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Drug use monitoring in Australia: Drug use among police detainees, 2020

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Australia's methamphetamine market recovered after COVID-19 shock

1 SUPPLY RESTRICTION

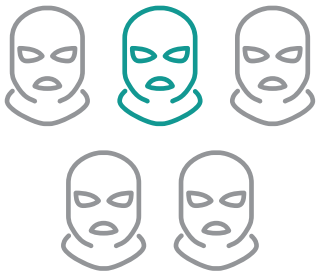
Police detainee ratings of methamphetamine availability fell from around 10 out of 10 in January–February 2020 to 5 out of 10 in July–August.

2 DEMAND DECLINE

Methamphetamine use dropped from 55% of police detainees in January–February to 41% in July–August.

3 DECREASED HARM

One in five (21%) detainees reported that methamphetamine contributed to their offending in 2020, down from 27% in 2019.



4 SUPPLY RECOVERY

By October–November methamphetamine availability had increased to a rating of 8 out of 10.

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Acronyms and abbreviations

AIC	Australian Institute of Criminology
DUI	driving under the influence of alcohol and/or illicit drugs
DUMA	Drug Use Monitoring in Australia
IQR	interquartile range
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine (ecstasy)
MSO	most serious offence (category)

Appendix A: Technical appendix contains a glossary of terms (see page 16).

Abstract

The Drug Use Monitoring in Australia program involves the routine collection of survey and urinalysis data from police detainees across Australia. In 2020, almost half of the detainees reported using cannabis (47%) and methamphetamine (45%) in the past 30 days. Fewer detainees reported using benzodiazepines (21%), cocaine (8%), heroin (7%) or ecstasy (5%) in the past month. In the early stages of the COVID-19 pandemic, the availability and quality of methamphetamine and heroin declined. Past-month methamphetamine use, as confirmed by urinalysis results, also decreased from 55 percent in January–February to 38 percent in April–June.

Drug Use Monitoring in Australia program

Established in 1999 by the Australian Government, the Drug Use Monitoring in Australia (DUMA) program collects drug use and criminal justice information from police detainees at watch houses and police stations across Australia. The DUMA program, run by the Australian Institute of Criminology (AIC), is the only Australian survey of police detainees conducted on a routine basis. Assessing the drug use and offending habits of detainees is valuable in the formulation of policy and programs, as this population is more likely than the general community or incarcerated offenders to have had recent and close contact with the illicit drug market. The DUMA program also provides a more accurate representation of the extent and nature of drug use in Australia than drug arrest and seizure data.

For detailed information on the program, see *Appendix A: Technical appendix*. To view the data tables, see the online Appendix.

Data collection

Data are collected quarterly using two methods—an interviewer-administered questionnaire and urinalysis.

The questionnaire

Trained interviewers independent from the police administer the DUMA questionnaire to detainees. It consists of a core questionnaire and quarterly addenda. Quarterly addenda are developed in consultation with Commonwealth and state and territory agencies to collect information on emerging issues of policy relevance. The core questionnaire collects demographic data, details of past contact with the criminal justice system, information on drug and alcohol use, and information about illicit drug markets. Charge information is obtained from police charge records. In 2020, charge data for Brisbane detainees were collected only in quarter one.

The data collected are typically non-normal in distribution, which is often observed in criminological and social science data (Bono et al. 2017). In this report, non-normally distributed continuous variables are described using the median and interquartile range (IQR). To preserve the largest sample size possible, detainees were excluded from analysis only for variables for which data were missing, or where they provided a 'don't know' response.

Urinalysis

During relevant collection periods, interviewers obtain urine samples from consenting participants to provide an objective and scientifically valid measure of the presence of drugs. Urine samples are tested for five classes of drug: amphetamine-type stimulants, benzodiazepines, cannabis, cocaine and opioids. In 2020, 462 detainees interviewed were eligible to provide a urine sample and, of those eligible, 88 percent (*n*=405) provided a sample (see Appendix, Table B1).

Box 1: Summary of DUMA detainees

In 2020, 1,754 detainees participated in the DUMA program (see Appendix, Table B1). Detainees were interviewed at five sites—Adelaide, Brisbane, Perth, and Bankstown and Surry Hills in Sydney. Only adult detainees (aged 18 years or over) were eligible for interview.

Eighty-three percent (*n*=1,462) of participants were male and 17 percent (*n*=292) were female (Table B1). The median age of detainees was 33 years (IQR=27–41). Twenty-nine percent of the sample (*n*=514) identified as Aboriginal, Torres Strait Islander or both (Table B1).

Charge data were available for 1,442 detainees, with a median of two criminal charges (IQR=1–4) recorded against each detainee. Forty-one percent (*n*=584) of detainees had a violent offence recorded as their most serious offence, followed by 22 percent (*n*=318) with a property offence and 18 percent (*n*=263) with a breach offence. Small proportions of detainees had a disorder offence (6%, *n*=87), drug offence (6%, *n*=85), traffic offence (4%, *n*=59), driving under the influence (DUI) offence (1%, *n*=17), or other offence (2%, *n*=29) recorded as their most serious offence.

Forty-two percent (*n*=593) of the sample reported that they had been charged on another occasion in the 12 months before their current period of detention.

Of those detainees with charge data available who had used substances, 46 percent (*n*=565) attributed their detention to illicit drug use, alcohol use or a combination of both (see Appendix, Table D1). Forty-one percent (*n*=383) of past-month illicit drug users[a] reported that their drug use was the reason for their current detention. A smaller proportion of detainees who consumed alcohol during the past month attributed their current detention to alcohol use (29%, *n*=235; Table D1).

a: Past-month illicit drug users refers to detainees who used heroin, methamphetamine, cannabis and/or ecstasy within the 30 days prior to interview

Note: Charge data from Brisbane detainees were only collected in quarter one (*n*=298 missing for other quarters). Sample size may vary as cases were excluded due to missing data

Source: AIC DUMA collection 2020 [computer file]

COVID-19 pandemic

In March 2020, the World Health Organization declared the outbreak of novel coronavirus (COVID-19) a pandemic (World Health Organization 2020). Several alterations were made to the data collection schedule for the DUMA program in 2020 to minimise the health and safety risks to participants and interviewers. The DUMA program was suspended during quarter two (April–June) at all sites except Perth, where surveys could be safely conducted through a plexiglass screen separating the interviewer and detainee. The program recommenced at all sites for quarter three (July–August). However, urine collection was suspended in quarter three due to health and safety considerations and thus the program collected urine samples only during quarter one (January–February) in 2020 (Figure 1).

Urinalysis findings

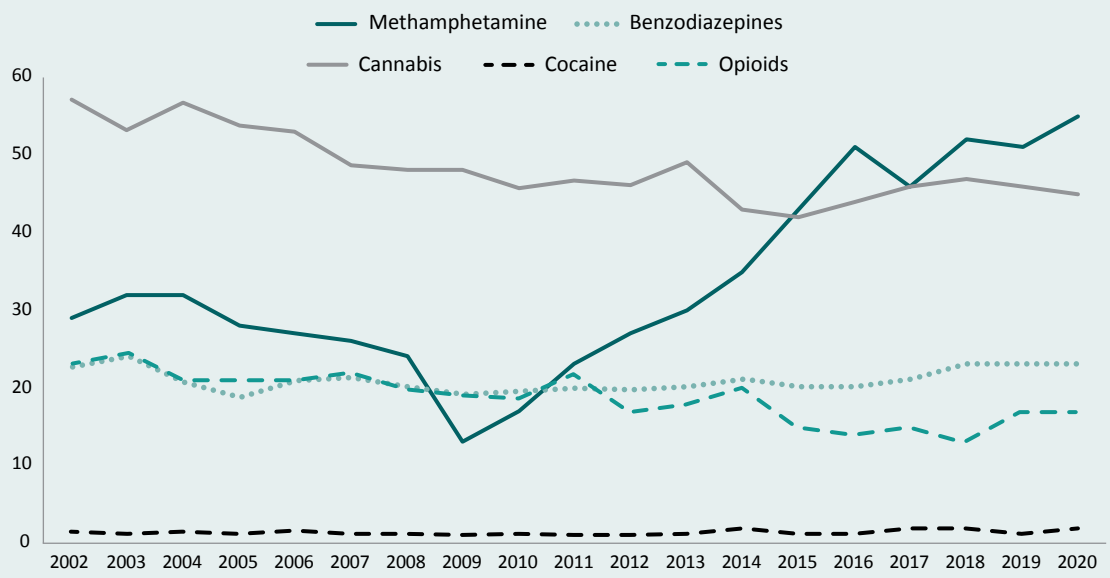
Eighty-two percent (*n*=332) of detainees who provided a urine sample for analysis tested positive to at least one type of drug, and almost half (46%, *n*=186) tested positive to more than one drug type (see Appendix, Table B2). Test positive rates differed by detainee gender (Table B2), site (Table B3), Indigenous status (Table B4) and age (Table B5).

Fifty-six percent (*n*=226) of detainees tested positive to methamphetamine, accounting for 97 percent of all positive tests for amphetamine-type stimulants (*n*=232) (see Appendix, Table B2). Additionally, 45 percent (*n*=182) of detainees tested positive to cannabis and one-quarter (25%, *n*=103) tested positive to benzodiazepines (Table B2).

One in five (22%, *n*=90) detainees tested positive to an opioid (Table B2). Eight percent (*n*=31) of detainees tested positive to heroin, accounting for 34 percent of all opioid test positives (Table B2). Twelve percent (*n*=48) of detainees tested positive to buprenorphine, three percent (*n*=14) tested positive to methadone, and three percent (*n*=14) tested positive to other (unidentified) opioids (Table B2). A very small proportion of detainees tested positive to cocaine (2%, *n*=7), MDMA (2%, *n*=9) or MDA (2%, *n*=7; Table B2).

Urinalysis test positive rates in January–February 2020 were similar to those in 2019 (Doherty & Sullivan 2020), with the exception of minor increases in the test positive rates for any drug (from 78% to 82%), and methamphetamine (from 51% to 56%). Importantly, urinalysis data for 2020 are limited to only one collection period (January–February 2020) before the introduction of COVID-19 restrictions. The following sections present data collected by the DUMA survey in all four collection periods of 2020 (January–February, April–June, July–August and October–November).

Figure 1: National DUMA urinalysis test results by year, 2002–2020 (%)



Note: For 2002–2019, the results include four DUMA sites: Adelaide, Bankstown, Brisbane and Perth. For 2020, the results include data for Adelaide, Brisbane and Perth in quarter one only (January–February) (see Appendix, Table B6)

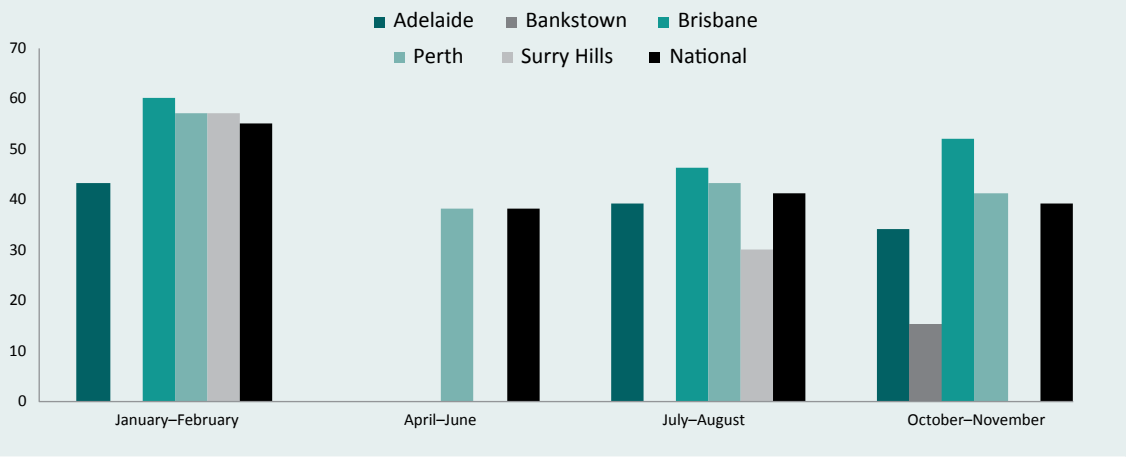
Source: AIC DUMA collection 2002–20 [computer file]

Methamphetamine

Demand

Almost half (45%, *n*=780) of the overall sample of detainees reported using methamphetamine in the past 30 days (see Appendix, Table C1), consistent with national trends since 2018 (Voce et al. 2021). Past-month methamphetamine use varied widely by site and collection period, ranging from 15 percent (in Bankstown in quarter four) to 60 percent (in Brisbane in quarter one; see Figure 2). At all sites where DUMA data were collected, past-month methamphetamine use declined after January–February. Nationally, past-month use was 55 percent in January–February, 38 percent in April–June, 41 percent in July–August and 39 percent in October–November.

Figure 2: Reported methamphetamine use in the past 30 days by quarter and site, 2020 (%)



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

Overall, past-month methamphetamine users reported a median of 14 days of use (IQR=4–28) in the past 30 days and administered a median of 0.8 grams per day of use (IQR=0.3–1.3 grams) (see Appendix, Table C2). Among these methamphetamine users, 36 percent (*n*=275) were classified as recreational users (1–5 days of use per month), 28 percent (*n*=219) were regular users (6–20 days of use per month), and 36 percent (*n*=280) were heavy users (over 20 days of use per month; Table C3).

After January–February, there was an overall decrease in the frequency of methamphetamine use and the quantity consumed (Table C2). The proportion of recreational users also increased, while the heavy user group decreased (see Table C3). By October–November, frequency of use had begun to return to pre-pandemic levels (see Table C2; Voce et al. 2021).

Harms

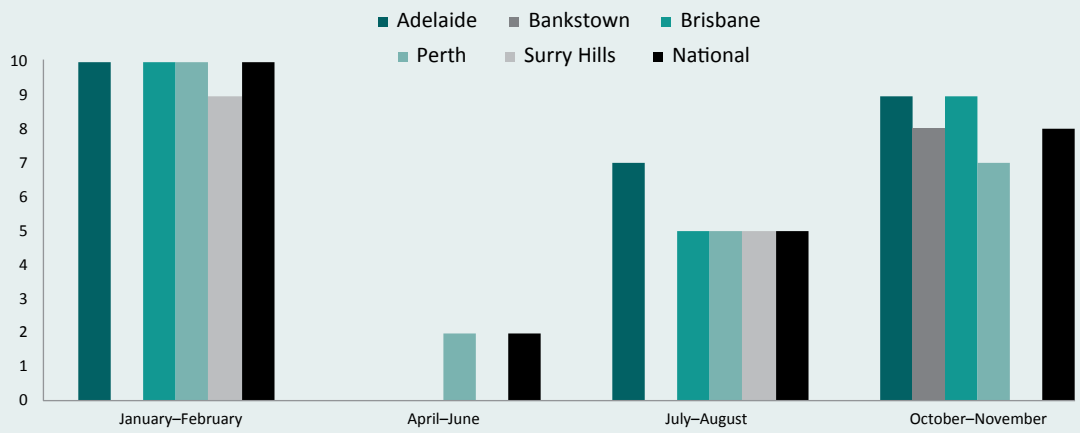
Among detainees who reported methamphetamine use in the past 12 months, 47 percent (*n*=477) reported past-year dependence on methamphetamine, consistent with national rates reported among DUMA detainees since 2018 (Voce et al. 2021) (see Appendix, Table C8). One-quarter (26%, *n*=266) reported overdosing on methamphetamine in the past year (Table C8).

Almost half of past-month users (49%, *n*=301) reported that methamphetamine use contributed to their arrest (see Appendix, Table D1). This represented 21 percent of all detainees, a decline from 27 percent (*n*=629) in 2019 (Doherty & Sullivan 2020). Past-month methamphetamine users attributing their offending to methamphetamine included three-quarters (75%, *n*=3) of detainees whose most serious offence (MSO) was DUI, and half of those whose MSO was drug-related (55%, *n*=23), property-related (53%, *n*=98), violent (49%, *n*=110) or a breach offence (48%, *n*=52; Table D1). Fewer past-month methamphetamine users with a disorder (41%, *n*=11) or traffic (21%, *n*=3) MSO reported that methamphetamine use contributed to their arrest (Table D1).

Supply

In 2020, past-month methamphetamine users rated the drug as readily available (median=8 out of 10; IQR=5–10) but rated methamphetamine quality as moderate (median=5 out of 10; IQR=3–7; see Appendix, Table E1). Although these ratings align with historic DUMA trends (Voce et al. 2021), there was a notable decline in ratings of methamphetamine availability and quality during 2020. Methamphetamine was perceived as being extremely available (median rating=10 out of 10) at most sites in January–February but less readily available in April–June and July–August (national median rating=5 out of 10); availability then increased in October–November (national median rating=8 out of 10; Figure 3). The median ratings of methamphetamine quality fell from six out of 10 at all sites in January–February to five out of 10 at all sites in October–November (Figure 4). These changes likely reflect a disruption to the methamphetamine market associated with the COVID-19 pandemic.

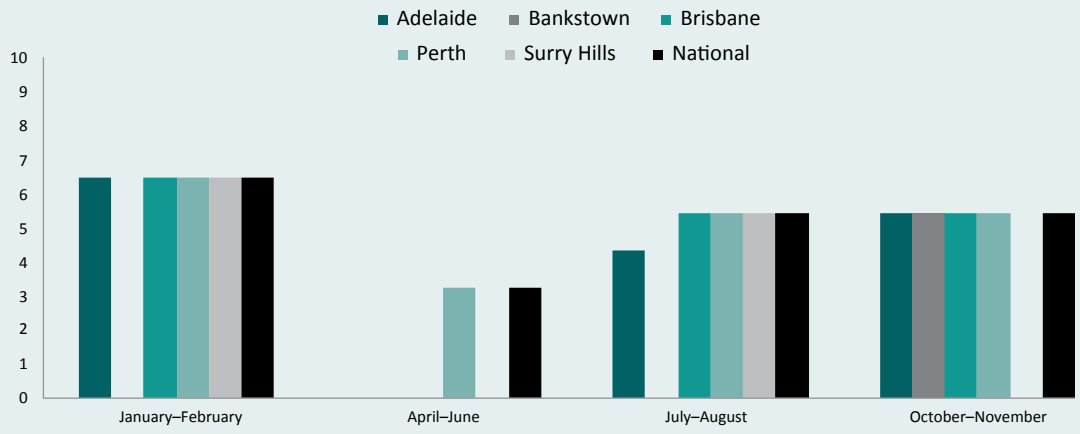
Figure 3: Median ratings of methamphetamine availability by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

Figure 4: Median ratings of methamphetamine quality by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

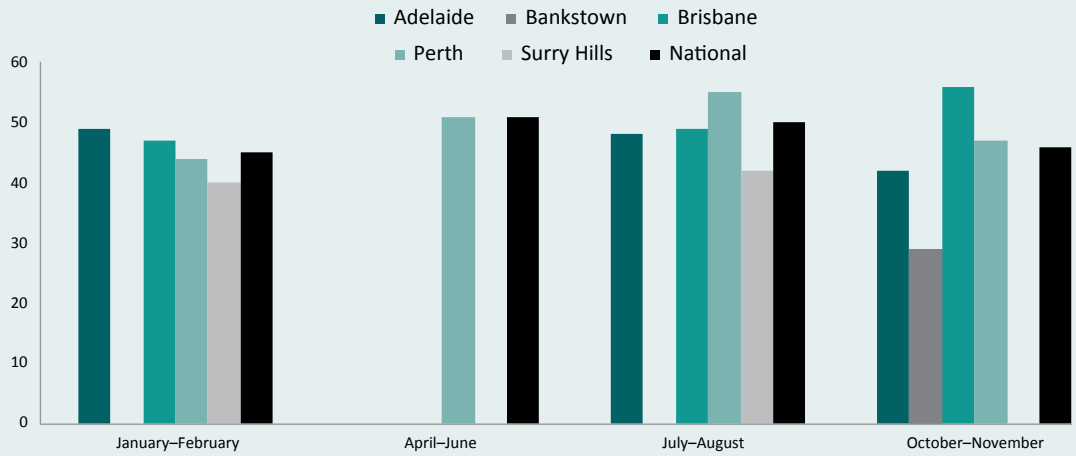
Overall, most (54%, *n*=394) past-month methamphetamine users indicated that methamphetamine had increased in price over the past three months (see Appendix, Table E2). A minority of past-month methamphetamine users reported that the price had remained the same (28%, *n*=203), decreased (16%, *n*=114), or fluctuated (3%, *n*=23) over the past three months (Table E2). Thirty-seven percent (*n*=239) of past-month methamphetamine users reported that the number of dealers selling methamphetamine had increased over the past three months, 35 percent (*n*=224) reported that the number of dealers had remained stable, and 29 percent (*n*=185) reported a decrease in the number of methamphetamine dealers (Table E3).

Cannabis

Demand

Overall, almost half (47%, *n*=829) of detainees reported using cannabis in the past 30 days, although this proportion was higher in April–June (51%, *n*=74) and July–August (50%, *n*=246) compared with other quarters (see Appendix, Table C1). The proportion reporting cannabis use varied from 29 percent in Bankstown in October–November to 56 percent in Brisbane in October–November (see Figure 5).

Figure 5: Reported cannabis use during the past 30 days by quarter and site, 2020 (%)



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

Past-month cannabis users reported a median 20 days of use per month (IQR=5–30) and administered a median of 0.7 grams per day of use (IQR=0.3–1.9; see Appendix, Table C4). Almost half of all past-month cannabis users (47%, *n*=386) were heavy users (over 20 days of use per month), 24 percent (*n*=201) were regular users (6–20 days of use per month), and 29 percent (*n*=237) were recreational users (1–5 days of use per month; Table C5). The proportion of heavy users increased between January–February (42%, *n*=107) and July–August (52%, *n*=127; Table C5).

Harms

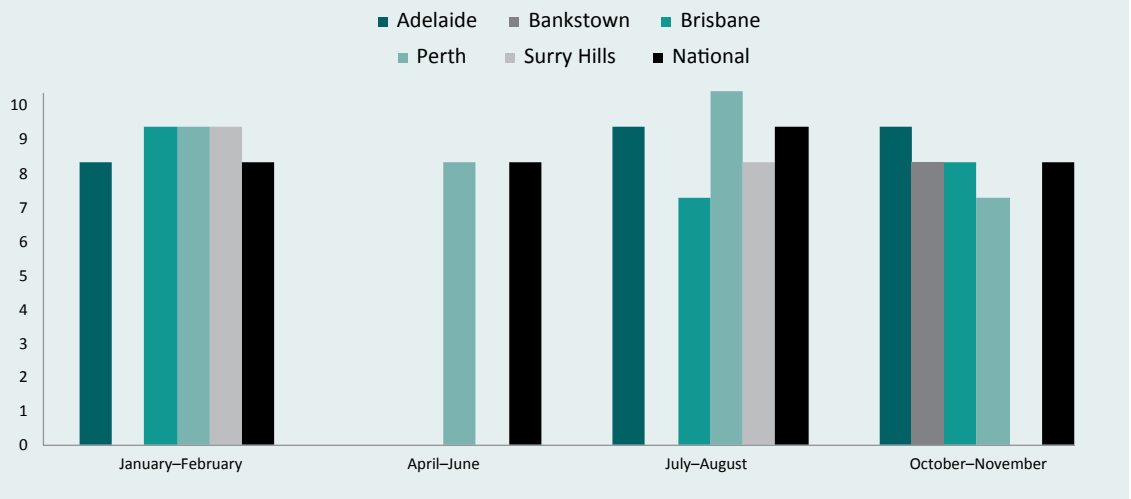
Among detainees who reported cannabis use during the past 12 months, 39 percent (*n*=412) reported past-year dependence on cannabis (see Appendix, Table C8). Among those who had used cannabis in the past 30 days before interview, 12 percent (*n*=82) reported that cannabis use contributed to their arrest (see Appendix, Table D1). This represented six percent of all detainees, similar to 2019 (Doherty & Sullivan 2020). Past-month cannabis users attributing their offending to cannabis included one-third of those with a DUI MSO (33%, *n*=2), and small proportions of those with a breach (16%, *n*=16), drug-related (14%, *n*=6), violent (13%, *n*=38) or disorder (13%, *n*=5) MSO (see Table D1).

Supply

Most past-month cannabis users rated cannabis as readily available (median=8 out of 10; IQR=5–10), and high in quality (median=7 out of 10; IQR=5–9; see Appendix, Table E4). Median ratings of availability varied by site and fluctuated over the year (Figure 6), whereas median ratings of quality were more stable (Figure 7).

Most past-month cannabis users (71%, *n*=528) reported no change in the price of cannabis over the past three months (Table E5). The remaining past-month cannabis users reported that the price had increased (22%, *n*=164), decreased (4%, *n*=30) or fluctuated (3%, *n*=24) over the past three months (Table E5). Fifty-six percent (*n*=364) of past-month cannabis users also reported that the number of dealers selling cannabis had not changed over the past three months, 24 percent (*n*=155) reported a decrease in the number of cannabis dealers, and 20 percent (*n*=128) reported an increase in the number of dealers (Table E6).

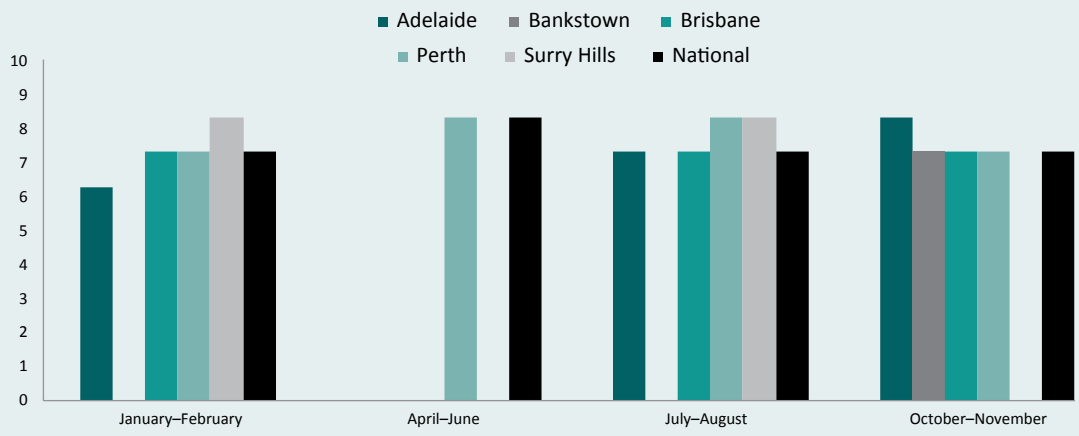
Figure 6: Median ratings of cannabis availability by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

Figure 7: Median ratings of cannabis quality by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth

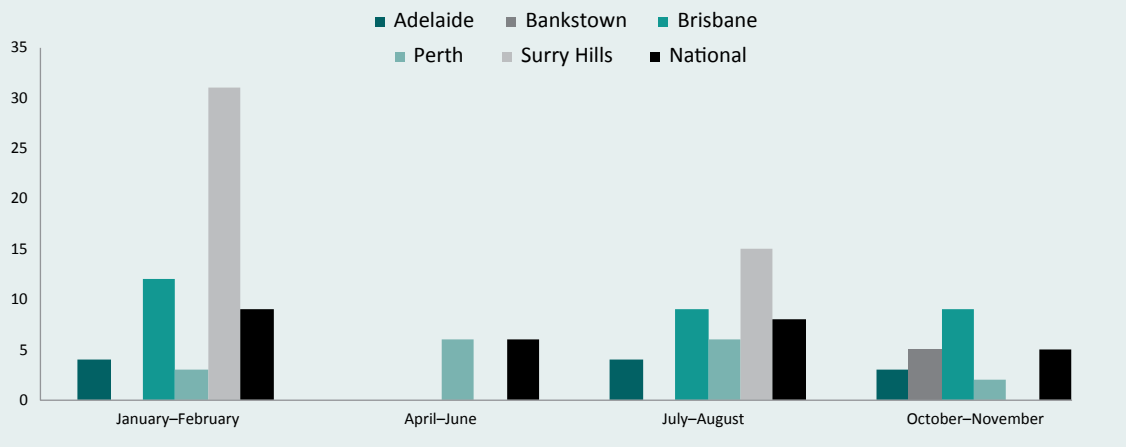
Source: AIC DUMA collection 2020 [computer file]

Heroin

Demand

Seven percent (*n*=124) of all detainees interviewed in 2020 reported using heroin in the past 30 days (Figure 8), although this decreased from nine percent (*n*=53) in January–February to five percent (*n*=26) in October–November (see Appendix, Table C1). Past-month heroin users reported a median of 10 (IQR=2–29) days of use and administered a median of 0.2 grams per day of use (IQR=0.1–0.5; Table C6). Almost half of all past-month users (45%, *n*=55) were recreational users (1–5 days of use per month), 16 percent (*n*=20) were regular users (6–20 days of use per month) and 39 percent (*n*=48) were heavy users (over 20 days of use per month; Table C7). During April–June, the proportion of heavy users increased to two-thirds (63%, *n*=5) and no past-month users reported regular use (6–20 days), although this was based on a small number of users in Perth (Table C7).

Figure 8: Reported heroin use during the past 30 days by collection period and site, 2020 (%)



Note: During quarter two 2020, data were collected only in Perth

Source: AIC DUMA collection 2020 [computer file]

Harms

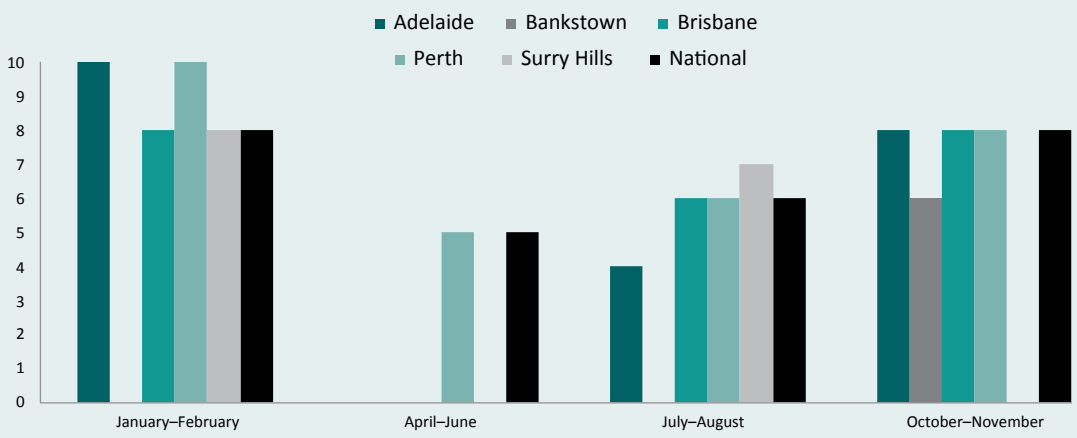
Among detainees who reported heroin use during the past 12 months, almost half (48%, *n*=100) reported past-year dependence on heroin, and one-quarter (27%, *n*=57) reported overdosing on heroin in the past year (see Appendix, Table C8).

Among those who reported using heroin in the past 30 days, four in 10 (44%, *n*=42) reported that heroin use contributed to their arrest (see Appendix, Table D1). This represented three percent of all detainees—the same as in 2019 (Doherty & Sullivan 2020). This included 88 percent (*n*=7) of past-month heroin users whose MSO was drug-related, 45 percent (*n*=14) of those with a property-related MSO, and 44 percent (*n*=16) of those with a violent MSO (Table D1).

Supply

Most past-month heroin users rated the drug as readily available (median=7 out of 10; IQR=5–10), and of good quality (median=7 out of 10; IQR=5–8; see Appendix, Table E7). Similar to the methamphetamine market, median ratings of availability (Figure 9) and quality (Figure 10) decreased after January–February 2020. Again, this may correspond to drug market impacts related to the COVID-19 pandemic. Interestingly, availability ratings increased in October–November 2020.

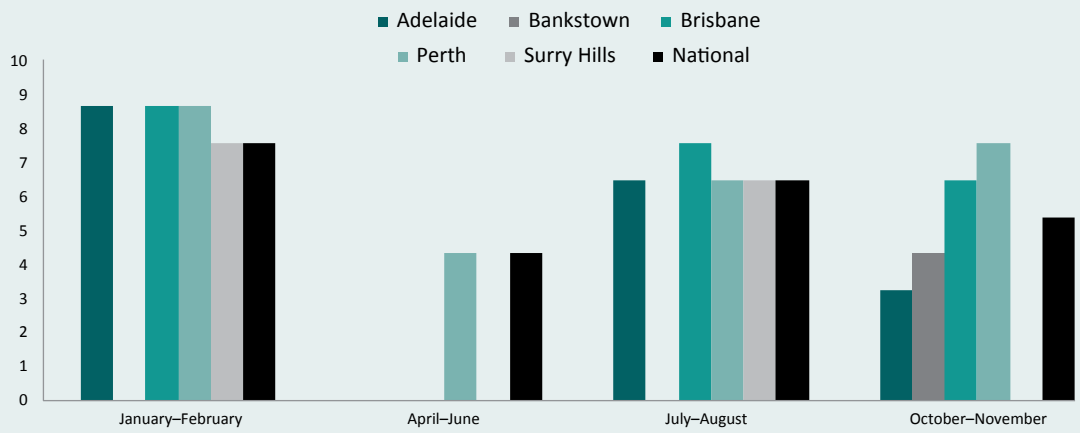
Figure 9: Median ratings of heroin availability by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth. Heroin market data disaggregated by site and quarter are subject to small sample sizes due to the low number of past-month heroin users (see Appendix, Table E7)

Source: AIC DUMA collection 2020 [computer file]

Figure 10: Median ratings of heroin quality by quarter and site, 2020



Note: During quarter two 2020, data were collected only in Perth. Heroin market data disaggregated by site and quarter are subject to small sample sizes due to the low number of past-month heroin users (see Appendix, Table E7)

Source: AIC DUMA collection 2020 [computer file]

Overall, more than half of past-month heroin users (55%, *n*=60) reported no change in the price of heroin over the past three months (see Appendix, Table E8). The remaining past-month heroin users reported that the price had increased (39%, *n*=43), decreased (5%, *n*=5), or fluctuated (2%, *n*=2) over the past three months (Table E8). Forty-one percent (*n*=40) of past-month heroin users also reported that the number of dealers selling heroin had remained stable over the past three months, 32 percent (*n*=31) reported a decrease in the number of heroin dealers and 28 percent (*n*=27) reported an increase in the number of dealers (see Table E9).

Alcohol and other drugs

Alcohol

Almost two-thirds (59%, *n*=1,024) of detainees reported consuming alcohol in the past 30 days, and 28 percent (*n*=491) of detainees reported consuming alcohol in the 24 hours before arrest (see Appendix, Table C9). Among detainees who consumed alcohol in the past 24 hours, the median number of standard drinks consumed was 11 (IQR=5–22), with detainees drinking spirits only (36%, *n*=177), beer only (20%, *n*=97), wine only (18%, *n*=86), cider only (2%, *n*=8), or a combination of alcohol types (25%, *n*=122; Table C9).

Among those who reported drinking alcohol in the 30 days before interview, 29 percent (*n*=235) reported that alcohol use contributed to their arrest (see Appendix, Table D1). This represented 16 percent of all detainees—the same as in 2019 (Doherty & Sullivan 2020). Alcohol contributed to the arrest of 57 percent (*n*=8) of alcohol users whose MSO was DUI, 45 percent (*n*=25) of those with a disorder MSO, 36 percent (*n*=124) of those with a violent MSO, and 25 percent (*n*=39) of those with a breach MSO (Table D1). Smaller proportions of alcohol users with a property-related (15%, *n*=25), traffic (15%, *n*=4) or drug-related (10%, *n*=4) MSO reported that alcohol use contributed to their arrest (Table D1).

Other drugs

Twenty-one percent of detainees (*n*=376) reported using benzodiazepines in the 30 days before interview (see Appendix, Table C1). Approximately 55 percent of these past-month users (*n*=208) reported using only benzodiazepines personally prescribed to them, whereas 45 percent (*n*=167) had used benzodiazepines not prescribed to them. Fewer detainees reported using opioids other than heroin (11%, *n*=198), cocaine (8%, *n*=145), or ecstasy (5%, *n*=85) in the 30 days before interview (Table C1).

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URLs correct as at May 2021

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Appendix A: Technical appendix

Glossary of terms

Box A1 defines the terms used throughout this report.

Box A1: Glossary of terms
Most serious offence
The most serious offence category is assigned to a detainee based on the most serious charge laid against them during the current period of detention. Charges are categorised according to the Australian and New Zealand Standard Offence Classification (Australian Bureau of Statistics 2011). The category is assigned to each detainee based on a hierarchy from the most serious to the least serious offences: violent, property, drug, driving under the influence (DUI), traffic, disorder, breach and other lesser offences respectively.
Violent offences
Characterised as offences where violence was involved, including: homicide and related offences; acts intended to cause injury; sexual assault and related offences; dangerous or negligent acts endangering persons; robbery, extortion and related offences; selling, possession and/or use of prohibited weapons or explosives; and unlawfully obtaining, possessing or misusing regulated weapons or explosives.
Property offences
Characterised as offences involving theft and/or where deception has been used to gain a benefit. This includes unlawful entry with intent, burglary or break and enter; theft and related offences; and fraud, deception and related offences.
Drug offences
Characterised as offences involving the possession, manufacture, distribution and/or use of drugs, including misuse of prescription drugs.

Box A1: Glossary of terms

Driving under the influence offences

Characterised as offences where a detainee was driving under the influence of alcohol and/or drugs.

Traffic offences

Characterised as offences where a detainee was operating a vehicle in an illegal manner. This includes dangerous or negligent operation of a vehicle, driving while suspended and driving without a licence.

Disorder offences

Characterised as offences where a detainee has caused disruption or offence to the general public (for example: trespass, offensive conduct, consumption of alcohol in a regulated space) and property damage (for example: vandalism, graffiti, arson).

Breach offences

Characterised as offences where a detainee has breached a court order. This includes breach of violence orders, breach of custodial orders (for example: home detention, suspended sentence or escape from custody) or breach of community-based orders (for example: community service order, parole or bail).

Other lesser offences

Characterised as a range of offences including environmental pollution, pedestrian offences and offences against justice procedures, government security and operations.

Any drug

Detainees who have tested positive to any drug via urinalysis are those who have at least one of the following drugs in their system:

- amphetamine-type stimulants (including methamphetamine, MDMA, MDA and/or other amphetamine-type stimulants);
- benzodiazepines;
- cannabis;
- cocaine; and
- opioids (including heroin, methadone, buprenorphine and other opioids).

Box A1: Glossary of terms

Multiple drugs

Detainees who have tested positive to multiple drugs via urinalysis are those who have two or more of the following classes of drugs in their system:

- amphetamine-type stimulants (including methamphetamine, MDMA, MDA and/or other amphetamine-type stimulants);
- benzodiazepines;
- cannabis;
- cocaine; and
- opioids (including heroin, methadone, buprenorphine and other opioids).

A detainee who tested positive to more than one type of amphetamine-type stimulant or opioid is not classified as a multiple drug user unless they also tested positive to a drug of another class.

DUMA Questionnaire

Trained interviewers independent from the police administer the DUMA questionnaire to detainees. The core questionnaire collects demographic data; details of prior offending, incarceration history and past contact with the criminal justice system; information on lifetime drug and alcohol use; and information about illicit drug markets. It also contains questions about the extent to which the detainees' alleged offences were drug or alcohol related. To investigate trends in illicit drug markets, detainees are asked about the availability, quality, price and supply of each drug they had consumed in the 30 days before detention. Availability is rated on a scale from one (extremely hard or impossible to get) to 10 (readily available or overabundant). Quality is also rated on a scale from one (extremely poor quality or purity) to 10 (excellent quality or purity). For each type of drug detainees had recently used, they are asked whether the number of dealers in the market changed in the last three months.

Quarterly addenda are developed in consultation with Commonwealth and state and territory agencies to collect information on emerging issues of policy relevance. In 2020, quarterly addenda were used to collect information on the price elasticity of methamphetamine and heroin (quarter one and quarter two), and the impact of the COVID-19 pandemic on drug markets in Australia (quarter three and quarter four).

Data collection methods

Participant eligibility

Participant eligibility for the DUMA questionnaire is determined by the police officer in charge of the watch house or police station in which the interview takes place, or their delegate. The eligibility assessment takes into consideration the level of risk a detainee may pose to the interviewer. Consequently, the sample is not a random sample of all people detained by police.

Detainees must be 18 years or over to be included in the DUMA program. Nine juveniles were excluded due to this eligibility criterion.

In 2020, 636 adult detainees (20% of the potential sample) were deemed by police to be unfit for interview. This varied by site, ranging from four percent of detainees in Brisbane (*n*=23), 18 percent in Perth (*n*=224), 21 percent in Surry Hills (*n*=53), 22 percent (*n*=33) in Bankstown, and 35 percent (*n*=303) in Adelaide. Site variations may be due to the length of detention, the reasons for detention, detention procedures governed by state legislation or the characteristics of the watch house. Sites with longer holding periods also present greater opportunities for participation.

Table A1 presents the fieldwork data for 2020. This includes when fieldwork was undertaken, the number of detainees approached and interviewed, and the number of urine samples collected at each site.

Table A1: Fieldwork information, 2020

Quarter	Site	Period	Detainees approached (*n*)	Detainees interviewed (*n*)	Specimens collected
1	Adelaide	07.01.20–03.02.20	269	118	91
	Brisbane	14.01.20–10.02.20	190	173	123
	Perth	16.01.20–16.02.20	358	202	134
	Surry Hills	15.01.20–13.02.20	136	72	57
2	Perth	30.04.20–09.06.20	264	145	–
3	Adelaide	10.07.20–12.08.20	324	120	–
	Brisbane	21.07.20–17.08.20	207	150	–
	Perth	02.07.20–02.08.20	319	156	–
	Surry Hills	15.07.20–10.08.20	118	67	–
4	Adelaide	05.10.20–09.11.20	280	141	–
	Bankstown	12.10.20–10.11.20	149	73	–
	Brisbane	01.10.20–28.10.20	171	148	–
	Perth	01.10.20–01.11.20	339	189	–
Total	**All sites**		**3,124**	**1,754**	**405**

Note: Urine samples were collected only during quarter one (all sites)

Source: AIC DUMA collection 2020 [computer file]

Due to the high rate of recidivism in the detainee population, it is likely that a small group of detainees was surveyed twice or more. The DUMA sample is collected on the basis of episodes of detention, rather than individual detainees, so these duplicates cannot be tracked across interview periods. Further, names are not requested or recorded as there is a strict code of anonymity and confidentiality attached to participation. For this reason, detainees are asked if they recall ever participating in the study on a previous occasion. In 2020, 15 percent (*n*=207) of the potential sample reported that they had previously participated in the study; a further one percent (*n*=20) could not recall if they had previously participated.

Consent

Detainees eligible for interview are approached by either a police officer or an interviewer and asked if they are willing to participate in the DUMA study. Detainees are notified that the interviewer is independent from the police and that anything they say will be treated in strict confidence. If detainees decline to participate in the study, the reason for their refusal is recorded. This decision has no impact on their criminal case or subsequent processing.

Where detainees agree to participate, they undergo an informed consent procedure where they are advised that the research project is funded by the Australian Government and that participation is voluntary and confidential. A plain language information statement is provided to them that describes the aims of the project. They are informed that they may end the interview at any time and can choose not to answer individual questions. Detainees are also informed that they can make a complaint to either watch house staff or the AIC ethics secretariat if they feel they have been treated unfairly or unethically. The detainee is then asked to give verbal consent to participate in a structured interview and provide a urine sample (during relevant collection periods). Interview responses are included in the study regardless of whether a detainee provides a urine sample.

Charge and demographic information

Demographic information and details of the charges laid against detainees are collected after the completion of interviews. These data are collected from police charge records. A maximum of 10 charges can be recorded and they must relate to the detainee's current period of detention. These data are not collected for detainees who do not complete the questionnaire. Protocols for collecting this information differ between jurisdictions. The gender recorded is the gender assigned to the detainee on police charge records. Charge data from Brisbane detainees was collected only in quarter one 2020.

Data storage and management

Interviews are administered using a computer-assisted personal interviewing system and the information is stored in an electronic tablet. Each interview entry is protected by a unique password and data can be accessed from the tablet by the interviewer. This system allows interviewers to send interview data to the secure AIC server after the interview.

Drug testing

Urine samples are obtained from consenting participants to provide an objective and scientifically valid measure of the presence (or absence) of drugs. These data are used to enhance reported drug use data, which may not be accurate due to social desirability bias, the perceived consequences of reporting drug use, a lack of information about the purity and composition of purchased illicit drugs and recall issues (Darke 1998; Miller, Donnelly & Martz 1997).

Provision of a urine sample

During relevant collection periods, detainees are asked to provide a urine sample at the end of the interview. Only detainees who have been in a custodial setting for less than 48 hours are eligible to provide a urine sample, as most drugs have a limited detection time in urine (see Table A2).

Table A2: Cut-off levels and drug detection times

Drug class	Cut-off levels, AS/NZS 4308-2008 (µg/L)	Average detection time[a]
Amphetamine-type stimulants	300	2–4 days
Benzodiazepines (hydrolysed)	200	2–14 days
Cannabis	50	Up to 30 days for heavy use; 2–10 days for casual use
Cocaine	300	24–36 hours
Methadone	300	2–4 days
Opioids	300	2–3 days
Buprenorphine	10	2–7 days

a: Depends on testing method and equipment, the presence of other drugs, level of drug present and frequency of use

Source: Australian Standard AS/NZS 4308-2008; Makkai 2000

If a detainee agrees to provide an anonymous urine sample, a urine collection pot is given to them and they are escorted to an appropriate location to provide the sample. The sample is returned to the interviewer and the detainee is escorted back to their cell. Each urine sample is given a unique barcode, frozen and sent to an authorised testing laboratory in New South Wales. This barcode is used to match urinalysis data to the relevant questionnaire responses.

Urinalysis

Urinalysis provides an objective measure of the prevalence of drug use among detainees within a specified period of time while also allowing for comparisons across time. It also acts as a countermeasure to the under-reporting of recent drug use by criminal justice populations (Harrison & Hughes 1997).

Urine samples are collected in selected quarters at selected sites. To be eligible for urinalysis, detainees must have completed the interview within 48 hours of arrest. In 2020, urine samples were collected from detainees at Surry Hills, Brisbane, Adelaide and Perth in quarter one only.

Urinalysis is conducted by the Forensic and Analytical Science Service of NSW Health Pathology. This laboratory is accredited to Australian Standard AS/NZS 4308-2008. Results from urinalysis tests are provided to the AIC in electronic format. Police and local data collectors are not informed of individual test results and all urine samples are destroyed once the AIC receives and validates the results.

The Forensic and Analytical Science Service tests urine samples for the following classes of drugs: amphetamine-type stimulants, benzodiazepines, cannabis, cocaine, opioids and 6-acetylmorphine, a heroin metabolite indicating heroin use. A primary screening test is also conducted for the pharmaceutical opioids methadone and buprenorphine. When the drug or its metabolite is detected at or above the cut-off level set in the Australian Standard, the test will yield a positive result. Table A2 indicates the average detection time and the cut-off levels for a positive result.

Where a sample tests positive for an amphetamine-type stimulant or opioid, a confirmatory test is performed using gas chromatography–mass spectrometry to ascertain the specific drug present in the urine. Opioids are classified as morphine, 6-acetylmorphine or codeine; and amphetamine-type stimulants are classified as methamphetamine, MDMA, MDA or other amphetamine-type stimulants (including prescription amphetamine-type stimulants). With the exception of cannabis and benzodiazepines, these results indicate whether the drug was consumed shortly before detention.

When reporting on urinalysis, the following should be taken into account:

- the screening test detects the class of drug, not the specific metabolite;
- false positives and false negatives can occur, although cut-off levels are designed to minimise their frequency;
- detection times vary based on the individual person's rate of metabolism and excretion;
- a positive result does not necessarily represent illicit use; and
- the presence of the drug does not necessarily mean the person was intoxicated or impaired.

Quality control

Before data collection, interviewers undergo training in the questionnaire and operational procedures specific to their site. During data collection, site coordinators audit questionnaires and report errors back to interviewers.

When data collection is complete, the AIC audits all questionnaires. Error reports are created by the AIC and distributed to each site manager before the next quarter. These error reports are supplied at both the site and interviewer level. These reports allow emerging issues to be identified and individual or site-specific issues to be addressed if and when they arise.

Response rates

Response rates are calculated by dividing the number of detainees who agreed to participate by the potential sample, which includes detainees deemed ineligible and those who were unavailable.

In 2020, 1,754 adult detainees agreed to be interviewed, representing 56 percent of all detainees approached for interview (*n*=3,124). This represents a response rate of 94 percent when calculated using only those deemed eligible to participate (*n*=1,869 eligible). There were no substantial differences in the participation rates of eligible male (94%, *n*=1,462) and female detainees (93%, *n*=292).

Of those detainees who agreed to an interview and were eligible to provide a urine sample (*n*=462), 88 percent (*n*=405) agreed to provide a sample (Table A3–A4). Urine samples were collected in the first quarter of 2020 only.

Table A3: National DUMA sample by urine provision and gender, 2020 (%)

	Male		Female		Total	
	n	%	*n*	%	*n*	%
Provided urine	341	88	64	86	405	88
Did not provide	47	12	10	14	57	12

Note: Sample size may vary as cases were excluded due to missing data. Percentages were calculated for adult detainees eligible to provide a sample in quarter one

Source: AIC DUMA collection 2020 [computer file]

Table A4: National DUMA sample by urine provision and location, 2020 (%)

	Adelaide		Brisbane		Perth		Surry Hills	
	n	%	*n*	%	*n*	%	*n*	%
Provided urine	91	94	123	96	134	77	57	90
Did not provide	6	6	5	4	40	23	6	10

Note: Sample size may vary as cases were excluded due to missing data. Percentages were calculated for adult detainees eligible to provide a sample in quarter one

Source: AIC DUMA collection 2020 [computer file]

Methodological considerations

Sample sizes vary across the analysis due to instances where detainees were unable or unwilling to respond to survey questions. To preserve the largest sample size possible, detainees were excluded from analysis only for variables for which data were missing. Furthermore, males are over-represented in the DUMA detainee sample. Thus, caution should be taken when interpreting results for female detainees or making gender-based comparisons.

AIC reports

Statistical Report

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