

# Research briefing



## The Socio-Economic Impact of Amphetamine Type Stimulants (ATS) in New Zealand: Part I – Level of Use and Health Harms

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### Introduction

This research briefing summarises findings concerning the population level use and related health harms of Amphetamine Type Stimulants (ATS) from recent research into the socio-economic impact of ATS in New Zealand (Wilkins et al., 2004). ATS are a group of synthetic illicit drug types which include methamphetamine, ecstasy and crystal methamphetamine (known as 'ice'). The research was completed over twelve months in 2003/4 by researchers at SHORE, Massey University and was funded by the New Zealand Police.

Two other research briefings have been produced from the research completed for this project. The first reports results related to the black market for ATS and the use of ATS by arrestees (Part II); and the second, the findings concerning future trends in the use and supply of ATS (Part III). The full report of the project, and other information on drug use, can be downloaded from the websites of the New Zealand Police ([www.police.govt.nz](http://www.police.govt.nz)), National Drug Policy site ([www.ndp.govt.nz](http://www.ndp.govt.nz)) and SHORE, Massey University ([www.shore.ac.nz](http://www.shore.ac.nz)).

### Aims and objectives

The overall aim of the project was to assess the socio-economic impact of ATS in New Zealand. The objectives included:

- analyse the patterns and demographics of ATS use,
- investigate the impact of ATS on the use of other drugs and levels of intravenous drug use,
- compare levels of ATS use with Australia,
- assess the health harms associated with frequent ATS use,
- assess the impact of ATS on drug treatment services.

### Methods used

A range of research methods were used to achieve these objectives. These were:

- secondary analysis of ATS use from the most recently available National Drug Survey, conducted in 2001,

## Key Points

**Approximately 100,000 New Zealanders had used an ATS drug in the previous year in 2001**

**The highest levels of ATS use were among men aged 20-24**

**The rise in ATS use may lead to increased demand for other 'hard' drug types**

**Crystal methamphetamine users had the highest level of intravenous drug use**

**Frequent methamphetamine users reported high levels of psychological problems**

**ATS use in New Zealand is at a similar level to that of Australia**

**One in five patients entering drug treatment are now amphetamine users**

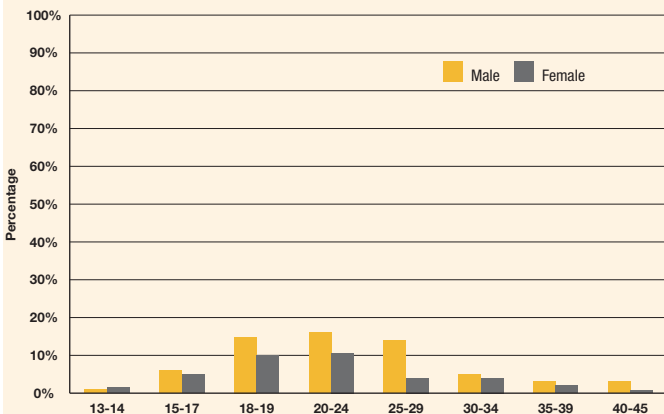
- comparison of the levels of ATS use between New Zealand and Australia, using each countries' 2001 national drug survey findings,
- inclusion of additional questions on methamphetamine in the 2003 national survey of drug treatment workers,
- in-depth interviews with frequent methamphetamine users in the community, conducted in 2004.

## Findings

### Extent of ATS use

The 2001 National Drug Survey interviewed approximately 5,800 people aged 13-45 nationwide about their drug use. Six percent of the sample had used an ATS drug in the previous year. This is the population equivalent of 100,000 New Zealanders having used an ATS drug in the last twelve months. Young men aged 18-29 had the highest levels of ATS use with 15% of men aged 18-19, 17% of men aged 20-24, and 14% of men aged 25-29, having used an ATS drug in the previous 12 months (Figure 1).

Figure 1: Last year use of ATS by age and sex, 2001



Poly drug use was common among ATS users. Ecstasy users had used an average of seven drug types in the last year (range 1-17), amphetamine users an average of six drug types in the last year (range 1-17) and ice users an average of nine drug types in the last year (range 4-17). Among last year amphetamine users, the other drugs most commonly used were alcohol (93%), cannabis (86%), tobacco (73%), ecstasy (44%), LSD (44%), ice (15%) and cocaine (10%). Among last year ice users, there were high levels of opioid use with 25% having used 'homebake' heroin in the previous year. Overseas

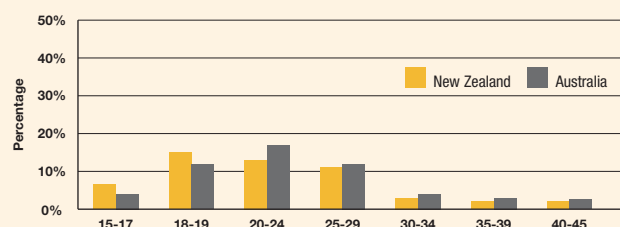
studies have found that amphetamine users who combine amphetamine with other drugs increase their risk of experiencing problems, such as drug psychosis, violent behaviour and addiction (Darke and Ross, 1994, Darke and Hall, 1995, Baker et al., 2001).

Intravenous drug use was also relatively high among ATS users. Three percent of last year ATS users had used a needle to inject a drug in the last year compared to 0.2% of the general population. Eleven percent of ice users had used a needle to inject a drug in the previous year. Experience of amphetamine epidemics in other countries have found that increases in amphetamine use led to increases in intravenous drug use, particularly among young drug users (Klee, 1992, Peters et al., 1997, McAllister and Makkai, 2001, Hando and Hall, 1994). The switch to the intravenous administration of amphetamine is thought to be a response by heavy amphetamine users to a growing tolerance to the drug's effects. There is also evidence that existing injecting opioid users will switch to the use and injection of amphetamines in response to their greater availability and lower prices.

### Level of use compared to Australia

Comparisons of the level of ATS drug use between New Zealand and Australia found New Zealand generally had lower levels of use than Australia. This was particularly the case with ecstasy use. However, levels of amphetamine use between the two countries were much closer, with use of amphetamine among men aged 15-19 higher in New Zealand than in Australia (Figure 2). This is a cause for concern, as young people are more vulnerable than older people to the negative consequences of drug use, particularly in the areas of education, development and employment. There is also a risk that the higher levels of amphetamine use among younger age cohorts in New Zealand may translate into higher overall rates of amphetamine use in the future.

Figure 2: Proportion of males who used amphetamine in the last year in New Zealand and Australia by age, 2001



### Harms from frequent ATS use

In-depth face-to-face interviews were conducted with at least monthly methamphetamine users in the Auckland area in 2004. These frequent users were recruited using community advertising and through referrals from those interviewed.

Participants were first asked whether the use of methamphetamine had harmed any of eight areas of their life in the last six months. The areas of life most commonly reported harmed by frequent methamphetamine use were 'friendship and social life' (55%), 'health' (55%), 'energy and vitality' (53%), 'financial position' (51%) and 'work and work opportunities' (40%).

Participants were then asked if they experienced any of a list of 26 physical and 13 psychological problems after using methamphetamine. The physical problems most commonly reported after using methamphetamine were 'poor appetite' (83%), 'trouble sleeping' (77%), 'loss of energy' (57%), 'skin problems' (51%), 'poor concentration' (51%) and 'heart palpitations' (51%) (Table 1).

Table 1: Physical problems from frequent methamphetamine use

| Physical problem      | % sample |
|-----------------------|----------|
| Teeth problems        | 49       |
| Profuse sweating      | 49       |
| Hot/cold flushes      | 38       |
| Heart palpitations    | 51       |
| Shortness of breath   | 30       |
| Chest pains           | 21       |
| Headaches             | 34       |
| Dizziness             | 32       |
| Tremors/shakes        | 42       |
| Fainting/passing-out  | 13       |
| Fits/seizures         | 4        |
| Memory lapse          | 45       |
| Poor concentration    | 51       |
| Numbness/tingling     | 27       |
| Vomiting              | 17       |
| Stomach pains         | 34       |
| Muscular aches        | 36       |
| Joint pains/stiffness | 40       |
| Inability to urinate  | 38       |
| Poor appetite         | 83       |
| Trouble sleeping      | 77       |
| Weight loss           | 42       |
| Blurred vision        | 32       |

|                  |    |
|------------------|----|
| Loss of sex urge | 42 |
| Loss of energy   | 57 |
| Skin problems    | 51 |
| Other            | 15 |

Many of the frequent methamphetamine users interviewed experienced mental health problems after using methamphetamine, including tendencies to self-harm (Table 2). The psychological problems most commonly reported from methamphetamine use were 'anxiety' (70%), 'mood swings' (66%), 'short temper' (62%), 'paranoia' (60%), and 'depression' (60%).

Table 2: Psychological problems from frequent methamphetamine use

| Psychological problem | % sample |
|-----------------------|----------|
| Anxiety               | 70       |
| Mood swings           | 66       |
| Strange thoughts      | 40       |
| Visual hallucinations | 45       |
| Sound hallucinations  | 43       |
| Short tempered        | 62       |
| Violent behaviour     | 15       |
| Panic attacks         | 25       |
| Paranoia              | 60       |
| Depression            | 60       |
| Suicidal thoughts     | 21       |
| Suicide attempts      | 13       |
| Flashbacks            | 9        |
| Other                 | 8        |

The high incidence of psychological problems among frequent methamphetamine users signals the important role mental health services can play in the treatment of these drug users. The findings concerning the psychological problems related to methamphetamine use can be used to attract users experiencing problems to drug treatment. Klee and Morris (1994) found that damage to psychological function and ability to socialise, rather than physical damage suffered, were the harms that amphetamine users perceived as most problematic and most likely to lead them to seek drug treatment.

### ATS and demand for drug treatment services

The National Addiction Centre (NAC) in Christchurch has been conducting national surveys of dedicated alcohol and drug treatment workers since 1998. For the 2003 survey, sections of

the survey were expanded to more clearly identify amphetamines as the main problem among patients attending these services. Amphetamine was found to be impacting on alcohol and drug treatment services in New Zealand to the extent that about one in five patients now cited amphetamine, alone or in combination with other drugs, as their main substance use problem. These findings confirm that increases in amphetamine use in the general population are now translating into an increase in treatment demand for this drug type.

## Conclusions

This research briefing summarises the findings on the prevalence of ATS drug use and associated harms from the recent study of the socio-economic impact of ATS. The findings indicate that ATS are now serious drugs of abuse in New Zealand. Over ten percent of men aged 18-29 had used an ATS drug in the previous year. Frequent methamphetamine users reported experiencing a range of physical and psychological problems from their use, including tendencies to self harm. Drug treatment services are now beginning to experience an increased demand for treatment from ATS drug users as a result of the wider use of these drug types.

The results presented here can be used by health professionals and drug treatment workers to advise and treat ATS users experiencing problems. Drug treatment programmes designed for ATS users may need to take into account the high level of poly drug use within this population and the possibility of addiction to a number of substances, including legal drugs such as alcohol. The level of mental health problems reported among frequent methamphetamine users indicates that these drug users should be approached with caution to avoid triggering any violent defensive or self-harm response. The findings also signal the need to closely monitor the ATS user group to track the impact they may have on the demand for other 'hard' drug types and levels of intravenous drug use in New Zealand.

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