to women, in 2018 (20 years vs 19 years, p=0.001), however this association was not observed when respondents who reported last injecting PIEDs were excluded (19 years for both, p=0.416). There was no significant difference in the median number of years since first injection between men and women (19 years vs 20 years, p=0.377). However, among respondents who reported last injecting a psychoactive drug, men significantly longer injecting histories than women (22 years vs 20 years, p<0.001).

There was no significant difference in the median age at first injection between respondents who completed the NNEDC at a metropolitan or rural and regional LHD (20 years for both, p=0.614). However, respondents who completed the NNEDC at rural and regional LHDs had significantly shorter injecting histories compared to their metropolitan counterparts (18 years vs 20 years, p=0.036). As in previous years, respondents who reported last injecting PIEDs had a significantly higher median age at first injection (24 years vs 19 years, p<0.001) and significantly shorter injecting histories (4 years vs 21 years, p<0.001) compared to respondents who reported last injecting a psychoactive drug.

New initiates

Approximately one in ten respondents (9%, n=235) reported injection initiation within the previous three years (new initiates) in 2018. A significant decline in the proportion of new initiates was observed over the six-year period, from 11% in 2013 to 9% in 2018 (p-trend=0.012).

As in previous years, the majority of new initiates were men (83%, n=193) and had completed the NNEDC at a metropolitan LHD (73%, n=172). Four in five new initiates (80%, n=157) identified as heterosexual, while 14% (n=27) identified as homosexual and 7% (n=13) identified as bisexual. New initiates were significantly more likely to identify as homosexual compared to respondents with longer injecting histories (14% vs 7%, p=0.001).

The median age of new initiates was 28 years (range 16-67 years) in 2018, and approximately one in ten new initiates (8%, n=18) reported a language other than English as the main language spoken at home by their parents. Approximately two thirds of new initiates (61%, n=143) reported PIEDs as the class of drug last injected, followed by stimulants (24%, n=57) and opioids (12%, n=27). New initiates were

significantly more likely to report last injecting PIEDs compared to respondents with longer injecting histories (61% vs 11%, p<0.001). Among respondents who reported last injecting a psychoactive drug, new initiates were significantly less likely to report last injecting an opioid, compared with respondents with longer injecting histories (30% vs 57%, p<0.001). Compared to respondents with longer injecting histories, new initiates were significantly less likely to report daily or more frequent injection (42% vs 23%, p<0.001), however this association was not observed when respondents who reported last injecting PIEDs were excluded from analysis (44% vs 34%, p=0.060).

Receptive syringe sharing

Key findings:

- 20% of respondents reported at least one episode of receptive syringe sharing (RSS) in the month prior to data collection in 2018.
- The proportion of respondents who reported RSS remained stable over the six-year period (p-trend=0.847).
- 34% of respondents who reported RSS in the previous month reported more than five occasions of RSS during this time period.
- Factors associated with an increased risk of RSS included homosexual identity, homelessness and imprisonment in the previous 12 months.
- Factors associated with a decreased risk of RSS included a language other than English as the main language spoken at home by parents, completion of the NNEDC in a rural or regional LHD, living with a mental health issue or prescription of OST in the previous 12 months.

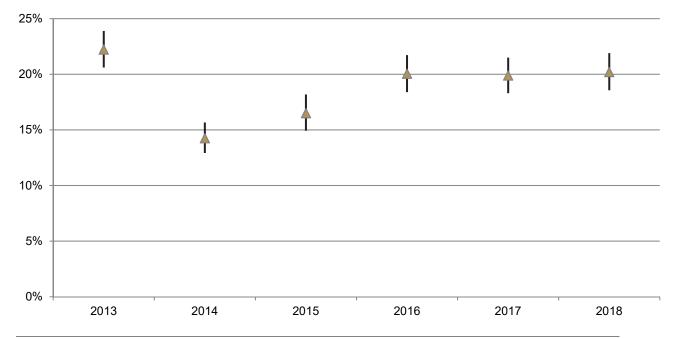
Of the 2,256 respondents who reported at least one injection episode in the month prior to data collection, one fifth (20%, n=451, Figure 8) reported at least one occasion of receptive syringe sharing (RSS) during this time period. The proportion of respondents who reported RSS remained stable over the six-year period (p-trend=0.847).

Among respondents who reported RSS in 2018, the majority (78%, n=351) reported RSS had occurred on more than one occasion, including one in three respondents (34%, n=152) who

reported that RSS had occurred on more than five occasions during the same time period. A minority (22%, n=100) reported that RSS occurred only once. There were no significant changes in the frequency of RSS over the six-year period (Figure 9).

In 2018, 15% (n=486) of respondents required assistance with the completion of the NNEDC data collection instrument. RSS is a highly stigmatised behaviour and may be affected by social desirability bias (White et. al. 2007). As observed in previous years, respondents who were assisted with the completion of the NNEDC

Figure 8 Proportion of NNEDC respondents who reported RSS, 2013-2018, with 95% confidence intervals



by either NSP staff or other NSP attendees, were significantly less likely to report RSS in 2018, compared to respondents who did not require assistance (10% vs 22% respectively, p<0.001). It is therefore likely that the overall RSS prevalence of 20% is an under-estimate of the true extent of this behaviour.

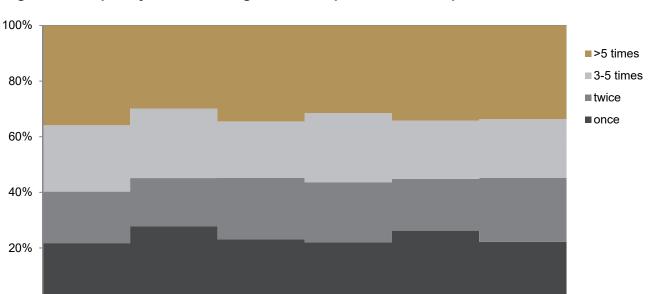
Factors independently associated with RSS

As shown in Table 6, there were no associations between RSS and gender, drug last injected or frequency of injection in 2018.

Respondents who identified as homosexual were significantly more likely to report RSS compared to their heterosexual counterparts. Respondents who had been imprisoned in the previous 12 months were also significantly more likely to report RSS compared to respondents who had not been recently imprisoned. While this finding is consistent with previous studies (Wood et. al. 2005), it should be noted that NNEDC responses include different time periods (imprisonment in the previous 12 months and RSS in the previous month) and we are unable to determine whether occasion/s of RSS occurred during periods of incarceration.

Finally, consistent with Topp et. al. (2013), respondents who reported homelessness in the previous 12 months were significantly more likely to report RSS compared to respondents who did not experience homelessness. This may be due to difficulties managing and storing sufficient supplies of injecting equipment during periods of housing instability.

Respondents aged 49 years and over were significantly less likely to report RSS compared to respondents aged less than 34 years. Respondents who completed the NNEDC in a rural or regional LHD were also less likely to report RSS compared to their metropolitan counterparts. Additionally, respondents who reported that their parents spoke a language other than English were significantly less likely to report RSS compared to respondents with parents that spoke English at home. Finally, respondents who reported a mental health issue or were prescribed OST in the previous 12 months were significantly less likely to report RSS compared to respondents who did not report a mental health issue or were not prescribed OST.



2016

2017

2018

Figure 9 Frequency of RSS among NNEDC respondents who reported RSS, 2013-2018

2014

2014

2013

0%

Hepatitis C treatment uptake

Key findings:

- Among respondents determined as likely to be eligible for HCV direct-acting antiviral (DAA) treatment, the proportion who reported a lifetime history of DAA treatment was 53%.
- HCV DAA treatment uptake was highest in South Eastern Sydney LHD (64%), followed by Northern NSW LHD (57%) and Hunter New England LHD (54%).
- The majority of respondents accessed DAA treatment through tertiary facilities (29%) or publicsector community settings (29%). Minorities of respondents accessed DDA treatment through alcohol and other drug services (13%), general practitioners (10%) and correctional facilities (8%).

Additional questions were included in the 2018 NNEDC data collection instrument to estimate uptake of 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.

Exposure to HCV

Firstly, respondents were asked to report if they had ever been told they had hepatitis C infection. While we acknowledge that not all people exposed to HCV will have been diagnosed, HCV screening is high in Australia (Iversen et. al. 2017) and in the absence of serological testing in the NNEDC, self-reported data was used.

Approximately one in two NNEDC respondents (48%, n=1,190) reported a previous HCV diagnosis. Self-reported exposure to HCV was significantly higher among respondents who reported last injecting a psychoactive drug (57%, n=1,176) compared to respondents who last injected PIEDs (2%, n=8, p<0.001). These findings are consistent with bio-behavioural surveillance systems, such as the Australian NSP Survey where 49% of respondents in NSW were serologically confirmed as HCV antibody positive in 2017 (Heard et. al. 2018).

Current HCV status

Secondly, respondents were asked to report their current HCV status (spontaneously cleared or chronically infected) or if they had ever received Interferon-based or DAA treatment for their HCV infection. Among respondents who self-reported

a HCV diagnosis and excluding those who did not report their HCV or treatment status (n=30), one in five respondents (21%, n=243) reported that they had spontaneously cleared their infection. This is broadly consistent with previous work by Grebely et. al. (2014) which found that 25% of people exposed to HCV spontaneously cleared infection, with women significantly more likely to spontaneously clear their infection than men. Among NNEDC respondents, self-reported spontaneous clearance was higher among women (28%, n=95) compared to men (17%, n=141, p<0.001). This finding also supports the validity of self-reported NNEDC data.

Among the group who self-reported a previous HCV diagnosis, approximately one in ten (11%, n=125) reported a history of Interferon-based HCV treatment. This is 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.

DAA treatment uptake was calculated among the group who reported a previous HCV diagnosis (n=1,190) after excluding respondents who reported spontaneous clearance (n=243) and those who did not report their HCV or treatment status (n=30). Given ~55% cure rates among people engaged in HCV Interferon-based treatment (Fried et. al. 2002), a further n=69 respondents were excluded as these respondents were assumed to have cleared the virus successfully prior to the availability of DAA therapies. Thus, the group determined as likely to

be eligible for DAA treatment in February 2018 comprised n=848 respondents.

Among respondents who were determined as likely to be eligible for HCV DAA treatment, 53% reported they had accessed DAAs. This is considerably higher than the 26% of people living with HCV who had accessed DAA treatment in NSW at the end of December 2017 (NSW Hepatitis B and C strategies 2014-2020: 2017 Annual Data report, in press). This suggests that NSP attendees may be provided with greater opportunities and support to access DAA treatment than other sub-populations of people living with chronic HCV.

As shown in Figure 10, DAA treatment uptake (among the group determined as likely to be eligible for DAA treatment) ranged from 30% to 64% among LHDs. DAA treatment uptake was highest in South Eastern Sydney LHD (64%), followed by Northern NSW LHD (57%) and Hunter New England LHD (54%).

HCV DAA treatment uptake by health care setting

Respondents who had received HCV treatment were asked to specify where they had accessed treatment in an open-ended format. HCV DAA therapies were accessed from more than 120 different health care settings, with responses subsequently categorised into broad groups according to service type.

respondents who DAA Amona reported treatment, the majority of respondents reported accessing DAA treatment through tertiary facilities (hospitals and tertiary liver clinics, 29%, n=108) or public-sector community settings (community health centres, sexual health services, community-based liver clinics and NSPs. 29%, n=105). The remainder respondents accessed DAA therapies through alcohol and other drug services (both public and private sector including OST and residential rehabilitation services, 13%, n=47), general practitioners (10%, n=38), correctional facilities (8%, n=28) and Aboriginal Community Controlled Health Services (2%, n=8).

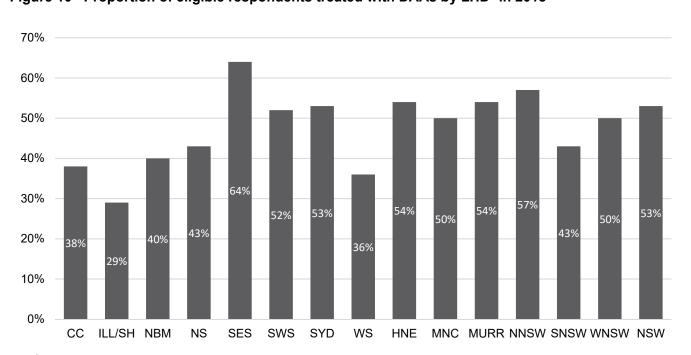


Figure 10 Proportion of eligible respondents treated with DAAs by LHD# in 2018

 $^{^{\}it \#}$ No respondents from FW LHD reported HCV exposure or status

Approximately one in ten respondents (9%, n=34) reported accessing DAAs through 'other' settings, including housing services (n=7) and settings located outside NSW (n=12).

Figure 11 provides a breakdown of access to DAA treatment by health care setting and LHD (according to the LHD where the NNEDC was completed).

Uptake of DAA treatment among key populations of NSP attendees

As shown in Table 7, there was a significant association between sexual identity and uptake of DAA treatment, with respondents who identified as homosexual or bisexual significantly more likely to report treatment with DAAs compared to their heterosexual counterparts.

Respondents aged 46 years or more were also significantly more likely to report DAA treatment compared to respondents aged less than 39 years.

Compared to men, women were significantly less likely to report a history of DAA treatment. Finally, respondents who reported injecting daily or more frequently were also significantly less likely to report a history of DAA treatment.

No associations were observed between uptake of DAA treatment and geographic location, language spoken at home by the respondent's parents, drug last injected, RSS, homelessness, imprisonment, mental health status or the prescription of OST in the previous 12 months.

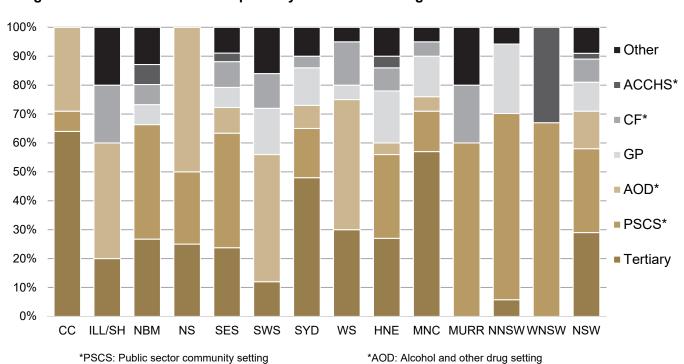


Figure 11 HCV DAA treatment uptake by health care setting and LHD# in 2018

*ACCHS: Aboriginal Community Control Health Service

*CF: Correctional facility

^{*} No respondents from FW LHD reported HCV exposure or status

^{*} No respondents from SNSW LHD who reported accessing DAA treatment reported the setting where treatment was sought

New South Wales

Table 1: Demographics characteristics, by year

	2013	2014	2015	2016	2017	2018	6 year p-trend
Number of sites	51	55	49	52	50	50	
Number surveyed (OOS)	5,772 (%)	6,257 (%)	5,439 (%)	5,363 (%)	5,378 (%)	4,817 (%)	
Completed survey	3,101 (54)	3,029 (48)	2,453 (45)	2,584 (48)	3,607 (67)	3,264 (68)	<0.001
Previously completed (repeat NSP attendee)	1,433 (25)	1,258 (20)	955 (18)	1,004 (19)	1,355 (25)	1,054 (22)	0.824
Declined to participate	1,238 (21)	1,970 (31)	2,031 (37)	1,775 (33)	416 (8)	499 (10)	<0.001
N° surveyed (individuals)	2,938	3,029	2,453	2,584	3,607	3,264	
Gender							
Male	2,069 (71)	2,193 (74)	1,744 (73)	1,851 (73)	2,666 (74)	2,400 (74)	0.354
Female	811 (28)	733 (25)	641 (27)	673 (27)	882 (24)	813 (25)	0.083
Other	16 (<1)	30 (1)	11 (<1)	23 (1)	19 (1)	20 (1)	0.501
Not reported	42	73	57	37	40	31	
Sexual identity*							
Heterosexual		2,495 (87)	1,955 (86)	2,091 (85)	2,077 (83)	1,833 (84)	0.207
Bisexual		193 (7)	178 (8)	202 (8)	214 (9)	188 (9)	0.013
Homosexual		184 (6)	144 (6)	179 (7)	219 (9)	173 (8)	0.002
Not reported		157	176	112	1097	1070	
Age (years)							
Median age (range)	38 (17-77)	38 (15-72)	39 (14-85)	39 (18-73)	40 (18-74)	41 (16-74)	
Less than 25 years	241 (9)	295 (10)	201 (9)	200 (8)	196 (6)	169 (5)	<0.001
25 years or more	2,594 (92)	2,656 (90)	2,078 (91)	2,276 (91)	3,234 (94)	2,956 (95)	0.145
Not reported	103	78	174	108	177	139	
Aboriginal and/or Torres Strait Islander							
Yes, Aboriginal	402 (14)	449 (15)	389 (17)	436 (17)	645 (19)	620 (20)	<0.001
Yes, Torres Strait Islander	14 (<1)	14 (<1)	8 (<1)	13 (1)	23 (<1)	18 (1)	0.270
Yes, both Aboriginal and Torres Strait Islander	15 (1)	20 (1)	17 (1)	23 (1)	24 (1)	24 (1)	0.279
No	2,433 (85)	2,458 (84)	1,920 (83)	2,085 (82)	2,732 (80)	2,452 (79)	0.020
Not reported	74	88	119	27	183	150	
Main language spoken at home by parents							
English	2,729 (95)	2,804 (95)	2,198 (94)	2,411 (94)	2,621 (94)	2,279 (93)	0.520
Other	137 (5)	147 (5)	146 (6)	154 (6)	180 (6)	164 (7)	<0.001
Not reported	72	78	109	19	806	821	

NB: Percent excludes not reported

^{*} Data not collected in all years

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

	2013	2014	2015	2016	2017	2018	6 year p-trend
Number surveyed (individuals)	2,938 (%)	3,029 (%)	2,453 (%)	2,584 (%)	3,607 (%)	3,264 (%)	
Last drug injected							
Opioids	1,390 (49)	1,321 (45)	1,030 (44)	1,101 (43)	1,606 (47)	1,448 (48)	0.909
Heroin	810 (29)	761 (26)	630 (27)	708 (28)	1,150 (34)	1,033 (34)	<0.001
Pharmaceutical opioids	275 (10)	259 (9)	151 (6)	162 (6)	186 (5)	159 (5)	<0.001
Methadone	254 (9)	240 (8)	182 (8)	162 (6)	202 (6)	180 (6)	<0.001
Buprenorphine (Subutex)	38 (1)	26 (1)	35 (2)	37 (1)	25 (1)	31 (1)	0.920
Buprenorphine-naloxone (Suboxone)	12 (<1)	11 (<1)	14 (1)	12 (<1)	10 (<1)	16 (1)	0.171
Other opioids/more than 1 opioid	1 (<1)	24 (1)	18 (1)	20 (1)	33 (1)	29 (1)	<0.001
Stimulants	837 (29)	899 (31)	803 (34)	852 (34)	1,122 (33)	1,031 (34)	0.007
Methamphetamine	746 (26)	817 (28)	748 (32)	801 (32)	1,049 (31)	966 (32)	0.001
Cocaine	89 (3)	76 (3)	51 (2)	40 (2)	69 (2)	58 (2)	0.001
Other stimulants/ more than 1 stimulant	2 (<1)	6 (<1)	4 (<1)	11 (<1)	4 (<1)	7 (<1)	0.456
Performance image-enhancing drugs	427 (15)	547 (19)	382 (16)	449 (18)	494 (15)	448 (15)	0.031
Anabolic steroids	423 (15)	544 (19)	381 (16)	448 (18)	350 (10)	309 (10)	0.883^
Growth hormone*					42 (1)	31 (1)	0.477^
Peptides*					55 (2)	63 (2)	0.145^
Others PIEDs/ more than 1 PIED	4 (<1)	3 (<1)	1 (<1)	1 (<1)	47 (1)	45 (1)	0.760^
Other drugs	50 (2)	34 (1)	36 (2)	26 (1)	39 (1)	34 (1)	0.035
More than one category	133 (5)	105 (4)	82 (4)	115 (5)	130 (4)	87 (3)	0.011
Not reported	101	123	120	41	216	216	
Frequency of injection last month							
Not last month	311 (11)	286 (10)	210 (9)	228 (9)	223 (8)	203 (8)	<0.001
Less than weekly	449 (16)	487 (17)	362 (16)	475 (19)	481 (17)	272 (11)	0.011
More than weekly, not daily	677 (24)	757 (26)	556 (24)	616 (24)	689 (25)	1,009 (41)	<0.001
Daily or more	1,382 (49)	1,361 (47)	1,155 (51)	1,201 (48)	1,360 (49)	975 (40)	0.003
Not reported	119	138	170	64	854	805	
Age at first injection							
Median (range)	19 (10-60)	20 (10-65)	20 (10-75)	20 (10-59)	20 (10-67)	20 (10-66)	
Not reported	209	169	191	147	845	729	
Years since first injection							
Median (range)	16 (0-59)	16 (0-53)	17 (0-67)	18 (0-56)	18 (0-53)	19 (0-62)	
Less than 3 years since first injection	296 (11)	382 (14)	267 (12)	280 (12)	322 (12)	235 (9)	0.012
3 or more years since first injection	2,372 (89)	2,415 (86)	1,930 (88)	2,087 (88)	2,420 (88)	2,286 (91)	0.485
Not reported	270	232	256	217	865	743	

NB: Percent excludes not reported

^{*} Data not collected in all years

[^] Trend analysis conducted for 2017 & 2018 only

Table 3: Psychosocial issues in the previous 12 months and receptive syringe sharing

	2013	2014	2015	2016	2017	2018	6 year p-trend
Number who injected last month	2,508 (%)	2,605 (%)	2,073 (%)	2,292 (%)	2,530 (%)	2,256 (%)	
Receptive syringe sharing last month (RSS) [^]							
No	1,945 (78)	2,212 (86)	1,720 (84)	1,814 (80)	2,014 (80)	1,780 (80)	0.138
Yes	554 (22)	366 (14)	339 (16)	454 (20)	500 (20)	451 (20)	0.847
Not reported	9	27	14	24	16	25	
Ocassions of RSS last month among respondents who re	ported RSS						
Once	121 (22)	102 (28)	78 (23)	100 (22)	131 (26)	100 (22)	0.972
Twice	103 (19)	63 (17)	75 (22)	98 (22)	93 (19)	104 (23)	0.192
3-5 times	131 (24)	91 (25)	69 (20)	113 (25)	105 (21)	95 (21)	0.329
More than 5 times	199 (36)	110 (30)	117 (35)	143 (32)	171 (34)	152 (34)	0.829
Number surveyed (individuals)#				2,557 (%)	2,833 (%)	2,445 (%)	
Psychosocial factors in previous 12 months							
Homelessness*				627 (25)	695 (25)	584 (24)	0.700
Living with, or diagnosed with, a mental health issue*				519 (20)	593 (21)	481 (20)	0.680
Imprisoned*				226 (9)	311 (11)	245 (10)	0.198
Prescribed OST*				644 (25)	681 (24)	619 (25)	0.949
NB: Percent excludes not reported	٨	Among respondents	who injected last m	onth and excuding	RSS not reported		

NB: Percent excludes not reported

[#] Excludes respondents who did not complete entire survey

^{*} Data not collected in all years

Table 4: Hepatitis C status and treatment uptake in 2018 by LHD (Metropolitan)

	NSW	Metropolitan LHDs	Central Coast	Illawarra Shoalhaven	Nepean Blue Mountains	Northern Sydney	South Eastern Sydney	South Western Sydney	Sydney	Western Sydney
Number surveyed (individuals)	2,643 (%)	1,994 (%)	117 (%)	50 (%)	145 (%)	64 (%)	767 (%)	164 (%)	427 (%)	260 (%)
Hepatitis C infection										
No	1,270 (52)	932 (51)	64 (55)	31 (62)	76 (54)	42 (66)	303 (44)	80 (50)	179 (52)	157 (61)
Yes	1,190 (48)	887 (49)	53 (45)	19 (38)	65 (46)	22 (34)	385 (56)	79 (50)	163 (48)	101 (39)
Not reported	183	175	0	0	4	0	79	5	85	2
Ever received treatment	N=1,190	N=887	N=53	N=19	N=65	N=22	N=385	N=79	N=163	N=101
No, still Hep C positive	343 (30)	253 (29)	21 (40)	11 (58)	25 (42)	6 (27)	82 (22)	27 (36)	43 (27)	38 (39)
No, cleared spontaneously	243 (21)	180 (21)	9 (17)	1 (5)	16 (27)	6 (27)	90 (24)	14 (18)	25 (16)	19 (19)
Yes, received interferon based										
treatment	125 (11)	95 (11)	8 (15)	2 (11)	2 (3)	4 (18)	31 (8)	4 (5)	28 (18)	16 (16)
Yes, received treatment with DAAs	449 (39)	333 (39)	15 (28)	5 (26)	17 (28)	6 (27)	171 (46)	31 (41)	63 (40)	25 (26)
Not reported	30	26	0	0	5	0	11	3	4	3
Eligible for DAA treatment [^]	N=848	N=629	N=40	N=17	N=43	N=14	N=267	N=60	N=119	N=70
Yes, received treatment with DAAs	449 (53)	333 (53)	15 (38)	5 (29)	17 (40)	6 (43)	171 (64)	31 (52)	63 (53)	25 (36)
HCV DAA treatment uptake by health										
care setting*	N=449	N=333	N=15	N=5	N=17	N=6	N=171	N=31	N=63	N=25
Aboriginal Community Controlled Health										
Service	8 (2)	5 (2)	0 (0)	0 (0)	1 (7)	0 (0)	4 (3)	0 (0)	0 (0)	0 (0)
Alcohol and Other Drug services	47 (13)	44 (16)	4 (29)	2 (40)	0 (0)	2 (50)	12 (9)	11 (44)	4 (8)	9 (45)
Correctional Facilities	28 (8)	22 (8)	0 (0)	1 (20)	1 (7)	0 (0)	12 (9)	3 (12)	2 (4)	3 (15)
General Practitioner	38 (10)	22 (8)	0 (0)	0 (0)	1 (7)	0 (0)	10 (7)	4 (16)	6 (13)	1 (5)
Public sector community services	105 (29)	72 (26)	1 (7)	0 (0)	6 (40)	1 (25)	56 (40)	0 (0)	8 (17)	0 (0)
Tertiary services	108 (29)	81 (30)	9 (64)	1 (20)	4 (27)	1 (25)	34 (24)	3 (12)	23 (48)	6 (30)
Other	34 (9)	26 (10)	0 (0)	1 (20)	2 (13)	0 (0)	13 (9)	4 (16)	5 (10)	1 (5)
Not reported	81	61	1	0	2	2	30	6	15	5

[^] 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

^{*} Please see page 22 for more information on health care setting categories

Table 5: Hepatitis C status and treatment uptake in 2018 by LHD (Rural and Regional)

·	NSW	Rural and Regional LHDs	Far West	Hunter New England	Mid North Coast	Murrum- bidgee	Northern NSW	Southern NSW	Western NSW
Number surveyed (individuals)	2,643 (%)	649 (%)		336 (%)	105 (%)	50 (%)	93 (%)	19 (%)	46 (%)
Hepatitis C infection									
No	1,270 (52)	338 (53)		185 (56)	38 (37)	32 (64)	39 (42)	8 (42)	36 (78)
Yes	1,190 (48)	303 (47)		145 (44)	66 (63)	18 (36)	53 (58)	11 (58)	10 (22)
Not reported	183	8		6	1	0	1	0	0
Ever received treatment	N=1,190	N=303		N=145	N=66	N=18	N=53	N=11	N=10
No, still Hep C positive	343 (30)	90 (30)		41 (29)	25 (39)	5 (28)	12 (23)	4 (36)	3 (30)
No, cleared spontaneously	243 (21)	63 (21)		31 (22)	11 (17)	3 (17)	11 (21)	4 (36)	3 (30)
Yes, received interferon based treatment	125 (11)	30 (10)		15 (10)	2 (3)	3 (17)	9 (17)	0 (0)	1 (10)
Yes, received treatment with DAAs	449 (39)	116 (39)		56 (39)	26 (41)	7 (39)	21 (40)	3 (27)	3 (30)
Not reported	30	4		2	2	0	0	0	0
Eligible for DAA treatment^	N=848	N=220		N=104	N=52	N=13	N=37	N=7	N=6
Yes, received treatment with DAAs	449 (53)	116 (53)		56 (54)	26 (50)	7 (54)	21 (57)	3 (43)	3 (50)
HCV DAA treatment uptake by health care setting *	N=449	N=116		N=56	N=26	N=7	N=21	N=3	N=3
Aboriginal Community Controlled Health									
Service	8 (2)	3 (3)		2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	1 (33)
Alcohol and Other Drug services	47 (13)	3 (3)		2 (4)	1 (5)	0 (0)	0 (0)	0 (0)	0 (0)
Correctional Facilities	28 (8)	6 (6)		4 (8)	1 (5)	1 (20)	0 (0)	0 (0)	0 (0)
General Practitioner	38 (10)	16 (17)		9 (18)	3 (14)	0 (0)	4 (25)	0 (0)	0 (0)
Public sector community services	105 (29)	33 (34)		15 (29)	3 (14)	3 (60)	10 (63)	0 (0)	2 (67)
Tertiary services	108 (29)	27 (28)		14 (27)	12 (57)	0 (0)	1 (6)	0 (0)	0 (0)
Other	34 (9)	8 (8)		5 (10)	1 (5)	1 (20)	1 (6)	0 (0)	0 (0)
Not reported	81	20		5	5	2	5	3	0

[^] 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

Note: There were no respondents in Far West LHD who reported HCV status or treatment

^{*} Please see page 22 for more information on health care setting categories

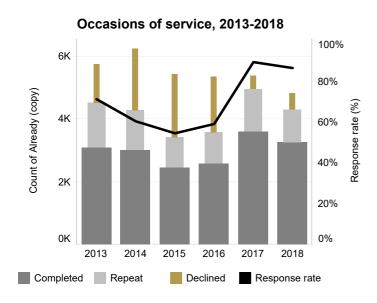
Table 6: Factors independently associated with receptive syringe sharing

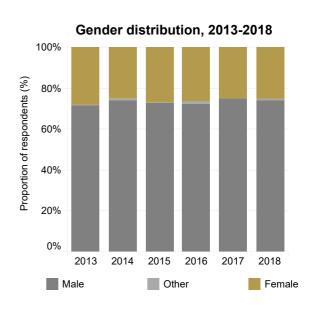
	I	Crude		Adjusted				
Factor	OR	95% CI	p value	OR	95% CI	p value		
Gender								
Male (reference)								
Female	1.13 (0.8	89-1.42)	0.321					
Sexual Identity								
Homosexual (reference)								
Bisexual	1.45 (1.0	00-2.10)	0.049					
Homosexual	1.51 (1.0	03-2.21)	0.036	1.49 (1.00-2.22)	0.049		
Age (quartiles)								
<34 years (reference)								
34-41 years	1.14 (0.8	87-1.51)	0.340					
42-48 years	0.76 (0.5	,	0.070					
>48 years	0.54 (0.4	40-0.74)	<0.001	0.60 (0.43-0.83)	0.002		
Language spoken at home by parents								
English (reference)								
Other	0.61 (0.3	38-0.99)	0.046	0.58 (0.36-0.96)	0.033		
Geographic location								
Metropolitan (reference)								
Rural/Regional	0.81 (0.6	64-1.04)	0.099	0.76 (0.59-0.98)	0.036		
Recent homelessness*								
No (reference)								
Yes	1.49 (1.1	18-1.87)	0.001	1.39 (1.08-1.78)	0.010		
Recent imprisonment*								
No (reference)								
Yes	1.85 (1.3	36-2.50)	<0.001	1.68 (1.21-2.33)	0.002		
Recent OST*								
No (reference)								
Yes	0.62 (0.4	48-0.80)	<0.001	0.66 (0.51-0.87)	0.003		
Living with a mental health issue*								
No (reference)								
Yes	0.72 (0.5	55-0.95)	0.022	0.65 (0.49-0.87)	0.003		
Drug class last injected								
Opioids (reference)								
Stimulants	1.22 (0.9	97-1 53)	0.096					
PIEDs	1.04 (0.3		0.090					
	1.04 (0.	10-1. 44)	0.010					
Daily or more frequent injection								
No (reference)								
Yes	1.01 (0.8	82-1.25)	0.905					

Table 7: Factors independently associated with uptake of DAA treatment

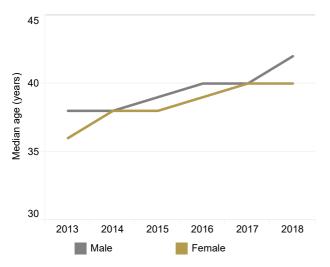
	1	Crude		Adjusted			
Factor	OR	95% CI	p value	OR	95% CI	p value	
Gender							
Male (reference)	-	-					
Female	0.57 (0	.41-0.78)	<0.001	0.57 (0.41-0.80)	0.001	
Sexual Identity				,	•		
Homosexual (reference)	-	-					
Bisexual	1.36 (0	.84-2.21)	0.216	2.12 (1.24-3.65)	0.006	
Homosexual	5.35 (2	.22-12.87)	<0.001	5.24 (2.10-13.07)	< 0.001	
Age (quartiles)							
<39 years (reference)	-	-					
39-45 years	1.07 (0	.73-1.56)	0.736				
46-51 years	1.76 (1	.17-2.63)	0.007	1.63 (1.07-2.49)	0.022	
>51 years	2.04 (1	.35-3.07)	0.001	1.90 (1.24-2.93)	0.004	
Language spoken at home by parents							
English (reference)	-	-					
Other	1.01 (0	.55-1.86)	0.981				
Geographic location							
Metropolitan (reference)	-	-					
Rural/Regional	0.98 (0	.71-1.35)	0.898				
Recent homelessness*							
No (reference)	-	-					
Yes	0.89 (0	.65-1.20)	0.442				
Recent imprisonment*							
No (reference)	-	-					
Yes	0.85 (0	.57-1.26)	0.413				
Recent OST*							
No (reference)	-	-					
Yes	1.13 (0	.85-1.52)	0.388				
Living with a mental health issue*							
No (reference)	-	-					
Yes	1.14 (0	.82-1.59)	0.432				
Drug class last injected	Ì	,					
Opioids (reference)	_	_					
Stimulants	1 10 (0	.81-1,49)	0.540				
PIEDs	•	.01-1,49) .24-22.95)	0.340				
	2.37 (0	.24-22.93)	0.430				
Daily or more frequent injection							
No (reference)	-	-					
Yes	0.58 (0	.43-0.76)	<0.001	0.56 (0.42-0.76)	<0.001	
Receptively shared syringes							
No (reference)	-	-					
Yes	0.76 (0	.54-1.09)	0.136				

Graphs: New South Wales

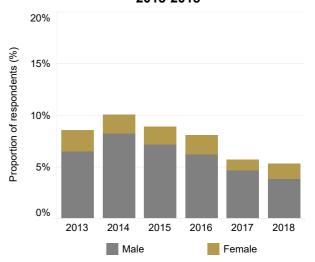




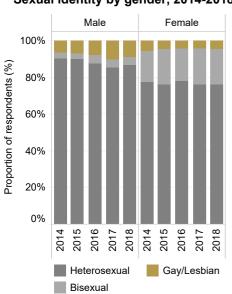
Median age of respondents by gender, 2013-2018



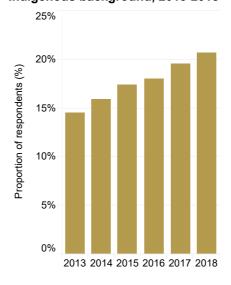
Proportion of respondents under 25 years, 2013-2018



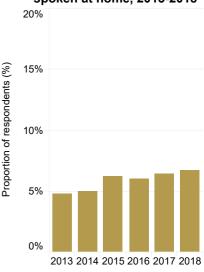
Sexual identity by gender, 2014-2018



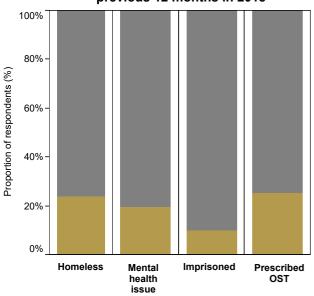
Indigenous background, 2013-2018



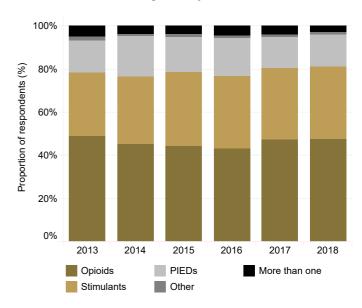
Language other than English spoken at home, 2013-2018



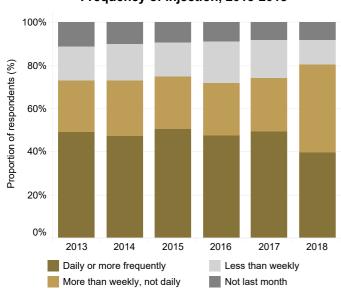
Social, legal and health characteristics in the previous 12 months in 2018



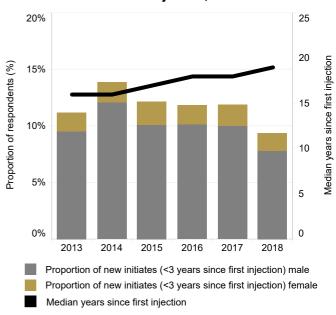
Class of drug last injected, 2013-2018



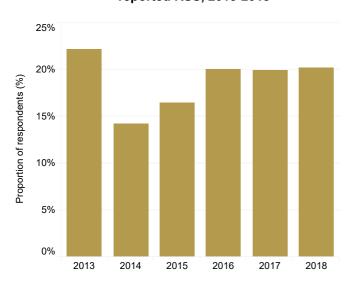
Frequency of injection, 2013-2018



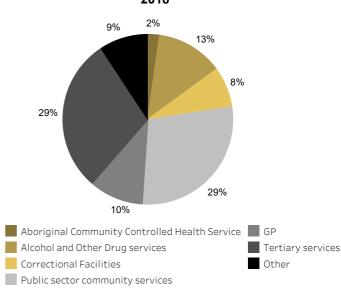
Years since first injection, 2013-2018



Proportion of respondents who reported RSS, 2013-2018



HCV DAA treatment uptake by health care setting in 2018



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Appendix A

Data collection

The NNEDC was conducted over a two-week period in late February/early March over the past six years, 2013 to 2018. 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 was one page, 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 occasion of service 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 (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.

The methodology for presenting RSS was changed in 2015 to exclude respondents who did not inject in the previous month.

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 larger proportion of injecting equipment via vending machines /dispensing chutes. The opportunity for staff to engage NSP attendees to participate in the data collection is impacted by these and other factors 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

Metropolitan	2013	2014	2015	2016	2017	2018
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	✓			✓	✓	✓
Illawarra Shoalhaven LHD						
First Step: Port Kembla	✓	✓	✓	✓	✓	✓
First Step: Wollongong	✓	✓	✓	✓	✓	✓
Nepean Blue Mountains LHD						
Barnardos Cranebrook				✓	✓	
South Court Primary Care	✓	✓	✓	✓	✓	✓
Northern Sydney LHD						
Manly RUSH	✓	✓	✓	✓	✓	✓
RUSH Royal North Shore Hospital	✓	✓	✓	✓	✓	✓
South Eastern Sydney LHD						
ACON Sydney	✓	✓	✓	✓	✓	✓
Albion Centre	✓	✓	✓	✓		
Clinic 180	✓	✓	✓	✓	✓	✓
Haymarket Foundation	✓	✓	✓	✓		
Kirketon Road Centre	✓	✓	✓	✓	✓	✓
Kirketon Road Centre Outreach Bus	✓	✓		✓	✓	✓
KRC South	✓	✓	✓	✓	✓	✓
Medically Supervised Injecting Centre				✓	✓	✓
New South Wales Users and AIDS Association (NUAA)	✓	✓	✓	✓	✓	✓
St George NSP: Central Access Service	✓	✓	✓			
South Western Sydney LHD						
Bankstown Harm Minimisation Program	✓	✓	✓	✓	✓	✓
Liverpool Harm Minimisation Program	✓	✓	✓	✓	✓	✓
Sydney LHD		T				
Canterbury Harm Minimisation Program	✓	✓	✓	✓	✓	✓
Marrickville Harm Minimisation Program	✓	✓	✓	✓	✓	✓
Redfern Harm Minimisation Program	✓	✓	✓	✓	✓	✓
The Gender Centre		✓				
Western Sydney LHD						
Blacktown Needle and Syringe Program	✓	✓	✓	✓	✓	✓
Kelly Close Needle and Syringe Program	✓	✓	✓	✓	✓	✓
Parramatta Needle and Syringe Program	✓	✓	✓	✓	✓	✓

Rural and Regional	2013	2014	2015	2016	2017	2018
Far West LHD						
Broken Hill Sexual Health Service	✓	✓	✓	✓	✓	✓
Dareton Primary Health Centre		✓	✓	✓		
Hunter New England LHD						
ACON Hunter	✓	✓	✓	✓	✓	✓
Coledale Community Centre		✓	✓	✓	✓	✓
Eastlakes Community Health Centre		✓	✓	✓	✓	✓
Maitland Neighbourhood Centre	✓	✓	✓	✓	✓	✓
Muswellbrook Neighbourhood Centre		✓				
Newcastle Community Health Centre	✓	✓	✓	✓	✓	✓
Raymond Terrace Neighbourhood Centre		✓				
Cessnock Drug and Alcohol Unit	✓					
Jesmond Neighbourhood Centre	✓					
Tamworth Sexual Health Clinic	✓					
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	✓	✓	✓	✓	✓	✓
Barham Hospital				✓		
Cootamundra Community Health Centre			✓			
Cootamundra Hospital			✓			
Temora & District Hospital		✓				
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)	✓	✓	✓	✓	✓	✓
Murwillumbah Needle and Syringe Program	✓	✓				
Nimbin Hospital Needle and Syringe Program	✓	✓	✓	✓	✓	✓
Tweed Needle and Syringe Program	✓	✓	✓	✓	✓	✓
Southern NSW LHD						
Goulburn Community Health Centre		✓	✓			
Batemans Bay Community Health Centre				✓	✓	✓
Moruya Community Health Centre				✓	✓	✓
Narooma Community Health Centre				✓	✓	✓
Queanbeyan Community Health Service	✓					
Western NSW LHD						
Bathurst Sexual Health Clinic		✓	✓	✓	✓	✓
Bourke Primary Centre		✓				
Dubbo Sexual Health Centre	✓	✓	✓	✓	✓	✓
Dubbo Community Health Centre		✓	✓			
•	√					
Kelso Community Centre (Orange SHS Outreach)	•					

NSW NSP ENHANCED DATA COLLECTION 2018 Please MARK LIKE THIS: O ... 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 questionnaire was completed with the assistance of staff, mark this circle: Assisted How often did you inject in the last month? Today's date: Daily or more 0 Weekly or more, but not daily Monthly or more, but not weekly Are you? 0 Male Did not inject in the last month . Go to Q8 Female How many times in the last month have you used a Other Prefer not to answer needle/syringe after someone else had already used it? None 0 Once 0 3-5 times How old are you? More than 5 times At any time in the last 12 months were you? Mark all that apply 3 Are you? Aboriginal Homeless Torres Strait Islander Living with or diagnosed with a mental health issue In prison Both Aboriginal & Torres Strait Islander 0 Prescribed methadone or bupe Neither None of the above What was the main language spoken at home by your parents? What was the last drug you injected? English Mark only one. If more than one drug was injected at your last injection, mark "other" and specify the drugs injected. Other, please specify_ Heroin Morphine 10. Do you identify as? Heterosexual Oxycodone Bisexual Methadone Gay/Lesbian Subutex/Buprenorphine Prefer not to answer Suboyone Methamphetamine (Speed, ice, base) 11. Have you EVER been told you have hepatitis Cocaine Anabolic steroids C infection? Yes Growth hormone Peptides ○ No ■ End of questions Other, please specify. 11a. Have you EVER received treatment for your How old were you when you first injected drugs? hepatitis C? No, I still have hepatitis C F End of questions No, I cleared without treatment F End of questions Yes, received the new treatment (tablets only) Yes, received the old treatment (with injections) 11b. What was the name of the clinic or service where you were prescribed your hepatitis C treatment? 900001 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. NNEDC2018v1 EAA24111701