



Australian Government

Australian Institute of Criminology

Statistical Bulletin 20

ISSN 2206-7302 (Online)

ISBN 978 1 925304 30 5 (Online)

March 2020

Abstract | This study explores the prevalence, predictors and nature of the 'social supply' of pharmaceutical opioids among police detainees. Social supply refers to non-commercial drug distribution that occurs between family and friends. Analysing data from the Drug Use Monitoring in Australia program's surveys of police detainees, this study finds that more than half of the respondents who had used pharmaceutical opioids for non-medical purposes had accessed these drugs through social supply methods. Almost all of these individuals had sourced the opioids from family and friends without paying and the remainder had swapped other drugs for them.

The social supply of pharmaceutical opioids

Tom Sullivan and Isabella Voce

Pharmaceutical opioids are diverted from medical use to the black market through various methods, including illicit drug dealers, deception of medical professionals and illegal prescribing practices. However, research has shown that the most common method of pharmaceutical opioid diversion is 'social supply' (Hough et al. 2003; Potter 2009) or the sharing, swapping or other non-commercial supply between family members and friends (Hulme, Bright & Nielsen 2018; Inciardi et al. 2009; Patterson, Sullivan & Ticehurst 2018).

While social supply has been defined in different ways, the literature identifies two key criteria: (1) supply between 'non-strangers' and (2) 'non-commercial' or 'non-profit' supply (Hough et al. 2003; Potter 2009). Potter (2009) notes that supply between non-strangers involves a relationship between drug supplier and user beyond the drug-transaction connection, often in the form of friendships but also including intimate partner, family and close acquaintance relationships. Defining the non-commercial or non-profit aspect of social supply is problematic because of the nuances of drug markets. Potter (2009) makes a distinction between dealers motivated by a desire for profit and those who would supply drugs even if they would not make a profit—but who may still earn some profit if an opportunity exists.

The range of drug supply practices that may be defined as social supply includes sharing, swapping, 'gift giving', group buying and 'chipping in' (combining money to buy drugs as a group) (Coomber et al. 2018). Social supply has traditionally been associated with cannabis, but recent international evidence suggests it now also extends to small-scale distribution of other illicit substances such as ecstasy, cocaine, methamphetamine and ketamine (Coomber et al. 2018). Friends and family are also a common source of pharmaceutical drugs for non-medical use (Hulme, Bright & Nielsen 2018; Hulme, Hughes & Nielsen 2019).

Drugs research has identified various factors that may explain the prominence of social supply activities. Social supply occurs at a reduced cost to the user and as such can be a cost-effective and convenient way to acquire drugs (Coomber, Moyle & South 2015; Potter 2009). Notions of reciprocity can also mean that drug users 'take turns' supplying drugs to each other, leading them to get involved in social supply on behalf of their social groups to 'return the favour' (Coomber, Moyle & South 2015). Another important aspect of social supply is trust in the supplier and their drugs, reducing the perceived likelihood of the drugs being low quality and unsafe (Coomber, Moyle & South 2015; Murphy et al. 2004; Taylor & Potter 2013). Related to this sense of trust is a perception that social supply reduces risk for drug market participants because it insulates them from police intervention and legal repercussions (Potter 2009). Additionally, social supply has been viewed as establishing a buffer between users and 'real dealers' (Parker 2000). Finally, the social aspect of this form of supply is key to involvement in the activity, with supply transactions being important among friendship groups (Coomber, Moyle & South 2015).

Aim

This study aims to explore the social supply of pharmaceutical opioids and identify factors that may predict the use of social supply to source these drugs. We also aim to explore why people who use illicit pharmaceutical opioids prefer to acquire them via social supply.

Method

This study analyses data from the Drug Use Monitoring in Australia (DUMA) program. DUMA collects sociodemographic, drug use and offending history information from people detained at police stations or watch houses and who agree to take part in the program. These individuals are often directly involved in drug markets and other criminal activity and they account for a disproportionate level of drug use and its associated harm. For example, an earlier study found that almost one-fifth of police detainees had engaged in non-medical use of prescription opioids (Sullivan, Ticehurst & Bricknell 2018), far more than the 3.6 percent of the general population who misuse painkillers, analgesics or opioids (Australian Institute of Health and Welfare 2017).

For this study, an addendum questionnaire about pharmaceutical opioid use collected data from 1,195 respondents detained in January–February or April–May 2018. Respondents were detained at police stations or watch houses in Adelaide, Brisbane, Perth, and Bankstown and Surry Hills in Sydney. The sample comprised 83 percent men ($n=987$) and 17 percent women ($n=208$). The median age was 33 years (mean=34 years), ranging from 18 to 77 years. Seventy-five percent ($n=897$) of the sample was non-Indigenous.

The addendum asked respondents whether they had used the following pharmaceutical opioids in the past 12 months: buprenorphine, methadone, morphine, oxycodone, fentanyl, pethidine, tramadol and codeine. Respondents who in the last 12 months had used only codeine or used codeine more frequently than other opioids ($n=195$) were excluded because they were not within the scope of this study's focus on higher risk pharmaceuticals and also because codeine's legal status changed during the collection period.

For each opioid type respondents had used in the past 12 months, the addendum also included questions about age of first use and why respondents had started to use the drug. Respondents who had used only one opioid type in the past 12 months were asked a series of questions about their acquisition and use of that opioid. Those who had used multiple opioid types were asked the same questions about the opioid they had used most frequently in the past 12 months.

The analysis of social supply was limited to respondents who reported using a drug for non-medical purposes or without a prescription. Based on the research literature, the study defined social supply as acquiring pharmaceutical opioids from a family member or friend, either without paying cash or by swapping the opioids for other drugs. We acknowledge that some researchers also include buying drugs from a family member or friend in their definition of social supply (Coomber et al. 2018). However, we could not identify whether those detainees who bought from a family member or friend—who did not also receive them for free or swap them ($n=17$)—were involved in a commercial transaction.

The study focused on the sourcing rather than diversion of pharmaceutical opioids through social supply activities because the addendum was limited to questions about the acquisition of pharmaceutical opioids. To better understand social supply, we examined the demographic and drug use characteristics of those who used this form of supply.

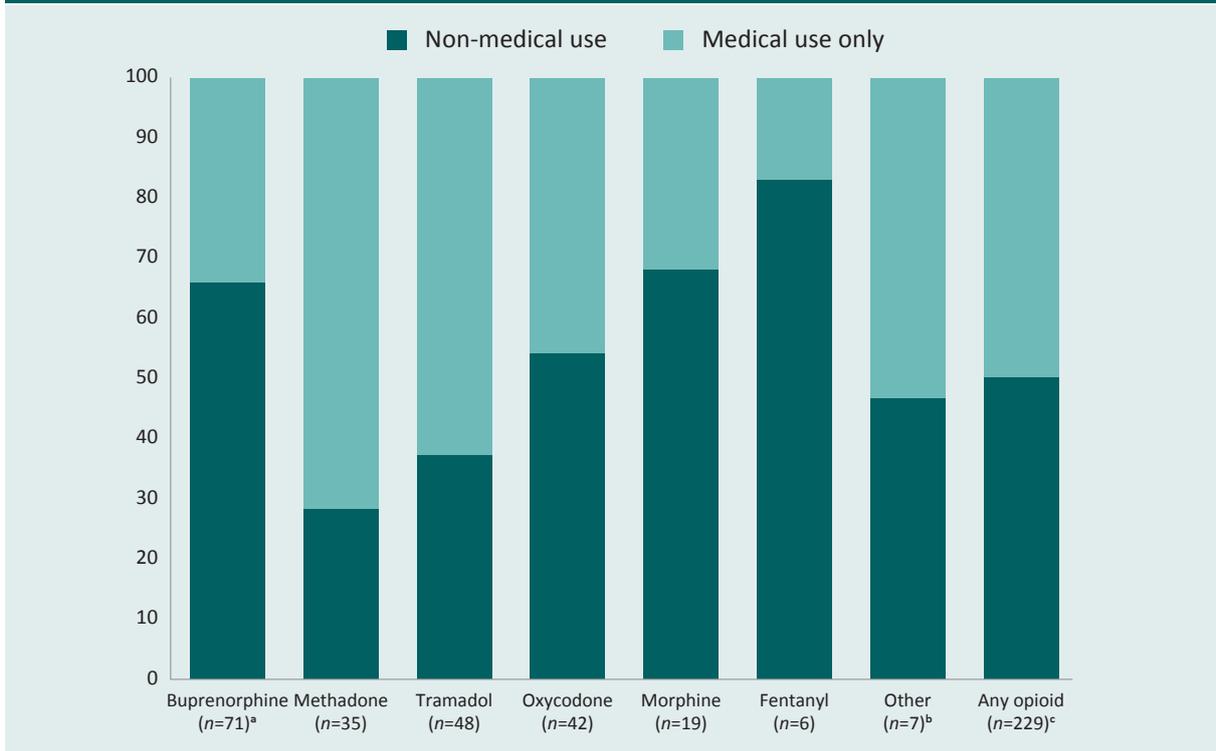
Results

Pharmaceutical opioid use

Twenty-three percent ($n=229$) of the sample reported having used at least one type of pharmaceutical opioid in the past 12 months, including prescribed and non-prescribed opioids. Twenty-three percent of female respondents ($n=39$) and male respondents ($n=190$) had used pharmaceutical opioids in the past 12 months. Similar proportions of Indigenous and non-Indigenous detainees reported using opioids in the past 12 months (20%, $n=54$; 24%, $n=174$). The leading opioids detainees had used in the last 12 months were buprenorphine (31%, $n=71$), tramadol (21%, $n=48$), oxycodone (18%, $n=42$) and methadone (15%, $n=35$).

Fifty percent of respondents who had used opioids had used them for non-medical purposes ($n=115$)—10 percent of the overall sample. More than half of the respondents who had used morphine (68%, $n=13$), buprenorphine (66%, $n=47$) and fentanyl (83%, $n=5$) reported non-medical use of these drugs (see Figure 1).

Figure 1: Type of opioid used in the last 12 months by non-medical and medical use (%)



a: Includes Suboxone, a combination medication containing buprenorphine and naloxone

b: Includes dextropropoxyphene, hydromorphone and other drugs not specified by the respondent

c: Includes pethidine

Source: AIC DUMA collection 2018 [computer file]

Of those who had used pharmaceutical opioids for non-medical purposes and who responded to questions about their availability ($n=104$), 31 percent ($n=32$) reported pharmaceutical opioids were very easy to get without a prescription, 43 percent ($n=45$) reported it was easy, 17 percent ($n=18$) reported it was hard and nine percent ($n=9$) reported it was very hard.

Methods of acquisition

Respondents were asked to nominate any method they had used to acquire pharmaceutical opioids for non-medical use in the past 12 months. Seventy-seven respondents (67%) had used one method and 38 (33%) had used more than one method. Two respondents reported using social supply methods even though they had not used a pharmaceutical opioid without a prescription in the past 12 months, and were excluded from the social supply analysis. The leading form of social supply was receiving opioids from a family member or friend without paying cash (57%, $n=64$), while 12 percent ($n=13$) swapped other drugs for them. By comparison, a third (34%, $n=38$) of non-medical users had bought pharmaceutical opioids from a dealer and almost one in three (30%, $n=34$) had bought them from a family member or friend. Smaller numbers of respondents deceived medical professionals or bought from the internet to obtain opioids for non-medical use (see Table 1).

Table 1: Methods of acquiring opioids for non-medical use

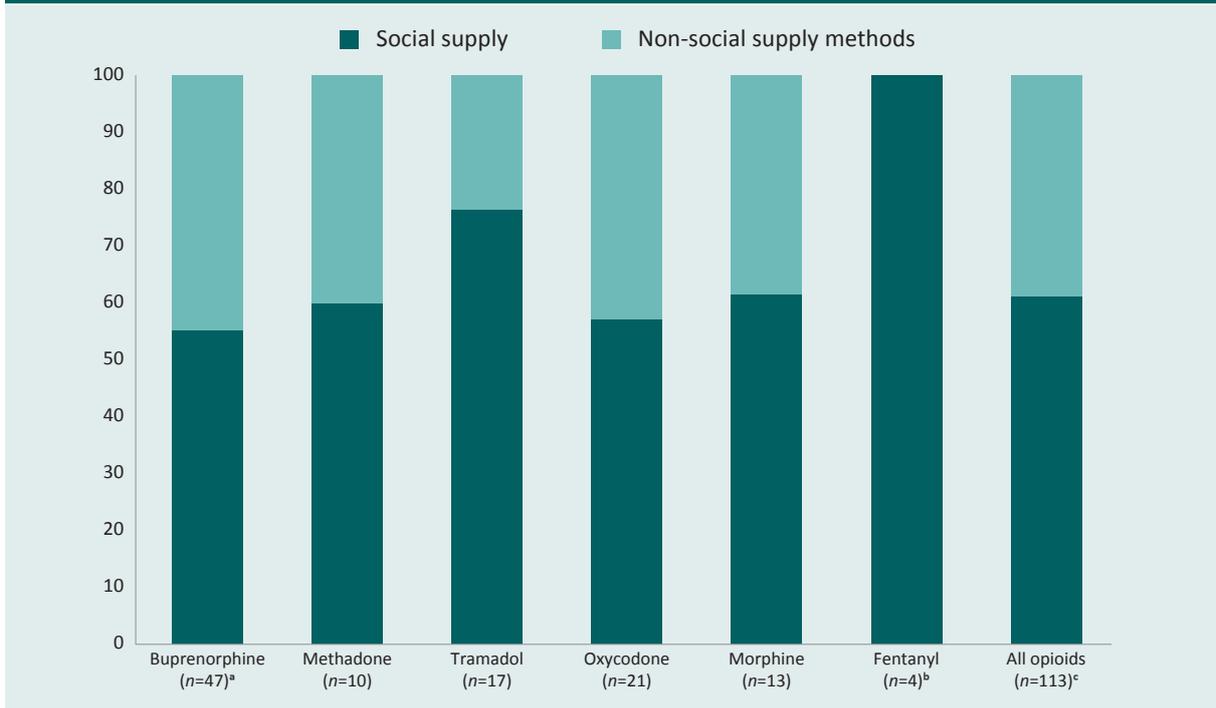
	<i>n</i>	%
Received from family or friends	64	56.6
Swapped	13	11.5
Social supply	69	61.1
Bought from family member or friend	34	30.1
Bought from dealer	38	33.6
Bought from the internet	3	2.7
Stole	5	4.4
Doctor shopping	3	2.7
Lied to a doctor	3	2.7
Prescription in someone else's name	8	7.1
Other	11	9.7
No method specified	1	0.9
Total respondents acquiring opioids for non-medical use	113	

Note: Respondents could report more than one method

Source: AIC DUMA collection 2018 [computer file]

Social supply was the most common method of acquiring each type of opioid. More than half of respondents who had used any of the six pharmaceutical opioids for non-medical purposes in the previous 12 months had received the drug from a family member or friend or swapped other drugs for them. For each type of drug (excluding 'Other opioids'), at least 55 percent of non-medical users had sourced their opioids through social supply (see Figure 2).

Figure 2: Social supply and other methods of acquiring pharmaceutical opioids, by type of opioid (%)



a: Includes Suboxone, a combination medication containing buprenorphine and naloxone

b: Method of acquisition data was missing for one record

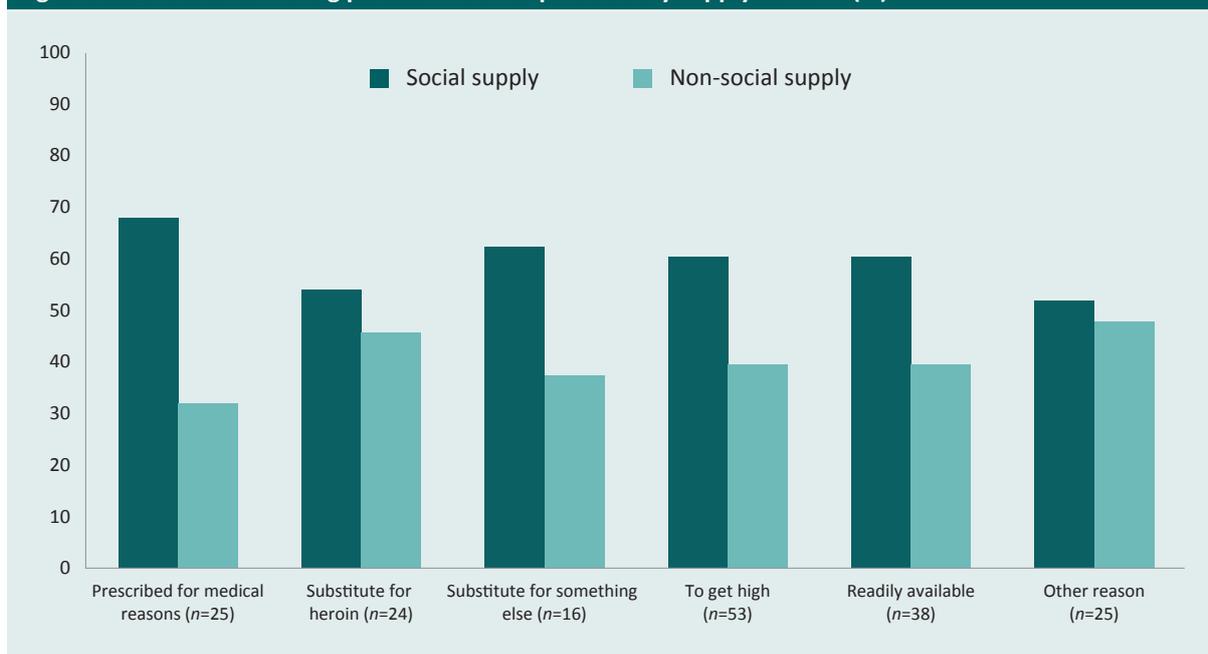
c: Includes all opioids listed plus dextropropoxyphene, hydromorphone and other drugs not specified by the respondent

Source: AIC DUMA collection 2018 [computer file]

Reasons for using pharmaceutical opioids

Respondents who had acquired pharmaceutical opioids for non-medical use through social supply and those who used other methods had begun using these drugs for different reasons. More than two-thirds (68%, $n=17$) of non-medical users who had started using opioids because they were prescribed them for medical reasons had obtained their drugs through social supply. In contrast, just over half (54%, $n=13$) of those who had started using pharmaceutical opioids as a substitute for heroin had obtained them through social supply (see Figure 3).

Figure 3: Reasons for starting pharmaceutical opioid use by supply method (%)



Note: Respondents could provide more than one reason for starting pharmaceutical opioid use

Source: AIC DUMA collection 2018 [computer file]

Age was not a predictor of preference for social supply activities. Fifty-five percent of non-medical pharmaceutical opioid users aged 36 years and over preferred social supply to other methods ($n=16$). Similarly, 54 percent ($n=22$) of non-medical users aged 35 years and under preferred social supply. However, some older respondents who preferred social supply methods had different pathways into non-medical opioid use than younger respondents. Among the older age group, 31 percent ($n=5$) of respondents who preferred social supply had begun to use pharmaceutical opioids because they were a substitute for heroin, compared with 23 percent ($n=5$) of the younger respondents who preferred social supply.

Respondents who preferred social supply methods used pharmaceutical opioids slightly less frequently than those preferring other methods. Forty-seven percent ($n=18$) of those preferring social supply methods used pharmaceutical opioids for non-medical purposes monthly or more frequently, compared with 56 percent ($n=18$) of those who preferred other methods. Frequent users of pharmaceutical opioids who preferred social supply methods tended to be older (median age=33, mean=33) than frequent users who preferred other methods (median age=28, mean=31).

Non-medical pharmaceutical opioid users reported preferring social supply mainly because it was a convenient and economical way to acquire the drugs. A smaller number of respondents preferred to use social supply methods because they involved reciprocal exchanges, greater certainty about the product they were receiving, and fewer risks than other methods.

Conclusion

More than half of the police detainees who had used pharmaceutical opioids for non-medical purposes in the past 12 months had accessed these drugs through social supply. Almost all of these individuals had sourced the opioids from family and friends for free, and a smaller number had swapped other drugs for them. A substantial proportion of detainees also bought pharmaceutical opioids from family and friends.

These findings are consistent with the results of a recent meta-analysis of empirical studies of the non-medical use of pharmaceutical drugs, which suggested 57 percent of people sourced pharmaceutical drugs from friends or family without paying (Hulme, Bright & Nielsen 2018). Police detainees have also reported that they commonly buy or get methamphetamine for free from relatives and friends, and that many use 'closed' markets, such as a friend's home, rather than public 'open' markets (Doherty forthcoming). Other research has suggested that social supply is also important in the markets for cannabis (Belackova & Vaccaro 2013; Lenton et al. 2015; Nicholas 2008) and ecstasy (Bright & Sutherland 2017; Nicholas 2008). Friendship groups appear to play a smaller role in the distribution of heroin, which is more commonly sold by dealers in open markets (Mouzos et al. 2007; Nicholas 2008).

Respondents who preferred social supply methods of obtaining pharmaceutical opioids for non-medical use tended to consume the drugs slightly less frequently than others. The lower frequency of use by respondents preferring social supply may suggest these individuals are at less risk of harmful patterns of drug use than those relying on sources such as buying from drug dealers.

This study also extended previous research by asking detainees why they preferred to acquire pharmaceutical opioids via social supply. The findings suggested these methods were appealing primarily because of convenience and the absence of any financial cost. These results correspond with research suggesting that forms of social supply can be cost-effective and convenient methods of accessing illicit drugs (Bright & Sutherland 2017; Coomber, Moyle & South 2015; Potter 2009). The restricted availability and variable pricing of illicit pharmaceutical opioids relative to other illicit drugs may contribute to the desire to use social supply activities to acquire these drugs. Research suggests people who use illicit pharmaceutical opioids such as oxycodone and buprenorphine find it more difficult to obtain these drugs than heroin users seeking to obtain heroin (Karlsson & Burns 2018; Stafford & Breen 2017). The price of pharmaceutical opioids such as oxycodone can also vary (Karlsson & Burns 2018), potentially motivating users to source them for free from relatives or friends to avoid unpredictable costs. In contrast, surveys of injecting drug users suggest the price of a 'cap' (a single injection) of heroin has been \$50 for several years, albeit at varying levels of purity (Karlsson & Burns 2018). Individuals who use social supply activities may also be socialising with people who have access to pharmaceutical opioids through opioid substitution therapy or other treatment services (Hulme, Bright & Nielsen 2018).

A smaller number of detainees reported that they preferred social supply methods for the reciprocity. Drugs research has identified 'cultures of reciprocity' among people involved in social supply activities, which involve sharing drugs for free and giving them as gifts to friends (Coomber, Moyle & South 2015). Small numbers of respondents also reported sourcing pharmaceutical opioids via social supply to improve the likelihood the drug was of good quality and quantity, to reduce the risk of getting adulterated drugs and to avoid other risks associated with illicit drug markets.

Coomber, Moyle and South (2015) suggest the distance that normally law-abiding individuals need to slip or 'drift' (Matza 2009) to get involved in the social supply of recreational drugs is much shorter than for 'hard drugs', because recreational drugs are more socially acceptable. Our study suggests that pharmaceuticals used for non-medical purposes represent a third category, considered more socially acceptable than recreational or hard drugs because they also have legal uses. The acquisition and supply of these pharmaceuticals for non-medical use may therefore require an even smaller slip into illegal behaviour than the social supply of recreational drugs. This is supported by general population data suggesting 28 percent of Australians perceive the misuse of pharmaceuticals as acceptable, a higher proportion than for other drugs such as cannabis and methamphetamine (Australian Institute of Health and Welfare 2019).

Limitations

This study is unable to make causal claims because of its cross-sectional design. In addition, the study's definition of non-medical use is likely to differ from those used in other research. While this study focused on the use of pharmaceutical opioids without a prescription or for 'non-medical purposes', other research has defined non-medical use as 'use for non-therapeutic purposes' or 'other than directed by a healthcare professional' (Hulme, Bright & Nielsen 2018). This limitation draws attention to the importance of having a standardised definition of non-medical use. Further, the sample of police detainees included in this analysis is not necessarily representative of all arrestees in Australia. For example, the study excluded detainees with certain characteristics, such as a high levels of intoxication. The study was also limited to an analysis of the sourcing rather than the diversion of pharmaceutical opioids.

Acknowledgements

The authors acknowledge the contribution of Dr Samantha Bricknell to this Statistical Bulletin.

References

URLs correct as at November 2019

Australian Institute of Health and Welfare (AIHW) 2019. *Alcohol, tobacco & other drugs in Australia*. AIHW cat. no. PHE 221. Canberra: AIHW. <https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/drug-types/non-medical-use-of-pharmaceutical-drugs>

Australian Institute of Health and Welfare 2017. *National Drug Strategy Household Survey 2016: Detailed findings*. Canberra: AIHW. <https://www.aihw.gov.au/reports/illicit-use-of-drugs/2016-ndshs-detailed/>

Belackova V & Vaccaro CA 2013. "A friend with weed is a friend indeed": Understanding the relationship between friendship identity and market relations among marijuana users. *Journal of Drug Issues* 43(3): 289–313

Bright D & Sutherland R 2017. "Just doing a favour for a friend": The social supply of ecstasy through friendship networks. *Journal of Drug Issues* 47(3): 492–504

Coomber R et al. 2018. The burgeoning recognition and accommodation of the social supply of drugs in international criminal justice systems: An eleven-nation comparative overview. *International Journal of Drug Policy* 58: 93–103

Coomber R, Moyle L & South N 2015. The normalisation of drug supply? The social supply of drugs as the 'other side' of the history of normalisation. *Drugs: Education, Prevention and Policy* 23(3): 225–263

Doherty L forthcoming. How and where do police detainees obtain methamphetamine? Statistical Bulletin. Canberra: Australian Institute of Criminology

Hough M et al. 2003. *A growing market: The domestic cultivation of cannabis*. York: Joseph Rowntree Foundation

Hulme S, Bright D & Nielsen S 2018. The source and diversion of pharmaceutical drugs for non-medical use: A systematic review and meta-analysis. *Drug and Alcohol Dependence* 186: 242–256

Hulme S, Hughes CE & Nielsen S 2019. Drug sourcing and motivations among a sample of people involved in the supply of pharmaceutical drugs in Australia. *International Journal of Drug Policy* 66: 38–47

Inciardi JA, Surratt HL, Cicero TJ & Beard RA 2009. Prescription opioid abuse and diversion in an urban community: The results of an ultrarapid assessment. *Pain Medicine* 10(3): 357–48

Karlsson A & Burns L 2018. *Australian drug trends 2017: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trends Series no. 181. Sydney: National Drug and Alcohol Research Centre, University of New South Wales

Lenton S, Grigg J, Scott J, Barratt M & Eleftheriadis 2015. The social supply of cannabis among young people in Australia. *Trends & issues in crime and criminal justice* no. 503. Canberra: Australian Institute of Criminology. <https://aic.gov.au/publications/tandi/tandi503>

Matza D 2009. *Delinquency and drift*. New Brunswick: Transaction Publishers

Mouzos J, Hind N, Smith L & Adams K 2007. *Drug use monitoring in Australia: 2006 annual report on drug use among police detainees*. Research and public policy series no. 75. Canberra: Australian Institute of Criminology. <https://aic.gov.au/publications/rpp/rpp75>

Murphy S, Sales P, Duterte M & Jacinto C 2004. *A qualitative study of ecstasy sellers in the San Francisco Bay Area*. <https://www.ncjrs.gov/pdffiles1/nij/grants/209267.pdf>

Nicholas R 2008. *The impact of social networks and not-for-profit illicit drug dealing on illicit drug markets in Australia: A discussion paper*. Hobart: National Drug Law Enforcement Research Fund

Parker H 2000. How young Britons obtain their drugs: Drugs transactions at the point of consumption. *Crime Prevention Studies* 11: 59–81

Patterson E, Sullivan T & Ticehurst A 2018. Use and misuse of prescription drugs among police detainees. *Trends & issues in crime and criminal justice* no. 541. Canberra: Australian Institute of Criminology. <https://aic.gov.au/publications/tandi/tandi541>

Potter G 2009. Exploring retail-level drug distribution: Social supply, 'real' dealers and the user/dealer interface. In Z Demetrovics, J Fountain & L Kraus (eds), *Old and new policies, theories, research methods and drug users across Europe*. Lengerich: Pabst Science Publishers

Stafford J & Breen C 2017. *Australian drug trends 2016: Findings from the Illicit Drug Reporting System (IDRS)*. Australian Drug Trend Series no. 163. Sydney: National Drug and Alcohol Research Centre, University of New South Wales

Sullivan T, Ticehurst A & Bricknell S 2018. *Prescription opioid use among Australian police detainees*. Statistical Bulletin no. 11. Canberra: Australian Institute of Criminology. <https://aic.gov.au/publications/sb/sb11>

Taylor M & Potter G 2013. From "social supply" to "real dealing": Drift, friendship, and trust in drug-dealing careers. *Journal of Drug Issues* 43(4): 392–406

**Tom Sullivan is a Senior Research Analyst at
the Australian Institute of Criminology.**

**Isabella Voce is a Senior Research Analyst at
the Australian Institute of Criminology.**

General editor, *Statistical Bulletin series*: Dr Rick Brown, Deputy Director, Australian Institute of Criminology.
For a complete list and the full text of the papers in the *Statistical Bulletin series*, visit the AIC website at: aic.gov.au

ISSN 2206-7302 (Online)

ISBN 978 1 925304 30 5 (Online)

©Australian Institute of Criminology 2020

GPO Box 1936
Canberra ACT 2601, Australia
Tel: 02 6268 7166

*Disclaimer: This research paper does not necessarily
reflect the policy position of the Australian Government*