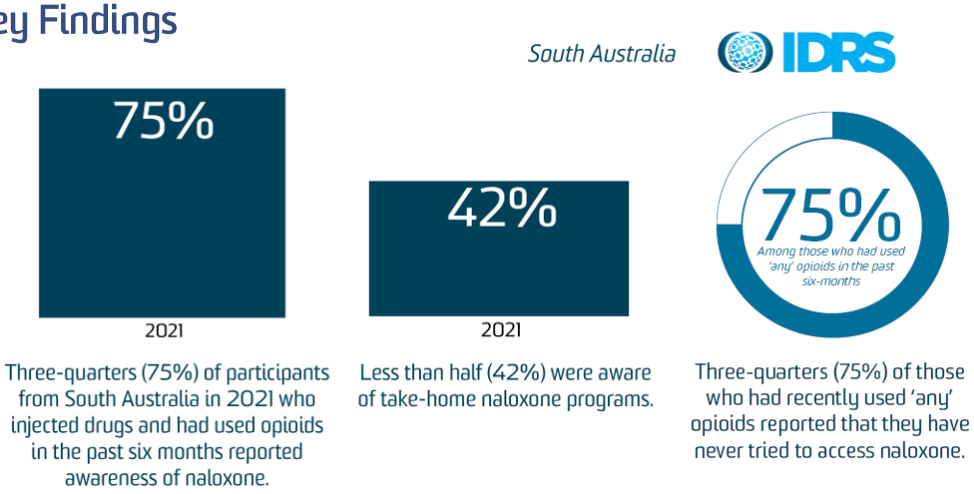
Use, awareness and uptake of take-home naloxone among a sample of people who regularly inject drugs and use opioids in South Australia

Authors: Antonia Karlsson[1], Amy Peacock[1,2] and Rachel Sutherland[1]
[1]National Drug and Alcohol Research Centre, UNSW Sydney
[2]School of Psychological Sciences, University of Tasmania, Hobart, Australia

Key Findings



Introduction

Opioids continue to be the most common class of drug involved in drug-induced deaths among Australians (1,091 deaths in 2020, equivalent to 4.3 deaths per 100,000 individuals) (1). Many of these deaths could be avoided if naloxone, a safe and non-addictive opioid antagonist, was available (2). Naloxone has a long history of being used to reverse opioid overdoses in Australia, historically only by medical professionals and paramedics but increasingly by people at risk of experiencing or witnessing overdose.

Efforts to increase awareness of, and access to, naloxone in Australia for people at risk of experiencing or witnessing overdose have escalated over the past decade. The first take-home naloxone programs which trained people at risk of experiencing or witnessing overdose to administer naloxone in community settings were established in 2012 in the Australian Capital Territory (ACT) and New South Wales (NSW) and have since been established in many Australian jurisdictions. In April 2016, naloxone was made available over-the-counter to purchase by any Australian without prescription or training in administration. From 1 December 2019, NSW, Western Australia (WA) and South Australia (SA) have been participating in the Pharmaceutical Benefits Scheme (PBS)-Subsidised Take-Home Naloxone Pilot (due to end 30 June 2022), where people at risk of experiencing or witnessing an opioid overdose could access naloxone without cost and without a prescription (3).

Funded by the Australian Government Department of Health under the Drug and Alcohol Program

More recently, the Australian Government has committed to naloxone provision without cost and without prescription in all states and territories from 1 July 2022.

In SA, there was no substantive take-home naloxone training program nor widespread promotion of naloxone prior to the Pilot except for the Peer Administration of Naloxone Trial commencing in 2012 which was not active at the time of Pilot commencement (2). Legislation only allowed dispensing of naloxone by pharmacies or via Drug and Alcohol Services South Australia as an authorised alternative supplier as part of the Pilot. Clean Needle Program sites and other services (e.g., alcohol and drug services, private prescribers/GPs, other pharmacies) provided people with brief education on naloxone and vouchers which they could then redeem at a participating pharmacy for naloxone (2).

The Institute for Social Science at the University of Queensland recently undertook an evaluation of the Pilot, showing that naloxone dispensing increased in SA with the advent of the Pilot but that there are likely many people at risk of overdose who have not accessed naloxone (2). Naloxone awareness and uptake have been monitored through the Illicit Drug Reporting System since 2013 via interviews with people who regularly inject drugs, recruited from all Australian capital cities. Data from 2021 interviews indicated that awareness and access of naloxone were lower in the South Australian sample than those from other Australian jurisdictions (4). However, estimates were computed of the total sample regardless of which substances people had used, an important consideration given that opioid use in the South Australian sample was lower relative to most other jurisdictions. It is imperative to obtain a more nuanced understanding of naloxone awareness and uptake among people who use opioids, and to study the trend over time given the recent Pilot aimed at increasing uptake.

Thus, the aims of this bulletin are to determine the extent to which a sample of people who regularly inject drugs who use opioids in Adelaide, SA (i) are aware of naloxone (2013-2021); (ii) are aware of take-home naloxone programs (2013-2021); (iii) have accessed naloxone (2020-2021); and (iv) have resuscitated peers or have been resuscitated by peers using naloxone (2020-2021).

Method

The Illicit Drug Reporting System (IDRS) is an illicit drug monitoring system which includes annual cross-sectional interviews with people who regularly inject drugs, recruited from capital cities in all states and territories of Australia. The IDRS commenced nationally in 2000, with participants recruited through Needle and Syringe Programs/Clean Needle Programs, as well as via peer referral.

Historically, participants have been administered a one-hour face-to-face interview and reimbursed $40 cash for their time. Given the emergence of COVID-19 and the resulting restrictions on travel and people's movement in Australia (which came into effect in March 2020), all interviews in 2020 were conducted via telephone or videoconference, whereby all participants were reimbursed via bank transfer or other electronic means.

A hybrid approach was used in 2021 due to the introduction of COVID-19 restrictions throughout the recruitment period, with interviews conducted either face-to-face (whereby participants were reimbursed with cash) or via telephone/videoconference (with participants reimbursed via bank transfer or other electronic means). Between 2013 and 2021, 911 participants from Adelaide, South Australia, were interviewed for the IDRS (n=100 in 2013; n=106 in 2014; n=102 in 2015; n=101 in 2016; n=100 in 2017; n=101 in 2018; n=100 in 2019; n=100 in 2020 and n=101 in 2021). Please refer to the IDRS Background and Methods document for further details.

Analyses are limited to those who had used 'any' opioids in the six months preceding the interview (see Figure 1 for numbers per year), with further distinctions made between those who used *prescribed opioids only* (n=15), those who used *non-prescribed/illicit opioids only* (n=16), and those who used *both prescribed and non-prescribed/illicit opioids* (n=28) (where numbers permit, and for 2021 data only). 'Any' opioids included illicit opioids as well as prescribed and non-prescribed pharmaceutical opioids and comprised the following: heroin, homebake, methadone (including syrup and tablets); buprenorphine (including buprenorphine-naloxone and depot buprenorphine); oxycodone; morphine; fentanyl; tramadol; tapentadol; codeine (including over-the-counter codeine); 'other' opioids; and 'new' drugs which mimic the effects of opioids (e.g., carfentanil). Please refer to Figure 1 for more details regarding which substances were asked about between 2013 and 2021.

Due to changes in the way these questions have been asked over time, data regarding naloxone access, barriers to naloxone and resuscitation are limited to 2020 and 2021.

Results

Awareness of naloxone, 2013-2021

From 2013-2021, awareness of naloxone among participants who had recently used 'any' opioids (illicit, prescribed and non-prescribed) remained relatively high yet stable. In 2021, 75% reported awareness of naloxone (Figure 1).

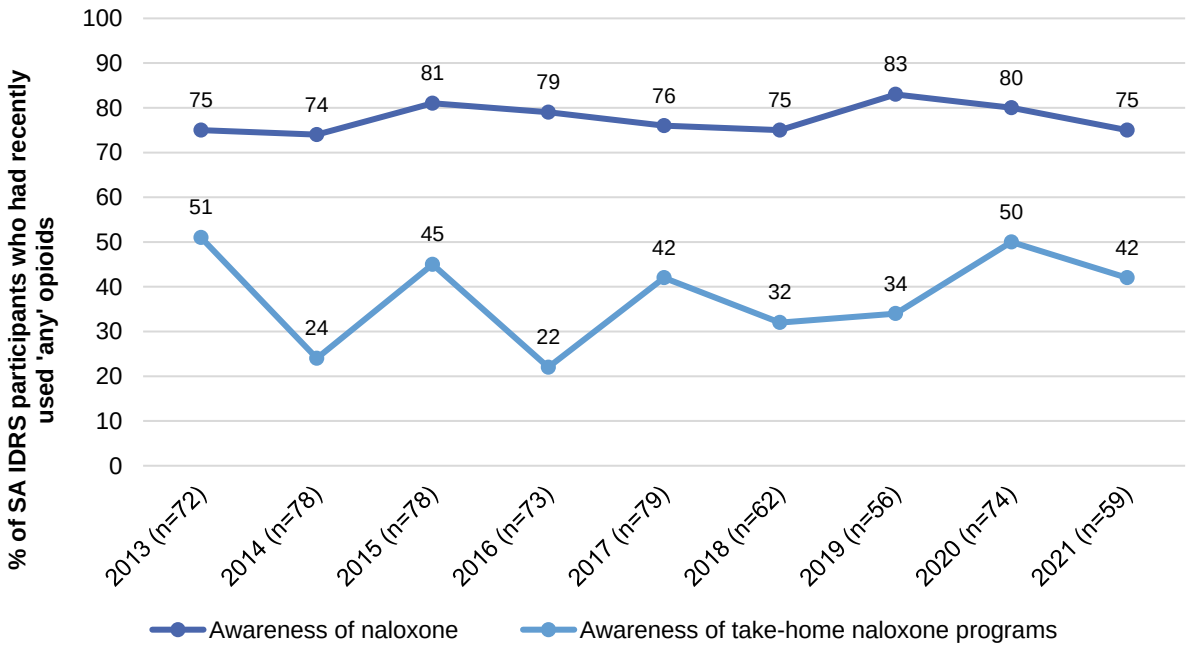
In 2021, three-quarters (75%; n=12) of participants who had recently used *illicit or non-prescribed opioids only* were aware of naloxone, compared to 53% (n=8) of those who had recently used *prescribed opioids only*. Among those who had used *both prescribed and non-prescribed/illicit opioids*, 86% (n=24) were aware of naloxone.

Awareness of take-home naloxone programs, 2013-2021

Participants' awareness of take-home naloxone programs, which we defined as 'including brief advice, brief education and more extensive training' between 2020 and 2021, fluctuated considerably in South Australia between 2013-2021, ranging from a high of 51% in 2013 to a low of 22% in 2016. Forty-two per cent of participants who had recently used 'any' opioids reported awareness of the take-home naloxone programs in 2021 (Figure 1).

In 2021, 56% (n=9) of participants who had recently used *illicit or non-prescribed opioids only* and commented were aware of take-home naloxone programs, of which 56% (n=9) reported awareness of free access. On the contrary, very few participants (n≤5) who had recently used *prescribed opioids only* and commented were aware of take-home naloxone programs. Less than half (46%; n=13) of those who had used *both prescribed and non-prescribed/illicit opioids* and commented were aware of take-home naloxone programs, of which 46% (n=13) reported awareness of free access.

Figure 1: Awareness of naloxone and take-home naloxone programs, amongst participants who had recently used 'any' opioids, South Australia, 2013-2021



Note. Take-home naloxone programs included paid and free access. Questions regarding awareness of naloxone and awareness of take-home naloxone programs have changed slightly over time. 'Any' opioids (prescribed and non-prescribed for pharmaceutical opioids) comprised the following: heroin and homebake (2013-2021); methadone (syrup and tablets) (2013-2021); buprenorphine (from 2013-2015, participants were asked about recent use of subutex tablets, suboxone tablets and suboxone film; 2016-2018, participants were asked about subutex tablets and suboxone film; 2019-2021, participants were asked about subutex tablets, suboxone film and buprenorphine depot injection); oxycodone (from 2013-2015, participants were asked about recent use of any oxycodone; from 2016-2018, recent use for oxycodone was broken down into three types: tamper resistant ('OP'), non-tamper proof (generic) and 'other oxycodone'; from 2019, recent use of oxycodone was broken down into four types: tamper resistant ('OP'), non-tamper proof (generic), 'other oxycodone' and oxycodone-naloxone); morphine (2013-2021); fentanyl (from 2013-2017, the IDRS did not distinguish between prescribed and non-prescribed use); tramadol (2018-2021); tapentadol (2017-2021); codeine (Over-the-counter codeine asked 2013-2017; prescription low-dose and prescription high-dose asked 2018-2019; prescribed and non-prescribed asked 2020-2021); 'other' opioids (2014-2021); and 'new' drugs that mimic the effects of opioids (2017-2021). Data labels are suppressed where there are small numbers (i.e., n≤5 but not 0).

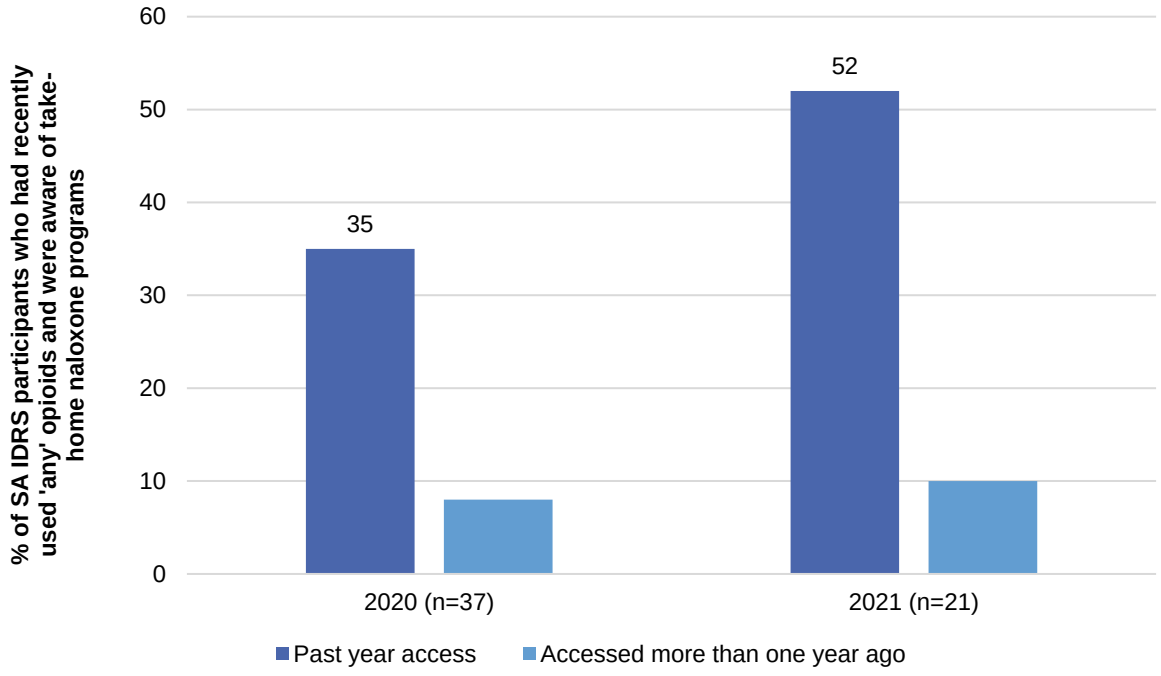
Naloxone access, 2020-2021

In 2021, approximately half (52%) of those who had recently used 'any' opioids and were aware of take-home naloxone programs reported naloxone access within the past year (35% in 2020) (Figure 2).

Due to small numbers (n≤5), the breakdown of naloxone access among those who were aware of take-home naloxone programs and who had used *illicit/non-prescribed opioids only* and *prescribed opioids only* cannot be presented. Sixty-two per cent (n=8) of participants who had used *both prescribed and non-prescribed/illicit opioids* and who were aware of take-home naloxone programs had accessed naloxone in the past year in 2021.

Naloxone access was not asked of all participants, however as noted below in *Barriers to naloxone access*, 75% of participants who had used opioids in 2021 (regardless of whether they were aware of take-home naloxone programs) reported that they had never *tried* to access naloxone, suggesting that uptake among the broader sample of people who use opioids is considerably lower than what is reported in Figure 2.

Figure 2: Naloxone access amongst participants who had recently used 'any' opioids and were aware of take-home naloxone programs, South Australia, 2020-2021



Note. Questions regarding access have changed over time. Data labels are suppressed where there are small numbers (i.e., n≤5 but not 0). Axis reduced to 60% to improve visibility of trends.

Barriers to naloxone access, 2020-2021

Among those who had recently used ‘any' opioids, few participants reported that they had tried to access naloxone but had been unsuccessful (n≤5 in 2020 and 2021, respectively), with larger numbers reporting that they had never tried to access naloxone (55% in 2020; 75% in 2021). In 2021, the percentage of participants reporting that they had never tried to access naloxone was higher among those who had used prescribed opioids only (87%; n=13), compared to those who had used non-prescribed/illicit opioids only (69%; n=11).

Participants who reported never trying to access naloxone or those who were unsuccessful in accessing naloxone most commonly reported that this was due to them ‘not being at risk of overdose’ (31%; n=16 in 2020; 17%; n=14 in 2021), and they ‘didn’t know they could access naloxone’ (22%; n=11 in 2020; 15%; n=13 in 2021).

Resuscitation with naloxone, 2020-2021

Among participants who had recently used ‘any’ opioids and who had heard of naloxone (n=59 in 2020 and n=44 in 2021), 20% (n=8) reported resuscitating a peer in their lifetime in 2021, similar to what was reported in 2020 (19%; n=14).

Due to past year opioid overdose being relatively low among this sample, figures regarding resuscitation by a peer using naloxone are not reported.

Discussion and Conclusion

Awareness of naloxone amongst participants who had recently used ‘any’ opioids remained relatively high across 2013-2021, however 17% to 26% of participants each year reported having never heard of naloxone. Further, in 2021, under half (42%) of participants who had recently used ‘any’ opioids were aware of take-home naloxone programs and only one-quarter reported accessing naloxone within the past 12 months, representing a clear gap between naloxone awareness and access. The most common reasons for not accessing naloxone were that they ‘were not at risk of overdose’ or they ‘did not know they could access naloxone’. These findings alone represent a clear opportunity for education and promotion of free access to naloxone in South Australia, particularly with the Australian Government investing almost $20 million across four years from 2022-2023 to implement the take-home naloxone program nationally (5). In the evaluation of the take-home naloxone pilot, a number of barriers were found, including the presence of stigma surrounding people who use opioids, availability of take-home naloxone at desired locations for access, and most importantly, consumer and community awareness of take-home naloxone, and awareness of overdose risk. Some recommendations to overcome these barriers, in addition to removing cost and prescription requirements, include public awareness campaigns and advertisements, maintaining and expanding access sites and modes of access of take-home naloxone, and use of peer networks to help in promotion (2).

Notwithstanding small numbers, both awareness and uptake of naloxone appear to be lower among participants who reported using *prescribed opioids only*, with 87% of these participants reporting that they had never tried to access naloxone. Small numbers did not permit us to examine reasons for not accessing naloxone among those who had used *prescribed opioids only*, however a recent study found that people with chronic non-cancer pain who were prescribed opioid analgesics by their doctor may hold the perception that they are at lower risk of opioid overdose (6).

Indeed, those who are prescribed opioid analgesics have not traditionally been the focus of take-home naloxone programs (7). Whilst they were a target group for the recent Pilot, difficulties in accessing this population were noted (2). Our findings suggest that there may be scope for health professionals who are prescribing opioids to educate their patients regarding the importance of naloxone if overdose were to occur (6). This, combined with peer involvement in the delivery and scale-up of take-home naloxone programs, has the potential to increase awareness and uptake of naloxone among people who are using either pharmaceutical or illegal opioids.

References

1. Chrzanowska, A., Man, N., Sutherland, R., Degenhardt, L. & Peacock, A. (2022). Trends in overdose and other drug-induced deaths in Australia, 1997-2020. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney.
2. Salom, Caroline L, Maravilla, Joemer C*, Thomas, Natalie*, Juckel, Jennifer, Daly, Catherine, Peacock, Amy and Gisev, Natasa (2021). Evaluation of the Pharmaceutical Benefits Scheme Subsidised Take Home Naloxone Pilot. Institute for Social Science Research, The University of Queensland, Brisbane Australia
3. Government of South Australia; SA Health. Naloxone - Preventing and responding to the adverse effects of opioids. Accessed 9 June 2022.
4. Karlsson, A., Peacock, A., and Sutherland, R. (2021). South Australian Drug Trends 2021: Key Findings from the Illicit Drug Reporting System (IDRS) Interviews. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney.
5. Australian Government Department of Health. About the take home naloxone pilot. Accessed 12 June 2022.
6. Binswanger IA, Koester S., Mueller S., Gardner, EM., Goddard, K., Glanz, JM. Overdose education and naloxone prescribing for patients on chronic opioids: A qualitative study of health care providers. J Gen Intern Med. 2015; 29:S162-3.
7. Nielsen, S., Peacock, A., Lintzeris, P., Bruno, R., Larance, B., Degenhardt, L. Knowledge of opioid overdose and attitudes to supply of take-home naloxone among people with chronic noncancer pain prescribed opioids. Pain Medicine; 19 (3); pp 533-540.

Participating Researchers and Research Centres

- Dr Rachel Sutherland, Antonia Karlsson, Julia Uporova, Daisy Gibbs, Rosie Swanton, Olivia Price, Udesha Chandrasena, Professor Louisa Degenhardt, Professor Michael Farrell and Associate Professor Amy Peacock, National Drug and Alcohol Research Centre, University of New South Wales, New South Wales;
- Cristal Hall, Sarah Eddy, Dr Campbell Aitken and Professor Paul Dietze, Burnet Institute Victoria;
- Yalei Wilson and Associate Professor Raimondo Bruno, School of Psychology, University of Tasmania, Tasmania;
- Dr Seraina Agramunt and Professor Simon Lenton, National Drug Research Institute, Curtin University, Western Australia;
- Catherine Daly, Dr Jennifer Juckel, Dr Natalie Thomas and Associate Professor Caroline Salom, Institute for Social Science Research, The University of Queensland, Queensland; and
- Mr Chris Moon, Northern Territory Department of Health, Northern Territory.

Other Acknowledgements

- The participants who were interviewed for the IDRS in the present and in previous years.
- The agencies that assisted with recruitment and interviewing.
- The IDRS is funded by the Australian Government under the Drug and Alcohol Program.

Suggested Citation

Karlsson, A., Peacock, A., & Sutherland, R. (2022). Use, awareness and uptake of take-home naloxone amongst a sample of people who regularly inject drugs and use opioids in South Australia. Drug Trends Bulletin Series. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney.