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## Key Points

- Following the well-documented 2001 heroin shortage, the proportion of NSP Survey respondents across Australia who reported that heroin was the drug they last injected remained stable between 2002 and 2005, at 36–38%. In all years since 2002, heroin was the most frequently reported 'drug last injected' in the Australian Capital Territory, New South Wales and Victoria.
- Levels of amphetamine injection also remained stable between 2002 and 2005, with a national prevalence of 32–33%. In all years since 2001, amphetamine was the most frequently reported drug last injected in Queensland, South Australia and Western Australia.
- Following a peak in 2001 of 7%, the prevalence of cocaine injection across Australia remained low between 2002 and 2005, at 3% or less. Between 2001 and 2005, the great majority of cocaine injected in Australia was among IDU in New South Wales.
- Prevalence of morphine injection across Australia remained stable between 2001 and 2005, at less than 10%. In all years since 2001, morphine was the most frequently reported drug last injected in the Northern Territory.
- Methadone injection also remained stable across Australia, at 10% or less. Methadone was the most frequently reported drug last injected in Tasmania in all years except 2005, when prevalence of amphetamine injection surpassed that of methadone.

## Drug Use Trends Among Injecting Drug Users (IDU): Findings from the Australian Needle and Syringe Program Survey, 2001–2005

### Introduction

Since 1995, the collaboration of Australian Needle and Syringe Programs (NSPs) has conducted sentinel surveillance of drug injecting and related risk behaviour and human immunodeficiency virus (HIV) and hepatitis C virus (HCV) antibody prevalence among injecting drug users (IDU). The surveys are carried out annually over one week in October. All clients attending selected NSPs are asked to complete a brief self-administered anonymous questionnaire and provide a capillary blood sample for HIV and HCV antibody testing.

This issue of the *Drug Trends Bulletin* reports national and jurisdictional drug injection trends from the Australian NSP Survey, 2001 to 2005. The number of participating NSP sites increased annually from 38 in 2001 to 52 in 2005; however, the number of participants decreased from around 2,500 (2001 to 2003) to 1,800 in 2005. The annual response rate ranged between 42% and 50% (see Sample size distribution on page 4).

### National Trends

#### **Demographic characteristics and 'drug last injected'**

In all years, approximately two thirds of NSP Survey respondents were male. The proportion of respondents aged less than 25 years decreased from 28% in 2001 to 14% in 2005. The median age of respondents increased from 29 years in 2001 to 34 years in 2005, as did duration of drug injecting, from 9 years in 2001 to 13 years in 2005. This pattern reflects the findings of the IDRS, in which the mean age of IDU increased from 29.9 years in 2001 to 34.1 years in 2005. In the NSP Survey between 2001 and 2005, respondents' median age of first drug injection (18 years) remained stable.

Table 1 shows the drug last injected, as reported by the Survey respondents, during their most recent injecting episode ('drug last injected') over the period 2001 to 2005.

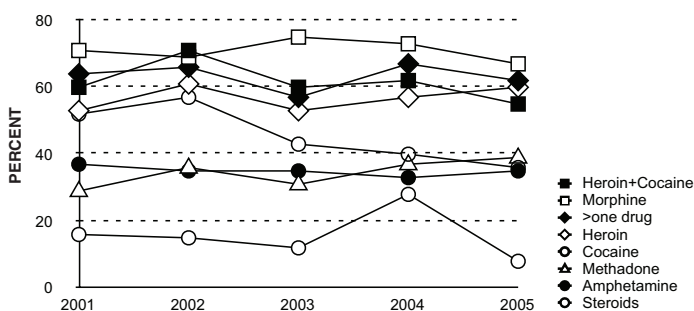
**Table 1: Drug last injected among NSP Survey respondents, 2001-2005**

	2001 n=2454	2002 n=2445	2003 n=2495	2004 n=2035	2005 n=1800
Amphetamine (%)	37	33	33	33	32
Anabolic Steroids (%)	1	2	2	1	1
Cocaine (%)	7	1	1	2	3
Heroin (%)	30	36	36	36	38
Methadone (%)	5	7	6	7	10
Morphine (%)	6	7	9	8	8
More than one drug (%)	11	10	8	8	4
Other drugs (%)	1	3	3	3	0
Not reported (%)	2	1	2	2	0

### Frequency of injection

Over the period 2001 to 2005, the proportion of NSP Survey respondents reporting daily or more frequent drug injection in the previous month remained stable, at between 46% and 50%. Respondents who reported last injecting morphine, poly drugs (ie. 'more than one drug'), heroin plus cocaine, or heroin alone, were more likely to report daily or more frequent injection than those who last injected other drug classes (Figure 1). The prevalence of daily or more frequent drug injection decreased among cocaine injectors from 2001 (52%) to 2005 (36%), but increased among methadone injectors (29% to 39%) and heroin injectors (53% to 60%).

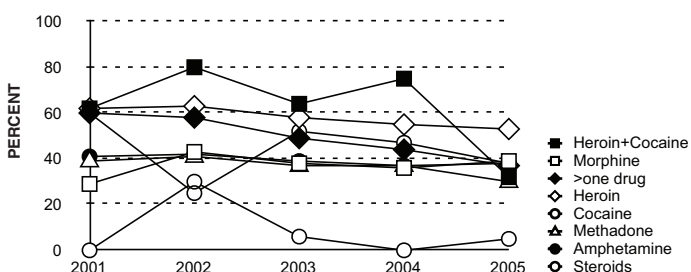
**Figure 1: Prevalence of daily or more frequent drug injection last month by type of drug last injected and year of survey**



### Public injection

Although there was a slight decrease across Australia between 2001 and 2005 in the prevalence of at least one public injection in the preceding month, from 49% to 43%, public injection varied within as well as between jurisdictions. Nonetheless, lower prevalence of public injection was consistently reported in the Northern Territory (NT) and Tasmania (TAS) than in other jurisdictions, whereas prevalence was consistently higher in the Australian Capital Territory (ACT) and New South Wales (NSW). The general pattern across the five year period indicates that respondents who last injected heroin, cocaine, these two drugs together, or more than one drug, were more likely to report having publicly injected in the preceding month than were respondents who last injected other drugs (Figure 2). Conversely, respondents who last injected steroids were less likely to report public injection.

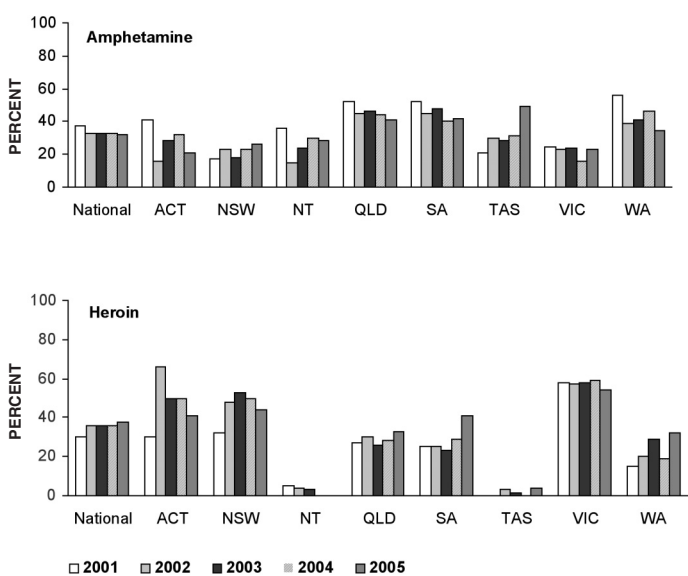
**Figure 2: Prevalence of at least one public injection in the last month by type of drug last injected and year of survey**



### Amphetamine injection

Nationally, the proportion of respondents who reported that amphetamine was the drug last injected decreased slightly between 2001 (37%) and 2002 (33%) and then remained stable to 2005 (Table 1). In every year, amphetamine was the most commonly reported drug last injected in Queensland (QLD), South Australia (SA) and Western Australia (WA) (Figure 3). In TAS, amphetamine as the drug last injected increased between 2001 (21%) to 2002 (30%) and again to 49% in 2005.

**Figure 3: Prevalence of amphetamine and heroin injection by jurisdiction, 2001-2005**



### Heroin injection

Following an increase in the proportion of respondents who reported that heroin was the drug they last injected from 30% in 2001 to 36% in 2002, prevalence of heroin injection among national NSP Survey samples remained stable until 2005 (Table 1). Despite decreases between 2004 and 2005 in the prevalence of heroin as the drug last injected in the ACT (50% to 41%), NSW (50% to 44%) and Victoria (VIC; 59% to 54%), heroin remained the drug most frequently last injected in these jurisdictions (Figure 3). Prevalence of heroin as the drug last injected increased from 2004 to 2005 in SA (29% to 41%), WA (19% to 32%) and QLD (28% to 33%). In all years, fewer than 5% of respondents in the NT and TAS reported that heroin was the drug they last injected.

### Cocaine injection

Following a peak of 7% in 2001 in the national prevalence of cocaine as the drug last injected, there was a decrease to 1% in 2002 and 2003, followed by slight increases in 2004 and 2005 (Table 1). As has consistently been observed in Australian illicit drug markets, the great majority of cocaine is injected in NSW (Table 2), where prevalence peaked in 2001, fell dramatically in 2002 and 2003, then began to increase in 2004. These reported patterns of cocaine injection among NSP Survey respondents clearly reflect the findings of the IDRS surveys over the same period, in which the proportion of NSW IDU who reported cocaine as the last drug they injected decreased from 2001 (36%) to 2002 (16%) and again in 2003 (4%), followed by

increases in 2004 (5%) and 2005 (17%). A similar pattern over time was observed among NSP Survey respondents who reported last injecting cocaine and heroin together, a practice that once again is more common in NSW than in other jurisdictions (Table 2).

**Table 2: Number of NSP Survey respondents reporting cocaine, or cocaine plus heroin, as drug last injected in NSW and other jurisdictions, 2001-2005**

	2001	2002	2003	2004	2005
<b>National</b>	<b>N=2454</b>	<b>N=2445</b>	<b>N=2495</b>	<b>N=2035</b>	<b>N=1800</b>
Cocaine (%)	164 (7)	29 (1)	26 (1)	52 (2)	58 (3)
Cocaine + heroin (%)	105 (4)	42 (2)	25 (1)	13 (1)	20 (1)
<b>NSW</b>	<b>N=691</b>	<b>N=760</b>	<b>N=785</b>	<b>N=646</b>	<b>N=729</b>
Cocaine (%)	146 (21)	26 (3)	17 (2)	41 (6)	50 (7)
Cocaine + heroin (%)	71 (10)	21 (3)	19 (2)	6 (1)	12 (2)
<b>Other jurisdictions</b>	<b>N=1763</b>	<b>N=1685</b>	<b>N=1710</b>	<b>N=1389</b>	<b>N=1071</b>
Cocaine (%)	18 (1)	3 (<1)	9 (<1)	11 (<1)	8 (<1)
Cocaine + heroin (%)	34 (2)	21 (1)	6 (<1)	7 (<1)	8 (<1)

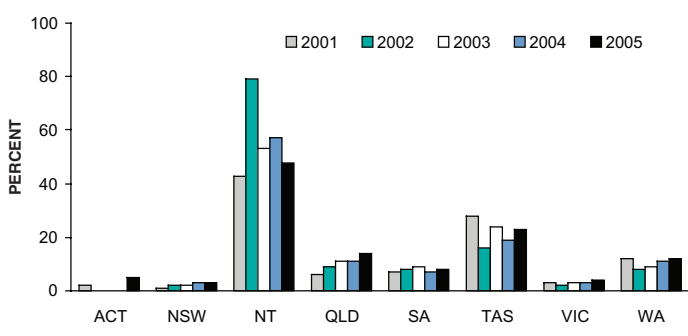
### Methadone injection

Over the period 2001 to 2005, the prevalence of methadone as the drug last injected remained stable nationally at 10% or less (Table 1). Methadone as the drug last injected was most commonly reported in TAS in all years, although prevalence was variable (28-32% in the period 2001 to 2003, 38% in 2004 and 23% in 2005). Variable prevalences of methadone as the drug last injected were also reported in the ACT (20% in 2001, 8% in both 2002 and 2003, 14% in 2004 and 18% in 2005) and NSW (8-9% in the period 2001 to 2004, and 14% in 2005). There were almost no reports of methadone injection in VIC during this period.

### Morphine injection

Although there was significant variability both within and between jurisdictions (Figure 4), the national prevalence of morphine as the drug last injected also remained stable between 2001 and 2005, at less than 10% (Table 1). Morphine as the drug last injected was higher in the NT (ranging from 43% to 79%) and TAS (16% to 28%) than in other jurisdictions, and lowest in NSW, VIC and the ACT.

**Figure 4: Prevalence of morphine injection by jurisdiction, 2001–2005**



### ‘Other’ drugs

Reports of buprenorphine and benzodiazepines as the drug last injected were also infrequent, at 2% or less nationally. In 2005, buprenorphine as the drug last injected was infrequent and low at 1% or less in all jurisdictions except VIC where prevalence of buprenorphine injection increased from 2001 (0%) to 2005 (9%). There were no reports of buprenorphine as the drug last injected in the ACT or the NT in 2005. There were no reports of benzodiazepines as the drug last injected in any jurisdiction in 2004 or 2005, with the exception of the NT where there was one report in 2005.

### Summary

Despite the changes to Australia’s illicit drug markets precipitated by the well-documented heroin shortage of 2001, the Australian NSP Survey suggests that heroin remains the drug most frequently injected among NSP Survey respondents across Australia, and particularly those in the south-eastern corner of the country, in NSW, VIC and the ACT. Amphetamine remains the next most frequently injected drug among this group, and is particularly prevalent in WA, SA and QLD. Morphine continues to be the drug most frequently injected in the NT, while IDU in TAS continue to report levels of methadone injection higher than their counterparts in other jurisdictions. Cocaine injection remains primarily a NSW issue, whereas injection of buprenorphine continues to occur most frequently in VIC. The proportion of NSP Survey respondents who reported daily or more frequent injection in the month preceding the Survey remained stable during the period 2001 to 2005, whereas the proportion who reported public injecting decreased slightly.

Like the IDRS, the NSP Survey provides valuable data on patterns of drug injection among IDU, both within and across jurisdictions, as well as over time. The consistencies between the two datasets serve to validate the capacity of each to make important contributions to Australia’s world-class sentinel surveillance systems.

### References

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### Sample size distribution

The number of IDU surveyed varied between jurisdictions and across years. Some jurisdictions have been omitted from comparisons due to small sample size. Please refer to the table below for sample sizes by jurisdiction, 2001-2005.

Jurisdiction	2001	2002	2003	2004	2005
ACT	44	62	60	28	39
NSW	691	760	785	646	729
NT	94	47	62	23	29
QLD	817	715	745	587	291
SA	276	318	355	255	211
TAS	28	151	118	107	137
VIC	340	265	237	228	194
WA	164	127	133	161	170
<b>Total</b>	<b>2454</b>	<b>2445</b>	<b>2495</b>	<b>2035</b>	<b>1800</b>
<i>Response</i>	46%	42%	45%	50%	42%
No of sites	38	46	48	42	52