



# METHAMPHETAMINE ACTION PLAN

Ministerial Action Group on Drugs  
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## METHAMPHETAMINE ACTION PLAN

### EXECUTIVE SUMMARY

#### Introduction

The first part identifies actions being taken to reduce the prevalence, use and harm associated with methamphetamine use. The second part of the Methamphetamine Action Plan outlines the nature and the magnitude of the methamphetamine problem in New Zealand.

#### Objective

The objective of this plan is to develop cross agency approaches to deal with methamphetamine related problems. Methamphetamine is currently one of New Zealand's significant illicit drug issues. Actions to deal with methamphetamine have, to date, been carried out by individual departments and non-government organisations with some co-operation, however, this plan will initiate a 'whole of government' approach to the methamphetamine problem.

#### Summary

This document is meant to identify the actions currently taking place and those that are recommended to address the issue of methamphetamine dependence. The action plan is designed to be a guide for agencies and the Inter-Agency Committee on Drugs (IACD) to develop policies to address problems related to methamphetamine use. The implementation of this action plan will be co-ordinated by the IACD and its progress will be monitored by the Ministerial Committee on Drug Policy. The proposed and recommended actions are listed below; these are followed by a list of the actions already being implemented.

### PROPOSED ACTIONS AND RECOMMENDATIONS

#### Controlling supply

- Changes to the Misuse of Drugs Act 1975 to allow increased powers for Police and Customs in relation to precursor supply control, particularly powers for Customs to seize unlicensed imports of precursors and extend warrantless search and seizure powers to Police for precursor substances.
- Improved drug monitoring and surveillance systems, including more specific Police offence codes for methamphetamine offences, the establishment of a comprehensive illicit drug monitoring system, and exploring the potential to add New Zealand sites to the Drug Use Monitoring Australia (DUMA) programme of drug-testing people detained in police cells.
- Improved resourcing of Police and Customs drug enforcement services to provide greater intelligence and investigative capacity to respond to the current and future methamphetamine situation.

## Reducing Demand

- The set up of Community Action Programmes to target communities with Methamphetamine problems, focusing on community ownership and solutions with support from Public Health and public health providers. These have been allocated funding and will be implemented.
- The set up of Community Action Programmes focussing on building resilience amongst producer, supplier, user communities (e.g. gangs) and to encourage self-prohibition on methamphetamine.
- Improving public health and education drug resources with improved information on methamphetamine.

## Limiting Problems

- Improved resourcing of treatment services to allow for a greater level of training.
- Supporting greater liaison with Australian health services on current methamphetamine treatment projects.
- Develop, in consultation with treatment providers and clinical services, a methamphetamine treatment protocol.
- Focus on behavioural change treatment approaches, as they have been proven to be a successful form of methamphetamine dependence treatment.
- Further investigation into the effectiveness of Section 13(1)(aa) of the Misuse of Drugs Act 1975, that makes it an offence to possess needles and syringes, and the Health (Needles and Syringe) Regulations 1998, that provides a defence.
- Workforce development for drug educators (e.g. teachers and public health nurses) and first interventions workers (e.g. youth workers) focused on information on methamphetamine and associated issues, recognition of problems and appropriate referral options.
- Improved support and supervision mechanisms for those, such as police and treatment workers, whose work brings them into direct contact with methamphetamine users.
- Assessment of training needs of emergency department hospital staff to deal with methamphetamine related admissions.

## Research

- Improve information gathering on methamphetamine, including ways of dealing with clandestine laboratories and their effects. This will be enhanced by placing a Health intelligence analyst at the National Drug Intelligence Bureau (funding for which has been provided in the Budget).
- Further research into the morbidity and mortality rates associated with methamphetamine use – e.g. set up a register of methamphetamine related deaths or injury/illnesses.
- Improved analysis of methamphetamine related apprehension and seizure statistics (this will be aided by the phasing in of more specific Police offence codes for methamphetamine offences, and establishment of a comprehensive illicit drug monitoring system).

- Outcome research of treatment options.
- Regular meetings/symposiums to be organised to bring treatment, research and policy fields, as well as drug educators and first intervention workers, together on aspects of methamphetamine and other drug use.

## STOCKTAKE OF CURRENT ACTIVITY

Currently agencies are developing several methamphetamine related initiatives. This action plan is designed to integrate these initiatives and develop further initiatives on top of them.

### Supply control

- The re-classification of methamphetamine as a Class A controlled drug will provide police with powers to search and seize without a warrant. Police will be able to be more responsive to methamphetamine related crimes.
- Police Drug Squads and Organised Crime Units, together with Customs' Drug Investigation Units; provide the main counter drug supply control capability. They have recognised methamphetamine as the major 'hard drug' problem facing New Zealand and have focussed attention on it as the key drug priority.
- A key capability has been the training of specialist investigators to deal with the potentially dangerous task of assisting ESR scientists in the investigation and dismantling of clandestine drug laboratories ("clan labs"), used to illicitly manufacture methamphetamine. These have been drawn from existing drug squad staff but the increase in the number of clan labs and suspected clan labs requires a greater capability than can be provided currently. A small number of staff to provide two dedicated clan lab teams (one based in Auckland, one in Wellington) has recently been agreed to.
- The National Drug Intelligence Bureau (NDIB) provides international liaison on all drugs law enforcement matters as well as information, strategic intelligence and operational support to Police and Customs in New Zealand.
- The NDIB has agreed a Memorandum of Understanding (MOU) with the New Zealand Chemical Industry Council in regard to monitoring the sale of precursor chemicals that can be used in the manufacture of methamphetamine.
- Police has also been involved in a number of initiatives at a District level with pharmacies with regard to the sale of methamphetamine precursor substances, such as cold and flu medicines containing pseudoephedrine. Protocols have been developed whereby pharmacy staff will contact Police about suspicious customers, and refusal to sell multiple packets of bearing-bearing products to customers. Many pharmacists now refuse to sell multiple packets of these medicines to customers. Such protocols with pharmacies have been particularly successful, and it is planned that a national-level MOU with the representative bodies of the pharmacy sector will be developed.
- Police and Health are also currently assessing possible enhancement of Police search and seizure powers in relation to methamphetamine precursor substances, which are not subject to search and seizure by police officers without a warrant.

- Justice is currently reviewing the Proceeds of Crime Act 1991. This review is aimed at improving the effectiveness of this Act to confiscate proceeds of crime from convicted offenders. This will reduce the incentive for producing methamphetamine.
- Customs has upgraded the status of investigations into precursor chemicals to move them into their highest priority investigation case. This is intended to address the increasing problem of pseudoephedrine imports for domestic methamphetamine production.
- Customs is continually improving its procedures for dealing with pseudoephedrine and other prescription medicines, focussing on personal importations rather than commercial quantities. Following the completion of an Intelligence Assessment on the importation of pseudoephedrine in early 2003 procedures and policies for the handling of border detections of prescription medicines are being prepared by Customs.
- Customs is currently reviewing its overall approach to precursor control, and in particular the way in which New Zealand's obligations under Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.
- Customs is a member of the Oceania Customs Organisation. This allows Customs to address the threat posed by precursors in a co-operative regional context. The Oceania Customs Organisation's current action plan includes a focus on enhanced precursor control.
- Customs will also be allocated additional funds in the next financial year with which to enhance its investigative abilities. This will provide 12 additional investigators and 4 additional intelligence analysts to target higher echelon drug trafficking syndicates.

### **Demand reduction**

- There are a number public health campaigns against the use of methamphetamine and 'P' in action. An example of this is the North Shore community public health campaign that is being developed. This includes a poster and a pamphlet on the dangers of using 'P'. This project was undertaken with a significant amount of initiation and involvement from the community.
- Te Puni Kokiri has funded a research project to raise the levels of awareness among Maori, whanau, and Maori organisations about the negative impacts and dangers of methamphetamine.

The Project aims to build strategies:

- that build resistance among Maori to the use of methamphetamine,
- to develop services to help individuals and whanau change behaviours.

## Problem limitation

- Treatment for methamphetamine use or addiction problems is not well developed. In New Zealand there are few treatment services or mental health services aimed specifically at those with methamphetamine use and dependence issues. This is mainly because the numbers presenting for treatment are still low and most present as poly-substance users.
- Pharmacological treatments have not been shown to work. Therefore it is expected that treatment options in New Zealand will follow those in Australia and the US by focussing on behavioural change and abstinence rather than substitution.
- There has been a report of one stimulant and alcohol dependent patient who was placed on a maintenance supply of pseudoephedrine in order to avoid binges on both pseudoephedrine and alcohol. This may provide some insight as to development of possible pharmacological interventions for the methamphetamine dependent.
- In terms of problem limitation strategies, Police clan lab teams have been active in minimising the environmental damage that can be caused by chemical by-products from methamphetamine production.

## Research

- In order to increase knowledge of methamphetamine and the prevalence of the methamphetamine problem in New Zealand a number of better information gathering systems are being developed. These include improved information on Emergency Department admissions for methamphetamine related problems and improved information from New Zealand Hospital Information Service.
- A key initiative in the research area has been to contract Massey University researchers to conduct a study on the socio-economic impact of the increased use of amphetamine-type stimulants (ATS), with a special focus on methamphetamine. The research is currently underway, and its results are expected by March 2004. Briefly, the main aims of the research are to:
  - identify 'at risk' groups, including demographic profiling (age and ethnicity data) and patterns of use;
  - explore the relationship, if any, between ATS use and the use of other drugs, and the impact of an increase in ATS availability and use on the dynamics of the illicit drug market;
  - quantify the New Zealand market for ATS through supply and demand side analysis, and an assessment of the economic impact of the use and manufacture of ATS;
  - model the potential future impact of growing ATS use to assist in the development of interventions and service provision;

- assess the impact of ATS use on rates and patterns of crime;
- assess the impact of ATS use on health status, including presentations to primary and secondary treatment services; self-reported harm to the user, family and others; and to provide the latest information on mortality and morbidity associated with ATS use;
- develop best practice responses to address ATS problems across demand reduction (prevention), supply control (enforcement) and problem limitation (treatment) activities.
- Police has also committed to preliminary work aimed at establishing a formal illicit drug monitoring system (IDMS), and adding New Zealand sites to the Australian DUMA programme. Scoping work on both initiatives is currently being done. Briefly, an IDMS would help to identify emerging patterns in the manufacture and supply of illicit drugs, and support intelligence-led policing. DUMA seeks to measure drug use among those people who have been recently apprehended by police. Data from DUMA is used to examine issues such as the relationship between drugs and property and violent crime, monitor patterns of drug use across time, and help assess the need for drug treatment amongst the offender population. Final decisions about whether to proceed with an IDMS and adding New Zealand sites to the DUMA programme will be made later in 2003.

## NATURE AND MAGNITUDE OF THE PROBLEM

This section provides information on the nature and magnitude of the methamphetamine problem in New Zealand. This section provides information on the health effects of methamphetamine use, apprehension, seizure and clandestine laboratory data, and customs border seizure data, as well as information on the international situation.

### Methamphetamine terminology

- ***Synthetic drugs*** - a useful catch-all term referring to psychoactive substances artificially produced in laboratories from chemical raw products (precursors) rather than from natural products.
- ***Amphetamines*** - a generic term applying to a range of amphetamine based substances. Sometimes extended to include amphetamine analogues (drugs with comparable effects) such as 3,4,ethylenedioxymethamphetamine (MDMA).
- ***Amphetamine type stimulants (ATS)*** - generic term for those amphetamine type drugs with stimulant properties. Also a broader term applying to a range of amphetamine-based substances, including those with stimulant, euphoric or hallucinogenic properties.
- ***Amphetamine (also known as speed, crank, amphetamine sulphate, whiz)*** – a specific member of the amphetamine group. A central nervous system stimulant that is a Class B controlled drug in New Zealand.
- ***Methamphetamine (meth, crank, goey and speed)*** - Methamphetamine is also a central nervous system stimulant and member of the Amphetamine group of synthetic drugs. This is being manufactured in illicit labs in New Zealand and imported. It is a Class B controlled drug.
- **"Speed"** – a street term that usually refers to methamphetamine but sometimes also to amphetamine sulphate.
- **"P", "Burn" or "Pure"** - New Zealand name for high purity methamphetamine (note: "P" is one step removed in the manufacturing process from "Ice" and is not the same as "Ice").
- **"ICE" (crystal methamphetamine, shabu (in Japan), crystal meth)** - It is a colourless, odourless, smokable crystalline form of dextro-methamphetamine hydrochloride. "Ice" has a distinctive rock crystal appearance. It is chemically identical to the powder and tablet forms of methamphetamine and, unlike other forms of methamphetamine, "Ice" is virtually pure. It is a Class B controlled drug.
- **"Ya Ba" (yaba, yaa baa)** - This is a Thai term literally meaning "crazy medicine". It commonly refers to methamphetamine in tablet form that is popular in South East Asia. Often appears with logos similar to ecstasy type drugs.

- **Ephedrine and Pseudo-ephedrine** - precursor chemicals for manufacture of methamphetamine. The latter is contained in common cold/cough medicines.

## Health Effects of Methamphetamine Use

As part of the Methamphetamine Action Plan the health effects of methamphetamine are examined. This examination focuses on effects, binge use, mortality, dependence and public health risks. Health effects of methamphetamine use and production are particularly wide ranging and potentially damaging for New Zealand.

### *Effects*

Methamphetamine can be taken by mouth, by nose, or by injection. The mode of administration affects the speed of onset and the level of euphoria experienced, as does the purity of the substance. Once consumed, methamphetamine is absorbed into the bloodstream and crosses the blood/brain barrier and affects the central nervous system. The half-life of methamphetamine in the system can vary between 10 and 30 hours. The effects last between 3 to 6 hours for 'speed' (5-15% purity) and up to 24 hours for 'P' or 'Pure' (80-90% purity).

Generally methamphetamine is a central nervous system (CNS) stimulant and causes increased blood pressure, increased pulse rate, increased cardiac output and enhanced mood. The effects of methamphetamine are dose dependent, however, the following effects will occur at greater or lesser levels; euphoria, increased activity and energy levels, dis-inhibition, sense of well-being, increased confidence (often termed 'bullet-proof'), decreased appetite and agitation.

A large single dose can result in increased body temperature and convulsions; longer durations of use can lead to stroke and severe arrhythmia. On withdrawal of use the user can experience fatigue, restlessness, nervousness, feelings of alienation and irritation, physical effects include tremor, sweating, headaches, dizziness, dryness of the mouth and gastrointestinal problems.

Long-term effects of methamphetamine use are pronounced. Heavy users may display a number of psychoses, such as paranoia, auditory hallucinations, mood disturbance and delusions. Problems may be compounded by existing mental health issues amongst users.

### *Binge use*

Patterns of methamphetamine use tend to compound physical, psychological and social problems. To extend the euphoria and to stave off the negative effects of withdrawal users often engage in prolonged binges (these are often reported to be between 2 and 6 days) and forgo sleep and other needs. These binges tend to be followed by a pronounced crash where the resulting physical and mental exhaustion and psychotic effects are amplified. The crash generally includes; deep depression, fatigue, difficulty in sleeping, headaches, decreased energy and strong cravings to use again.

In extreme cases overt psychosis may be discernible for several days and cause symptoms lasting several weeks. Erratic and violent behaviour, delusions, and paranoia are characteristic of this condition, which is attributable to withdrawal symptoms and/or extreme exhaustion from the extended, binge use of the drug. Symptomatically this can be indistinguishable from schizophrenia.

Prolonged, chronic use may also cause respiratory problems, stroke, irregular heartbeat, extreme anorexia and neurotoxicity.

### ***Potential to cause death***

Overseas and New Zealand information shows that at high doses methamphetamine can cause death. Several deaths in New Zealand have been associated with methamphetamine use.

One case is reported where an individual was taken into Police custody. After one hour the individual started to have hallucinations, seizures, high blood pressure and high pulse rate. The individual then became hypertensive and began bleeding from all orifices and went into paralysis and could not be resuscitated. The cause of death was later determined to be irreversible shock, acute respiratory failure, hepatic necrosis and renal failure from acute methamphetamine and alcohol ingestion.

### ***Dependence***

Regular methamphetamine users may exhibit signs of both physical and psychological dependence. Increased tolerance, problems controlling usage and a range of physical and psychological withdrawal symptoms all indicate dependence potential. There is evidence to suggest that methamphetamine has a faster progression from initial use to regular use than other stimulants, such as cocaine. Users who inject or smoke methamphetamine may be more susceptible to the development of dependence, this is in part due to the speed of onset and the intense 'rush' associated with these modes of usage.

Those dependent on methamphetamine experience strong physical cravings as well as cravings triggered by conditional cues, which can continue for long periods after a user has stopped using. Some aspects of withdrawal after dependence include delusions, hallucinations (including 'meth-bugs', the sensation of insects crawling under the skin), severe paranoia and depression. Dependence is also associated with lower general health and social problems, such as family breakdown.

### ***Public health risks***

#### ***HIV/AIDS, Hepatitis B and C***

Injection is a mode of usage amongst heavy methamphetamine users. The sharing of injecting equipment can lead to the transmission of blood born infections, such as, HIV/AIDS, Hepatitis B and C and septicaemia.

Methamphetamine use has been associated with increased libido and decreased judgement leading to unsafe sex practices. In various forms methamphetamine has

been used (sometimes in combination with other drugs) in situations of sexual abuse, e.g. rape.

### *Clandestine manufacture*

The manufacture of methamphetamine in 'back yard' laboratories creates a number of public health and environmental safety risks. The chemicals used in these processes are often highly flammable, corrosive, explosive and/or toxic. In the US 20-30% of methamphetamine laboratories are only discovered due to fire or explosion. In New Zealand the Police have developed strategies and teams for cleaning up methamphetamine laboratories, however, people coming into contact with these places, during or after production, are being exposed to potential health risks.

Anecdotal evidence points to an increase in burns patients admitted to hospital as a result of methamphetamine clandestine laboratory accidents.

### *Potential violence*

As a result of methamphetamine use some users are prone to paranoia and irrational behaviour that can result in violence. Police in New Zealand report significant violence in and around the methamphetamine scene. Police in the US have long noted the difficulties of dealing with methamphetamine users in potentially confrontational situations, due to their irrational behaviour, paranoia and increased aggression.

### ***Hospital admissions in New Zealand***

Currently little data is available on methamphetamine hospital admissions. This situation is being rectified through a new process to receive Emergency Department (ED) data directly. The initial report received on ED admissions from Auckland DHB showed that between 1 January 2002 and 31 October 2002 36 people presented at EDs with methamphetamine related conditions (two of these had administered the methamphetamine intravenously). Further information will be added once it has been received.

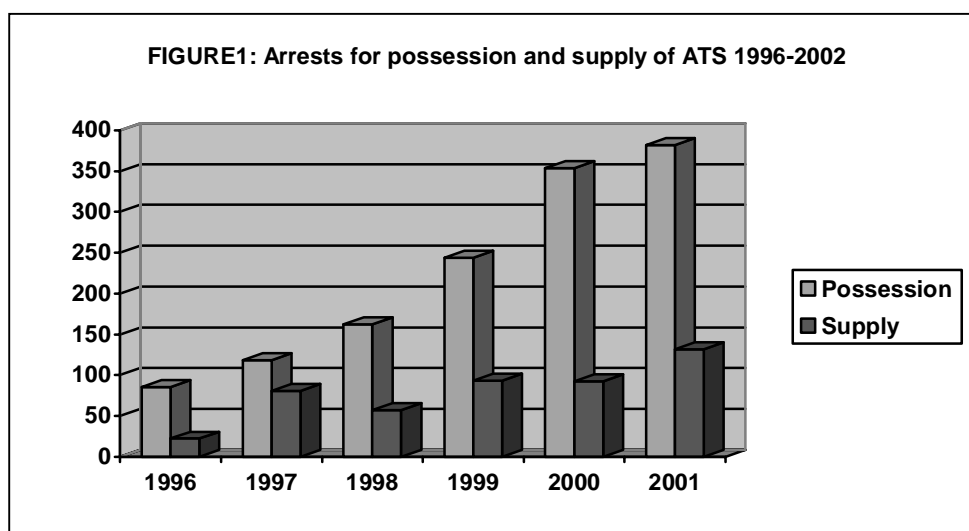
### **Apprehension, seizure and clandestine laboratory data**

Police data indicate growing availability of methamphetamine, however, some of the data systems do not currently distinguish between methamphetamine and other amphetamine-type stimulants (ATS). For example, the number of persons arrested for the possession of ATS has increased markedly (approximately 400 percent) between 1996 and 2001 [see Figure 1]. Increasing numbers of people have also been charged with supply offences for ATS in recent years. In the first half of 2002 (year-to 30 June 2002), 58 people had been arrested for possession of ATS and 188 for supply and manufacture offences.

There has also been an increase in methamphetamine seizures at the border. Prior to 1998 the seizures of ATS were erratic and seldom exceeded a kilogram in total for

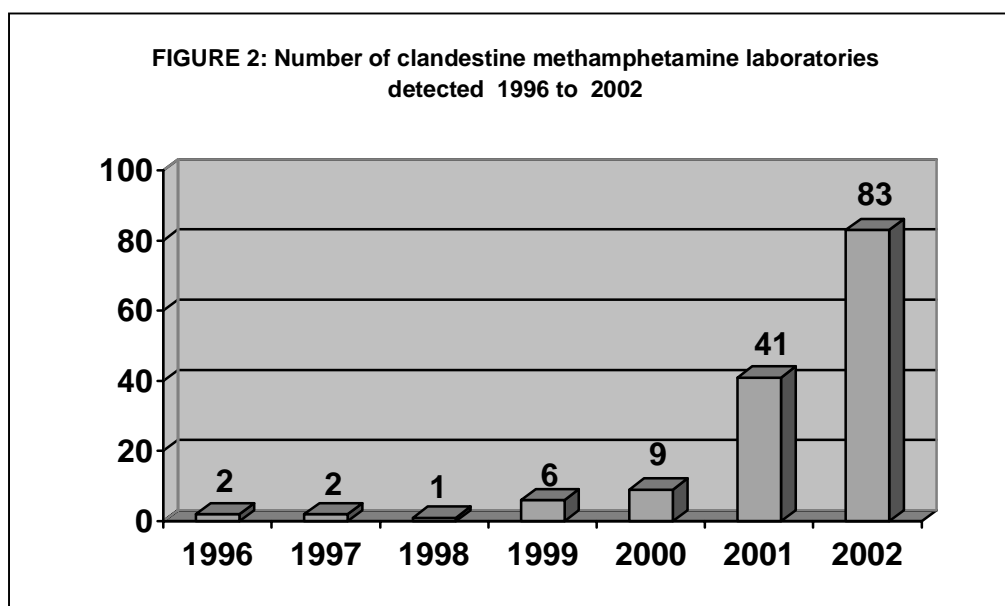
any given year. However, since that time there has been a significant rise in interdiction rates and the size of seizures as outlined below:

- 1.3 kilograms seized in 1998
- 2.2 kilograms seized in 1999 (including 1.8 kilograms of methamphetamine)
- 10.1 kilograms seized in 2000 (including 2.1 kilograms of methamphetamine)
- 19.9 kilograms seized in 2001 (including 3.8 kilograms of methamphetamine)
- 76.9 kilograms seized in 2002 (including 6.4 kilograms of methamphetamine).



Domestic manufacture of methamphetamine has also grown significantly in recent years. A record number of clandestine laboratories were dismantled in 2001 [see Figure 2]. The number of laboratories detected in 2002 was 147. This indicates that this trend (a 1600% increase since 2000) is set to continue.

Finally, there has been a decline in the street price of methamphetamine. According to the National Drug Intelligence Bureau, the price of methamphetamine has declined from \$250-\$300 per gram prior to mid 1999 to \$100-\$180 per gram in 2002. This could be interpreted as a sign of increasing levels of supply, albeit the relationship between price and availability is not explicit.



### ***Manufacturing and supply***

Police operational intelligence indicates that organised crime groups (primarily outlaw motorcycle gangs) control all facets of the methamphetamine market in New Zealand, including stockpiling over-the-counter drugs and precursor chemicals, the manufacture of methamphetamine in clandestine laboratories, and distribution of the end product.

The huge profits to be derived from the manufacture and distribution of methamphetamine appear to have motivated these criminal enterprises. It is also evident that they are exploiting the opportunity provided by the fact that all the ingredients needed to manufacture methamphetamine can be sourced from within New Zealand. This avoids the need for more costly importations, which in turn hampers enforcement agencies by removing the capability for interdiction at the border.

A number of Proceeds of Crime actions have been undertaken against convicted methamphetamine suppliers.

### ***Links between methamphetamine and crime***

International experience indicates that growing availability of methamphetamine, and in particular the more potent forms of methamphetamine, will have implications for frontline agencies such as the police.

For example, lessons may be drawn from the proliferation of crystalline methamphetamine in the United States in the early 1990s. Describing this phenomenon from a policing perspective, Doane (1996) reported that the problematic use of this drug was associated with levels of criminal violence that were unparalleled by that experienced with any other category of drug.

Similarly in the United Kingdom, Wright and Klee (2001) found that of a sample of 86 heavy ATS users, 47% admitted to committing violent crime and 62% reported problems with aggression while 35% reported both. The authors suggested that this was likely to be a significant under-estimation of the levels of aggression and violent crime in the sample. Approximately 24% of the sample indicated that their involvement with violent crime was related to their ATS use. This stemmed from ATS intoxication, withdrawal, mixing drugs or suffering from ATS psychosis. Those users who admitted to committing violent crime were more likely to report craving for ATS and ongoing problems with paranoia and aggression.

In Australia, a recent survey of remand inmates and volunteers under suspicion of committing an offence found that ATS users were more likely to report high or medium physical aggression and recklessness associated with the use of the drug (Loxley and Bevan 1999). According to this study, ATS use was the only predictor of violent offences among all the other variables. Baker et al. (2001) also found high levels of criminal activity among their sample of 64 regular users of ATS in Newcastle, NSW.

### ***What does this mean for police in New Zealand?***

A wide range of individual and environmental factors mediate the relationship between illicit drug use and crime or disorder. As such, it is not possible to predict with certainty the impact that more widespread use of methamphetamine will have on policing in New Zealand. Nevertheless, there is sufficient evidence to at least sound some notes of warning.

#### *Effects of acute intoxication with methamphetamine*

While there is no explicit relationship between the use of methamphetamine and violent behaviour (Richards 1999), it could be anticipated that the effects of the use of the more potent methamphetamine - or the withdrawal from them - such as aggression, paranoia and panic attacks, will ultimately spill over into a range of criminal and public disorder offences. This will have implications for how police interact with methamphetamine-intoxicated individuals both on the street and in custody areas. The skills required to deal with these individuals are likely to be different from those that are required to deal with, for example, alcohol-affected individuals. In addition, the environment in which these individuals should be managed is very different to that which is commonly found in police cells.

For example, Wickes (1993) found that those under the influence of ATS should be provided with ample reassurance and managed in an environment that is quiet and lacking in environmental stimuli. She found that an important part of managing such people was to avoid confrontation and arguments. Further, the use of potent ATS can result in behaviour that can only be managed by sedation. It can also result in medical emergencies, such as those stemming from very high blood pressure, irregular and rapid heart beat and excessively high body temperatures. It will thus be important that police are able to recognise these possible complications and have protocols in place to deal with them.

Another way in which the use of more potent forms of methamphetamine could impact on policing concerns the influence of these drugs on driving. The evidence base concerning the impact of ATS on driving is equivocal (for example, see Hunter et al. 1998, and Austroads 2000). While noting the lack of data to support the assertion that ATS use by drivers plays a significant role in road crashes, Hunter et al. (1998) suggested that this should not be taken to indicate that these substances do not play a significant role in road crashes. They proposed that the major mechanism through which ATS use has its effects on crash causation might be via the rebound phase after ATS use, when the substances are no longer affecting the driver. They noted that the major symptom of this rebound phase is fatigue, which clearly may impact on driving performance. In this way, the use of more potent methamphetamine in New Zealand may directly impact on driving performance during the rebound phase following intoxication. Further, it seems reasonable to assume that a psychotic state emanating from gross methamphetamine-intoxication would be incompatible with satisfactory driving performance.

Another phenomenon described by Aitken (1999) is the use of ATS specifically to enhance the thrill of aggressive driving. Although the sample size of ATS users interviewed by Aitken (1999) was relatively small, the participants in the study

described amphetamines as giving them increased energy, sharpened reflexes, feelings of nervousness, aggression and confidence to the point of feeling invulnerable. While some of the group associated these effects with an increased risk of having an accident, others were convinced that the use of ATS improved their driving.

All of these dynamics may well cause significant problems for New Zealand Police in future when attempting to increase road safety and reduce road trauma.

These concerns for driving would also extend to the use of machinery within a work place or at home.

#### *Potential impacts of use of more potent forms of methamphetamine on patterns of crime*

Arguably much of the drug related crime in New Zealand at present revolves around the use of cannabis and opioids. It is possible that the patterns and dynamics of methamphetamine-related offending may vary significantly from those associated with either of these other types of drugs.

For example, Klee and Morris (1994) examined the criminal activity of a group of heroin users and a group of amphetamine users in Northwest England, and found that the major predictor of criminal activity for both groups was the extent of drug use. However, they also found that the heroin users' involvement in crime was more closely linked to their *expenditure* on drugs, whereas for amphetamine users, it was the *frequency* of drug use that predicted crime. The amphetamine users used this drug less often, spent less on the drug, and funded a greater proportion of their drug use in non-criminal ways than their heroin using counterparts. Interestingly, despite the fact that the amphetamine users would have less of a monetary need to commit crime, they reported crime rates similar to those of heroin users. Klee and Morris (1994) speculated that the stimulation received from committing crime could have an effect similar to that of using amphetamines. In this way, it could be the need for excitement, rather than the need for money, which is at the basis of the criminal activity of the amphetamine users. They also found that heroin users regarded their own criminal acts as burdensome, socially divisive and a desperate attempt to stave off withdrawal. On the other hand, the amphetamine users had positive perceptions of the relationship between their amphetamine use and crime and saw their criminal activities as building self-esteem and enhancing their social networks. In this way, the use of more potent forms of methamphetamine could lead to an increase in 'thrill' related crimes, rather than acquisitive crimes committed to fund drug use.

It is also important to reiterate that gross methamphetamine intoxication can result in symptoms of psychosis. This in turn could be expected to give rise to a range of offending that results from the offender's loss of contact with reality. It could be anticipated that methamphetamine intoxication would lead to quite a different profile of offending to that committed by, say, heroin users who may be desperate, but are not generally psychotic. In particular, the propensity of methamphetamine users to become paranoid and/or fearless could lead to violent and self-protective behaviours, even when there is no threat to the user. Indeed, Police investigations into a number of recent high profile homicides have identified that the use of methamphetamine has been linked to the crime.

Finally, it is also worth noting that the organised crime groups that control all facets of the methamphetamine market in New Zealand are typically associated with antisocial behaviour, often in the form of violent offending. Such offending could become more pronounced, particularly if 'turf wars' over the supply of methamphetamine develop between rival groups. The New Zealand Police is already beginning to see some signs of this: for example, a recent shootout at a motel complex, in which a gang attempted to kidnap a methamphetamine 'cook'.

### ***Information on convictions for charges related to methamphetamine***

Data are available on the Law Enforcement Subsystem on the number of cases resulting in conviction for drug offences. Some specific types of drugs are separately identified in the data (e.g. cannabis, heroin, cocaine, LSD), but methamphetamine offences are not separately identified. However, there is information specified separately for drug offences involving "stimulants or depressants". Methamphetamine offences would be included in this category.

The attached tables show the number of cases that resulted in conviction in each of the calendar years 1997 to 2001, and in the first six months of 2002 for stimulant or depressant offences. Information is shown separately for dealing offences and possession offences, controlling for the gender, ethnicity, and age of offenders.

#### ***Dealing in Stimulants or Depressants***

*Table 1: Number of cases resulting in conviction for dealing in stimulants or depressants<sup>1</sup>, by gender of offender*

Gender	1997	1998	1999	2000	2001	2002
Female	1	2	7	4	9	18
Male	9	19	29	36	58	117
Total	10	21	36	40	67	135

Notes:

1. "Dealing" offences include: importing, exporting, producing, manufacturing, supplying, selling, and possessing for supply.
2. Source: Research and Evaluation Unit, Ministry of Justice.

*Table 2: Number of cases resulting in conviction for dealing in stimulants or depressants, by ethnicity of offender*

Ethnicity	1997	1998	1999	2000	2001	2002
European	9	16	31	32	44	84
Māori	0	5	4	6	20	40
Pacific peoples	1	0	0	1	3	3
Other	0	0	0	1	0	7
Unknown	0	0	1	0	0	1

Total	10	21	36	40	67	135
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Source: Research and Evaluation Unit, Ministry of Justice.

*Table 3: Number of cases resulting in conviction for dealing in stimulants or depressants, by age of offender*

Age group	1997	1998	1999	2000	2001	2002
<=19	0	1	3	1	1	4
20-24	2	4	2	9	15	28
25-29	2	4	6	8	22	33
30-34	4	3	10	8	14	31
35-39	2	6	10	8	6	14
40+	0	3	5	6	9	25
Total	10	21	36	40	67	135

Source: Research and Evaluation Unit, Ministry of Justice.

#### *Possessing/using Stimulants or Depressants*

*Table 4: Number of cases resulting in conviction for possessing or using stimulants or depressants<sup>1</sup>, by gender of offender*

Gender	1997	1998	1999	2000	2001	2002
Female	10	5	9	14	11	15
Male	22	31	30	43	48	80
Total	32	36	39	57	59	95

Notes:

1. "Possessing or using" offences exclude possession for supply.
2. Source: Research and Evaluation Unit, Ministry of Justice.

*Table 5: Number of cases resulting in conviction for possessing or using stimulants or depressants, by ethnicity of offender*

Ethnicity	1997	1998	1999	2000	2001	2002
European	18	23	30	38	34	67
Māori	12	11	5	15	20	25
Pacific peoples	1	1	3	3	3	2
Other	0	1	0	0	2	0
Unknown	1	0	1	1	0	1
<b>Total</b>	<b>32</b>	<b>36</b>	<b>39</b>	<b>57</b>	<b>59</b>	<b>95</b>

Source: Research and Evaluation Unit, Ministry of Justice.

*Table 6: Number of cases resulting in conviction for possessing or using stimulants or depressants, by age of offender*

Age group	1997	1998	1999	2000	2001	2002
<=19	1	1	5	4	3	10
20-24	6	9	4	12	11	19
25-29	5	9	6	14	11	18
30-34	9	8	11	14	10	20
35-39	10	4	5	7	11	17
40+	1	5	8	6	13	11
<b>Total</b>	<b>32</b>	<b>36</b>	<b>39</b>	<b>57</b>	<b>59</b>	<b>95</b>

Source: Research and Evaluation Unit, Ministry of Justice.

### Customs Border Seizure Data

Border seizures of methamphetamine are relatively low, though this probably reflects the fact that this is sourced primarily from domestic manufacture (at this stage anyway). The NDIB/Police will be able to provide more detailed data on domestic and total seizures (these figures are in fact from the NDIB).

Year	Total number of NZL seizures	No of Customs seizures	Quantity of Customs seizures
2000	157	9	103 tablets/58 grams
2001	232	9	52 tablets/61.28 grams
2002 (to date)	192	18	7 tablets/8 capsules/212 grams

It may also be worth noting that Customs has made several seizures of crystal methamphetamine (commonly called "Ice") in the past 18 months. This had not been commonly encountered in New Zealand prior to this. These seizures include:

Month and Year	Amount of 'Ice' seized
July 2001	1 kilogram
Dec 2001	27 grams
May 2002	863 grams
October 2002	400 grams
January 2003	423 grams
January 2003	177 grams

## INTERNATIONAL SITUATION

### Overseas seizure information

The World Customs Organisation's WCO "Customs and Drugs Report" for 2001 provided the following figures for methamphetamine in the Asia-Pacific region (note that because of a reporting threshold these will be the major seizures only, not smaller personal use).

Year	Number of seizures	Quantity (kilograms)
1997	29	141
1998	81	6,582
1999	136	16,240
2000	134	7,454
2001	191	13,433

### Australian methamphetamine work

In Australia treatment options are being developed for methamphetamine dependence and problem use. Australia's methamphetamine problem differs from New Zealand's to an extent. In Australia the presence of a large group of intravenous heroin users has led to the development of a larger group of intravenous methamphetamine users than in New Zealand. This has meant that Australian methamphetamine harm minimisation work has to date had a stronger focus on safe injecting practices and on hepatitis and HIV infection reduction.

Australian treatment approaches are developing and at present work is being completed on a training manual related to working with ATS for frontline workers. The most effective approach so far seems to be a psychosocial approach not dissimilar to working with other alcohol and drug affected people, however, the interventions require greater levels of intensiveness.

## **References**

- Alberston, E., Derlet, R. and Van Hoozen, B. (1999). 'Methamphetamine and the expanding complications of amphetamines'. *Western Journal of Medicine*, Vol. 170, No. 4, pp. 214-219.
- Anglin, M. et. al. (2000). 'History of the methamphetamine problem'. *Journal of Psychoactive Drugs*, Vol. 32, No. 2, pp. 137-141.
- Australasian Centre for Policing Research. (2001). *Implications for Policing in Australia of the Increased Availability of More Potent Forms of Amphetamine-Type Stimulants*. Melbourne: ACPR.
- Australian Bureau of Criminal Intelligence. (2000). *Australian Illicit Drug Report*. Canberra: ABCI>
- Buffenstein, A. et. al. (1999). 'Chronic psychotic illness from methamphetamine'. *American Journal of Psychiatry*, Vol. 156, No. 4.
- Burgess, J. (1997). 'Methamphetamine labs community risks and public health responses'. *Washington Public Health*, Vol. 15.
- Castro, F., et. al. (2000). 'Cocaine and methamphetamine differential addiction rates'. *Psychology of Addictive Behaviours*, Vol. 14, No. 4, pp 390-396.
- Centre for Disease Control and Prevention. (2000). 'Public health consequences among first responders to emergency events associated with illicit methamphetamine laboratories – selected states, 1996-1999'. *Morbidity and Mortality Weekly Report*, Vol. 49, No. 45, pp. 1-4.
- ed. Dukes M (1996). *Meyler's Side Effects of Drugs (13<sup>th</sup> Edition)*. Amsterdam: Elsevier.
- Field, A. and Casswell, S. (1999A). *Drug Use in New Zealand: Comparison Surveys, 1990 & 1998*. Auckland: Alcohol and Public Health Research Unit, Auckland University.
- Field, A. and Casswell, S. (1999B). *Drug Use in New Zealand: National Survey, 1998*. Auckland: Alcohol and Public Health Research Unit, Auckland University.
- Guharoy, R. et. al. (1999). 'Methamphetamine overdose: experience with six cases'. *Vet Human Toxicology*, No. 1, pp. 28-30.
- Hando, J. and Hall, W. (1993). *Amphetamine Use Among Young Adults in Sydney, Australia*. Sydney: Drug and Alcohol Directorate, New South Wales Health Department, Research Grant Series.
- Henry-Edwards, S. (2001). *Psychostimulants in Australia*. Canberra: National Expert Advisory Committee on Illicit Drugs.
- Inter-Governmental Committee on Drugs. (1999). *Amphetamines Report*. Canberra: Drug Strategy Secretariat, Commonwealth Department of Health and Aged Care.
- Iwanami, A. et. al. (1998). 'P3a of event-related potential in chronic methamphetamine dependence'. *Journal of Nervous and Mental Disease*, Vol. 186, No. 12, pp. 746-751.
- Kaku, D. and Lowenstein, D. (1990). 'Emergence of recreational drug abuse as a major risk factor for stroke in young adults'. *Annual of Internal Medicine*, Vol. 113, pp. 821-827.
- Kai-Ping, S. (1999). 'Human methamphetamine-related fatalities in Taiwan during 1991-1996'. *Journal of Forensic Science*, Vol. 44, No. 1, pp. 27-31.
- Kalechstein, A. et. al. (2000). 'Psychiatric comorbidity of methamphetamine dependence in a forensic sample'. *Journal of Neuropsychiatry Clinical Neuroscience*, Vol. 12, No. 4, pp. 480-484.

Kelly, M., Gorelick, P. and Mirza, D. (1992). 'The role of drugs in the etiology of stroke'. *Clinical Neuropharmacology*, Vol. 15, pp. 249-75.

Klee, H., Wright, S., Carnwath, T., and Merrill, J. (2001). 'The role of substitution therapy in the treatment of problem amphetamine use'. *Drug and Alcohol Review*, Vol. 20, pp. 417 – 429.

Logan, B., Flinger, C. and Haddix, T. (1999). 'Cause and manner of death in fatalities involving methamphetamine'. *Journal of Forensic Science*, Vol. 43, No. 1, pp. 28-34.

Loxley, W. and Bevan, J. (1999). *Revved Up: The Psychostimulant Use and Reckless or Violent Behaviour Study*. Perth: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology.

ed. Marnell, T. (1999). *Drug Identification Bible* (Fourth Edition). Grand Junction: Amera-Chem.

Ministry of Health / New Zealand Health Information Service. (2001). *New Zealand Drug Statistics*. Wellington: MOH/NZHIS.

Molina, N. and Jejurikar, S. (1999). 'Toxicological findings in a fatal ingestion of methamphetamine'. *Journal of Analytical Toxicology*, Vol. 23, pp. 67-68.

Murray, J. (1998). 'Psychological aspects of amphetamine-methamphetamine abuse'. *Journal of Psychology*, Vol. 132, No. 2., pp. 227-237.

National Institute on Drug Abuse. (1998). *Methamphetamine Abuse and Addiction*. Washington: NIDA, Research Report Series.

National Institute of Justice. (1999). *Meth Matters: Report on Methamphetamine Users in Five Western Cities*. Washington: US Department of Justice.

ed. Parfitt K. (1999). *Martindale The Complete Drug Reference* (32<sup>nd</sup> Edition). London: Pharmaceutical Press.

Rawson, R. et. al. (2000). 'Methamphetamine and cocaine users: differences in characteristics and treatment retention'. *Journal of Psychoactive Drugs*, Vol. 32, No. 2, pp. 233-238.

Rawson, R., Anglin, M. and Ling, W. (2002). "Will the methamphetamine problem go away?". *Journal of Addictive Diseases*, Vol. 21, No. 1, pp. 5-19.

Richards, J. et. al. 1998. 'Methamphetamine abuse and emergency department utilization'. *Western Journal of Medicine*, Vol. 0, No. 4, pp. 198-202.

Richards, J. et. al. 1999. 'Methamphetamine abuse and rhabdomyolysis in the ED: a 5year study'. *American Journal of Emergency Medicine*, Vol. 17, No. 7, pp. 681-685.

Simon, S. et. al. (2000). 'Cognitive impairment in individuals currently using methamphetamine'. *American Journal on Addictions*, Vol. 9, No. 3, pp. 222-231.

Skcers, V. (1992). 'Illegal methamphetamine drug laboratories: a new challenge for environmental health professionals'. *Journal of Environmental Health*, Vol. 55, pp. 6-10.

United Nations Drug Control Programme. (1996). *Amphetamine Type Stimulants – A Global Review*. Vienna: UNDCP.

United States Pharmacopeial Convention. (1994). *Drug Information for the Health Care Professional* (14<sup>th</sup> Edition). Rockville: United States Pharmacopeial Convention Inc.

Wermuth, L. (2000). 'Methamphetamine use: hazards and social influences'. *Journal of Drug Education*, Vol. 30, No. 4, pp. 423-433.

Wilkins, C. et. al. (2002). *Drug Use in New Zealand: National Surveys Comparison 1998 & 2001*. Auckland: Alcohol and Public Health Research Unit, Auckland University.

Zhu, B., et. al. (2000). 'Methamphetamine-related fatalities in forensic autopsy during 5 years in the southern half of Osaka city and surrounding areas'. *Forensic Science International*, Vol. 133, pp. 443-447.

## Appendix 1

## Inmate Drug Testing results 1999-2000 to 2001-2002

**DRUG TESTING ANNUAL REPORT 2001-2002**  
**National Summary**

<i>Year Drugs detected</i>	2000-2001	2001-2002
<b>Positive tests</b>	<b>2,536</b>	<b>2,356</b>
7-amino- clonazepam	1	15
Amatriptyline & Nortriptyline	1	
Alcohol	15	4
Amphetamine & Methamphetamine	2	
Amphetamine	6	17
Benzodiazepine ( non specific )	1	
Benzoylcegonine ( Cocaine)		1
Cannabinoids	2,460	2,267
codeine	14	10
Diazepam		1
Diazepam & Nordiazepam	1	
Dihydrocodeine	19	28
Dothiepin		1
Ephedrine	1	1
Methadone	31	35
<b>Methamphetamine</b>	<b>25</b>	<b>34</b>
Monoacetylmorphine ( Heroin)	1	3
Morphine	30	23
Morphine & codeine	7	
Nordiazepam		49
Oxazepam	2	43
<b>Phentamine*</b>	<b>1</b>	<b>1</b>
<b>Pseudoephedrine**</b>	<b>5</b>	<b>2</b>
Paroxetine	1	
Temazepam	2	31
Multi Drug Hits	<b>83</b>	<b>116</b>

**Percentage of drug types as opposed to Tests Taken**

Test period	00-01	01-02
Alcohol		0.10%
<b>ATD'S ( Amphetamine type drugs)</b>	<b>1.50%</b>	<b>2.30%</b>
Benzodiazepines		6.00%
Cannabinoids	97%	96%
Cocaine	0.00%	0.04%
Opiates	2.70%	2.70%
Methadone	1.20%	1.40%
Non-core drugs	0.07%	0.08%

\*Phentamine is a lower grade Amphetamine.

\*\*Pseudoephedrine is also a pre-cursor for Methamphetamine.

## DRUG TESTING ANNUAL REPORT 1999-2000

### National Summary

<i>Core Drugs</i>		<b>1999-2000</b>
<i>Positive tests</i>		3036
<i>Alcohol</i>	Alcohol	10
<i>Amphetamine</i>	Amphetamine	18
	Methamphetamine	5
	MethylenedioxyMethamphetamine ( MDMA )	
	Phentamine*	4
	Ephedrine	
	Pseudoephedrine**	7
	Amphetamine & Methamphetamine	11
<i>Benzodiazepines</i>	Oxazepam	
	Temazepam	
	Diazepam	2
	Nordiazepam	
	7-amino-clonazepam	3
	7-amino-flunitrazepam	
	7-amino –Nitrazepam	
	Diazepam & Nordiazepam	1
	Benzodiazepine ( none specific )	
	11-nor-delta-9-tetrahydro-cannabinol-9-Carboxylic Acid ( THC Acid )	2870
<i>Cocaine</i>	Benzoylecgonine	
	Ecgonine Methyl ester	
<i>Methadone</i>	Methadone	35
<i>Opiates</i>	Morphine	28
	Codeine	8
	Monoacetyl Morphine 6MAM (heroin metabolite )	
	Dihydrocodeine	9
	Morphine & Codeine	16
	Morphine & 6MAM ( Heroin Metabolite )	7
	Morphine ,Codeine , 6 MAM ( Heroin Metabolite )	2

\*Phentamine is a lower grade Amphetamine.

\*\*Pseudoephedrine is also a pre-cursor for Methamphetamine.

