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Naloxone cascade of care among a sample of people who inject drugs in Canberra, ACT.

Authors: Julia Uporova, Amy Peacock and Rachel Sutherland
National Drug and Alcohol Research Centre, UNSW Sydney

Key Findings

- There was high awareness of naloxone and take-home naloxone programs amongst a sample of people who regularly injected illicit drugs in Canberra in 2020.
- Despite this, we found a gap in the cascade of care between awareness of, and participation in, take-home naloxone programs.
- Men were significantly less likely to have ever participated in a take-home naloxone program than women.
- Although not statistically significant, one-quarter of those who had participated in a take-home naloxone program had experienced an opioid overdose in the past 12 months, as compared to n<=5 of those who had never participated in a take-home naloxone program.
- The primary reason for not participating in a take-home naloxone program was that they did not think that they or their peers were at risk of overdosing.

Background

Naloxone (Narcan, Prenoxad and Nyxoid) is an opioid antagonist that is a safe and effective agent for reversing the depressant effects of opioids, including pharmaceutical opioids (e.g. methadone, codeine, fentanyl and morphine) and illicit opioids (e.g. heroin) (1). ACT was the first Australian jurisdiction to introduce take-home naloxone (THN) programs in 2012, which allowed people who use opioids, as well as family and friends, to receive training in overdose risk and management, including access to naloxone to reverse opioid overdose. In 2016, naloxone was rescheduled so that it was available over the counter in pharmacies without a prescription. On 1 November 2019, Nyxoid (naloxone in the form of a nasal spray) was listed on the Australian Pharmaceutical Benefits Scheme and was anticipated to further increase the use of naloxone in the community (2).

This bulletin investigates awareness of, access to, and use of naloxone among a sample of people who regularly inject illicit drugs (PWID) in Canberra, ACT. To do this we applied the 'cascade of care' approach, which originated in the HIV literature and comprises computing metrics of awareness and engagement with an intervention to identify points at which health outcomes might be improved (3). We also examined the characteristics of people who were aware of but had not participated in THN programs (compared to those who were aware of and had participated in such programs).

Methods

Data were used from the 2020 Illicit Drug Reporting System (IDRS), which comprises a sample of people who regularly inject illicit drugs, recruited in Canberra, ACT between June – August 2020. A total of 100 participants were interviewed and were recruited via word-of-mouth and health services.

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Methods Cont.

The participants had to be a minimum of 18 years, have lived in Canberra for at least 10 out of 12 months preceding interview and have injected illicit drugs on a monthly or more frequent basis in the past six months. These interviews were conducted via phone in 2020 (rather than face-to-face) due to COVID-19 restrictions. For the purpose of this bulletin, those that reported any form (prescribed or non-prescribed) of opioid use in the past six months were included in the analysis (N=92). Stages of the cascade of care were computed as follows:

- Awareness of naloxone: Have you heard of Narcan/naloxone? (yes/no)
- Awareness of THN programs: Have you heard about any of the take-home Narcan/naloxone programs? (yes/no)
- Participation in THN programs: Have you ever been through a naloxone training course? (yes/no)
- Accessed naloxone: Have you ever accessed naloxone? (yes/no)
- Resuscitated someone using naloxone: Have you ever resuscitated someone who has overdosed using Narcan/naloxone? (yes/no)

Descriptive statistics were computed to identify characteristics of those who were aware of but had never participated in a THN program compared to those that had (those that were not aware of naloxone were excluded from analyses). Chi-square analyses were conducted to test for difference in categorical variables, and Mann-Whitney U test for continuous data. The significance level was set at $p<0.05$.

Results:

Naloxone cascade of care

- The majority of the ACT sample that reported past six month opioid use (N=92) reported being aware of naloxone (96%; n=88; Figure 1).
- Of those aware of naloxone, over four in five participants reported being aware of THN programs (86%; n=76).
- Of those aware of THN programs, two in three participants reported having ever participated in THN programs (66%; n=50).
- Of those that had participated in a THN program, the majority reported having ever accessed naloxone (84%; n=42).
- Of those that had ever accessed naloxone, over half reported having ever resuscitated someone using naloxone after witnessing an overdose (55%; n=23).

Possession of naloxone

- Of those that had ever accessed naloxone and commented (n=44), the majority (61%) reported to have ‘always’ had naloxone at hand whilst using opioids in the past month. Smaller numbers (n≤5) reported ‘often’, ‘sometimes’, ‘rarely’ or ‘never’, respectively.

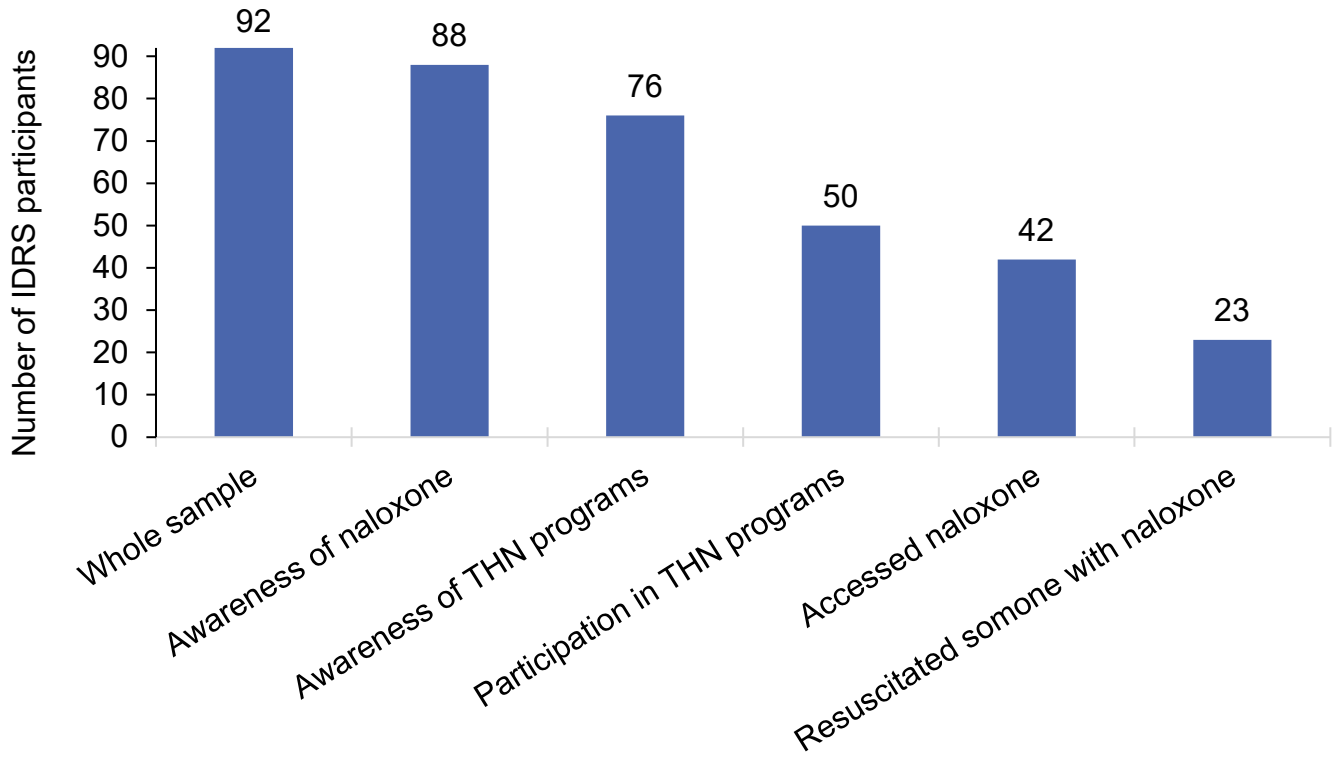
Characteristics associated with participation in THN programs

- Among those who were aware of THN programs (n=76), we found that men were significantly less likely to have ever participated in a THN program (Table 1). No other significant differences were found, although low statistical power must be noted as a consequence of small sample size (Table 1 & 2).
- Of those that had never taken part in a THN program and could respond (n=23), the main reason given was that they did not consider themselves or their peers at risk of overdose (47%).

10.26190/vmde-sz12

Results Cont.

Figure 1: Naloxone cascade of care, among PWID who reported past six-month opioid use (n=92), Canberra, ACT



Note. Results shown out of those that reported past 6-month opioid use (N=92).

Table 1: Demographics of PWID who had recently used opioids and were aware of, but had never participated in, take-home naloxone programs versus those that had participated, Canberra, ACT

	Participated in THN program (n=50)	Did not participate in THN program (n=25)	*p*-value
Demographics			
Median age (years; IQR)	46 (39-52)	43 (38-50)	0.616
Male# (%)	**44**	**72**	**0.022**
Any paid employment (%)	20	-	0.675
Median grade school (IQR)	11 (10-12)	10 (10-12)	0.446
Post-school qualification (%)	63	68	0.687

Note. -Value suppressed due to small numbers (n≤5 but not 0). #No participants reported 'different gender identity' or 'non-binary/gender fluid', so the comparison group is people who identified as female. Although 76 people were aware of the THN programs, one person had not responded as to whether they had participated in a THN program.

10.26190/vmde-sz12

Results Cont.

Table 2: Drug-related behaviours of PWID who had recently used opioids and were aware of, but had never participated in, take-home naloxone programs versus those that had participated, Canberra, ACT

	Participated in THN program (n=50)	Did not participate in THN program (n=25)	*p*-value
Drug-related behaviours			
Current drug treatment (%)	72	72	1.000
Past 6 month mental health problems (%)	38	40	0.835
Past 12 month opioid drug overdose (%)	24	-	0.091
Past month ≥daily injecting (%)	56	40	0.191
Heroin as drug injected most often last month (%)	80	64	0.133
Methamphetamine as drug injected most often last month (%)	18	28	0.319
Lifetime prison history (%)	54	48	0.631

Note. -Value suppressed due to small numbers (n≤5 but not 0). Although 76 people were aware of the THN programs, one person had not responded as to whether they had participated in a THN program.

Discussion

Opioids have been the main drug cited in Australian drug-induced deaths for over two decades, with the majority being classed as accidental (4). Fatal and non-fatal overdose can be reversed through the timely administration of naloxone. It was the aim of this study to examine the naloxone cascade of care among a sample of PWID in Canberra, ACT, and to identify the characteristics of people who were aware of, but had not participated in, THN programs.

We found that, among our sample of PWID who reported past six-month opioid use, there was a high awareness of naloxone and THN programs. There was, however, a substantial gap in the naloxone cascade of care between awareness of, and participation in, THN programs. This is consistent with a previous study of 353 people who reported lifetime heroin use in the United States, which found that although awareness of naloxone was high (90%), only 60% of those who were aware of naloxone had been trained in administration (5). To close this gap, it is important that we understand the characteristics of those who are aware of, but do not participate in, THN programs.

We found few differences between those who had ever participated in a THN program and those who had not. This could be due to the small sample size, meaning our analyses may have been insufficiently powered to detect true differences.

Discussion Cont.

We did find, however, that men were less likely than women to have ever participated in THN programs, suggesting that efforts to encourage THN uptake may benefit from targeting men. Although not statistically significant, one in four of those who had participated in a THN program had experienced an opioid overdose in the past 12 months, as compared to n<=5 of those who had never participated in THN. This is consistent with our finding that the most common reason for not taking part in the THN program was that they did not consider themselves or their peers to be at risk of overdose. Nevertheless, participation in THN programs should be encouraged among all people who use opioids, regardless of previous opioid overdose experience.

Finally, we found that among those who had ever accessed naloxone and commented (n=44), the majority (61%) reported 'always' having naloxone at hand whilst using opioids in the past month. While this is encouraging, it does mean that nearly two-fifths did not always have naloxone on hand while using opioids in the past month. This may have been due, in part, to differing time frames (i.e., lifetime naloxone access versus past month possession of naloxone when using opioids), and it would be beneficial for future research to disentangle this relationship. Specifically, it would be useful to know whether the gap between naloxone access and 'always' having naloxone on hand when using opioids is because these individuals no longer possess naloxone, and if so the reason for this (e.g., used it on someone, it had expired, lost it), or whether this discrepancy is being driven by other factors. Regardless, our findings suggest that education and harm reduction campaigns could benefit from reiterating the importance of having naloxone available every time opioids are consumed or whilst being around people who consume opioids. This messaging is particularly important given concerns around fentanyl-adulterated products (6,7), which carry higher risk of overdose.

Conclusion

Although awareness of naloxone and THN programs was high amongst our sample, there was a considerable gap between awareness of, and participation in, these programs. To reduce this gap, we need to better understand who is not participating in THN programs, despite being aware of them, and why. In this study we found that men were less likely than women to have ever taken part in a THN program. The most common reason given by participants for not taking part in a THN program was that they did not consider themselves or their peers to be at risk of overdose.

Suggested Citation

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Participating Researchers and Research Centres

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