

6 August 2025

s9(2)(a)

Ref: H2025068963

Tēnā koe s9(2)(a)

Response to your request for official information

Thank you for your request under the Official Information Act 1982 (the Act) to the Ministry of Health – Manatū Hauora (the Ministry) on 23 June 2025. You requested:

- *Any reports concerning MDMA, methamphetamine, LSD, psilocybin mushrooms, cannabis, or cocaine that have been produced by EACD or for EACD.*
- *Any meeting minutes at which the classification, or review of the drug class, of MDMA, methamphetamine, LSD, psilocybin mushrooms, cannabis, or cocaine was discussed.*
- *Any documents provided to the Minister of Health (past or present) that provide advice or recommendations for the classification or reclassification of MDMA, methamphetamine, LSD, psilocybin mushrooms, cannabis, or cocaine.*

The EACD was established in 2000, under the Misuse of Drugs Act 1975. At that point in time, MDMA, methamphetamine, LSD, psilocybin, cannabis, and cocaine were already controlled under the Misuse of Drugs Act. Therefore, the EACD had no role in the initial classification of the listed substances.

Since that time, MDMA, LSD and methamphetamine have been considered by the EACD, and a search of our records has identified 14 documents in scope of your request. These documents are listed in the appendix to this letter.

Note that whilst all reasonable efforts have been made to identify all potential documents, there may be some older documents which were not able to be located.

The latest advice regarding MDMA is withheld under section 9(2)(ba)(ii) of the Act protect information which is subject to an obligation of confidence where the making available of the information would be likely otherwise to damage the public interest.

The release of this information at this time would be likely to prejudice the ability of government to consider advice and the wider public interest in effective government would not be served. I have considered the countervailing public interest in releasing information and consider that it does not outweigh the need to withhold at this time.

The release of information from the EACD relating to classification of cannabis, psilocybin, and cocaine has been refused under section 18(g)(i) of the Act, as the information is not held.

I trust this information fulfils your request. If you wish to discuss any aspect of your request with us, including this decision, please feel free to contact the OIA Services Team on:

oiagr@health.govt.nz.

Under section 28(3) of the Act, you have the right to ask the Ombudsman to review any decisions made under this request. The Ombudsman may be contacted by email at: info@ombudsman.parliament.nz or by calling 0800 802 602.

Please note that this response, with your personal details removed, may be published on the Ministry website at: www.health.govt.nz/about-ministry/information-releases/responses-official-information-act-requests.

Nāku noa, nā

A handwritten signature in blue ink, appearing to read 'Chris James', with a stylized flourish at the end.

Chris James
Group Manager
Medsafe

Appendix 1: List of documents for release

#	Date	Document details	Decision on release
1	21 August 2002	Health Report: 20022741. Expert Advisory Committee on Drugs report on Methamphetamine	Excerpt provided in accordance with section 16(1)(e) of the Act with information deemed out of scope of your request removed. Some information withheld under section 9(2)(a) of the Act to protect the privacy of natural persons.
2	3 October 2002	Preliminary re-assessment of lysergic acid diethylamide.	Released in full.
3	March 2003	Advice to The Expert Advisory Committee on Drugs on: MDMA	
4	12 June 2003	Expert Advisory Committee on Drugs Meeting minutes	
5	18 December 2003	Expert Advisory Committee on Drugs Meeting minutes	
6	May 2004	The Expert Advisory Committee on Drugs (EACD) advice to the Minister on: MDMA	
7	30 May 2005	Health Report: 20058427. Reclassification of amphetamine and MDMA and presumption of supply of amphetamine.	Some information withheld under section 9(2)(a) of the Act.
8	March 2006	Advice to the Expert Advisory Committee on Drugs on: LSD today – A review of scheduling under the MODA and a comparison with methamphetamine.	Released in full.
9	30 March 2006	Expert Advisory Committee on Drugs Meeting minutes	
10	July 2009	Literature Review and Assessment Report on MDMA / Ecstasy.	Publicly available here: https://www.researchgate.net/publication/259288614_Literature_Review_and_Assessment_Report_on_MDMA_Ecstasy
11	6 August 2009	Expert Advisory Committee on Drugs Meeting minutes	Released in full.
12	5 November 2009	Expert Advisory Committee on Drugs Meeting minutes	
13	11 December 2009	Health Report: 20092279. Advice of the Expert Advisory Committee on Drugs regarding LSD.	Some information withheld under section 9(2)(a) of the Act.
14	16 April 2010	Expert Advisory Committee on Drugs Meeting minutes	Released in full.

- 4 SEP 2002
DISPATCHED



HEALTH REPORT

Subject: EXPERT ADVISORY COMMITTEE ON DRUGS REPORT ON METHAMPHETAMINE, 4-MTA, PEMOLINE AND AMINOREX

Date: 21 August 2002 **File Ref:** PP05-16-1

Attention: ~~Hon Annette King~~ (Minister of Health)

Copy to:

Priority:	Routine	Semi-Urgent	Urgent	24 Hour
	☒			

EXECUTIVE SUMMARY

1. This report summarises advice of the Expert Advisory Committee on Drugs (EACD) and presents recommendations for your agreement for the re-scheduling of methamphetamine and the scheduling of 4-MTA, pemoline and aminorex. As a result of considering the classification criteria in the Misuse of Drugs Act 1975 (the Act), the EACD recommends that methamphetamine is classified class A, 4-MTA is classified class B2, pemoline is classified class C5 and aminorex is classified class C5.

RECOMMENDATIONS

The recommendations are that you:

- (a) **Agree** that methamphetamine should be classified in the First Schedule of the Misuse of Drugs Act 1975 (ie, Class A). **Yes** No
- (b) **Agree** that 4-MTA should be classified in the Part 2 of the Second Schedule of the Misuse of Drugs Act 1975 (ie, Class B2). **Yes** No
- (c) **Agree** that pemoline should be classified in Part 5 of the Third Schedule of the Misuse of Drugs Act 1975 (ie, Class C5). **Yes** No

C5).

- (d) **Agree** that aminorex should be classified in Part 5 of the Third Schedule of the Misuse of Drugs Act 1975 (ie, Class C5). Yes / No
- (e) **Agree** that these papers should be made publicly available (eg, posted on the National Drug Policy website www.ndp.govt.nz) as soon as practicable.

BACKGROUND INFORMATION

2. At its meeting of 13 June 2002 the EACD considered the classification of methamphetamine, 4-MTA, pemoline and aminorex according to the criteria of the Act.
3. Detailed EACD advice on these substances is presented separately in the appended reports, please consult these if further information is required. The following summaries of EACD advice are provided in this paper, with classification recommendations.
4. The Act sets out the criteria that the EACD must consider when assessing a drug for classification. These criteria include:
 - specific effects of the drug, including pharmacological, psychoactive, and toxicological
 - likelihood or evidence of abuse, including prevalence of the drug, seizure trends, and potential appeal to vulnerable populations
 - risk to public health
 - therapeutic value of the drug
 - potential for death upon use
 - ability to create physical or psychological dependence
 - international classification and experience of the drug in other jurisdictions
 - other matters considered relevant by the Minister
 - potential presumption for supply and justification for this.
5. The EACD has assessed each of the four substances in this paper in regard to these criteria. These assessments are set out in detail in the appended papers.

COMMENT

Methamphetamine

6. The paper appended presents evidence on the risk of harm associated with methamphetamine, a powerful central nervous system stimulant. The information presented adheres to the criteria of the Act, and provides arguments in support of the reclassification of methamphetamine.

7. The EACD's recommendation results from evidence presented in the appended paper indicating the following:
- That the use and manufacture of methamphetamine in New Zealand is growing, seizures are increasing, and it has potential appeal to vulnerable populations.
 - There are pronounced long-term physical and psychological adverse effects associated with methamphetamine abuse.
 - There are significant risks to public health from intravenous use of methamphetamine, as well as the dangers posed by illicit clandestine laboratories.
 - There no accepted therapeutic applications for methamphetamine.
 - Methamphetamine has been the cause of deaths both in New Zealand and overseas.
 - There is a high physical and psychological dependence potential.

4-MTA

8. 4-MTA (4-methylthioamphetamine) is a synthetic drug that is chemically and pharmacologically similar to amphetamine and club drugs like Ecstasy. It is generally found in the form of cream coloured pills or tablets, and has the street name "flatliner". 4-MTA was first developed in 1992 as a slimming aid or anti depressant, and a potential replacement for Prozac.
9. The adverse effects of the drug are considered to pose a high risk to public health.

Pemoline

10. Pemoline is a substance that has been used to treat attention deficit disorder (ADD) overseas. It has also been abused in some countries because of its amphetamine-like stimulant effects.

Aminorex

11. Aminorex is a drug with amphetamine-like effects that has been used in the past as an appetite suppressant.

General

12. Appended papers provide detailed EACD advice on methamphetamine, 4-MTA, pemoline and aminorex. Although the EACD is not aware of 4-MTA, pemoline or aminorex being abused in New Zealand, the proposed classification for each of them would fulfil New Zealand's international obligations under the United Nations drug classification framework. Additionally, if any of these drugs become available in New Zealand in the future, appropriate domestic control will be in place.
13. The EACD has balanced the arguments relating to each of these drugs against other issues, with a particular focus on the scheduling criteria set out in the Act.

IMPLICATIONS FOR REDUCING INEQUALITIES

14. Methamphetamine has been assessed to have appeal to vulnerable populations. Drug abuse and/or dependence can have a significant impact on these populations. Any reduction in the abuse of or dependence on methamphetamine in vulnerable populations through the re-classification of methamphetamine as Class A will have corresponding implications for reducing inequalities.



Don Matheson
Deputy Director General, Public Health



MINISTER'S SIGNATURE:

DATE: 25/9/02

Contact for telephone discussion (if required)

Name	Position	Telephone Direct Line	After Hours	Suggested First Contact
Matthew Andrews	Policy Analyst	s9(2)(a)		1
Chris Laurensen	Team Leader			2
Bob Boyd	Chief Advisor			3

Memo

Date: 6 September 2002

To: Hon Annette King
From: Craig Press

Cc: Selwyn Katene

Re: Hon Jim Anderton to have responsibility for Methamphetamine and related substances

1. Lloyd wishes to know if you want Hon Jim Anderton to take responsibility for Methamphetamine and related substances ? (see attached report 20022741).

Yes

☒

No

☐

2. Can you also please indicate if you will consider this report yourself, or should it be forwarded to Hon Jim Anderton for signature?

Hon Annette King

☐

Hon Jim Anderton

☒

Thanks


Craig Press

*I have signed
also forward my
to Hon. J. Anderton
Please
recommended*



**THE EXPERT ADVISORY COMMITTEE ON DRUGS (EACD)
ADVICE TO THE MINISTER ON:**

METHAMPHETMINE

Released under the Official Information Act 1982

Released 2002

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Executive Summary

This paper presents evidence on the risk of harm associated with methamphetamine, a powerful central nervous system stimulant. The information presented adheres to the criteria set out by the Misuse of Drugs Amendment Act 2000, and provides arguments in support of the reclassification of methamphetamine.

Methamphetamine is currently in the Second Schedule (Class B), Part 2 of the Misuse of Drugs Act 1975, however, the Expert Advisory Committee on Drugs recommends classification of the drug in the First Schedule (Class A) to better reflect the risk of harm associated with methamphetamine.

This recommendation results from evidence presented in this paper indicating the following:

- That the use and manufacture of methamphetamine in New Zealand is growing, seizures are increasing, and it has potential appeal to vulnerable populations.
- There are pronounced long-term physical and psychological adverse effects associated with methamphetamine abuse.
- There are significant risks to public health from intravenous use of methamphetamine, as well as the dangers posed by illicit clandestine laboratories.
- There are few, if any, therapeutic applications for methamphetamine.
- Methamphetamine has been linked to deaths both in New Zealand and overseas.
- There is a high physical and psychological dependence potential.

The EACD has balanced these arguments against other issues, with a particular focus on the scheduling criteria set out in the Act. We recommend that in terms of the criteria of the Act, methamphetamine is most appropriately classified in First Schedule (Class A) of the Misuse of Drugs Act 1975.

Recommendations

After considering all of the information put to the Committee and the classification criteria in the Misuse of Drugs Act 1975, the EACD makes the following recommendations to the Associate Minister of Health:

- (a) Methamphetamine should be classified in the First Schedule of the Misuse of Drugs Act 1975 (ie, A).**
- (b) This paper should be made publicly available (eg, posted on the National Drug Policy website www.ndp.govt.nz) as soon as practicable.**

Substance Identification

Methamphetamine is a synthetic substance that is typically manufactured from over-the-counter pharmaceuticals (predominantly cough and cold medications) containing ephedrine or pseudoephedrine. Methamphetamine can also be manufactured with ephedrine extracted directly from the *ephedra vulgaris* plant or from a wide variety of other chemicals. Marnell (1999) identifies several techniques that are employed to manufacture methamphetamine.

Typically, methamphetamine is a white (some grades may be yellow/brown due to incomplete manufacturing processes or impurities), odourless, bitter tasting powder that is alcohol and water-soluble. The drug is also available in a clear crystal form that is high in purity.

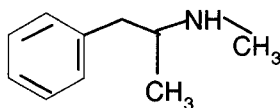
Street names for methamphetamine include *Speed*, *Wizz*, *Go* and *Meth*. The crystal form of the drug is often referred to as *Ice*, *Pure*, *Crystal Meth*, *Glass*, or *Shabu*.

The chemical nomenclature for methamphetamine is as follows:

- (S)-N,α-Dimethylbenzene-ethanamine
- d-N-methylamphetamine
- d-desoxyephedrine
- d-deoxyephedrine
- 1-phenyl-2-methylaminopropane
- d-phenylisopropylmethyl-amine
- (+)-(S)-N, α-dimethylphenethylamine
- 2-methylamino-1-phenylpropane.

The Chemical Abstracts Registry Service (CAS) number for methamphetamine is 537462. The CAS number for methamphetamine hydrochloride is 51570.

FIGURE 1: Chemical Structure of Methamphetamine



Methamphetamine

Source: Albertson et al. 1999

Methamphetamine molecules have two stereoisomers:¹ dextro-methamphetamine or levo-methamphetamine. Depending on the manufacturing process used, a sample may consist entirely of dextro-

¹ Stereoisomer have the same chemical composition but different spatial configurations of their molecules.

methamphetamine or levo-methamphetamine, or an equal combination of the two. While the chemical composition is the same, dextro-methamphetamine is reportedly more potent (Marnell 1999) than the other two forms.

Similarity to Known Substances

Methamphetamine is an Amphetamine-Type Stimulant (ATS). According to Martindale (ed. Parfitt 1999) and the United States Pharmacopeial Convention (1994) methamphetamine has a similar pharmacological action as dexamphetamine and methylphenidate (Ritalin). The United Nations (2000) also notes methamphetamine is similar to fenetylline, phenmetrazine, amfepramone, and pemoline.

Current Classification

Methamphetamine is currently classified under the Misuse of Drugs Act 1975 as a Second Schedule (Class B), Part 2 controlled drug.

Rationale for Reclassification

Likelihood or evidence of drug abuse

New Zealand survey data

New Zealand drug surveys indicate an increase in stimulant use. The latest survey undertaken by the Alcohol and Public Health Research Unit (Wilkins et. al. 2002) found a significant increase in the number of respondents trying and using stimulants (either amphetamine/methamphetamine) [see Table 1]. The largest increase in the use of stimulants was in the 15-17 (increased from 2 percent to 6 percent) and 20-24 year old age groups (increased from 6 percent to 11 percent). This data reflects a continuing trend of increased stimulant use as evidenced by the previous regional comparison survey (Field and Casswell 1999A). The use of stimulants increased from 2 percent in 1990 to 4 percent of respondents in 1998. This increase was largely in younger age groups, use increased among 18-24 year olds from 2 percent to 7 percent.

TABLE 1: Relative use of Amphetamine/Methamphetamine 1998 & 2001

	Tried		Used Last Year		Current User	
	1998	2001	1998	2001	1998	2001
Amphetamine Methamphetamine	7.6%	11.0%	2.9%	5.0%	2.2%	3.5%

Source: Wilkins et. al. 2002

The surveys also indicate an increase in the use of crystal methamphetamine (*Ice*), with the rates of people trying crystal methamphetamine increasing from 0.1 percent to 1.3 percent between 1990 and 2001 [see Table 2]. This increase is statistically significant.

TABLE 2: Relative use of Ice 1990, 1998 & 2001

	Tried			Used Last Year			Current User		
	1990	1998	2001	1990	1998	2001	1990	1998	2001
Ice	0.1%	0.2%	1.3%	0.01%	0.1%	0.9%	0.0%	0.04%	0.5%

Source: Field and Casswell 1999A and 1999B, and Wilkins et. al. 2002

These findings have been supported by additional data, in particular drug testing undertaken by the Department of Corrections. Approximately 0.1 percent of all positive drug tests in 1998/99 were for methamphetamine, however, the results for the 2000/01 year show an increase in positive tests to 0.3 percent.

New Zealand methamphetamine-related mortality and morbidity

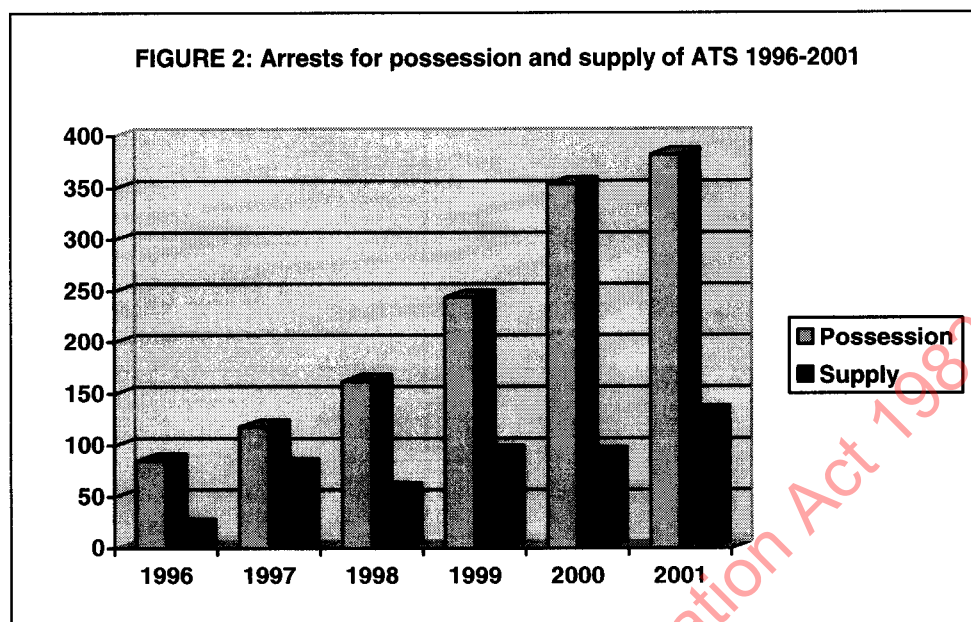
Hospital data is unable to provide definitive information about the health-related impact of methamphetamine. There are some problems associated with the data, including the fact that the data does not differentiate between methamphetamine-related admissions and those relating to the abuse or misuse of other stimulants. Nevertheless, there were 109 publicly funded stimulant-related hospitalisations between 1996 and 1998 (Ministry of Health 2001). These hospitalisations were for non-dependent abuse, dependence, and poisoning either as the presenting condition or as a secondary diagnosis. There was a rise in the total numbers of hospitalisations each year (18 in 1996, 46 in 1998), however, due to the small number and short timeframe it is difficult to describe this as a clear trend. Anecdotally, some treatment services also report an increase in the number of people with problems associated with the abuse of methamphetamine.

The New Zealand Health Information Service reports that there were no deaths associated with stimulant use in New Zealand between 1990 and 1996.

New Zealand arrest and interdiction data

New Zealand law enforcement data indicates growing availability of ATS, however, some of the data systems do not currently distinguish between methamphetamine and other 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 2]. 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.



Source: New Zealand Police data extracted from PIPM

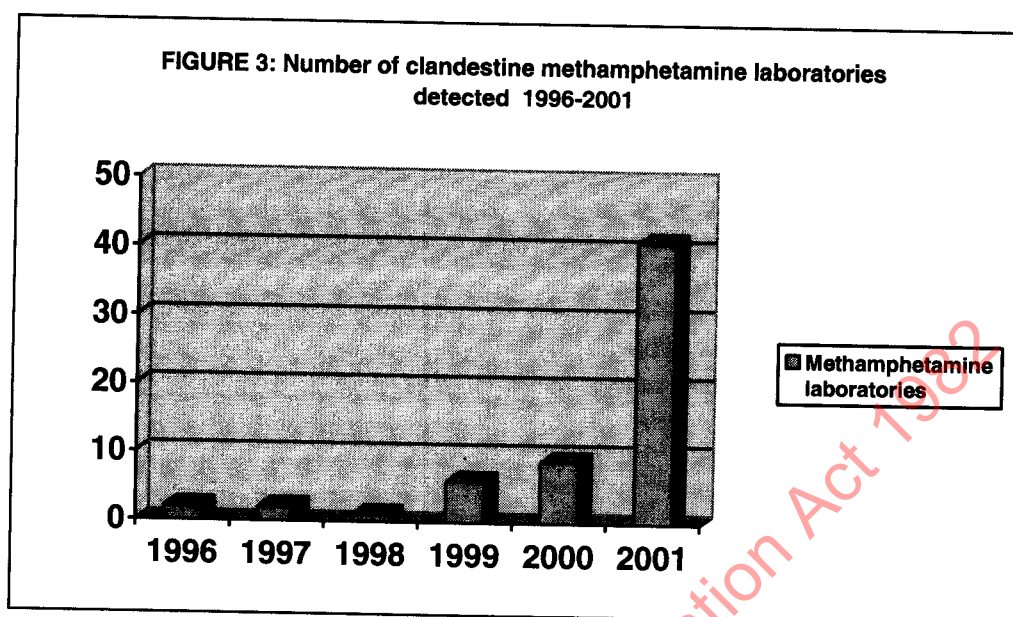
There also has been a concomitant increase in drug seizures as drugs are imported into New Zealand to meet (or stimulate) the demand for ATS. Prior to 1998 the seizures of ATS were erratic and seldom exceeded a kilogram in total for any given year, however since that time there has been a significant 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)
- 32.95 kilograms seized at year-to 30 June 2002 (including 0.6 kilograms of methamphetamine).

In a similar vein, domestic manufacture of methamphetamine has grown significantly in recent years. A record number of clandestine laboratories were dismantled by a specialist Police unit in 2001 [see Figure 3]. These facilities range from crude suitcase laboratories to increasingly sophisticated operations. The number of laboratories detected to-date this year (44 laboratories at 30 June 2002) indicates that this trend is set to continue.

Finally, there has been a decline in the street price of methamphetamine. According to the National Drug Intelligence Bureau (2001) the price of methamphetamine has declined from \$250-\$300 per gram prior to mid 1999 to \$100-\$180 per gram. This could be interpreted as a sign of increasing

levels of supply, however, the relationship between price and availability is not explicit.



Source: New Zealand Police data

Specific effects of the drug

Methamphetamine can be taken by intranasal and intravenous means, orally ingested, as well as smoked in crystal form. While the mode of administration may impact on the speed of onset and the level of euphoria experienced by the user, the basic pharmacology remains the same. Once consumed, methamphetamine is readily absorbed into the bloodstream and crosses the blood/brain barrier to interact with the central nervous system. The half-life of methamphetamine ranges between 10 to 30 hours (Guharoy et. al. 1999, Wermuth 2000). However, the duration of effects vary, powdered methamphetamine lasts for several hours, while crystal methamphetamine can last up to 24 hours (Castro et. al. 2000).

As a central nervous system stimulant, methamphetamine stimulates the release of catecholamines and dopamine from the presynaptic nerve endings, as well as inhibiting re-uptake or degradation (Guharoy et. al. 1999, Logan, Fligner and Haddix 1998). The adrenergic stimulation leads to an increase in blood pressure, elevated pulse rate and cardiac output as well as enhanced mood and stimulation. The effects of methamphetamine are dose dependent, however, users can expect to experience:

- euphoria
- increased activity and energy levels
- disinhibition
- sense of well-being
- increased confidence
- decreased appetite
- agitation.

A large single dose may also result in a number of unwanted effects including elevated body temperature and convulsions. These conditions may be exacerbated by extended periods of activity that many users engage in. Use of methamphetamine may also expose users to a range of potentially life-threatening conditions, for example stroke and arrhythmic sudden death (Wermuth 2000).

Upon withdrawal of methamphetamine, and metabolism by the liver, the opposite effects to the drug-induced state often eventuate. Fatigue, restlessness, nervousness, alienation and irritability result as the excess supply of neurotransmitters is depleted. Sympathomimetic effects also include tremor, sweating, palpitations, headache, dizziness, dryness of the mouth, and gastrointestinal problems.

The long-term effects of methamphetamine use are pronounced. Heavy users may display a number of psychotic features, including paranoia, auditory hallucinations, mood disturbance and delusions (Australasian Centre for Policing Research 2001). Of the amphetamine users surveyed by Hando and Hall (1993) 80 percent reported mood swings, 71 percent paranoia, 46 percent hallucinations, 43 percent aggressive episodes and 16 percent violence. Problems may be compounded by existing mental health issues, these are common among users (Vincent, Allsop & Shoobridge 1997).

The pattern of methamphetamine use tends to compound physical, psychological and social problems. To extend the euphoria, and stave off negative effects, users often engage in prolonged binges and users forgo sleep and other needs. These binges are then followed by a pronounced crash where the resultant exhaustion and psychotic effects are amplified. The crash generally includes a deep depression, followed by fatigue, difficulty in sleeping, headaches, decreased energy and a strong desire to use the drug again.

In extreme cases, overt psychosis is discernible which may last for several days, however, the symptoms may persist for a number of weeks (Bell 1971, cited in Australasian Centre for Policing Research 2001). Erratic and violent behaviour, delusions, and paranoia are characteristic of this condition which is attributable to withdrawal symptoms or extreme fatigue from repeated administration of the drug. Symptomatically, his state may be indistinguishable from schizophrenia (Logan, Flinger and Haddix 1998).

Prolonged use of methamphetamine may also contribute to a number of other health problems. There is evidence to demonstrate that chronic use can result in respiratory problems, stroke, irregular heartbeat, and extreme anorexia, and neurotoxicity (Kia-Ping 1999, Zhu et. al. 2000, Wermuth 2000).

There is evidence to suggest that regular methamphetamine use may compromise cognitive functioning or the ability to perform a range of tasks, however, the research appears equivocal at this stage. Signs of permanent brain damage caused by large doses of methamphetamine have been found in animal studies, but studies in humans are less clear. Preliminary research by Simon and colleagues (2000) found that regular methamphetamine users

exhibited compromised memory, manipulation of information and ability to focus in comparison to non-using controls. Some of these deficits were similar to normal ageing, and there were no difference in a range of other tasks performed to test reasoning, learned facts/skills, fluency and storage.

Therapeutic value

There are few accepted therapeutic uses for methamphetamine. The drug has previously been used to treat children for attention deficit hyperactivity disorders (ADHD), as an anorectic in obesity, and in the treatment of narcolepsy (National Institute on Drug Addiction 1998). The levo rotatory form has also been used as a nasal decongestant and in bronchial inhalers (Parfitt 1999, Anglin et. al. 2000). However, the use of methamphetamine has largely been discontinued due to the availability of other medications.

Potential to cause death

International studies show that a single dose of methamphetamine may result in a range of potentially life-threatening conditions. Death can occur with methamphetamine concentrations in the blood greater than 0.5 mg/L (Logan, Fligner, & Maddix 1998). However, fatal overdose is more likely in naïve or episodic high dose users, than in regular users who have developed tolerance to the drug (Dukes 1996).

Molina and Jejuriar (1999) describe one recorded methamphetamine-related fatality, where medical staff observed the rapid deterioration of an arrestee in Police custody. After appearing asymptomatic an hour after arrest, the person became agitated and hallucinatory, ensued by seizures, a raised body temperature of 104F degrees, diaphoretic with obvious bleeding, tachycardia of 130 –140 and a pulse rate of 173. The subject then became hypertensive and bled from all orifices. Upon arrival in the Intensive Care Unit the patient began twitching uncontrollably, subsequently he went into paralysis and could not be resuscitated. The principal diagnosis was acute methamphetamine ingestion combined with alcohol. Secondary diagnosis indicated irreversible shock, acute respiratory failure, hepatic necrosis and renal failure. The blood sample taken soon after arrest revealed a blood concentration of 0.23 mg/L methamphetamine, as well as 0.12 g/dL alcohol, and the presence of cannabis.

Methamphetamine has been identified as a risk factor for the development of stroke in relatively young people. Perez et. al. (1999) reported on four cases of stroke in patients aged from 29 to 45 associated with the use of methamphetamine. In further studies strokes, either ischemic or hemorrhagic, were attributed to the sympathomimetic effects of methamphetamine, in particular the increase in pulse rate blood pressure and associated with cerebral vasculitis (Kelly, Gorelick & Mirza 1992, Kaku & Lowenstein 1990). According to Zhu et. al. (2000) stroke is the most common cause of sudden death in non-abusers of methamphetamine.

The pharmacological effects of methamphetamine also promote a range of cardiac conditions including arrhythmia, tachycardia, and myocardial

infarction. Guharoy et al (1999) present six cases of hospitalisation secondary to methamphetamine toxicity. In all but one of the cases the patients had elevated heart rates (HR 137-157), high blood pressure (for example, BP 167/85), and one was diagnosed with an anterior wall myocardial infarction. While all of these patients responded to treatment, in other cases methamphetamine users have succumbed to sudden cardiac deaths (Kia-Ping 1999, Richards et al 1999, Zhu et al 2000).

The treatment protocol for methamphetamine toxicity involves activated charcoal and gastric lavage to neutralise or expel the drug. In the majority of cases no further intervention is required beyond confirmation of the diagnosis through a toxicology screen and observation until cleared for discharge. However, some patients may require pharmacological intervention (Guharoy 1999). Antihypertensive agents and beta-blockers have been used effectively to reverse cardiovascular symptoms. According to Guharoy (1999) phentoamine and nitroprusside have been used successfully to treat amphetamine-induced hypertensive crisis, while tachycardia may be controlled by propranolol. Haloperidol has been demonstrated to be effective as an antagonist to block the effects of methamphetamine on the central nervous system (Murray 1998). While diazepam has been used with some success, there are no controlled trials to validate its efficacy, and haloperidol has been superior in protecting against death (Guharoy 1999).

Ability to create physical or psychological dependence

Regular methamphetamine users may exhibit signs of both psychological and physical dependence (Murray 2001). Methamphetamine dependence is evidenced by increased tolerance to the drug, problems in controlling usage, and a range of physical/psychiatric withdrawal symptoms. There is evidence to suggest that methamphetamine has a faster progression (from initial use, to regular use, and a subsequent need for treatment) than other stimulants such as cocaine (Castro et al 2000, Kalechstein et al 2000). Users who inject methamphetamine, or smoke crystal methamphetamine, may also be more susceptible to the development of dependence due to the speed of onset and the intense rush associated with these modes of administration which serves to reinforce usage.

Tolerance to methamphetamine appears to develop rapidly after repeated use (Smith in Murray 1998). One putative argument for the development of tolerance is the neurotoxicity of methamphetamine that damages dopamine receptors (Castro et al 2000, Buffenstein et al 1999), therefore increasing dosage levels or frequency of use is required to obtain the desired euphoric effects.

Methamphetamine dependent people often experience a high degree of physical craving for the drug, alongside cravings that are produced by conditional cues, which continue for long periods after cessation of use (Wermuth 2000). These factors contribute to a loss of control over methamphetamine use and 'intractable dependence' (Anglin et al 2000).

A range of physical withdrawal symptoms are associated with methamphetamine abstinence due to neuroadaptation. These symptoms are often the opposite of the drug-induced state and include dysphoria and anergia (Murray 1998). Further, sleepiness and fatigue appears to last for several weeks after abstinence. Psychiatric symptoms are typically prevalent and severe in problematic methamphetamine users prior to treatment. According to Rawson and colleagues (2002) a large proportion of users presenting for treatment report delusions and hallucinations (for example, formication: the sensation of insects creeping on the skin), while even more report severe paranoia and depression. Individuals reporting methamphetamine dependence are also more likely to report suicidal ideation (Kalechstein et al 2000). Dependence is also associated with poor health outcomes (Henry-Edwards 2001) and a range of social problems including family breakdown, unemployment and financial difficulties.

There is currently no recognised treatment protocol for methamphetamine dependence.

Dexamphetamine has been trialed as a substitution therapy to facilitate withdrawal with some promising results. Klee and colleagues (2001) found that clients prescribed 100mg tablets of dexamphetamine daily had better treatment outcomes (greater reductions in amounts of methamphetamine used and frequency of use, and higher treatment retention rates) than controls. However, some trial participants also reported diverting or injecting the tablets. Cognitive Behavioural Therapies may also produce good results in helping clients deal with drug expectancies, ideation, as well as the urge to use.

Risks to public health

HIV/AIDS, Hepatitis B and C

There are several public health risks associated with the abuse of methamphetamine, particularly the risk of transmission of communicable disease through the sharing of injecting equipment. Methamphetamine can be consumed through a variety of mechanisms, however, heavy or regular users may be more likely to inject the drug in order to maintain the intensity of the 'high', or as the result of developing tolerance to the drug. Increased risk of HIV/AIDS and hepatitis B and C transmission is a likely consequence intravenous drug use, particularly if users share injecting equipment or other paraphernalia.

Methamphetamine intoxication has been associated with increased libido, unsafe sex and increased risk of disease transmission. Molitor and colleagues (Rawson et al 2000) found that methamphetamine use was independently related to decreased condom use during sex (across both heterosexual and homosexual groups), prostitution, and sex with known drug users. In addition methamphetamine has been associated with prolonged and rougher sex, which may lead to bleeding and abrasions. These factors

may account for the greater likelihood of sexually transmitted diseases in methamphetamine users (Rawson et al 2000).

Clandestine Manufacture

There are a number of risks associated with the domestic manufacture of methamphetamine. The primary concern is exposure to substances and chemical processes used to manufacture methamphetamine.

Several different chemical processes can be used to manufacture methamphetamine. Regardless of the process used the chemicals involved are generally highly flammable, corrosive, explosive or toxic (Centres for Disease Control and Prevention 2000). Any of the following chemicals may be used, or produced in the manufacture of methamphetamine (Marnell 1999):

- | | |
|---------------------|---------------------|
| • Acetone | • Red phosphorous |
| • Hydrochloric acid | • Hydrogen cyanide |
| • Sodium hydroxide | • Hydrogen sulphide |
| • Anhydrous ammonia | • Iodine |
| • Ether | • Mercury salts. |

While these are hazardous substances in isolation, the combination of chemicals or the heating of the substance over an open flame can be extremely dangerous. Thus the risk of explosion, chemical burns or poisoning associated with the domestic manufacture of methamphetamine is high. It is notable that 20-30 percent of methamphetamine laboratories are only discovered as a result of fires and explosions (Skeers 1992).

This is a significant issue for law enforcement officials or emergency service personnel, particularly as international experience indicates that exposure can be reasonably frequent and have serious health consequences (Centres for Disease Control and Prevention 2000). Health practitioners may also be exposed to hazardous chemicals when treating people who have been involved in a hazardous substances emergency event (Burgess 1997).

New Zealand Police have taken steps towards mitigating some of these risks with the establishment of a specialist national investigation team to dismantle clandestine laboratories. The Clandestine Laboratory Team is trained in the investigation of cases involving illicit drug manufacture and the safe dismantling of clandestine laboratories. This training is primarily focused on the safety to the investigating officers and prevention of environmental pollution. However, there have been several incidents where the health and welfare of frontline police has been compromised as a result of encountering clandestine laboratories in the course of routine enquiries. With the increase of clandestine methamphetamine manufacture in New Zealand (43 laboratories in 2001) similar problems are likely.

The public may be exposed to risks due to the establishment of clandestine laboratories in New Zealand communities. The risk may be further intensified if manufacturers shift to smaller or portable operations to avoid detection (Inter-Governmental Committee on Drugs 1999). Health hazards associated

with clandestine methamphetamine laboratories are not limited to the immediate period of manufacture. As a result of the leeching effect of many of the chemicals and gases involved in the manufacturing process, the building containing the laboratory can be contaminated for some time after the completion of the manufacturing procedure (DEA 1996). Both the precursor chemicals and the by-products associated with clandestine laboratories can also contaminate the soil and water table.

Other public health risks

Like many other drugs, the consumption of methamphetamine may interfere with people's ability to drive. This poses a significant risk to the individual user and the public. The main risks associated with methamphetamine use are increased risk taking, post-use fatigue or withdrawal (Logan, Flinger & Haddix 1998).

Fetal exposure to methamphetamine is another issue to consider. Research indicates that methamphetamine abuse during pregnancy may result in prenatal complications, increased rates of premature delivery, altered neonatal behaviour patterns and developmental disorders (Anglin et al 2000).

International classification and experience

New Zealand's international obligations under the United Nations Conventions

The current classification of methamphetamine as a Second Schedule (Class B), Part 2 substance is in accordance with the United Nations conventions. Methamphetamine is listed in the Schedules (Schedule II) annexed to the United Nations Convention on Psychotropic Substances (Vienna 1971).

Other countries' classification of methamphetamine

Methamphetamine is a Schedule II substance, under the United States Controlled Substances Act. Certain regions in the United States (Midwest and Western seaboard as well as Hawaii) has experienced significant problems with methamphetamine, which has been described as reaching "epidemic proportions" (Perez, Arsura & Strategos 1999).

Methamphetamine is a highly controlled substance, on par with heroin and cocaine, in most Australia jurisdictions (for example, Schedule 1 in Queensland and Schedule 11 in Victoria). Australia has also seen an increase in methamphetamine use alongside other ATS. These drugs are the most frequently used illicit drugs after cannabis (Australian Bureau of Criminal Intelligence 2000). Australia has also experienced problems with domestic manufacture of methamphetamine that is dominated by organised crime groups.

Methamphetamine is listed as a Part II, Class B substance under the United Kingdom's Misuse Use of Drugs Act 1971 (alongside amphetamine).

Recommended Presumption for Supply and Justification

The Expert Advisory Committee on Drugs recommends that presumption for supply of methamphetamine be set at:

- 5 grams or more of crystal methamphetamine, or methamphetamine, whether contained in a substance, preparation, or mixture, or not.

This figure is based on an assumption that the average active dose is between 15 mg and 150 mg. Thus 5 grams would be the equivalent of approximately 30 doses and have a street level price of between \$500 and \$900. However, this figure may not represent more than a week or two supply for a heavy user, nor does it account for groups of people buying in larger quantities to avoid detection. These issues will need to be taken into consideration as part of the Bill of Rights 1990 vetting.

Other Relevant Information

International experience indicates that methamphetamine, and some of the more potent forms of ATS will have a negative impact on frontline policing. This impact is due to the characteristics of the drugs, and is separate from other forms of drug-related crime, which are largely associated with the illegal nature of the drugs. The key issues are behavioural disorders associated with methamphetamine and discernible patterns of methamphetamine-related crime. For example, Police are concerned that the behavioural problems associated with methamphetamine will become manifest in unpredictable behaviour and an increase in social disorder or violent offences. While there is no explicit relationship between the use of methamphetamine and aggressive behaviour there may be a propensity towards violence (Richards 1999). For example, a recent survey in Western Australia of remand inmates and volunteers under suspicion of committing an offence (Loxley and Bevan 1999) found that amphetamine users were more likely to report high or medium physical aggression and recklessness associated with the use of the drug. According to this study ATS use was the only predictor of violent offences among all the other variables. However, the interplay between the effects of the drugs and individual, social, and environmental circumstances of use are also significant (Asnis and Smith 1978 cited in Loxley and Bevan 1999). The use of alcohol and methamphetamine also appears to contribute to violent behaviour (Murray 1998).

The issue of violence associated with methamphetamine is particularly relevant when considered in light of the main protagonists involved in methamphetamine manufacture and supply. Organised crime, often conducted by gangs, appears to control all facets of the methamphetamine market, including: stockpiling precursor substances; manufacture in clandestine laboratories; and distribution networks. These groups are typically associated with antisocial behaviour, often in the form of extreme

violence which could become more pronounced, particularly if 'turf wars' over the supply of methamphetamine develop between rival groups.

The anxiety associated with methamphetamine abstinence or withdrawal may also heighten the fears of those involved in criminal activities. Potentially, this could account for an increase in the number of instances where firearms are being located at residential addresses frequented by users and dealers.

Finally, methamphetamine-related psychosis may expose users to life threatening situations. Of particular concern is the role of methamphetamine-related paranoia contributing to homicidal or suicidal thoughts (National Institute on Drug Abuse 2001). Economic, social and psychological pressures may contribute to violent behaviour and self harm, as well as impaired judgement and lack of critical capacity associated with both stimulant impairment and abstinence (Logan, Flinger & Haddix 1998).

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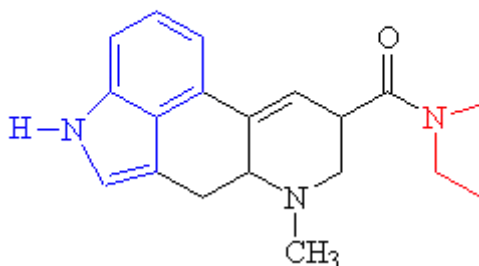
PRELIMINARY RE-ASSESSMENT OF LYSERGIC ACID DIETHYLAMIDE

Executive Summary

1. This paper considers the hallucinogen lysergic acid diethylamide (LSD).
2. LSD is currently controlled under the Misuse of Drugs Act 1975 (the Act). This assessment proposes that the Expert Advisory Committee on Drugs (EACD) consider possible re-classification of LSD. Rationale for this view is provided in this paper.
3. The Ministry of Health is aware of LSD being widely used in New Zealand. However, the harm minimisation criteria for classifying drugs that the Misuse of Drugs Amendment Act 2000 introduced need to be considered with regard to the current Class A classification of LSD.

Similarity to Known Substances

4. LSD is a potent hallucinogen. The drug was first synthesised in 1938 by Still and Hoffman while investigating the active ergot alkaloid derivatives of the fungus *Claviceps purpurea* (Blaho et al 1997). There are four stereoisomers (one of two or more compounds differing only in their spatial arrangement of atoms) and most of what is purchased on the streets is a racemic (composed of equal numbers of *d* and *l* – or left and right – molecules of a compound) mixture of the four stereoisomers (Blaho et al 1997).
5. There are several other sources of LSD-like compounds. The morning glory seed may contain up to 25 micrograms of the alkaloid, stipa robusta, also known as 'sleepy grass', has a concentration of ergine only surpassed by that of the ergot fungus, and Baby Hawaiian Woodrose seeds have a small amount of ergine in them (Marnell 1999).



Current Classification (if any)

6. LSD is currently classified in the First Schedule of the Act (Class A).

Rationale for Classification/Re-classification

Likelihood or evidence of drug abuse

7. LSD has been a widely used drug throughout the western world and there is evidence of widespread use in New Zealand. The *Drug Use in New Zealand National Surveys Comparison 1998 & 2001* (Wilkins et al 2002) indicated that LSD was the most commonly used hallucinogen in New Zealand, tried by 8.8% of 15 – 45 year olds in 1998 and 9.6% in 2001. The survey also indicated that 3.8% of the sample had used LSD in the past year in 1998 and 3.2% had in 2001. Current use for LSD was 2.8% in 1998 and 2% in 2001. In 2001 LSD was the third most commonly used illicit drug at 9.6%, compared to marijuana at 52% and amphetamine/methamphetamine at 11% (Wilkins et al 2002).
8. Between 1990 and 1994 New Zealand had the second highest amount, per head of population, of LSD seizures, 3990 doses per 100,000 people. The nation with the highest amount of seizures was the Netherlands, however, the Netherlands is known as a redistribution point whilst New Zealand is a consumer nation only.
9. LSD is not thought to be physically addictive, however, psychological addiction has been noted (Henderson & Glass 1994).

Specific effects of the drug

10. LSD is a hallucinogen. The drug causes feelings of euphoria, invulnerability and disassociation, as well as causing aural and visual hallucinations, and intense psychological and spiritual introspection and self-examination.
11. Other effects include: ocular effects, such as pupil dilation, loss of colour vision, redness and moistness of the eyes and photophobia; central

nervous system effects, such as depression, paranoia, acute psychosis, combative behaviour and impaired concentration; cardiovascular and respiratory effects, such as tachycardia, hypertension, tachypnea (breathing too fast); and other effects, such as, piloerection (goose-bumps), over-stimulation of the central nervous system, pyrexia (a temperature over 37.8/38 degrees Celsius), nausea, sweating, headache, muscular weakness, tremors, hyperthermia and dizziness (Blaho et al 1997).

Risks to public health

12. The risks to public health of LSD include misadventure when an individual is under its influence, psychosis (including HPPD – hallucination persisting perception disorder), dependence, mood disorder, and other related psychological effects. However, most of these effects are either minor or temporary. There is a large body of literature on the treatment of these effects of the drug (Blaho et al 1997; Lerner et al 2001).
13. There is little evidence to support arguments that LSD poses a public health risk in terms of psychoses, schizophrenia, self destructive or criminal behaviour, health impacts (such as disease), brain damage, genetic or birth defects (Henderson & Glass 1994). Henderson and Glass discuss this in depth arguing that psychoses, schizophrenia and self-destructive behaviour tend to be related to existing conditions or predispositions rather than to the drug, that criminal behaviour is related to context not the actual use of the drug (also pointing out that LSD's low price reduces the possibility of LSD linked crime), and that there is no significant evidence to support the contention that LSD causes any disease, brain damage, genetic or birth defects (Henderson & Glass 1994).
14. Bad trips are also identified in the literature as a public health risk. This is an acute anxiety or panic reaction after taking LSD (Henderson & Glass 1994). However, some authors argue that a bad trip is the result of the users mindset and surroundings, that LSD intensifies mood and emotions and if they are negative it will cause intensified negative mood and emotions (Henderson & Glass 1994).
15. Overall LSD appears to have little public health impact. Adverse effects are uncommon and often relate to aspects of the user or use of LSD. The link between suicide and LSD use is higher than amongst the general population, although it is uncertain if suicide has a causal link with LSD use. In addition, the suicide risk for LSD users is roughly similar level to that for psychiatrists (Henderson and Glass 1994).
16. In 1996 15 people presented at hospital as a result of causes relating to hallucinogen use, in 1997 this 11 presented and in 1998 six presented. Blaho et al concluded that, compared with other drug intoxications and overdoses, LSD intoxication presenting to an emergency department of a hospital is a relatively rare event (Blaho et al 1997).

17. Blaho et al review five hospital admission cases in the USA, in which four of the five admissions were discharged within a few hours of admission (Blaho et al 1997). This indicates that apart from HPPD, adverse effects of LSD tend to be short lived, easily treated and leave little ongoing effects.

Therapeutic value

18. Since its discovery in 1938 LSD has been used extensively as a psychological and psychiatric drug. LSD was used therapeutically in during the 1950s as a psychiatric drug and as an experimental model for schizophrenia. The adverse effects and lack of a consistent response ended the further use of LSD in the early 1960s (Blaho et al 1997).
19. Two forms of therapy were performed using LSD. The first, psycholitic (literally 'mind-loosening') therapy, involved small doses of LSD administered several times and was used mostly in relation to neurotic or psychosomatic disorders. The second, psychadelic, involved the use of a single large dose (over 200 micrograms of LSD) and was thought to be potentially useful in reforming alcoholics and criminals, as well as improving the lives of other people (Grinspoon & Bakalar 1986).
20. Some psychologists, psychiatrists, and 'spiritual explorers' suggest that psychedelics, such as LSD, are useful in psychological and spiritual experimentation and discovery. However, the majority opinion is that LSD serves no therapeutic purpose.

Potential to cause death

21. Only a few cases of death related to the toxic effects of LSD have been reported internationally (Blaho et al 1997). The mechanism of death is not well defined but may be related to hyperadrenergic (relating to over-activity of the adrenal glands) crisis and/or central nervous system mediated respiratory arrest (Blaho et al 1997). However, these cases are rare due to the very small doses of LSD required to achieve the desired effect.
22. LSD's main potential to cause death is from misadventure due to hallucinations and feelings of invincibility associated with its use. During the 1960s and early 1970s several cases were reported where an individual 'tripping' on LSD would accidentally kill themselves due to hallucination or feeling of invincibility. This includes cases of people jumping out of windows because they believed they were able to fly or as a result of a panicked 'escape' from negative hallucinations. However, dosages of LSD in the 1990s were found to be significantly lower, between 50 and 150 micrograms, than in the 1960s and 1970s, up around 250 micrograms. Doses today tend to be psycholitic not psychadelic.
23. Between 1990 and 1996 two deaths in which LSD was detected were reported, both of these deaths occurred in 1995 or 1996. One of these deaths was suicide by motor vehicle exhaust gas and the other was an

accidental fall involving possible LSD involvement (NZDS 2001). In the past five years ESR have dealt with six cases of death in which LSD was reported. These included some in which the LSD could not have directly caused the death, such as a passenger in a motor vehicle accident, and three in which LSD may have played a leading cause, one driver in a motor vehicle accident, and two falls/jumps, one from a parking building, the other from a cliff.

Ability to create physical or psychological dependence

22. LSD does not create any form of physical dependence. Tolerance develops quickly after a few days of usage. However, rather than encouraging higher dosage the response tends to be abstinence for a similar number of days to reduce tolerance to previous levels. Some anecdotal evidence exists of a form of psychological dependence developing from a desire to achieve the spiritual 'trip' thought to be 'just around the corner' (www.erowid.com/experiences/lsd).

International classification and experience

23. In the United Kingdom LSD is classified as a Class A controlled drug under the Misuse of Drugs Act 1971.
24. In the United States, it is classified in Schedule 1 of the Federal Controlled Substances Act 1970.

Other relevant information

25. It is important to note that this is the first assessment of a scheduled drug under this classification system in which, if a change is recommended, the drug would be re-classified in a lower schedule. Thus, if any change is recommended it will result in reduced legal penalties for possession, supply and manufacture of the drug.
26. Possible ramifications for harm reduction strategies need to be carefully considered. It may be useful for the EACD to consider the presentation of a recommendation and, if the recommendation is accepted, the presentation of such a decision to the public via the NDP website

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**ADVICE TO
THE EXPERT ADVISORY COMMITTEE ON DRUGS
ON:**

**3, 4 METHYLENEDIOXYMETHAMPHETAMINE
(MDMA)**

March 2003

EXECUTIVE SUMMARY

1. This paper presents evidence on the risk of harm associated with 3,4-methylenedioxymethamphetamine [MDMA], an amphetamine-type stimulant with hallucinogenic qualities. The information presented addresses the criteria which the Expert Advisory Committee on Drugs [EACD] must take account of when considering the appropriate classification of a substance, under section 4B of the Misuse of Drugs Act 1975. MDMA is currently a controlled drug under Part 2 of the Second Schedule of the Act. This paper offers arguments in support of reclassifying MDMA under the First Schedule of the Act to better reflect the risk of harm associated with the drug. Factors supporting this position include:
 - Sharply rising prevalence of MDMA use and importation into New Zealand
 - Mounting evidence that Ecstasy-type drugs have a neurotoxic effect
 - No conclusive evidence that MDMA has any therapeutic application
 - MDMA seems likely to be proven to be moderately dependence-producing
 - Worrying links between New Zealand's MDMA market and organised crime
 - Increasing number of cases of attempted MDMA manufacture in New Zealand
 - MDMA is classified as a Schedule I or a Class A drug in other jurisdictions
2. Based on the evidence presented in this paper, the EACD may also wish to recommend that presumption for supply of MDMA be set at 2.5 grams or more of MDMA, or 25 flakes, tablets, capsules or other drug forms, each containing some quantity of MDMA.

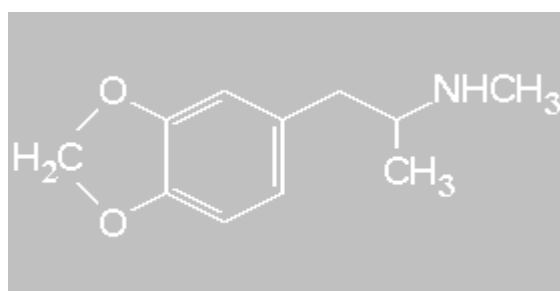
TERMINOLOGY

3. In this paper, the terms MDMA and "Ecstasy" will be used in different contexts. MDMA will be used when referring to studies in which it is known that MDMA was administered, or when referring to studies of Ecstasy users from the late 1980s and early 1990s, when it was highly likely that the tablets the users purchased contained MDMA. The term Ecstasy will be used to refer to the drug as it is sold on the street - often with the actual chemical composition unknown. (In addition to Ecstasy, other street names for MDMA include E, X, XTC, Adam, Eckie, Hug and The Love Drug.)

SUBSTANCE IDENTIFICATION

4. MDMA ($C_{11}H_{15}NO_2$) is an N-methyl analogue of the 'parent' compound MDA (3,4-methylenedioxymethamphetamine). Its chemical structure is shown in Figure 1. In its base form, MDMA is a white, musty-smelling oil, with a searing, bitter taste.

FIGURE 1: Chemical structure of MDMA



5. MDMA production is a multistage process requiring a full laboratory set-up, which is considerably more complicated than methamphetamine production. Although there are more than 20 chemical recipes for MDMA, clandestine laboratory operators commonly use one of only seven methods (National Drug Intelligence Center 2000). Six of these seven common methods use safrole or isosafrole as precursor chemicals; the other uses piperonal.
6. In a successful production process, the resulting MDMA is a nearly 100 percent pure powder with a distinctive licorice scent (Marnell 2002). The powder is pressed into pills with identifying designs or symbols. These tablets often contain adulterants, diluents, and approximately 100 milligrams of MDMA. New Zealand testing of all Ecstasy seizures between July 1999 and June 2000 found that the majority of samples contained MDMA, however ketamine and cocaine were also found in some samples (ESR 2000). Of the 75 MDMA seizures analysed during this period, which yielded 8604 total doses, the average strength of the pills was 91.8 mg/dose (with a strength range of 30.2 mg/dose to 172.4 mg/dose). The average purity of the tablets was 36% (with a purity range of 12.7% to 97.3%).

SIMILARITY TO KNOWN SUBSTANCES

7. MDMA is related to both the amphetamine family of psychostimulants, and to the hallucinogen mescaline (Budavari et al. 1996). Although most often identified as an hallucinogenic stimulant, or amphetamine-type stimulant (ATS), some have argued that the drug's unique pharmacological profile justifies its own classification as an "entactogen" - meaning 'to touch within' (see Nichols 1986).
8. MDMA is sometimes confused with related chemical compounds, such as ethylenedioxymethamphetamine [EVE] and dioxymethylamphetamine [DMA] (Sweetman 2002). The *Australian Standard Classification of Drugs of Concern* also notes MDMA is closely related chemically to phenethylamines like 4-bromo-2,5-dimethoxyamphetamine [DOB], 2,5-dimethoxy-4-methylamphetamine [DOM], 3,4-methylenedioxyethylamphetamine [MDEA], paramethoxyamphetaminamine [PMA] and trimethoxyamphetamine [TMA] (refer to ABCI 2002).

CURRENT CLASSIFICATION

9. MDMA is currently classified as a Class B controlled drug under Part 2 of the Second Schedule of the Misuse of Drugs Act 1975.

PROPOSED CLASSIFICATION

10. It is proposed that MDMA be reclassified under the First Schedule of the Misuse of Drugs Act.

RATIONALE FOR RECLASSIFICATION

Likelihood or evidence of abuse

New Zealand prevalence data

11. New Zealand drug surveys indicate an increase in ATS use. The latest survey undertaken by the former Alcohol and Public Health Research Unit attached to the University of Auckland (Wilkins et al. 2002) found a significant increase in the number of respondents trying and using ATS [see Table 1]. The largest

increases in the use of stimulants was in the 15-17 year old age group (increased from 2% to 6%) and 20-24 year old age group (increased from 6% to 11%). This data reflects a continuing trend of increased stimulant use that was also seen in the previous regional comparison survey (Field and Casswell 1999), where stimulant use increased from 2% in 1990 to 4% of respondents in 1998.

TABLE 1: Use of amphetamine/methamphetamine, 1998 and 2001

	Ever used		Used Last Year		Current User	
	1998	2001	1998	2001	1998	2001
Amphetamine / Methamphetamine	7.6%	11.0%	2.9%	5.0%	2.2%	3.5%

Source: Wilkins et al. 2002

12. The surveys also indicate an increase in the use of MDMA, with the rates of MDMA experimentation increasing from 3% to 5.4% between 1998 and 2001 [see Table 2]. Significantly, in the 20-24 year age group of survey respondents, MDMA use during the previous 12 months rose from 3% in 1998 to 10% in 2001.

TABLE 2: Use of MDMA, 1998 and 2001

	Ever used		Used Last Year		Current User	
	1998	2001	1998	2001	1998	2001
MDMA	3.0%	5.4%	1.5%	3.4%	1.0%	2.3%

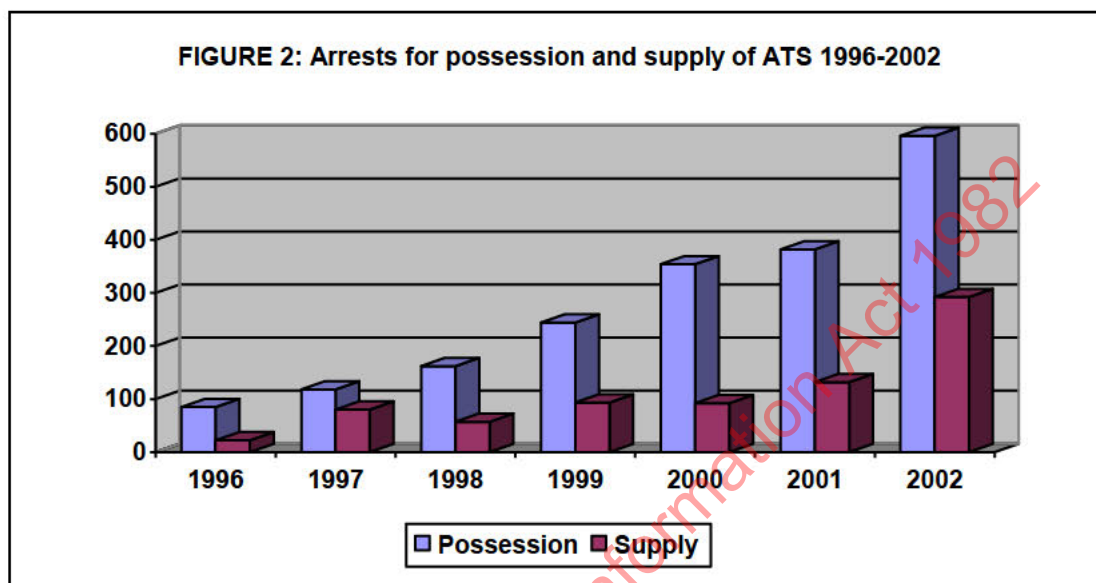
Source: Wilkins et al. 2002

New Zealand MDMA-related mortality and morbidity

13. Hospital data is unable to provide definitive information about the health-related impact of MDMA. There are some problems associated with the data, including the fact that the data does not differentiate between MDMA-related admissions and those relating to the use of other ATS drugs. Nevertheless, there were 109 publicly funded stimulant-related hospitalisations between 1996 and 1998 (NZHIS 2001). These hospitalisations were for non-dependent abuse, dependence, and poisoning either as the presenting condition or as a secondary diagnosis. There was a rise in the total numbers of hospitalisations each year (18 in 1996, 46 in 1998), however, due to the small number and short timeframe it is difficult to describe this as a clear trend.
14. The New Zealand Health Information Service reports that there were no deaths associated with stimulant use in New Zealand between 1990 and 1996 (NZHIS 2001). Three MDMA-related deaths have been recorded by coroners since 1998.

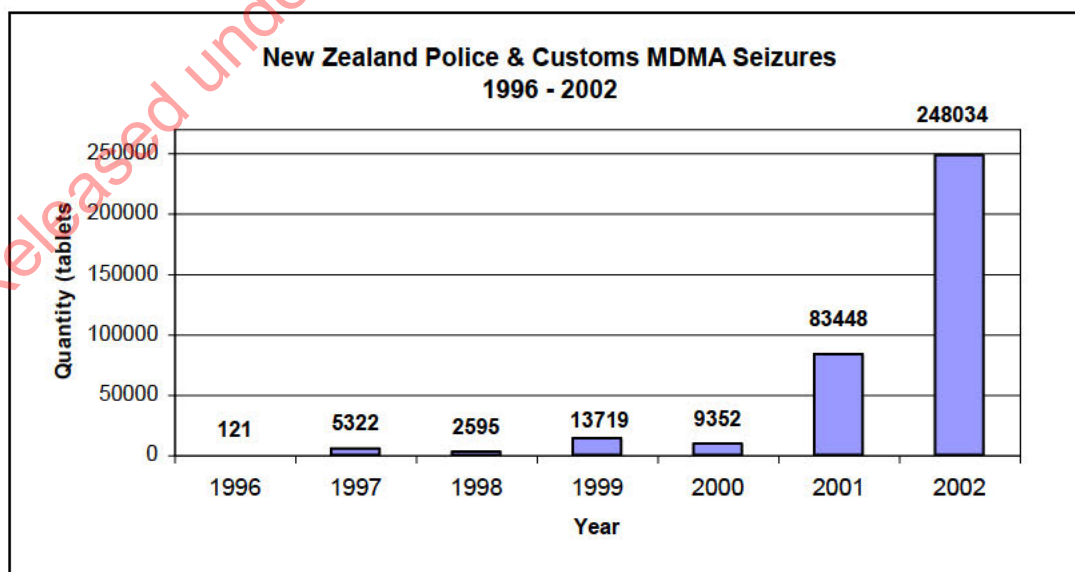
New Zealand arrest and interdiction data

15. New Zealand law enforcement data indicates growing ATS availability, however, some data systems do not currently distinguish between MDMA and other ATS. The number of people arrested for ATS possession has increased approximately 650 percent between 1996 and 2002 [see Figure 2]. Increasing numbers of people have also been charged with supply offences for ATS in recent years. In 2002, 596 people were arrested for possession of ATS and 292 for importation, supply and manufacture offences.



Source: Police data

16. There has also been a steep rise in MDMA seizures by Police and the Customs Service. Prior to 1998, seizures of MDMA were sporadic and small in quantity (NDIB 1999). However, since that time there has been a significant rise in interdiction rates and the size of MDMA seizures as outlined in Figure 3 [below]. In fact, provisional seizure figures for the year ended 31 December 2002 put the total quantity of MDMA interdicted at approximately 248,034 tablets (NDIB 2003).



Source: Police and Customs Service data

17. Finally, there has been a decline in the street price of MDMA. In its annual report for 1998, the National Drug Intelligence Bureau [NDIB] reported that MDMA sold for between \$80 and \$100 a tablet; in its most recent overview report, the NDIB states the current street price for MDMA is consistently between \$60 and \$80 a tablet (NDIB 1999; 2003). This could be interpreted as a sign of increasing levels of supply, however, the relationship between price and availability is not explicit.

Specific effects of MDMA

Pharmacological effects

18. Animal research has indicated that MDMA has a high affinity for serotonin receptors and transport sites in the brain (eg. Battaglia and De Souza 1989; Pierce and Peroutka 1988). Serotonergic neural pathways regulate sleep, sexual activity, aggression, mood, and pain sensitivity, and are also important in the regulation of temperature and in memory function. MDMA initially enhances serotonergic function by binding to serotonin receptor sites. However, eventually this will lead to a depletion of the neurotransmitter and thus a decrease in serotonin levels. MDMA also stimulates the release of dopamine into the synaptic cleft (Daws et al. 2000). Dopamine is involved in control of movement, cognition, motivation and reward or pleasure.
19. In the rat, administration of MDMA results in increases in metabolic rate, evaporative water loss, heart rate, blood pressure, body temperature and locomotor activity (eg. Gordon 1991). The effects in the rat are influenced by ambient temperature (Malberg and Seiden 1988). Depending on the ambient temperature, either hypothermia or hyperthermia may be observed, such that the effect of the drug is best characterized as a loss of normal control of body temperature. On the basis of an established relationship between serotonin and hyperthermia, Loscher and colleagues (1990) hypothesized that the MDMA-mediated release of serotonin may underlie these temperature control problems.
20. In humans, common short-term physical effects of MDMA/Ecstasy are similar to those of ATS, including papillary dilation, increased jaw tension and grinding of teeth, loss of appetite, dry mouth, nausea and vomiting, tachycardia, hot and cold flushes and sweating (see, further, Greer and Tolbert 1986, 1990; Peroutka et al. 1990; Solowij et al. 1992; Vollenweider et al. 1998). Longer term effects perceived by users as being Ecstasy-related include insomnia, depression, headaches and muscle stiffness (see, for instance, Cohen 1995; Peroutka et al. 1990; Siegel 1986; Topp et al. 1999).

Psychoactive effects

21. Consistent results on psychoactive effects of MDMA have been demonstrated in surveys of MDMA/Ecstasy users (eg. Siegel 1986; Peroutka 1990; Solowij et al. 1992; Cohen 1995; Topp et al. 1999) and studies using controlled administration of MDMA (eg. Greer and Tolbert 1986, 1990; Vollenweider et al. 1998; Cami et al. 2000). They indicate that the immediate positive psychoactive effects of MDMA include euphoria and a sense of well-being, increased energy, and feelings of warmth, empathy and closeness with others. Less commonly, negative psychological effects may include anxiety, paranoia, and depression.

Neurotoxic effects

22. MDMA has been shown to be neurotoxic to serotonergic pathways in animals and in humans. However, the type and severity of this neurotoxicity is influenced by many factors, including ambient temperature, exercise, polydrug use and levels of hydration. These variables, when combined with the heterogeneity of compounds contained in tablets sold as Ecstasy, make it difficult to determine under which circumstances MDMA may have a neurotoxic effect in human users (Gowing et al. 2001).
23. Animal studies have shown that administration of MDMA produces damage to serotonergic axons and axon terminal fibres in various brain regions (including the cortex, hippocampus and striatum), reduced density of serotonin reuptake sites, and reduced concentrations of the serotonin metabolite 5-HIAA, but without alterations in the major metabolites of dopamine and noradrenaline (McCann et al. 2000). Decreases in the density of brain serotonin axons have been seen in squirrel monkeys more than seven years after MDMA administration (Hatzidimitriou et al. 1999). While some regrowth of axons occurs, it appears abnormal and incomplete (Boot et al. 2000).
24. Such findings in animals have led to concerns regarding neurotoxicity of MDMA. Although animal studies are indicative of effects in humans, there remains a degree of uncertainty about the generalisability of animal research findings to human drug users. However, a series of studies using sophisticated brain imaging techniques, such as PET, SPECT and MRI, to assess different aspects of the human brain have found persisting abnormalities in the brain morphology in ex-users of Ecstasy, even with moderate use (eg. Chang et al. 1999, 2000; McCann et al. 1998; Obrocki et al. 1999; Reneman et al. 2000a; Semple et al. 1999). For example, Kish and co-researchers (2000) obtained autopsied brain from 11 neurologically normal subjects and one male MDMA user. They found that striatal levels of serotonin and 5-HIAA (but not dopamine) were depleted by 50% to 80% in the brain of the MDMA user.
25. The studies cited above have tended to include only small numbers of subjects, and many are confounded by uncertain histories of MDMA and other drug use. Although consistent with animal research in providing additional evidence of neurotoxicity, the imaging and coronial studies in particular do not indicate the functional significance of changes in brain morphology.
26. The functional significance of the neurotoxic effects of Ecstasy has been explored in a number of recent studies, which have used psychological tests to assess cognitive function, memory, and aspects of mood in current and former Ecstasy users compared to non-using controls. Again, these studies are confounded to some extent by small subject numbers, difficulties in determining history of Ecstasy use, concomitant use of other drugs such as cannabis, and the lack of baseline data from periods prior to Ecstasy use (in order to tease out pre-existing differences between users and non-users from the effects of Ecstasy itself). Despite these limitations, and despite some variability between studies, an impairment in short-term memory function has consistently been observed in Ecstasy users (eg. Curran and Travill 1997; Parrott and Lasky 1998; Klugman et al. 1999), that appears to be mediated via the serotonin neurotransmitter system (eg. McCann et al. 1994, 1999; Bolla et al. 1998; Reneman et al. 2000b).
27. The results of the majority of these studies demonstrating memory impairment suggest that the deficits are not attributable to the concomitant use of other drugs, particularly cannabis. However, results of two studies that attempted to

rigorously control for cannabis use (Gouzoulis-Mayfrank et al. 2000; Rodgers 2000) both suggest that although cannabis use is unlikely to fully account for the cognitive deficits observed in Ecstasy users, it may contribute to impairment above and beyond any Ecstasy-related deficits. A more recent study conducted in Sydney, Australia (Simon and Mattick 2002) found that Ecstasy users showed no impairment relative to cannabis using controls, which is suggestive that cannabis may have confounded earlier results demonstrating an association between memory impairment and lifetime exposure to Ecstasy.

28. In summary, the combination of evidence from animal and human research provides mounting evidence for a neurotoxic effect of Ecstasy. However, the long term functional consequences of Ecstasy use in humans remain uncertain. Only large-scale, community-based and prospective longitudinal research will be able to definitively address these issues. The exact mechanism of MDMA's neurotoxicity is also unclear, and is an area that is continuing to be researched.

The risks that MDMA poses to public health

29. As a preliminary remark, it is important to acknowledge that quantifying the risk to public health of any substance is a difficult task. The ability to do so for MDMA is further complicated by the lack of large-scale, longitudinal and epidemiological studies. For MDMA, we must rely on an analysis of case reports to examine the risks to public health. An analysis of case reports of adverse health effects of Ecstasy will inevitably be biased, however. More serious effects, particularly cases with fatal outcomes, are more likely to be published. It is also impossible from case reports to make a meaningful estimate of how likely these adverse effects are, due to the inability to relate the number of case reports to a population base (see, further, Gowing et al. 2001). However, in the absence of epidemiological and population-based studies, case reports constitute the best available evidence of the risks, if any, that MDMA poses to public health.
30. Case reports of Ecstasy-related death, as well as other sorts of outcomes, such as psychiatric sequelae, have been comprehensively reviewed by Gowing and associates (2002). It is not necessary to traverse the ground covered by Gowing et al. here; suffice it to note that at the conclusion of their review, the authors state: "The incidence of serious acute adverse events related to Ecstasy is low" (Gowing et al. 2002: 53).
31. Intense media scrutiny of a small number of Ecstasy-related deaths may well have led to the impression that the drug is more likely to be associated with adverse outcomes than may actually be the case. This should not be taken to imply that the use of the drug is free of risk; clearly, use of Ecstasy is associated with a risk of mortality and significant morbidity. However, in the absence of rigorous evidence suggesting otherwise, those risks should not be overstated. The most significant risk for health is that of hyperthermia and hyponatraemia (disturbed salt-water balance). Other problems are reported by Ecstasy users, including physical, psychological, social, relationship and occupational problems (see Topp et al. 1999), but most of these are relatively minor, and only a very small minority constitute significant disruptions to functioning.
32. One way to simplify and contextualise the task of quantifying MDMA's risk to public health is to compare the risk it poses with the risk posed by another drug. To this end, when the United States Sentencing Commission proposed to change the penalties applied to MDMA-related offences, the Federation of American Scientists, spearheaded by a large group of respected researchers

and academics from the United States and Australia, argued that “the damage done by heroin to its users, and the damage done by its users and dealers to others, vastly outweighs the damage done by MDMA. Whether we look at death, addiction, infectious disease transmission, crime by users or violence among dealers, the damage from heroin is orders of magnitude greater” (Schuster et al. 2001: 2). Similarly, the relative risks associated with MDMA have convinced the United Kingdom’s Association of Chief Police Officers [ACPO] and a recent independent Police Foundation inquiry team to recommend that Ecstasy be reclassified from a Class A to a Class B controlled drug (Runciman 2000: 50).

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| 33. | In summary, although some commentators would undoubtedly disagree, many well-respected researchers, academics and practitioners suggest that the risk to public health of MDMA is relatively low. |
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The therapeutic value of MDMA

34. Although MDMA was first patented in 1914, voluntary human experimentation with the drug can only be traced back to the 1970s (Shulgin 1990). Prior to the criminalisation of MDMA in the United States during the mid-1980s, the drug had been used since the mid-1970s in a therapeutic context by psychotherapists on both the East and West Coasts of America. These therapists, including psychiatrists and physicians, considered the drug an invaluable therapeutic adjunct when used in strictly controlled environments under medical supervision (Beck and Rosenbaum 1994). They believed that the relatively short duration of MDMA’s action, along with its ability to facilitate self-insight and an openness of emotional expression in which a patient was not fearful or inhibited, positioned the drug as an ideal tool in standard psychotherapeutic processes (eg. Grinspoon and Bakalar 1986; Adamson and Metzner 1988). Despite their belief in its efficacy, the therapists were wary of drawing too much attention to MDMA, fearing that this would only hasten its criminalisation and block further research (Eisner 1989; Seymour 1986). For this reason, although those familiar with the drug firmly believed in its therapeutic value (Beck 1986), very little research, and no rigorously controlled trials, were ever conducted to examine MDMA’s therapeutic potential before it was criminalised.
35. In 1985, the United States Drug Enforcement Administration [DEA] proposed that MDMA be classified as a Schedule 1 drug under the Controlled Substances Act. For this to occur, three criteria had to be met: MDMA must be deemed to have a high potential for abuse, no currently accepted medical use, and a lack of safety for use even under medical supervision. The DEA was unaware that MDMA was being administered to patients in a therapeutic context (Beck and Rosenbaum 1994); enforcement officials considered Ecstasy a dangerous drug devoid of therapeutic value. The controversy continued through three federal administrative law hearings to determine the scheduling of MDMA. Although the main finding of each of the three hearings was the lack of research assessing the potential benefits and/or harms arising from MDMA use, the continued spread in the recreational use of the drug led to its emergency scheduling in 1985, and subsequent permanent classification in Schedule 1 the following year.
36. Under United States law, therefore, MDMA has been classified for more than 15 years as having no currently accepted medical use. This scheduling has meant that it is virtually impossible to obtain research funding to examine the question of whether MDMA has true therapeutic potential. For this reason, the therapeutic potential, or otherwise, of MDMA has never been examined through rigorous research. Moreover, because the drug was patented and the patent has lapsed, there are no financial incentives for a pharmaceutical company to invest in

research into the benefits and risks of MDMA; the drug is in the public domain and any company could now market the same product with minimal investment.

37. It is prudent to emphasise that the absence of evidence relating to therapeutic value of MDMA does not mean that the drug has no such value. Rather, the absence of evidence reflects the fact that the research that could definitively answer this question has never been conducted. Along with the numerous testimonials provided by patients and users whose motivations for MDMA use were therapeutic or spiritual (eg. Watson and Beck 1991), it bears noting that many of the therapists who administered MDMA to their patients in the United States in the late 1970s and early 1980s were highly respected clinicians and academics (eg. Adamson and Metzner 1988; Greer and Tolbert 1986, 1990; Grinspoon and Bakalar 1986; 1987; Wolfson 1986). These therapists, despite MDMA's Schedule 1 status, appear to have remained committed to their belief in the therapeutic efficacy of the drug (eg. Greer and Tolbert 1998).

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| <ol style="list-style-type: none">38. In summary, there is no conclusive evidence to either prove or disprove the contention that MDMA has therapeutic value. Furthermore, at least in the near future, research that could comment more authoritatively on this issue is unlikely to be conducted. |
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The potential for MDMA to cause death

39. As noted earlier, there is a lack of large-scale, longitudinal and epidemiological studies that could provide robust measures of the risk of death related to MDMA. Instead, we must rely on an analysis of case reports to examine the risks to public health of Ecstasy – which, inevitably, will be biased; simply because more serious effects, particularly cases with fatal outcomes, are more likely to be publicised than non-serious or benign effects. It is also impossible from case reports to make a meaningful estimate of how likely adverse effects are, due to the inability to relate the number of case reports to a population base (Gowing et al. 2001). However, in the absence of epidemiological and population-based studies, case reports constitute the best available evidence we have in this area.
40. MDMA/Ecstasy undoubtedly has the potential to cause death, with hyperthermia the most common cause of fatalities (Gowing et al. 2002). Some studies have suggested that the risk of using Ecstasy ranges from between one death in 2000 first time users to one death in 50,000 first time users (Gore 1999). Moreover, although users tend to believe that only 'fake pills' (that is, those not containing MDMA) are likely to be associated with death, some studies that report on toxicological analyses show that MDMA alone (with no other drugs or contaminants) has been implicated in deaths. For example, a very recent study of Ecstasy-related deaths in England and Wales found that, although typically the deceased had taken several different (prescribed and non-prescribed) drugs with Ecstasy, a small proportion of fatalities (6 out of 81, or 7% of the sample) died after only taking Ecstasy (Schifano et al. 2003).
41. As previously noted, ambient temperature influences MDMA's interruption to temperature control, and the fact that Ecstasy is commonly consumed in hot environments where users engage in sustained physical activity and may not adequately replace their fluids (eg. dance party venues), has undoubtedly contributed to the number of Ecstasy-related deaths reported in the literature.
42. However, it is important once again to emphasise that although Ecstasy/MDMA has been implicated in the deaths of some users, the number of reports is small. Given the extremely large number of Ecstasy/MDMA doses consumed globally

each week, it seems reasonable to suggest that, although use of MDMA carries with it a potential to cause death, the risk of death from consuming MDMA is low in relative terms.

43. In summary, use of MDMA has been associated with a small number of deaths reported in the literature, including three deaths in New Zealand since 1998. There is no doubt that the drug has the potential to cause death. However, the available evidence suggests that the risk of death after using solely MDMA is low.

The ability of MDMA to cause physical or psychological dependence

44. Early studies of community samples of MDMA users in both Australia and the United States found generally self-limiting patterns of use, with low levels of injecting, few negative health effects, and use confined mainly to inner city areas (eg. Peroutka et al. 1988; Solowij et al. 1992; Moore 1993; Beck and Rosenbaum 1994). Such results seemed to confirm the prevailing view that MDMA was a relatively benign substance with few associated problems (eg. Nichols and Glennon 1984; Downing 1986; Fromberg 1990). Dependence on MDMA, if addressed in the literature at all, was considered uncommon (eg. Peroutka 1989; Steele et al. 1994; Green et al. 1995). It was generally agreed that MDMA dependence was unlikely due to a rapid development of tolerance to the desired effects, along with the simultaneous intensification of unpleasant side-effects such as teeth grinding, anxiety and agitation (eg. Chesher 1990; Beck and Rosenbaum 1994). Even so, others cautioned that the self-limiting nature of MDMA use might change if the dominant pattern of use (infrequent oral consumption of small amounts of MDMA) were to change (Hall and Hando 1993).
45. Indeed, not long after in the United Kingdom, Merrill (1996) described a group of Ecstasy users who administered the drug repeatedly in increasing doses to overcome short-term tolerance. Similarly, Topp and others (1997) found that 83% of a sample of 185 regular Ecstasy users reported significant tolerance to the effects of the drug, and 56% reported that they used more than double the amount of Ecstasy that they first started with, in order to achieve similar effects. Although there are difficulties in assessing self-reported tolerance due to the variations in both the purity and contents of tablets sold as Ecstasy, these results are consistent with those of Frederick et al. (1998), who observed the development of tolerance in monkeys after exposure to high doses of MDMA.
46. Relatively few studies have examined self-reported abuse and dependence symptoms among MDMA users. In an early study done in Sydney that asked MDMA users about dependence, Solowij and co-investigators (1992) reported that only 2% of their sample of 100 people who had ever used the drug had "ever felt dependent on Ecstasy", although 47% believed "addiction" to the drug was possible. Jansen (1999) described three case reports of individuals who met criteria for a diagnosis of dependence on Ecstasy. Although this report provided little detail as to how the diagnoses were derived, the individuals were described as feeling that they had lost control over their use of Ecstasy, neglecting alternative pleasures, and continuing to use the drug despite believing that it was causing them problems.
47. In a more rigorous study conducted in 1995, Schuster et al. (1998) interviewed a representative community sample of 3021 14-24 year olds in Munich, Germany. They found that 4% of the male and 2.3% of the female respondents reported having used Ecstasy at some time, and that about half of these lifetime users had used the drug more than five times. The most common pattern of Ecstasy

use was between once per month and twice per week, although 17% of users reported using Ecstasy on three or more days per week. Referencing to the clinical criteria for drug dependence in the *Diagnostic and Statistical Manual of Mental Disorders* [DSM] (American Psychiatric Association 1994), Schuster and colleagues found that the prevalence of DSM diagnoses of abuse/dependence on Ecstasy and related drugs was about 1%. These results suggest that approximately 20% of young people who use Ecstasy at least once in their life are likely to subsequently meet diagnostic criteria for an Ecstasy use disorder.

48. A study by Topp et al. (1997) used the same structured diagnostic interview schedule as Schuster et al. (1998), but administered it to a sample of 185 respondents who reported having used Ecstasy at least five times in their lives. The mean age of the sample was 22.1 years (ranging from 15-42 years), with 77% aged 25 years or younger, and 54% female. Each of the DSM criteria for abuse and dependence were endorsed by at least 25% of this sample with the most commonly reported criteria being the development of significant tolerance (endorsed by 62% of the sample), unsuccessful attempts to stop or reduce Ecstasy use (45%), and repeatedly using more or for longer than intended (41%). In total, 48% of their sample of regular Ecstasy users met the diagnostic criteria for dependence on the drug, and 36% met diagnostic criteria for abuse.
49. Also reporting high rates of Ecstasy use disorders was the study of Cottler et al. (2001). In order to examine the applicability of DSM diagnoses to Ecstasy, these authors twice administered a structured diagnostic interview schedule to 52 young people aged 13-27 years old, who reported having used Ecstasy more than five times in their lifetimes. (They found that when the same interview was administered to the same users a second time approximately five days after the first interview, the dependence criteria exhibited acceptable test-retest reliability.) The researchers reported that, of their sample, 43% met criteria for dependence on Ecstasy, and 34% met criteria for abuse.
50. Von Sydow et al. (2002) have reported perhaps the most rigorous examination to date of self-reported symptoms of dependence among Ecstasy users, using a prospective longitudinal design in which a representative sample of young people have been followed over time to examine the development of Ecstasy and other drug use disorders. The study found that, although about 1% of the sample of young people met criteria for an Ecstasy use disorder at baseline, the rates for spontaneous cessation of Ecstasy use were high at follow-up, even among those who had met criteria for a diagnosis at baseline. This finding led the study's authors to suggest that although Ecstasy use disorders do occur, they are a relatively transient and youth-specific phenomenon, and only a small proportion of regular users of the drug are likely to develop chronic problems controlling their use of the drug.
51. A major limitation of the literature relating to the assessment of abuse and dependence symptoms among self-reported Ecstasy users is that it is virtually impossible to obtain reliable and valid information about the specific chemical structure of the substances used, because of the extreme heterogeneity and variability of active ingredients in tablets sold as Ecstasy. In other words, although a slowly growing body of evidence suggests that users will report symptoms of dependence on the use of tablets sold as Ecstasy, the extent to which these results are relevant to MDMA is extremely difficult to determine.
52. Having noted this limitation, it is also important to observe that, were MDMA shown in the future to be a drug that was not associated with a dependence potential, such a finding would be unique and highly counter-intuitive. This is

because virtually all drugs that are repeatedly self-administered by humans who desire specific subjective effects have been shown, eventually, to be associated with a risk of dependence. In the absence of strong evidence to the contrary, it seems unlikely that MDMA would be a drug that followed a substantially different pattern to that of all other drugs that have been demonstrated to be voluntarily and repeatedly self-administered by human drug users. The facts that, under some circumstances, primates will engage in repeated self-injection of MDMA (eg. Beardsley et al. 1986; Lamb and Griffiths 1987), and MDMA is known to activate the dopaminergic reward pathways, which may underlie the rewarding effects of other drugs used illicitly by humans (Nichols and Oberlander 1989), are also consistent with the notion that MDMA use is associated with some risk of dependence (McCann and Ricaurte 2000).

53. In summary, a small but growing literature indicates that some users report symptoms of dependence on the use of tablets they purchase as Ecstasy, and that a proportion of these meet clinical criteria for a diagnosis of dependence on the drug. The extent to which these results are relevant to MDMA is impossible to determine, as a result of the heterogeneity and variability of the contents of tablets sold as Ecstasy. Although further research is required before a complete understanding of the nature of dependence on Ecstasy can be clarified, it seems reasonable to suggest that, in the future, MDMA is likely to be demonstrated to have moderate dependence liability, in that a substantial minority of those who use Ecstasy regularly are likely, at some point, to: (1) experience problems in controlling their use of the drug, (2) continue to use despite knowing that the drug is causing them physical, psychological or social problems, and (3) find that their Ecstasy use has assumed priority over other activities that were once considered important. The most recent and rigorous research in this area suggests that, although MDMA use disorders do occur, they are a relatively transient and youth-specific phenomenon, and only a small proportion of regular MDMA users are likely to develop chronic problems in controlling their drug use.

International classification and experience

United Nations drug control conventions

54. As a state party to the 1971 United Nations Convention on Psychotropic Substances, New Zealand has an international treaty obligation to implement a control regime for the drugs that are listed in the schedules to the Convention. Along with its 'parent' compound MDA, and the chemically related substances DMA, DOB, DOM, PMA and TMA, MDMA is listed as a Schedule I substance under the 1971 Convention.
55. MDMA's Schedule I status under the 1971 Convention, while not requiring New Zealand to put in place any particular legal regime for the drug, does require that dealings with MDMA at a national level must be prohibited, except for scientific and very limited medical purposes. Schedule I status reflects an assessment by the World Health Organization Expert Committee on Drug Dependence that MDMA is a substance whose liability to abuse constitutes an especially serious risk to public health, and which has very limited (if any) therapeutic utility.
56. While the current classification of MDMA in Part 2 of the Second Schedule of the Misuse of Drugs Act technically fulfils New Zealand's international obligation to strictly control this substance, the EACD may feel that elevating MDMA to a higher classification better reflects the risk assessment that the drug has been given by the World Health Organization, and the wider United Nations system.

Other countries' classification of MDMA

57. In the United States, MDMA is a Schedule 1 substance under the Controlled Substances Act; and in the United Kingdom, MDMA is a Class A drug under the Misuse of Drugs Act. MDMA is also a highly controlled substance in Australia. For example, MDMA is a Schedule 1 substance under Queensland's Drugs Misuse Act Regulations, Victoria's Drugs, Poisons and Controlled Substances Act, and South Australia's Controlled Substances (Prohibited Substances) Regulations. Similarly, in the Australian Capital Territory, MDMA is listed in the same category of substances as heroin and LSD, under that jurisdiction's Drugs of Dependence Act and Drugs of Dependence Regulations.

58. The assessment and classification of MDMA by the World Health Organization and the United Nations drug control treaties, clearly recognises that MDMA's liability to abuse constitutes an especially serious risk to public health, and that it has very limited (if any) therapeutic utility. This assessment and classification is reflected in strict controls associated with MDMA in the legislation of several overseas jurisdictions.

RECOMMENDED PRESUMPTION FOR SUPPLY AND JUSTIFICATION

59. It is recommended that the EACD consider a presumption for supply of MDMA be set at 2.5 grams or more of MDMA, or 25 flakes, tablets, capsules or other drug forms, each containing some quantity of MDMA.

60. This figure is based on an assumption that the average active dose is between 30 mg and 170 mg, averaging to around 100 mg. Thus 2.5 grams of pure MDMA would be the equivalent of approximately 25 doses and have a street level price of between \$1500 and \$2000. However, this figure does not account for groups of people buying in larger quantities to avoid detection. For example, current intelligence suggests that MDMA can be distributed at a wholesale level for around \$18 a tablet, if the quantities purchased are between 10,000 and 20,000 tablets (NDIB 2003). Such issues will need to be taken into consideration during any vetting process for compliance with the New Zealand Bill of Rights Act 1990.

61. Intelligence indicates that some users consume more than one tablet per session, sometimes up to five tablets over a 48-hour period in extreme cases. Users also purchase MDMA on a per session basis, thus possession of 25 flakes, tablets, capsules or other drug forms is far in excess of ranges for personal use.

OTHER RELEVANT INFORMATION

Organised crime links with importation of MDMA

62. National Drug Intelligence Bureau analysts are concerned that, despite the Netherlands remaining the main source of MDMA being illegally trafficked into the country, three clandestine laboratories capable of producing MDMA have recently been located and dismantled in New Zealand. This is a worrying trend, and reflects the fact that organised crime groups internationally and domestically recognise the potential to further exploit New Zealand's expanding market for Ecstasy.

63. In addition to Asian organised crime involvement in the New Zealand MDMA market, law enforcement officials have detected the emergence of Israeli and Dominican Republic trafficking syndicates in recent large-scale MDMA seizures.

One of these successful Police and Customs operations in December 2002 resulted in New Zealand's largest ever seizures of MDMA (53,895 tablets).

64. Combined with the huge rise in MDMA seizures during the last two years (from some 10,000 tablets in 2000 to a provisional estimate of 248,034 tablets in 2002) law enforcement agencies are deeply concerned that New Zealand is being targeted by organised crime groups as a lucrative market for illegally trafficked or manufactured MDMA.
65. The high profitability and current Class B classification of MDMA may contribute to the readiness of persons to become involved in illicit manufacturing and/or trafficking of the drug.

Significant developments

New trafficking trends

66. Significant developments have included two importations (9 litres in total) of pure MDMA base oil (which are believed to be the first seizures of "trafficked" MDMA base product in the world). If MDMA manufacturers and traffickers in the Benelux nations move to utilise this liquid method as the norm, it represents a critical challenge to law enforcement.
67. Another significant development has been the importation of four litres of the precursor chemical Sassafras Oil using the Internet (which could potentially have yielded between 10,000 and 20,000 MDMA tablets, depending upon the manufacturing process). In recent times, Police and Customs Service officials have also recorded New Zealand's first significant importations of MDMA powder by attempted internal concealment. The concealment method makes MDMA virtually impossible to detect at the border, and seizure must rely on effective intelligence and investigation.

Attempts at domestic manufacture

68. As noted earlier, the Netherlands as a source-country accounts for the overwhelming majority (some 99%) of MDMA seizures made by Police and Customs Service personnel. However, in the past year there has been evidence that MDMA is being manufactured domestically in clandestine drug laboratories.
69. The synthesis of MDMA requires high levels of chemistry and pharmaceutical knowledge and skills, as well as sophisticated apparatus (National Drug Intelligence Center 2000). The risk of explosion, chemical burns or poisoning associated with manufacture of MDMA is high due to the toxic, corrosive, volatile and extremely flammable chemicals used in the production process. These risks are often exacerbated by the fact that those involved in the manufacturing often have a very rudimentary knowledge of the chemical process they are completing, and also do not typically observe safe chemical handling and disposal practises.
70. There are also very real risks of environmental pollution associated with the illicit manufacture of MDMA in New Zealand. A number of clandestine laboratory operators, both nationally and internationally, have already been discovered dumping chemical waste into local water supplies, venting fumes near schools, and dumping volatile waste into natural waterways. In this context, it is notable that Dutch authorities have estimated that the manufacture of 1 kilogram of MDMA produces 12 kilograms of toxic waste (NDIB 2003).

'Passing off' other substances as MDMA

71. Concern that New Zealand is being targeted by organised crime groups as a lucrative market for MDMA also raises further issues about the potential for pills to be sold as Ecstasy, but actually containing other, more dangerous substances. This trend has been observed in several 'mature' Ecstasy markets, where tablets sold on the street as Ecstasy have contained more potent drugs like PMA. For instance, PMA tablets responsible for four deaths in Norway and Denmark since 2000 were marked with the "Mitsubishi" or "E" logo - well known Ecstasy tablet brands - in order to be passed off as pills containing MDMA. Likewise, 12 deaths have been recorded in Australia since 1994, as a result of users consuming what they thought was Ecstasy but was in fact PMA (see ABCI 2002).
72. The use of logos on Ecstasy tablets is a marketing tactic which can lead the user into thinking that it is the same, or will have the same effect, as a previously consumed tablet bearing the same logo. This is far from guaranteed, however, as the strength and composition of Ecstasy tablets can vary widely, leading to the potential for different and unpredictable reactions to the pills by consumers. [The variability of tablets sold as "E" was borne out by New Zealand testing of all Ecstasy seizures in 1999/2000, which found MDA, MDEA, methamphetamine, amphetamine, and ketamine in some samples (ESR 2000). Of the 8604 doses of MDMA analysed during this period, the strength of the pills ranged from 30.2 mg/dose to 172.4 mg/dose, and the tablet purity ranged from 12.7% to 97.3%.]

Polydrug use by people who consume MDMA

73. One final significant development which is worthy of note is that Ecstasy users often tend to be polydrug users, who combine licit and illicit drugs to increase the pleasurable effects of the substance, as well as to soften the withdrawal effects. In particular, quantitative and qualitative studies of MDMA users indicate that alcohol and cannabis are often used to soften the 'come down' symptoms of having taken Ecstasy (see, for instance, Hammersley et al. 2002). There is also evidence of an emerging trend where Ecstasy is being used in conjunction with other drugs: in particular, LSD, ketamine, GHB and a variety of hallucinogenic substances. The health risks associated with MDMA can increase if other drugs are consumed at the same time, or shortly after taking MDMA, because of the uncertain chemical and idiosyncratic reactions that can result from mixing drugs.

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**EXPERT ADVISORY COMMITTEE ON DRUGS MEETING
MINUTES**

Chair: Dr Bob Boyd

Thursday, 12 June 2003

CO1, Ministry of Health, 180 Molesworth Street, Wellington

The meeting commenced at 9.20 am

Members present:

Dr Bob Boyd (Chair)

Dr Stewart Jessamine

Associate Professor Tim Maling

Dr Doug Sellman

Dr Geoffrey Robinson

Andrew Coleman

Dr Keith Bedford

Detective Inspector Gary Knowles

Apology – Keremete Warbrick

Apology – Dr Helen Moriarty

Secretariat in attendance:

Matthew Andrews

Megan O'Brien

1. Welcome and apologies

- The Chair welcomed members and introduced the secretariat.
- The minutes of the meeting of 12 September 2002 were confirmed.
- Apologies were received from Keremete Warbrick and Dr Helen Moriarty.
- No conflicts of interest were recorded.

Agreed:

To confirm the minutes of the meeting of 12 September 2002.

2. General discussion in relation to the Re-Classification of Methamphetamine

- The EACD was informed of the completion of the classification and re-classifications made under the Misuse of Drugs (Changes to Controlled Drugs) Order 2003. The EACD discussed the process for a presumption of supply for methamphetamine

3. MDMA (Ecstasy)

- The EACD considered the preliminary assessment paper on MDMA provided by the secretariat.

Agreed:

That the EACD will consider the preliminary assessment paper at its next meeting.

That further information will be provided to the EACD on MDMA.

4. Discussion relating to processes of the EACD

- The EACD discussed aspects of the preparation of papers provided to them. Processes are to be set out more clearly for future papers.

5. LSD

- The EACD considered a second paper on LSD provided by the secretariat.

Agreed:

That the EACD not recommend any change to the classification of LSD at this time.

That papers relating to the original classification for LSD in New Zealand be provided to the EACD.

7. Hypnotic sedatives

- The EACD discussed what approach it would take to the consideration of the drugs in the hypnotic sedatives class.

Agreed:

That the EACD initially consider Benzodiazepines, zolpidem and zopiclone together in one paper, barbiturates in another paper and the remaining hypnotic sedatives individually.

That the EACD will consider Benzodiazepines, zolpidem and zopiclone at its next meeting, noting the similarities and differences, potential for harm and the principles for sorting them.

8. Psuedoephedrine

- The EACD considered a preliminary assessment paper on psuedoephedrine provided by the secretariat.

Agreed:

That the EACD recommend to the Minister that psuedoephedrine be classified in the third part of the third schedule of the Misuse of Drugs Act 1975 (eg: Class C3).

9. Next meeting

Agreed:

That the next meeting will be organised at a later date.



EXPERT ADVISORY COMMITTEE ON DRUGS (EACD) MEETING

MINUTES

Chair: Dr Bob Boyd

**Thursday, 18 December 2003, 2.00 pm – 3.00 pm
Teleconference**

Members present

Dr Bob Boyd (Chair)
Detective Inspector Gary Knowles
Associate Professor Tim Maling
Dr Geoffrey Robinson
Dr Keith Bedford
Dr Helen Moriarty
Dr Doug Sellman
Apology – Dr Stewart Jessamine
Apology – Andrew Coleman
Apology – Keremete Warbrick

Secretariat attending:

Matthew Andrews
Megan O'Brien
Helen Hunter
Colin Lee

General business

The EACD consider matters relating to any potential ban on pseudoephedrine products. It was noted that it is difficult to ban a medicine, especially if it is widely available as a pharmacy only medicine.

Preliminary paper on Ecstasy

The EACD considered a letter from Minister Anderton raising new matters associated with the availability of ecstasy in New Zealand. The EACD also considered a preliminary paper on ecstasy.

The prevalence of use of ecstasy, the involvement of international drug-running syndicates and the increase in seizures were noted as reasons to move ecstasy from B2 to B1, which would provide enforcement agencies with more effective powers to counter these sophisticated operations. The EACD were informed that some drug-running syndicates see New Zealand as an easy target and couriers are willing to accept existing penalties as an acceptable risk. A move to B1 would be expected to target dealers and importers rather than users.

The EACD discussed the classification of other similar drugs, including MDA, MDEA, PMA and MDMA. The EACD discussed whether these substances should all be considered by the EACD and whether there was some scope for considering them in terms of the same classification.

It was noted by the EACD that ecstasy has addiction potential, has acute toxic effects, has been associated with suicide ideation and has resulted in three deaths in New Zealand (mostly due to over-hydration and hypothermia). It was noted that the public health risk of ecstasy was notably lower than with alcohol. *The EACD noted that a move from B2 to B1 did not necessarily note an increase in the risk to the public health of the substance, but acknowledged the increasing problems associated with enforcement relating to ecstasy.*

Agreed: to recommend to the Associate Minister of Health that Ecstasy (MDMA) be reclassified as a Class B1 controlled drug.

Preliminary paper on Amphetamine

Agreed: to defer consideration of amphetamine to the next meeting of the EACD.

4. Next meeting

Agreed: next meeting to be in early February 2004.



**THE EXPERT ADVISORY COMMITTEE ON DRUGS (EACD)
ADVICE TO THE MINISTER ON:**

**3, 4 METHYLENEDIOXYMETHAMPHETAMINE
(MDMA)**

May 2004

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ADVICE TO THE ASSOCIATE MINISTER OF HEALTH ON MDMA

Executive Summary

This paper presents evidence on the risk of harm associated with 3,4, methylenedioxymethamphetamine [MDMA], an amphetamine-type stimulant with hallucinogenic qualities. The information presented addresses the criteria which the Expert Advisory Committee on Drugs [EACD] must take account of when considering the appropriate classification of a substance, under section 4B of the Misuse of Drugs Act 1975. MDMA is currently a controlled drug under Part 2 of the Second Schedule of the Act. The key issues that the EACD considered when assessing the current classification of MDMA included:

- Sharply rising prevalence of MDMA use and importation into New Zealand
- Mounting evidence that Ecstasy-type drugs have a neurotoxic effect
- No conclusive evidence that MDMA has any therapeutic application
- MDMA seems likely to be proven to be moderately dependence-producing
- Worrying links between New Zealand's MDMA market and organised crime
- Increasing number of cases of attempted MDMA manufacture in New Zealand
- MDMA is classified as a Schedule I or a Class A drug in other jurisdictions

Based on the evidence presented in this paper, the EACD recommends that presumption for supply of MDMA be set at 5 grams or more of MDMA, whether or not it is contained in a substance, preparation or mixture.

Recommendations

After considering all of the information put to the Committee and the classification criteria in the Misuse of Drugs Act 1975, the EACD makes the following recommendations to the Minister of Health:

- (a) MDMA should be classified in Part 1 of the Second Schedule of the Misuse of Drugs Act 1975 (ie, B1).**
- (b) That the presumption for supply of MDMA be set at 5 grams or more of MDMA, whether or not contained in a substance, preparation, or mixture.**

(c) This paper should be made publicly available (eg, posted on the National Drug Policy website www.ndp.govt.nz).

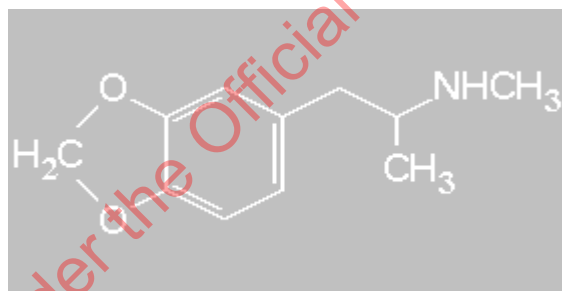
TERMINOLOGY

3. In this paper, the terms MDMA and “Ecstasy” will be used in different contexts. MDMA will be used when referring to studies in which it is known that MDMA was administered, or when referring to studies of Ecstasy users from the late 1980s and early 1990s, when it was highly likely that the tablets the users purchased contained MDMA. The term Ecstasy will be used to refer to the drug as it is sold on the street - often with the actual chemical composition unknown. (In addition to Ecstasy, other street names for MDMA include E, X, XTC, Adam, Eckie, Hug and The Love Drug.)

SUBSTANCE IDENTIFICATION

4. MDMA ($C_{11}H_{15}NO_2$) is an N-methyl analogue of the ‘parent’ compound MDA (3,4-methylenedioxymphetamine). Its chemical structure is shown in Figure 1. In its base form, MDMA is a white, musty-smelling oil, with a searing, bitter taste.

FIGURE 1: Chemical structure of MDMA



5. MDMA production is a multistage process requiring a full laboratory set-up, which is considerably more complicated than methamphetamine production. Although there are more than 20 chemical recipes for MDMA, clandestine laboratory operators commonly use one of only seven methods (National Drug Intelligence Center 2000). Six of these seven common methods use safrole or isosafrole as precursor chemicals; the other uses piperonal.
6. In a successful production process, the resulting MDMA is a nearly 100 percent pure powder with a distinctive licorice scent (Marnell 2002). The powder is pressed into pills with identifying designs or symbols. These tablets often contain adulterants, diluents, and approximately 100 milligrams of MDMA. New Zealand testing of all Ecstasy seizures between July 1999 and June 2000 found that the majority of samples contained MDMA, however ketamine and cocaine were also found in some samples (ESR 2000). Of the 75 MDMA seizures analysed during this period, which yielded 8604 total doses, the average strength of the pills was 91.8 mg/dose (with a strength range of 30.2 mg/dose to 172.4 mg/dose). The average purity of the tablets was 36% (with a purity range of 12.7% to 97.3%).

SIMILARITY TO KNOWN SUBSTANCES

7. MDMA is related to both the amphetamine family of psychostimulants, and to the hallucinogen mescaline (Budavari et al. 1996). Although most often identified as an hallucinogenic stimulant, or amphetamine-type stimulant (ATS), some have argued that the drug's unique pharmacological profile justifies its own classification as an "entactogen" - meaning 'to touch within' (see Nichols 1986).
8. MDMA is sometimes confused with related chemical compounds, such as ethylenedioxyamphetamine [EVE] and dioxymethylamphetamine [DMA] (Sweetman 2002). The *Australian Standard Classification of Drugs of Concern* also notes MDMA is closely related chemically to phenethylamines like 4-bromo-2,5-dimethoxyamphetamine [DOB], 2,5-dimethoxy-4-methylamphetamine [DOM], 3,4-methylenedioxyethylamphetamine [MDEA], paramethoxyamphetaminamine [PMA] and trimethoxyamphetamine [TMA] (refer to ABCI 2002).

RATIONALE FOR RECLASSIFICATION

Likelihood or evidence of abuse

New Zealand prevalence data

11. New Zealand drug surveys indicate an increase in ATS use. The latest survey undertaken by the former Alcohol and Public Health Research Unit attached to the University of Auckland (Wilkins et al. 2002) found a significant increase in the number of respondents trying and using ATS [see Table 1]. The largest increases in the use of stimulants was in the 15-17 year old age group (increased from 2% to 6%) and 20-24 year old age group (increased from 6% to 11%). This data reflects a continuing trend of increased stimulant use that was also seen in the previous regional comparison survey (Field and Casswell 1999), where stimulant use increased from 2% in 1990 to 4% of respondents in 1998.

TABLE 1: Use of amphetamine/methamphetamine, 1998 and 2001

	Ever used		Used Last Year		Current User	
	1998	2001	1998	2001	1998	2001
Amphetamine / Methamphetamine	7.6%	11.0%	2.9%	5.0%	2.2%	3.5%

Source: Wilkins et al. 2002

12. The surveys also indicate an increase in the use of MDMA, with the rates of MDMA experimentation increasing from 3% to 5.4% between 1998 and 2001 [see Table 2]. Significantly, in the 20-24 year age group of survey

respondents, MDMA use during the previous 12 months rose from 3% in 1998 to 10% in 2001.

TABLE 2: Use of MDMA, 1998 and 2001

	Ever used		Used Last Year		Current User	
	1998	2001	1998	2001	1998	2001
MDMA	3.0%	5.4%	1.5%	3.4%	1.0%	2.3%

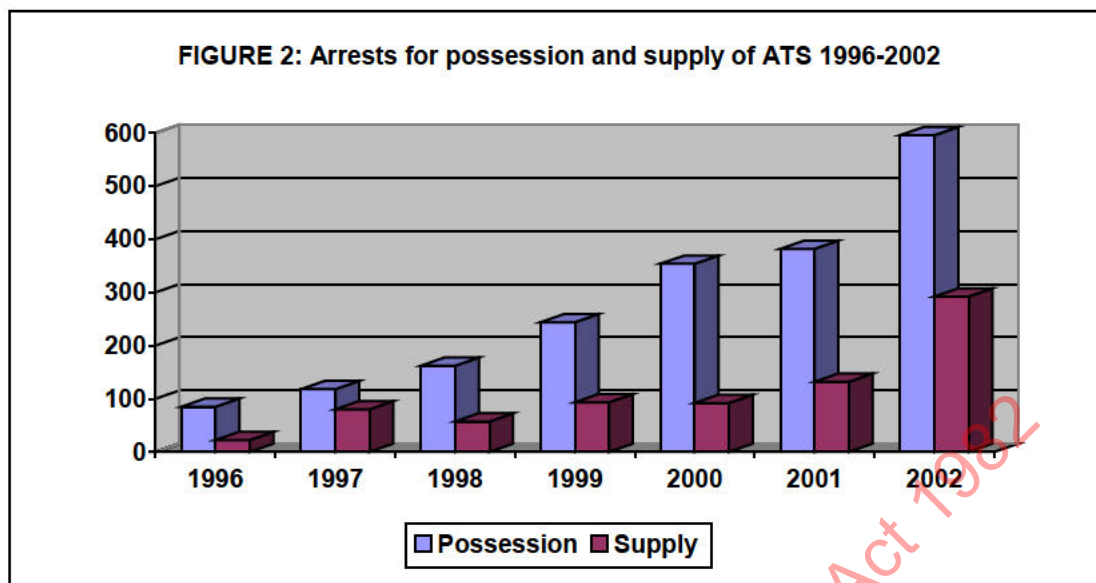
Source: Wilkins et al. 2002

New Zealand MDMA-related mortality and morbidity

13. Hospital data is unable to provide definitive information about the health-related impact of MDMA. There are some problems associated with the data, including the fact that the data does not differentiate between MDMA-related admissions and those relating to the use of other ATS drugs. Nevertheless, there were 109 publicly funded stimulant-related hospitalisations between 1996 and 1998 (NZHIS 2001). These hospitalisations were for non-dependent abuse, dependence, and poisoning either as the presenting condition or as a secondary diagnosis. There was a rise in the total numbers of hospitalisations each year (18 in 1996, 46 in 1998), however, due to the small number and short timeframe it is difficult to describe this as a clear trend.
14. The New Zealand Health Information Service reports that there were no deaths associated with stimulant use in New Zealand between 1990 and 1996 (NZHIS 2001). Three MDMA-related deaths have been recorded by coroners since 1998.

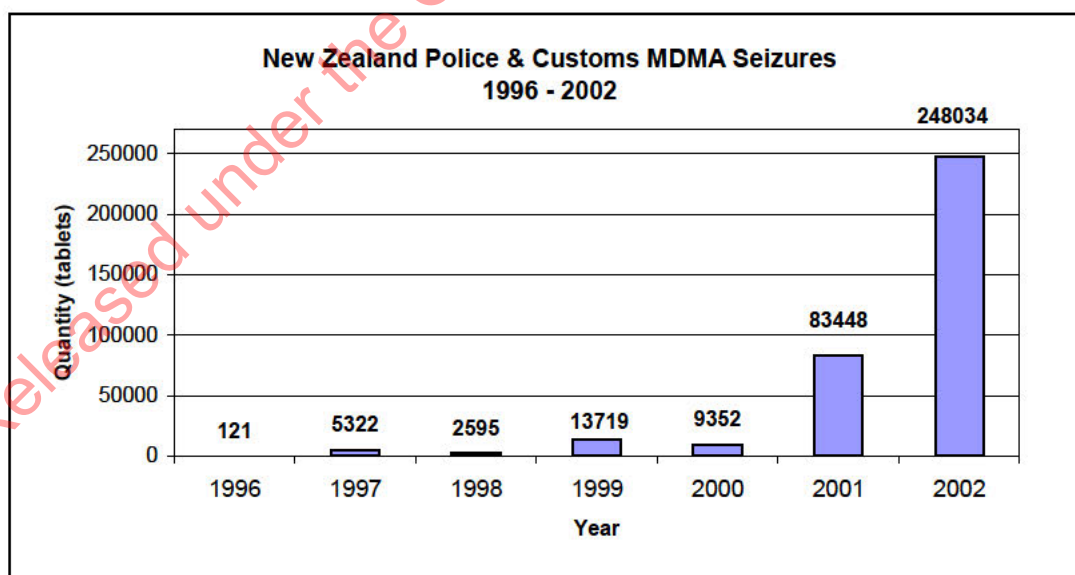
New Zealand arrest and interdiction data

15. New Zealand law enforcement data indicates growing ATS availability, however, some data systems do not currently distinguish between MDMA and other ATS. The number of people arrested for ATS possession has increased approximately 650 percent between 1996 and 2002 [see Figure 2]. Increasing numbers of people have also been charged with supply offences for ATS in recent years. In 2002, 596 people were arrested for possession of ATS and 292 for importation, supply and manufacture offences.



Source: Police data

16. There has also been a steep rise in MDMA seizures by Police and the Customs Service. Prior to 1998, seizures of MDMA were sporadic and small in quantity (NDIB 1999). However, since that time there has been a significant rise in interdiction rates and the size of MDMA seizures as outlined in Figure 3 [below]. In fact, provisional seizure figures for the year ended 31 December 2002 put the total quantity of MDMA interdicted at approximately 248,034 tablets (NDIB 2003).



Source: Police and Customs Service data

17. Finally, there has been a decline in the street price of MDMA. In its annual report for 1998, the National Drug Intelligence Bureau [NDIB] reported that MDMA sold for between \$80 and \$100 a tablet; in its most recent overview report, the NDIB states the current street price for MDMA is consistently

between \$60 and \$80 a tablet (NDIB 1999; 2003). This could be interpreted as a sign of increasing levels of supply, however, the relationship between price and availability is not explicit.

Specific effects of MDMA

Pharmacological effects

18. Animal research has indicated that MDMA has a high affinity for serotonin receptors and transport sites in the brain (eg. Battaglia and De Souza 1989; Pierce and Peroutka 1988). Serotonergic neural pathways regulate sleep, sexual activity, aggression, mood, and pain sensitivity, and are also important in the regulation of temperature and in memory function. MDMA initially enhances serotonergic function by binding to serotonin receptor sites. However, eventually this will lead to a depletion of the neurotransmitter and thus a decrease in serotonin levels. MDMA also stimulates the release of dopamine into the synaptic cleft (Daws et al. 2000). Dopamine is involved in control of movement, cognition, motivation and reward or pleasure.
19. In the rat, administration of MDMA results in increases in metabolic rate, evaporative water loss, heart rate, blood pressure, body temperature and locomotor activity (eg. Gordon 1991). The effects in the rat are influenced by ambient temperature (Malberg and Seiden 1988). Depending on the ambient temperature, either hypothermia or hyperthermia may be observed, such that the effect of the drug is best characterized as a loss of normal control of body temperature. On the basis of an established relationship between serotonin and hyperthermia, Loscher and colleagues (1990) hypothesized that the MDMA-mediated release of serotonin may underlie these temperature control problems.
20. In humans, common short-term physical effects of MDMA/Ecstasy are similar to those of ATS, including papillary dilation, increased jaw tension and grinding of teeth, loss of appetite, dry mouth, nausea and vomiting, tachycardia, hot and cold flushes and sweating (see, further, Greer and Tolbert 1986, 1990; Peroutka et al. 1990; Solowij et al. 1992; Vollenweider et al. 1998). Longer term effects perceived by users as being Ecstasy-related include insomnia, depression, headaches and muscle stiffness (see, for instance, Cohen 1995; Peroutka et al. 1990; Siegel 1986; Topp et al. 1999).

Psychoactive effects

21. Consistent results on psychoactive effects of MDMA have been demonstrated in surveys of MDMA/Ecstasy users (eg. Siegel 1986; Peroutka 1990; Solowij et al. 1992; Cohen 1995; Topp et al. 1999) and studies using controlled administration of MDMA (eg. Greer and Tolbert 1986, 1990; Vollenweider et al. 1998; Cami et al. 2000). They indicate that the immediate positive psychoactive effects of MDMA include euphoria and a sense of well-being, increased energy, and feelings of warmth, empathy and closeness with others. Less commonly, negative psychological effects may include anxiety, paranoia, and depression.

Neurotoxic effects

22. MDMA has been shown to be neurotoxic to serotonergic pathways in animals and in humans. However, the type and severity of this neurotoxicity is influenced by many factors, including ambient temperature, exercise, polydrug use and levels of hydration. These variables, when combined with the heterogeneity of compounds contained in tablets sold as Ecstasy, make it difficult to determine under which circumstances MDMA may have a neurotoxic effect in human users (Gowing et al. 2001).
23. Animal studies have shown that administration of MDMA produces damage to serotonergic axons and axon terminal fibres in various brain regions (including the cortex, hippocampus and striatum), reduced density of serotonin reuptake sites, and reduced concentrations of the serotonin metabolite 5-HIAA, but without alterations in the major metabolites of dopamine and noradrenaline (McCann et al. 2000). Decreases in the density of brain serotonin axons have been seen in squirrel monkeys more than seven years after MDMA administration (Hatzidimitriou et al. 1999). While some regrowth of axons occurs, it appears abnormal and incomplete (Boot et al. 2000).
24. Such findings in animals have led to concerns regarding neurotoxicity of MDMA. Although animal studies are indicative of effects in humans, there remains a degree of uncertainty about the generalisability of animal research findings to human drug users. However, a series of studies using sophisticated brain imaging techniques, such as PET, SPECT and MRI, to assess different aspects of the human brain have found persisting abnormalities in the brain morphology in ex-users of Ecstasy, even with moderate use (eg. Chang et al. 1999, 2000; McCann et al. 1998; Obrocki et al. 1999; Reneman et al. 2000a; Semple et al. 1999). For example, Kish and co-researchers (2000) obtained autopsied brain from 11 neurologically normal subjects and one male MDMA user. They found that striatal levels of serotonin and 5-HIAA (but not dopamine) were depleted by 50% to 80% in the brain of the MDMA user.
25. The studies cited above have tended to include only small numbers of subjects and many are confounded by uncertain histories of MDMA and other drug use. Although consistent with animal research in providing additional evidence of neurotoxicity, the imaging and coronal studies in particular do not indicate the functional significance of changes in brain morphology.
26. The functional significance of the neurotoxic effects of Ecstasy has been explored in a number of recent studies, which have used psychological tests to assess cognitive function, memory, and aspects of mood in current and former Ecstasy users compared to non-using controls. Again, these studies are confounded to some extent by small subject numbers, difficulties in determining history of Ecstasy use, concomitant use of other drugs such as cannabis, and the lack of baseline data from periods prior to Ecstasy use (in order to tease out pre-existing differences between users and non-users from the effects of Ecstasy itself). Despite these limitations, and despite some

variability between studies, an impairment in short-term memory function has consistently been observed in Ecstasy users (eg. Curran and Travill 1997; Parrott and Lasky 1998; Klugman et al. 1999), that appears to be mediated via the serotonin neurotransmitter system (eg. McCann et al. 1994, 1999; Bolla et al. 1998; Reneman et al. 2000b).

27. The results of the majority of these studies demonstrating memory impairment suggest that the deficits are not attributable to the concomitant use of other drugs, particularly cannabis. However, results of two studies that attempted to rigorously control for cannabis use (Gouzoulis-Mayfrank et al. 2000; Rodgers 2000) both suggest that although cannabis use is unlikely to fully account for the cognitive deficits observed in Ecstasy users, it may contribute to impairment above and beyond any Ecstasy-related deficits. A more recent study conducted in Sydney, Australia (Simon and Mattick 2002) found that Ecstasy users showed no impairment relative to cannabis using controls, which is suggestive that cannabis may have confounded earlier results demonstrating an association between memory impairment and lifetime exposure to Ecstasy.

28. In summary, the combination of evidence from animal and human research provides mounting evidence for a neurotoxic effect of Ecstasy. However, the long term functional consequences of Ecstasy use in humans remain uncertain. Only large-scale, community-based and prospective longitudinal research will be able to definitively address these issues. The exact mechanism of MDMA's neurotoxicity is also unclear, and is an area that is continuing to be researched.

The risks that MDMA poses to public health

29. As a preliminary remark, it is important to acknowledge that quantifying the risk to public health of any substance is a difficult task. The ability to do so for MDMA is further complicated by the lack of large-scale, longitudinal and epidemiological studies. For MDMA, we must rely on an analysis of case reports to examine the risks to public health. An analysis of case reports of adverse health effects of Ecstasy will inevitably be biased, however. More serious effects, particularly cases with fatal outcomes, are more likely to be published. It is also impossible from case reports to make a meaningful estimate of how likely these adverse effects are, due to the inability to relate the number of case reports to a population base (see, further, Gowing et al. 2001). However, in the absence of epidemiological and population-based studies, case reports constitute the best available evidence of the risks, if any, that MDMA poses to public health.
30. Case reports of Ecstasy-related death, as well as other sorts of outcomes, such as psychiatric sequelae, have been comprehensively reviewed by Gowing and associates (2002). It is not necessary to traverse the ground covered by Gowing et al. here; suffice it to note that at the conclusion of their review, the authors state: "The incidence of serious acute adverse events related to Ecstasy is low" (Gowing et al. 2002: 53).

31. Intense media scrutiny of a small number of Ecstasy-related deaths may well have led to the impression that the drug is more likely to be associated with adverse outcomes than may actually be the case. This should not be taken to imply that the use of the drug is free of risk; clearly, use of Ecstasy is associated with a risk of mortality and significant morbidity. However, in the absence of rigorous evidence suggesting otherwise, those risks should not be overstated. The most significant risk for health is that of hyperthermia and hyponatraemia (disturbed salt-water balance). Other problems are reported by Ecstasy users, including physical, psychological, social, relationship and occupational problems (see Topp et al. 1999), but most of these are relatively minor, and only a very small minority constitute significant disruptions to functioning.
 32. One way to simplify and contextualise the task of quantifying MDMA's risk to public health is to compare the risk it poses with the risk posed by another drug. To this end, when the United States Sentencing Commission proposed to change the penalties applied to MDMA-related offences, the Federation of American Scientists, spearheaded by a large group of respected researchers and academics from the United States and Australia, argued that "the damage done by heroin to its users, and the damage done by its users and dealers to others, vastly outweighs the damage done by MDMA. Whether we look at death, addiction, infectious disease transmission, crime by users or violence among dealers, the damage from heroin is orders of magnitude greater" (Schuster et al. 2001: 2). Similarly, the relative risks associated with MDMA have convinced the United Kingdom's Association of Chief Police Officers [ACPO] and a recent independent Police Foundation inquiry team to recommend that Ecstasy be reclassified from a Class A to a Class B controlled drug (Runciman 2000: 50).
33. In summary, although some commentators would undoubtedly disagree, many well-respected researchers, academics and practitioners suggest that the risk to public health of MDMA is relatively low.

The therapeutic value of MDMA

34. Although MDMA was first patented in 1914, voluntary human experimentation with the drug can only be traced back to the 1970s (Shulgin 1990). Prior to the criminalisation of MDMA in the United States during the mid-1980s, the drug had been used since the mid-1970s in a therapeutic context by psychotherapists on both the East and West Coasts of America. These therapists, including psychiatrists and physicians, considered the drug an invaluable therapeutic adjunct when used in strictly controlled environments under medical supervision (Beck and Rosenbaum 1994). They believed that the relatively short duration of MDMA's action, along with its ability to facilitate self-insight and an openness of emotional expression in which a patient was not fearful or inhibited, positioned the drug as an ideal tool in standard psychotherapeutic processes (eg. Grinspoon and Bakalar 1986; Adamson and Metzner 1988). Despite their belief in its efficacy, the therapists were wary of drawing too much attention to MDMA, fearing that this would only hasten its criminalisation and block further research (Eisner 1989; Seymour 1986). For this reason, although those familiar with the drug

firmly believed in its therapeutic value (Beck 1986), very little research, and no rigorously controlled trials, were ever conducted to examine MDMA's therapeutic potential before it was criminalised.

35. In 1985, the United States Drug Enforcement Administration [DEA] proposed that MDMA be classified as a Schedule 1 drug under the Controlled Substances Act. For this to occur, three criteria had to be met: MDMA must be deemed to have a high potential for abuse, no currently accepted medical use, and a lack of safety for use even under medical supervision. The DEA was unaware that MDMA was being administered to patients in a therapeutic context (Beck and Rosenbaum 1994); enforcement officials considered Ecstasy a dangerous drug devoid of therapeutic value. The controversy continued through three federal administrative law hearings to determine the scheduling of MDMA. Although the main finding of each of the three hearings was the lack of research assessing the potential benefits and/or harms arising from MDMA use, the continued spread in the recreational use of the drug led to its emergency scheduling in 1985, and subsequent permanent classification in Schedule 1 the following year.
36. Under United States law, therefore, MDMA has been classified for more than 15 years as having no currently accepted medical use. This scheduling has meant that it is virtually impossible to obtain research funding to examine the question of whether MDMA has true therapeutic potential. For this reason, the therapeutic potential, or otherwise, of MDMA has never been examined through rigorous research. Moreover, because the drug was patented and the patent has lapsed, there are no financial incentives for a pharmaceutical company to invest in research into the benefits and risks of MDMA; the drug is in the public domain and any company could now market the same product with minimal investment.
37. It is prudent to emphasise that the absence of evidence relating to therapeutic value of MDMA does not mean that the drug has no such value. Rather, the absence of evidence reflects the fact that the research that could definitively answer this question has never been conducted. Along with the numerous testimonials provided by patients and users whose motivations for MDMA use were therapeutic or spiritual (eg. Watson and Beck 1991), it bears noting that many of the therapists who administered MDMA to their patients in the United States in the late 1970s and early 1980s were highly respected clinicians and academics (eg. Adamson and Metzner 1988; Greer and Tolbert 1986, 1990; Grinspoon and Bakalar 1986; 1987; Wolfson 1986). These therapists, despite MDMA's Schedule 1 status, appear to have remained committed to their belief in the therapeutic efficacy of the drug (eg. Greer and Tolbert 1998).
38. In summary, there is no conclusive evidence to either prove or disprove the contention that MDMA has therapeutic value. Furthermore, at least in the near future, research that could comment more authoritatively on this issue is unlikely to be conducted.

The potential for MDMA to cause death

39. As noted earlier, there is a lack of large-scale, longitudinal and epidemiological studies that could provide robust measures of the risk of death related to MDMA. Instead, we must rely on an analysis of case reports to examine the risks to public health of Ecstasy – which, inevitably, will be biased; simply because more serious effects, particularly cases with fatal outcomes, are more likely to be publicised than non-serious or benign effects. It is also impossible from case reports to make a meaningful estimate of how likely adverse effects are, due to the inability to relate the number of case reports to a population base (Gowing et al. 2001). However, in the absence of epidemiological and population-based studies, case reports constitute the best available evidence we have in this area.
40. MDMA/Ecstasy undoubtedly has the potential to cause death, with hyperthermia the most common cause of fatalities (Gowing et al. 2002). Some studies have suggested that the risk of using Ecstasy ranges from between one death in 2000 first time users to one death in 50,000 first time users (Gore 1999). Moreover, although users tend to believe that only ‘fake pills’ (that is, those not containing MDMA) are likely to be associated with death, some studies that report on toxicological analyses show that MDMA alone (with no other drugs or contaminants) has been implicated in deaths. For example, a very recent study of Ecstasy-related deaths in England and Wales found that, although typically the deceased had taken several different (prescribed and non-prescribed) drugs with Ecstasy, a small proportion of fatalities (6 out of 81, or 7% of the sample) died after only taking Ecstasy (Schifano et al. 2003).
41. As previously noted, ambient temperature influences MDMA’s interruption to temperature control, and the fact that Ecstasy is commonly consumed in hot environments where users engage in sustained physical activity and may not adequately replace their fluids (eg. dance party venues), has undoubtedly contributed to the number of Ecstasy-related deaths reported in the literature.
42. However, it is important once again to emphasise that although Ecstasy/MDMA has been implicated in the deaths of some users, the number of reports is small. Given the extremely large number of Ecstasy/MDMA doses consumed globally each week, it seems reasonable to suggest that, although use of MDMA carries with it a potential to cause death, the risk of death from consuming MDMA is low in relative terms.
43. In summary, use of MDMA has been associated with a small number of deaths reported in the literature, including three deaths in New Zealand since 1998. There is no doubt that the drug has the potential to cause death. However, the available evidence suggests that the risk of death after using solely MDMA is low.

The ability of MDMA to cause physical or psychological dependence

44. Early studies of community samples of MDMA users in both Australia and the United States found generally self-limiting patterns of use, with low levels of injecting, few negative health effects, and use confined mainly to inner city areas (eg. Peroutka et al. 1988; Solowij et al. 1992; Moore 1993; Beck and Rosenbaum 1994). Such results seemed to confirm the prevailing view that MDMA was a relatively benign substance with few associated problems (eg. Nicholls and Glennon 1984; Downing 1986; Fromberg 1990). Dependence on MDMA, if addressed in the literature at all, was considered uncommon (eg. Peroutka 1989; Steele et al. 1994; Green et al. 1995). It was generally agreed that MDMA dependence was unlikely due to a rapid development of tolerance to the desired effects, along with the simultaneous intensification of unpleasant side-effects such as teeth grinding, anxiety and agitation (eg. Cheshier 1990; Beck and Rosenbaum 1994). Even so, others cautioned that the self-limiting nature of MDMA use might change if the dominant pattern of use (infrequent oral consumption of small amounts of MDMA) were to change (Hall and Hando 1993).
45. Indeed, not long after in the United Kingdom, Merrill (1996) described a group of Ecstasy users who administered the drug repeatedly in increasing doses to overcome short-term tolerance. Similarly, Topp and others (1997) found that 83% of a sample of 185 regular Ecstasy users reported significant tolerance to the effects of the drug, and 56% reported that they used more than double the amount of Ecstasy that they first started with, in order to achieve similar effects. Although there are difficulties in assessing self-reported tolerance due to the variations in both the purity and contents of tablets sold as Ecstasy, these results are consistent with those of Frederick et al. (1998), who observed the development of tolerance in monkeys after exposure to high doses of MDMA.
46. Relatively few studies have examined self-reported abuse and dependence symptoms among MDMA users. In an early study done in Sydney that asked MDMA users about dependence, Solowij and co-investigators (1992) reported that only 2% of their sample of 100 people who had ever used the drug had “ever felt dependent on Ecstasy”, although 47% believed “addiction” to the drug was possible. Jansen (1999) described three case reports of individuals who met criteria for a diagnosis of dependence on Ecstasy. Although this report provided little detail as to how the diagnoses were derived, the individuals were described as feeling that they had lost control over their use of Ecstasy, neglecting alternative pleasures, and continuing to use the drug despite believing that it was causing them problems.
47. In a more rigorous study conducted in 1995, Schuster et al. (1998) interviewed a representative community sample of 3021 14-24 year olds in Munich, Germany. They found that 4% of the male and 2.3% of the female respondents reported having used Ecstasy at some time, and that about half of these lifetime users had used the drug more than five times. The most common pattern of Ecstasy use was between once per month and twice per

week, although 17% of users reported using Ecstasy on three or more days per week. Referencing to the clinical criteria for drug dependence in the *Diagnostic and Statistical Manual of Mental Disorders* [DSM] (American Psychiatric Association 1994), Schuster and colleagues found that the prevalence of DSM diagnoses of abuse/dependence on Ecstasy and related drugs was about 1%. These results suggest that approximately 20% of young people who use Ecstasy at least once in their life are likely to subsequently meet diagnostic criteria for an Ecstasy use disorder.

48. A study by Topp et al. (1997) used the same structured diagnostic interview schedule as Schuster et al. (1998), but administered it to a sample of 185 respondents who reported having used Ecstasy at least five times in their lives. The mean age of the sample was 22.1 years (ranging from 15-42 years), with 77% aged 25 years or younger, and 54% female. Each of the DSM criteria for abuse and dependence were endorsed by at least 25% of this sample, with the most commonly reported criteria being the development of significant tolerance (endorsed by 62% of the sample), unsuccessful attempts to stop or reduce Ecstasy use (45%), and repeatedly using more or for longer than intended (41%). In total, 48% of their sample of regular Ecstasy users met the diagnostic criteria for dependence on the drug, and 36% met diagnostic criteria for abuse.
49. Also reporting high rates of Ecstasy use disorders was the study of Cottler et al. (2001). In order to examine the applicability of DSM diagnoses to Ecstasy, these authors twice administered a structured diagnostic interview schedule to 52 young people aged 13-27 years old, who reported having used Ecstasy more than five times in their lifetimes. (They found that when the same interview was administered to the same users a second time approximately five days after the first interview, the dependence criteria exhibited acceptable test-retest reliability.) The researchers reported that, of their sample, 43% met criteria for dependence on Ecstasy, and 34% met criteria for abuse.
50. Von Sydow et al. (2002) have reported perhaps the most rigorous examination to date of self-reported symptoms of dependence among Ecstasy users, using a prospective longitudinal design in which a representative sample of young people have been followed over time to examine the development of Ecstasy and other drug use disorders. The study found that, although about 1% of the sample of young people met criteria for an Ecstasy use disorder at baseline, the rates for spontaneous cessation of Ecstasy use were high at follow-up, even among those who had met criteria for a diagnosis at baseline. This finding led the study's authors to suggest that although Ecstasy use disorders do occur, they are a relatively transient and youth-specific phenomenon, and only a small proportion of regular users of the drug are likely to develop chronic problems controlling their use of the drug.
51. A major limitation of the literature relating to the assessment of abuse and dependence symptoms among self-reported Ecstasy users is that it is virtually impossible to obtain reliable and valid information about the specific chemical structure of the substances used, because of the extreme

heterogeneity and variability of active ingredients in tablets sold as Ecstasy. In other words, although a slowly growing body of evidence suggests that users will report symptoms of dependence on the use of tablets sold as Ecstasy, the extent to which these results are relevant to MDMA is extremely difficult to determine.

52. Having noted this limitation, it is also important to observe that, were MDMA shown in the future to be a drug that was not associated with a dependence potential, such a finding would be unique and highly counter-intuitive. This is because virtually all drugs that are repeatedly self-administered by humans who desire specific subjective effects have been shown, eventually, to be associated with a risk of dependence. In the absence of strong evidence to the contrary, it seems unlikely that MDMA would be a drug that followed a substantially different pattern to that of all other drugs that have been demonstrated to be voluntarily and repeatedly self-administered by human drug users. The facts that, under some circumstances, primates will engage in repeated self-injection of MDMA (eg. Beardsley et al. 1986; Lamb and Griffiths 1987), and MDMA is known to activate the dopaminergic reward pathways, which may underlie the rewarding effects of other drugs used illicitly by humans (Nichols and Oberlander 1989), are also consistent with the notion that MDMA use is associated with some risk of dependence (McCann and Ricaurte 2000).

53. In summary, a small but growing literature indicates that some users report symptoms of dependence on the use of tablets they purchase as Ecstasy, and that a proportion of these meet clinical criteria for a diagnosis of dependence on the drug. The extent to which these results are relevant to MDMA is impossible to determine, as a result of the heterogeneity and variability of the contents of tablets sold as Ecstasy. Although further research is required before a complete understanding of the nature of dependence on Ecstasy can be clarified, it seems reasonable to suggest that, in the future, MDMA is likely to be demonstrated to have moderate dependence liability, in that a substantial minority of those who use Ecstasy regularly are likely, at some point, to: (1) experience problems in controlling their use of the drug, (2) continue to use despite knowing that the drug is causing them physical, psychological or social problems, and (3) find that their Ecstasy use has assumed priority over other activities that were once considered important. The most recent and rigorous research in this area suggests that, although MDMA use disorders do occur, they are a relatively transient and youth-specific phenomenon, and only a small proportion of regular MDMA users are likely to develop chronic problems in controlling their drug use.

International classification and experience

United Nations drug control conventions

54. As a state party to the 1971 United Nations Convention on Psychotropic Substances, New Zealand has an international treaty obligation to implement a control regime for the drugs that are listed in the schedules to the Convention. Along with its 'parent' compound MDA, and the chemically

related substances DMA, DOB, DOM, PMA and TMA, MDMA is listed as a Schedule I substance under the 1971 Convention.

55. MDMA's Schedule I status under the 1971 Convention, while not requiring New Zealand to put in place any particular legal regime for the drug, does require that dealings with MDMA at a national level must be prohibited, except for scientific and very limited medical purposes. Schedule I status reflects an assessment by the World Health Organization Expert Committee on Drug Dependence that MDMA is a substance whose liability to abuse constitutes an especially serious risk to public health, and which has very limited (if any) therapeutic utility.
56. While the current classification of MDMA in Part 2 of the Second Schedule of the Misuse of Drugs Act technically fulfils New Zealand's international obligation to strictly control this substance, the EACD may feel that elevating MDMA to a higher classification better reflects the risk assessment that the drug has been given by the World Health Organization, and the wider United Nations system.

Other countries' classification of MDMA

57. In the United States, MDMA is a Schedule 1 substance under the Controlled Substances Act; and in the United Kingdom, MDMA is a Class A drug under the Misuse of Drugs Act.
58. MDMA is also a highly controlled substance in most Australian jurisdictions. For example, MDMA is a Schedule I substance under Queensland's Drugs Misuse Act Regulations 1987, Victoria's Drugs, Poisons and Controlled Substances Act 1981, and South Australia's Controlled Substances (Prohibited Substances) Regulations 2000. Similarly, in the Australian Capital Territory, MDMA is listed in the same category of substances as heroin and LSD, under that jurisdiction's Drugs of Dependence Act 1989 and Drugs of Dependence Regulations 1993.

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| 59. The assessment and classification of MDMA by the World Health Organization and the United Nations drug control treaties, clearly recognises that MDMA's liability to abuse constitutes an especially serious risk to public health, and that it has very limited (if any) therapeutic utility. This assessment and classification is reflected in strict controls associated with MDMA in the legislation of several overseas jurisdictions. |
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RECOMMENDED PRESUMPTION FOR SUPPLY AND JUSTIFICATION

60. The EACD recommends that a presumption for supply of MDMA be set at:
 - 5 grams or more of MDMA, whether or not contained in a substance, preparation, or mixture.
61. This figure is based on an assumption that the average active dose is between 30 mg and 170 mg, averaging to around 100 mg. Thus 5 grams of

pure MDMA would be the equivalent of approximately 50 doses and have a street level price of between \$3000 and \$4000. However, this figure does not account for groups of people buying in larger quantities to avoid detection. For example, current intelligence suggests that MDMA can be distributed at a wholesale level for around \$18 a tablet, if the quantities purchased are between 10,000 and 20,000 tablets (NDIB 2003). Such issues will need to be taken into consideration during any vetting process for compliance with the New Zealand Bill of Rights Act 1990.

OTHER RELEVANT INFORMATION

Organised crime links with importation of MDMA

62. National Drug Intelligence Bureau analysts are concerned that, despite the Netherlands remaining the main source of MDMA being illegally trafficked into the country, three clandestine laboratories capable of producing MDMA have recently been located and dismantled in New Zealand. This is a worrying trend, and reflects the fact that organised crime groups internationally and domestically recognise the potential to further exploit New Zealand's expanding market for Ecstasy.
63. In addition to Asian organised crime involvement in the New Zealand MDMA market, law enforcement officials have detected the emergence of Israeli and Dominican Republic trafficking syndicates in recent large-scale MDMA seizures. One of these successful Police and Customs operations in December 2002 resulted in New Zealand's largest ever seizures of MDMA (53,895 tablets).
64. Combined with the huge rise in MDMA seizures during the last two years (from some 10,000 tablets in 2000 to a provisional estimate of 248,034 tablets in 2002) law enforcement agencies are deeply concerned that New Zealand is being targeted by organised crime groups as a lucrative market for illegally trafficked or manufactured MDMA.
65. The high profitability and current Class B classification of MDMA may contribute to the readiness of persons to become involved in illicit manufacturing and/or trafficking of the drug.

Significant developments

New trafficking trends

66. Significant developments have included two importations (9 litres in total) of pure MDMA base oil (which are believed to be the first seizures of "trafficked" MDMA base product in the world). If MDMA manufacturers and traffickers in the Benelux nations move to utilise this liquid method as the norm, it represents a critical challenge to law enforcement.
67. Another significant development has been the importation of four litres of the precursor chemical Sassafras Oil using the Internet (which could potentially have yielded between 10,000 and 20,000 MDMA tablets, depending upon

the manufacturing process). In recent times, Police and Customs Service officials have also recorded New Zealand's first significant importations of MDMA powder by attempted internal concealment. The concealment method makes MDMA virtually impossible to detect at the border, and seizure must rely on effective intelligence and investigation.

Attempts at domestic manufacture

68. As noted earlier, the Netherlands as a source-country accounts for the overwhelming majority (some 99%) of MDMA seizures made by Police and Customs Service personnel. However, in the past year there has been evidence that MDMA is being manufactured domestically in clandestine drug laboratories.
69. The synthesis of MDMA requires high levels of chemistry and pharmaceutical knowledge and skills, as well as sophisticated apparatus (National Drug Intelligence Center 2000). The risk of explosion, chemical burns or poisoning associated with manufacture of MDMA is high due to the toxic, corrosive, volatile and extremely flammable chemicals used in the production process. These risks are often exacerbated by the fact that those involved in the manufacturing often have a very rudimentary knowledge of the chemical process they are completing, and also do not typically observe safe chemical handling and disposal practises.
70. There are also very real risks of environmental pollution associated with the illicit manufacture of MDMA in New Zealand. A number of clandestine laboratory operators, both nationally and internationally, have already been discovered dumping chemical waste into local water supplies, venting fumes near schools, and dumping volatile waste into natural waterways. In this context, it is notable that Dutch authorities have estimated that the manufacture of 1 kilogram of MDMA produces 12 kilograms of toxic waste (NDIB 2003).

'Passing off' other substances as MDMA

71. Concern that New Zealand is being targeted by organised crime groups as a lucrative market for MDMA also raises further issues about the potential for pills to be sold as Ecstasy, but actually containing other, more dangerous substances. This trend has been observed in several 'mature' Ecstasy markets, where tablets sold on the street as Ecstasy have contained more potent drugs like PMA. For instance, PMA tablets responsible for four deaths in Norway and Denmark since 2000 were marked with the "Mitsubishi" or "E" logo - well known Ecstasy tablet brands - in order to be passed off as pills containing MDMA. Likewise, 12 deaths have been recorded in Australia since 1994, as a result of users consuming what they thought was Ecstasy but was in fact PMA (see ABCI 2002).
72. The use of logos on Ecstasy tablets is a marketing tactic that can lead the user into thinking that it is the same, or will have the same effect, as a previously consumed tablet bearing the same logo. This is far from guaranteed, however, as the strength and composition of Ecstasy tablets can

vary widely, leading to the potential for different and unpredictable reactions to the pills by consumers. [The variability of tablets sold as "E" was borne out by New Zealand testing of all Ecstasy seizures in 1999/2000, which found MDA, MDEA, methamphetamine, amphetamine, and ketamine in some samples (ESR 2000). Of the 8604 doses of MDMA analysed during this period, the strength of the pills ranged from 30.2 mg/dose to 172.4 mg/dose, and the tablet purity ranged from 12.7% to 97.3%.]

Polydrug use by people who consume MDMA

73. One final significant development that is worthy of note is that Ecstasy users often tend to be polydrug users, who combine licit and illicit drugs to increase the pleasurable effects of the substance, as well as to soften the withdrawal effects. In particular, quantitative and qualitative studies of MDMA users indicate that alcohol and cannabis are often used to soften the 'come down' symptoms of having taken Ecstasy (see, for instance, Hammersley et al. 2002). There is also evidence of an emerging trend where Ecstasy is being used in conjunction with other drugs: in particular, LSD, ketamine, GHB and a variety of hallucinogenic substances. The health risks associated with MDMA can increase if other drugs are consumed at the same time, or shortly after taking MDMA, because of the uncertain chemical and idiosyncratic reactions that can result from mixing drugs.

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HEALTH REPORT

Subject: RECLASSIFICATION OF AMPHETAMINE AND MDMA AND PRESUMPTION OF SUPPLY OF AMPHETAMINE

Date: 30 May 2005 **File Ref:** AD10-05-1-1

Attention: Hon Jim Anderton (Associate Minister of Health)

Copy to: Hon Annette King (Minister of Health)
Hon Damien O'Connor (Associate Minister of Health)

PURPOSE OF HEALTH REPORT

This report seeks your agreement to submit the accompanying Cabinet Paper for consideration by the Social Development Committee on 15 June 2005. The Paper proposes that amphetamine and MDMA (commonly known as "ecstasy") be reclassified from "Class B2" to "Class B1" under the Misuse of Drugs Act 1975, and that the level for the presumption of supply for amphetamine be set at 5 grams.

TIMING IMPLICATIONS

Priority:	Routine	Semi-Urgent (5 Days)	Urgent (3 Days)	24 Hour
			☒	

EXECUTIVE SUMMARY

1. This report seeks your agreement to submit the accompanying Cabinet paper for consideration by the Social Development Committee on 15 June 2005.
2. The recommendations made in the Cabinet Paper are that the Social Development Committee:
 1. **Agree** that the harm presented by amphetamine and MDMA warrants increased enforcement powers for apprehending suspects and stronger deterrents for supplying amphetamine;

2. **Agree** that increased enforcement powers will be available by reclassifying amphetamine and MDMA from Part 2 of the Second Schedule (Class B2) to Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
3. **Agree** to reclassify amphetamine by omitting amphetamine (2-amino-1-phenylpropane) from Part 2 of the Second Schedule (Class B2) and inserting it instead into Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
4. **Agree** to reclassify MDMA by omitting MDMA (2-methylamino-1- (3,4-methylenedioxyphenyl) propane) from Part 2 of the Second Schedule (Class B2) and inserting it in Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
5. **Agree** that stronger deterrents will be available by setting the presumption of supply for amphetamine at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine;
6. **Agree** to provide that powers under the Customs and Excise Act 1996 under section 36 of the Misuse of Drugs Act 1975 to empower Customs officials to use their investigative and enforcement powers be in respect of the importation/exportation offences and controlled delivery provisions and they apply to any precursor offence;
7. **Authorise** the Associate Minister of Health to issue drafting instructions to Parliamentary Counsel Office to draft the appropriate Supplementary Order Paper to implement the proposal in (3) to (6) above;
8. **Authorise** the submission of the Parliamentary Counsel Office certified Supplementary Order Paper implementing the proposal to the House to accompany the Misuse of Drugs Amendment Bill (No.3);
9. **Note** that the proposed changes will be complemented by other non-legislative harm minimisation approaches by the relevant government agencies under the *National Drug Policy*;
10. **Note** that the proposed changes will be publicly announced once Cabinet has agreed the proposals.

FINANCIAL IMPLICATIONS

There are no direct financial implications quantifiable at this time.

RECOMMENDATIONS

The recommendations are that you:

- (a) **Agree** to the recommendations in the accompanying Yes / No Cabinet Paper
- (b) **Agree** to submit the accompanying Cabinet Paper for Yes / No consideration by the Social Development Committee on Wednesday 15 June 2005
- (c) **Agree**, subject to agreement with (a) and (b), to forward the Yes / No accompanying Cabinet Paper to Cabinet Office by 10am, Thursday 16 June 2005


Don Matheson (Dr)
Deputy Director-General
Public Health Directorate


MINISTER'S SIGNATURE:

DATE:

7/6/05

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REPORT

BACKGROUND INFORMATION

1. In May 2004 you considered the advice from the Expert Advisory Committee on Drugs (EACD) on amphetamine and MDMA (Health Report 20045707 refers). This advice outlined the risk of harm presented by both of these substances.
2. The EACD recommended that the risk of harm warranted both amphetamine and MDMA being reclassified from Part 2 of the Second Schedule (Class B2) to Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975 (MODA). This would enable Police to have the power to detain, search and seize without warrant in cases where they suspect amphetamine or MDMA offences are occurring.
3. The EACD also recommended that the level for the presumption of supply for amphetamine should be set at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine.
4. You considered the EACD's advice and agreed with their recommendations.

COMMENT

5. Officials recommend that the changes to classification and levels for the presumption of supply be made through a Government Supplementary Order Paper (SOP) to the Misuse of Drugs Amendment Bill (No 3) currently before Parliament. The Bill has a category 2 priority in the Legislation Programme and must be passed in 2005. The Bill will (among other things) allow changes to the presumption of supply to be made through an Order in Council when a drug is being classified/reclassified.
3. Officials have considered two other options for making the proposed changes. One option is to wait until the Bill is passed and, providing it is enacted in its present form, propose the changes to both classification and presumption of supply using the affirmative resolution process. This option relies on the Bill being passed in its present form and would not be able to be initiated until the draft legislation is enacted.
7. The second alternative is to use the current available processes. At present, classification of drugs can be effected through the affirmative resolution process, using an Order in Council under section 4(1) of the MODA. This requires the Order in Council to be considered by the Health Select Committee within 28 days and reported back to the House. The Order in Council is then brought into force by a separate Commencement Order. By contrast, presumption of supply level changes can only be made through an amendment to the MODA.

8. Both these alternative options would delay the proposed changes for several months, if not years beyond the passing of the Bill. The second option also runs counter to the purpose of the Bill currently before Parliament.
9. The proposed option of making both the classification and presumption for supply changes through a SOP attached to the current Bill is the most timely and efficient way of making the changes. It will enable the changes to be considered by the Committee of the Whole House and the changes will come into force on the day after the date on which the Bill receives Royal Assent. They are therefore likely to be in force by the end of 2005.

IMPLICATIONS FOR REDUCING INEQUALITIES

The attached papers have no implications for reducing inequalities.

Contact for telephone discussion (if required)

Name	Position	Telephone		Suggested First Contact
		Direct Line	After Hours	
Marilyn Stephens	Senior Analyst	s9(2)(a)		1
Bruce Atmore	Analyst			2
Chris Laurenson	Team Leader, National Drug Policy			3



Office of Hon Jim Anderton

Minister for Economic Development, Minister for Industry and Regional Development
Associate Minister of Health, Minister responsible for Public Trust

Hon Steve Maharey
Minister of Social Development
The Chair
Social Development Committee

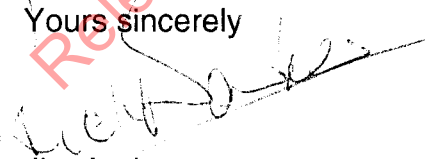
LATE PAPER TO CABINET SOCIAL DEVELOPMENT COMMITTEE: CLASSIFICATION OF AMPHETAMINE AND MDMA UNDER THE MISUSE OF DRUGS ACT 1975

I seek your agreement to the inclusion of the following paper on the agenda of the Social Development Committee (SDC) meeting scheduled for Wednesday 8 June.

CLASSIFICATION OF AMPHETAMINE AND MDMA UNDER THE MISUSE OF DRUGS ACT 1975

It is important that this paper is considered by SDC on 8 June. It seeks to change the classification of Amphetamine and MDMA which, are currently classified as controlled drugs in Part 2 of the Second Schedule of the Misuse of Drugs Amendment Act (Class B2). Re-classification of amphetamine and MDMA to Part 1 of the Second Schedule (Class B1) will better reflect the risk of harm associated with these drugs. The paper also seeks to rectify a drafting error in the Bill relating to Customs powers. The most timely option for the proposed reclassification is through a Supplementary Order Paper to the Misuse of Drugs Amendment Bill (N0 3) which is currently before the House and due to be read a second time on 9 June. The Leader of the House has advised that the Committee of the whole stage of the Bill is to take place under an urgency motion in the sitting week, beginning 14 June. Alternative options would delay the proposed changes for several months, if not years beyond the passing of the Bill.

Yours sincerely


Jim Anderton
Associate Minister of Health

Consultation on Cabinet and Cabinet Committee Submissions

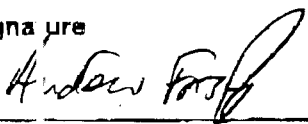
Certification by Department

Departments consulted: The attached submission has implications for the following departments whose views have been sought and are accurately reflected in the submission:

Ministries of Justice, Education, Youth Development, Te Puni Kōkiri,
Treasury, Police, Customs, Corrections, DPMC,

Departments informed: In addition, the following departments have an interest in the submission and have been informed:

Others consulted: Other interested groups have been consulted as follows:

Signature	Name, Title, Department	Date
	Acting Group Manager Comm Dev & Env Hlth Policy group	21/6/05

Certification by Minister

Ministers should be prepared to update and amplify the advice below when the submission is discussed at Cabinet / Cabinet committee. The attached submission:

Consultation at Ministerial level	☐ did not need consultation with other Ministers ☐ has been the subject of consultation with the Minister of Finance <i>(required for all submissions seeking new funding)</i> ☒ has been the subject of consultation with the following Minister(s) Prime Minister
Consultation with Government MPs	☐ does not need consultation with the government caucuses ☒ has been or will be <i>(specify which)</i> the subject of consultation with the following government caucuses: ☒ Labour caucus ☒ Progressive Coalition caucus
Consultation at Parliamentary level	☐ does not need consultation at parliamentary level ☒ has been or will be <i>(specify which)</i> the subject of consultation with the following other parties represented in Parliament: United Future
Signature	 Hon. John Anderson Portfolio Health Date 21/6/05

OFFICE OF THE ASSOCIATE MINISTER OF
HEALTH

MEMORANDUM TO CABINET SOCIAL DEVELOPMENT COMMITTEE

**CLASSIFICATION OF AMPHETAMINE AND MDMA UNDER THE MISUSE OF
DRUGS ACT 1975**

Proposal

1. This paper proposes:
 - a. Reclassifying amphetamine and MDMA (commonly known as "ecstasy") from Part 2 to Part 1 of the Second Schedule of the Misuse of Drugs Act 1975;
 - b. Setting the presumption of supply for amphetamine at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine; and
 - c. Bringing the above into effect by way of a Government Supplementary Order Paper (SOP) to the Misuse of Drugs Amendment Bill (No 3).

Executive Summary

2. Following the advice received from the Expert Advisory Committee on Drugs (EACD) in May 2004 regarding the risk of harm from the use of amphetamine and MDMA, it is proposed that they be re-classified in Part 1 of the Second Schedule ("Class B1") of the Misuse of Drugs Act 1975 (the Act). Both MDMA and amphetamine are currently classified as controlled drugs under Part 2 of the Second Schedule ("Class B2") of the Act. This will have the effect of enabling police officers, under section 18 of the Act, to detain, search and seize for these drugs without warrant. There are minor effects to the licensing regime but no effects on the permitted administration or supply of these drugs.
3. The proposed re-classifications reflect the potential risk of harm associated with these substances and are consistent with New Zealand's international obligations under the United Nations drug classification framework.
4. It is also proposed that the presumption of supply for amphetamine be set at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine. Currently the presumption of supply for amphetamine is 56 grams. This change will have the effect of significantly increasing penalties for offences involving possession of 5 to 56 grams of amphetamine. Possession for supply offences carries a maximum sentence of up to 14 years in prison. This compares with the offence of possession of a Class B controlled drug which carries a maximum sentence of 3 months imprisonment or a fine of \$500 or both.
5. It is further proposed that an amendment be made to correct a drafting error and to provide in accordance with previous Government decisions [POL Min (03) 32/01 refers] that powers under the Customs and Excise Act 1996 under section 36 of the Act to empower Customs officials to use their investigative

and enforcement powers be in respect of the importation/exportation offences and controlled delivery provisions and they apply to any precursor offence.

6. Cabinet's approval is sought to bring about the proposed changes in the most timely and efficient manner. It is proposed that this occur by way of a SOP to the Misuse of Drugs Amendment Bill (No 3), which is currently before the House.

BACKGROUND

The Misuse of Drugs Amendment Act 2000

7. The Misuse of Drugs Amendment Act 2000 changed the way controlled drugs are classified under New Zealand law. A more efficient and evidence-based process was designed, including the establishment of the EACD to help assess the risk of harm that each drug poses. The Act specifies a list of criteria, which need to be considered when assessing the risk of harm of a particular drug, and hence what Schedule in the Act is most appropriate for that drug.
8. Under section 4(B)(2) of the Act, the harms the EACD considers include:
 - a. The likelihood or evidence of drug abuse, including such matters as the prevalence of the drug, levels of consumption, drug seizure trends and the potential appeal to vulnerable populations;
 - b. The specific effects of the drug, including pharmacological, psychoactive and toxicological effects;
 - c. The risks to public health;
 - d. The potential for use of the drug to cause death; and
 - e. The ability of the drug to create physical or psychological dependence.¹
9. The EACD also considers whether the drug has any therapeutic use, the international classification and experience of a drug, and any other matters the Minister considers relevant.
10. The EACD membership currently comprises experts in toxicology, pharmacology, community medicine, psychology, drug treatment, pharmaceuticals, and public health. The Police and Customs Service sit on the EACD, as does a consumer representative. It is proposed under the Misuse of Drugs Amendment Bill (No 3) that a justice representative be included also. Under the Act the EACD reports to the Minister of Health.
11. Section 3A of the Act now requires controlled drugs to be classified according to the risk of harm a drug poses to individuals or society, by its misuse. Accordingly:

¹ Misuse of Drugs Act 1975, section 4(B)(2).

- Drugs that pose a **very high** risk of harm should be scheduled as Class A drugs and hence listed in the First Schedule to the Act;
- Drugs that pose a **high** risk of harm should be scheduled as Class B drugs and hence listed in one of the Parts in the Second Schedule to the Act;
- Drugs that pose a **moderate** risk of harm should be scheduled as Class C drugs and hence listed in one of the Parts to the Third Schedule to the Act.

COMMENT

Risk of Harm

12. The EACD provided evidence-based advice recommending that amphetamine and MDMA be reclassified in Part 1 of the Second Schedule of the Act (Class B1).
13. In relation to amphetamine the EACD found:
 - a. Increasing prevalence of amphetamine use and importation into New Zealand;
 - b. Clear evidence of the high risks of harm associated with amphetamine use, and limited therapeutic applications for the drug;
 - c. Evidence of drug substitution between amphetamine and other amphetamine-type stimulants (ATS);
 - d. Need for decisive police powers to tackle street-level amphetamine offending;
 - e. Links between New Zealand's illicit amphetamine market and organised crime; and
 - f. Worrying implications of the increasing use of amphetamines for road safety.
14. New Zealand law enforcement data indicates growing ATS availability, however data systems have until very recently not distinguished between amphetamine and other ATS. The number of people arrested for ATS possession has increased approximately 650 percent between 1996 and 2002. Increasing numbers of people have also been charged with supply offences for ATS in recent years. In 2002, 596 people were arrested for possession of ATS and 292 for importation, supply and manufacture offences.
15. Used mainly for its stimulant and euphoric effects, there are pronounced long-term physical and psychological effects associated with amphetamine use. Mental health problems appear very common among regular amphetamine users, with studies reporting sample prevalence rates for depression of between 51-92%; for anxiety, between 60-76%; for hallucinations, between 28-67%; for paranoia, between 33-78%; for mood swings, between 44-80%; for aggression and violence, between 17-72%; for panic attacks, between 9-35%; and for suicidal ideation, between 13-47% (Kamieniecki, et al. 1998).
16. Like its counter-part methamphetamine, amphetamine can quickly cause addiction, has been linked overseas to violence and can cause psychoses, depression and erratic behaviour. The EACD identified an increasing number of risks associated with amphetamine's current use and distribution. Amphetamine's addiction potential carries significant health risks. It is also linked to deaths through cerebral vascular haemorrhage.

- 17 In relation to MDMA, the EACD has identified the following risks:
- a. Sharply rising prevalence of MDMA use and importation into New Zealand;
 - b. Mounting evidence that Ecstasy-type drugs have a neurotoxic effect;
 - c. No conclusive evidence that MDMA has any therapeutic application;
 - d. MDMA seems likely to be proven to be moderately dependence-producing;
 - e. Worrying links between New Zealand's MDMA market and organised crime;
 - f. An increasing number of cases of attempted MDMA manufacture in New Zealand; and
 - g. MDMA is classified as a Schedule 1 or a Class A drug in other jurisdictions.
- 18 The assessment and classification of MDMA by the World Health Organization and the United Nations drug control treaties, clearly recognises that MDMA's risk of abuse constitutes an especially serious risk to public health, and that it has very limited (if any) therapeutic utility. This assessment and classification is reflected in strict controls associated with MDMA in several overseas jurisdictions, notably the United States and Australia.
- 19 Based on the EACD advice as to the level of risk of harm, and the evidence of increasing use, it is proposed that, in terms of the criteria set out in the Act, MDMA and amphetamine are most appropriately classified in Part 1 of the Second Schedule (Class B1) of the Act.

Benefits of Reclassification

- 20 Amphetamine and MDMA are currently classified as controlled drugs in Part 2 of the Second Schedule of the Act (Class B2). Re-classification of amphetamine and MDMA to Part 1 of the Second Schedule (Class B1) will better reflect the risk of harm associated with these drugs. In particular, it will:
- a. Send a strong message that these substances are harmful and it is not in the public interest for them to be used as 'recreational' drugs; and
 - b. Provide enforcement agencies with the power to detain, search and seize without warrant in cases where they suspect amphetamine or MDMA offences are occurring.
21. Like methamphetamine and other ATS substances, MDMA and amphetamine are street drugs that are commonly carried, used, and dealt/sold in a street, public place or club environment. Illegal transactions for sale/purchase can take place in a matter of moments, with the illicit drug rapidly secreted in a person's clothing, bag or vehicle. Consumption of the entire quantity of the drug by the user may take place quickly thereafter, and the drug dealer may fairly quickly move on to other locations. Because of these dynamics, it is important that enforcement officers have the ability to take decisive action to tackle MDMA and amphetamine offending where it is occurring. In most cases, it is not viable to spend the hours required to obtain a search warrant to be able to investigate MDMA or amphetamine offences when they are

observed (e.g. through covert surveillance).

22. Under section 18 of the Act, Police officers currently do not have the power to detain, search and seize without warrant, even when they have reasonable grounds for believing that an amphetamine, or MDMA, related offence is being or has been committed. The proposed reclassification of amphetamine and MDMA from Class B2 to Class B1 controlled drugs would address this perceived anomaly. Were this step taken, it would add to the investigative abilities of Police officers in “must-act-now” situations, which would help to enhance enforcement of the offence provisions of the Act, and thus addressing the expansion of a hard drug market in New Zealand. There are minor effects to the licensing regime but no effects on the permitted administration or supply of these drugs.

Presumption of supply

23. Section 6(6) of the Act currently provides for a rebuttable presumption that when a person is found with a certain amount of a controlled drug, he or she possesses the drug for the purpose of dealing (by sale or supply). The onus is on the person found with the drug to prove that he or she was not supplying the drug and that the drug was intended for personal use. This presumption is referred to as “the presumption of supply”. Section 6(6) currently provides that the presumption of supply is set at a default amount of 56 grams for all controlled drugs, except those that have a specific presumption of supply listed in that subsection.
24. Because of the risk of harm presented by amphetamine, it is proposed that the presumption of supply for amphetamine be set at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine. This will have the effect of enabling greater maximum sentences for offences involving possession of 5 – 56 grams for supply.
25. Such a presumption is based on the recommended doses for legal therapeutic use, which are in the region of 5-10mg for amphetamine. Taking the upper level, 5 grams of pure amphetamine would thus be the equivalent of approximately 500 doses. As for other drug forms, intelligence indicates that illicit amphetamine users will commonly consume more than one tablet per session, sometimes up to five or more tablets over a 48-hour period. It follows that possession of 100 or more amphetamine tablets, capsules or other drug forms would (as a rebuttable presumption) be far in excess of ranges for personal use.
26. A presumption of supply of 5 grams or more for amphetamine, or 100 flakes, tablets, capsules or other drug forms, would be consistent with the presumption of supply which is already set for the chemically related phenethylamines MDMA and MDEA, and the parent compound MDA [2-amino-1-(3,4-methylenedioxyphenyl) propane] under section 6(6)(cb) of the Act. Further, it would also align the presumption of supply for amphetamine with the levels agreed to by Ministers for the related substance methamphetamine. Methamphetamine is a Schedule 1 (Class A) drug.
27. This change will have the effect of enabling increased penalties for offences

involving possession of 5 to 56 grams of amphetamine. Possession for supply offences carries a maximum sentence of up to 14 years in prison. This compares with the offence of possession of a Class B controlled drug which carries a maximum sentence of 3 months imprisonment or a fine of \$500, or both. It should be noted that sentences actually imposed for supply offences have seldom reached half the maximum allowable.

- 28 There is a drafting error in clause 19 of the Bill as it relates to the amendment to section 36 of the Act. The effect of proposed section 36(2)(b) is to confine the use of Customs and Excise powers to only those precursors in Part 3 of Schedule 4, thus ephedrine and pseudoephedrine. However the policy intention was that the powers would apply to all precursor substances (including those in Parts 1 and 2 of Schedule 4 as well as Part 3 of that Schedule) in accordance with the new importation/exportation offences (12AB and 12AC) and controlled delivery provisions which apply to all precursor substances. This was decided by Government on 10 December 2003 [POL Min (03) 32/01 refers], which does not limit the application of this change.

Non-regulatory measures

- 29 There are a range of non-regulatory measures in place to tackle illicit drug use in New Zealand, including: community action plans; health promotion materials; assessment, advice, and treatment services; education of health professionals; and guidelines and protocols for good prescribing practice. Such measures all come under the overarching *National Drug Policy*, which is based on a harm minimisation framework. Government agencies will continue to support legislative action with a range of non-regulatory measures. However, these measures need to be supported by appropriate regulatory measures under the Act.

FINANCIAL IMPLICATIONS

- 30 The proposed re-classification of amphetamine and MDMA from Class B2 to Class B1 and presumption of supply for amphetamine of 5 grams is not expected to significantly influence the funds that agencies spend on supply control, demand reduction or problem limitation efforts directed towards these particular substances. The change to the presumption for supply will in some cases mean a slight reallocation in Customs' investigative priorities but only for a narrow range of cases (amphetamine seizures between 5 and 56 grams which would now be considered to be "for supply"). The costs of any such reprioritisation cannot be accurately forecast. Similarly, costs and benefits related to any impact on health and health provision services of any change in use of amphetamine and MDMA as a result of the re-classification cannot be quantified at this time.
- 31 Relevant agencies (i.e. Police, Customs, Health, Justice and possibly the Department of Corrections) will monitor any fiscal implications associated with the proposed changes and, if appropriate, report back to Ministers once these issues become clearer.

Ministry of Justice Comments

- 32 At this stage it is not anticipated that the proposal to lower the presumption of

supply for amphetamine will have significant financial implications for the Ministry of Justice. If however it is later found that it does have an impact on the number of court cases that are non-discretionary and unable to be funded through reprioritisation of existing baseline, then the necessary resourcing will need to be considered in the context of, and met from, the Justice Sector budget allocation.

LEGISLATIVE IMPLICATIONS

- 33 It is proposed that the changes to classification and presumption of supply be made through a Government SOP to the Misuse of Drugs Amendment Bill (No 3) currently before Parliament. The Bill has a category 2 priority in the Legislation Programme and must be passed in 2005. The Bill will (among other things) allow changes to the presumption of supply to be made through an Order in Council when a drug is being classified/reclassified.
- 34 Two other options were considered for making the proposed changes. One option is to wait until the Bill is passed and, providing it is enacted in its present form, propose the changes to both classification and presumption of supply using the affirmative resolution process. This option relies on the Bill being passed in its present form and would not be able to be initiated until the draft legislation is enacted.
- 35 Another option is to use the current available processes. At present, classification of drugs can be effected via the affirmative resolution process, using an Order in Council under section 4(1) of the Act. This requires the Order in Council to be considered by the Health Committee within 28 days and reported back to the House. The Order in Council is then brought into force by a separate Commencement Order. By contrast, presumption of supply changes can only be made through an amendment to the Act.
- 36 Both these alternative options would delay the proposed changes for several months, if not years beyond the passing of the Bill. The second option also runs counter to the purpose of the Bill currently before Parliament.
- 37 The proposed option of making both the classification and presumption for supply changes through a SOP attached to the current Bill is the most timely and efficient way of making the changes. It will enable the changes to be considered by the Committee of the Whole House and the changes will come into force on the day after the date on which the Bill receives Royal Assent. They are therefore likely to be in force by the end of 2005.

REGULATORY IMPACT AND COMPLIANCE COST STATEMENT

- 38 The attached Regulatory Impact Statement (RIS) complies with Cabinet requirements for RIS's and Business Compliance Cost Statements.

GENDER IMPLICATIONS

- 39 The proposed re-classifications and change to the presumption of supply will apply to all of the population, and is not likely to affect men and women disproportionately to any great extent. Although the latest drug use figures

from 2001 indicate men were more than twice as likely as women to use stimulant drugs, any additional deterrent to using MDMA or amphetamine that flows from the proposed changes will hopefully apply similarly to all New Zealanders.

PUBLICITY

- 40 Little opposition, if any, is expected to re-classifying amphetamine and MDMA as Class B1 drugs or setting the presumption of supply for amphetamine at 5 grams, due to widespread public acknowledgement of the harms. The proposed changes will be publicly announced once Cabinet has agreed. A draft media statement is being prepared which advises the public of the proposals, the rationale for changes, and the process from here.

DISABILITY PERSPECTIVE

- 41 The proposed re-classifications and change to the presumption of supply will apply to all of the population, and the proposals are not likely to impact on disabled people.

COMPLIANCE

- 42 The proposals comply with:
- Principles of the Treaty of Waitangi;
 - The principles and guidelines set out in the Privacy Act 1993;
 - The relevant international standards and obligations;
 - The LAC guidelines: Guidelines on Process and Content of Legislation, a publication by the Legislation Advisory Committee.

Human Rights

- 43 Crown Law vetting of the Bill in relation to the presumption of supply for methamphetamine considered that it *prima facie* breaches section 25(c) of the New Zealand Bill of Rights Act 1990 (NZBORA) because it creates a presumption that the accused intended to deal or supply drugs to others (a critical element of the offence), and requires the accused to disprove this presumption on the balance of probabilities. The breach of s 25(c) of the NZBORA is, however, a justified limitation under s 5 of the NZBORA.
- 44 A similar argument applies to the presumption of supply for amphetamine. The Ministry of Justice advises that the proposal to set the presumption of supply for amphetamines at 5 grams is *prima facie* inconsistent with the NZBORA because it creates a presumption that the accused intended to deal or supply drugs to others (irrespective of whether that was their intent or not) that the accused is required to rebut on the balance of probabilities. The inability of the accused to rebut this presumption may result in their conviction even though a reasonable doubt exists as to their guilt. However, this infringement of the right appears to be justifiable because the level of supply is set at a level significantly over that which is required for legal therapeutic

use.

- 45 In other respects the proposals comply with the rights and freedoms contained in the NZBORA and the Human Rights Act 1993.

Consultation

- 46 The following government agencies were consulted on the paper: Ministries of Justice; Education; Youth Development; Te Puni Kokiri; the Treasury; Police; Customs; Corrections; and Department of Prime Minister and Cabinet. Their comments have been incorporated into the paper.

Binding on the Crown

- 47 Section 3 of the Act binds the Crown, except in circumstances when the Governor General acts under section 3(2) of the Act.

Creating New Agencies or Amending Law Relating to Existing Agencies

- 48 The proposals do not create any new agencies, nor change the coverage of the Ombudsman Act 1975 or the Official Information Act 1982.

Allocation of Decision Making Powers

- 49 The proposals do not involve the allocation of decision-making powers between the executive, the courts, and tribunals.

Associated Regulations

- 50 No regulations are required to bring the proposals into operation.

Deemed Regulations

- 51 The proposals do not contain any provision empowering the making of deemed regulations.

Definition of Minister/Department

- 52 The proposals do not contain a definition of a Minister, Department, Chief Executive or equivalent.

Commencement of Legislation

- 53 The proposals will come into force on the day after the date on which the Bill receives the Royal assent. They are therefore likely to be in force by the end of 2005.

Parliamentary Stages

- 54 The SOP will be introduced on the first date available after Cabinet approval.

RECOMMENDATIONS

55. It is recommended that the Committee:

1. **Agree** that the harm presented by amphetamine and MDMA (ecstasy) warrants increased enforcement powers for apprehending suspects and stronger deterrents for supplying amphetamine;
2. **Agree** that increased enforcement powers will be available by reclassifying amphetamine and MDMA from Part 2 of the Second Schedule (Class B2) to Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
3. **Agree** to reclassify amphetamine by omitting amphetamine 2-amino-1-phenylpropane from Part 2 of the Second Schedule (Class B2) and inserting it instead into Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
4. **Agree** to reclassify MDMA by omitting 2-methylamino-1-(3,4-methylenedioxyphenyl)-propane from Part 2 of the Second Schedule (Class B2) and inserting it in Part 1 of the Second Schedule (Class B1) of the Misuse of Drugs Act 1975;
5. **Agree** that stronger deterrents will be available by setting the presumption of supply for amphetamine at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine;
6. **Agree** to provide that powers under the Customs and Excise Act 1996 under section 36 of the Misuse of Drugs Act 1975 to empower Customs officials to use their investigative and enforcement powers be in respect of the importation/exportation offences and controlled delivery provisions and they apply to any precursor offence;
7. **Authorise** the Associate Minister of Health to issue drafting instructions to Parliamentary Counsel Office to draft the appropriate Supplementary Order Paper to implement the proposal in (3) to (6) above;
8. **Authorise the** submission of the Parliamentary Counsel Office certified Supplementary Order Paper implementing the proposal to the House to accompany the Misuse of Drugs Amendment Bill (No.3);
9. **Note** that the proposed changes will be complemented by other non-legislative harm minimisation approaches by the relevant government agencies under the *National Drug Policy*;
10. **Note** that the proposed changes will be publicly announced once Cabinet has agreed to the proposals.


Hon Jim Anderton
Associate Minister of Health

REGULATORY IMPACT STATEMENT

STATEMENT OF THE NATURE AND MAGNITUDE OF THE PROBLEM AND THE NEED FOR GOVERNMENT ACTION

In 2000 Parliament amended the Misuse of Drugs Act 1975 (the Act) to create a more efficient and evidence-based process to classify controlled drugs. This process includes an assessment of the risk of harm for each drug by the Expert Advisory Committee on Drugs (EACD).

According to EACD reports, the current classification of MDMA (commonly known as ecstasy) and amphetamine in New Zealand law does not reflect the potential risk of harm associated with these substances and is inconsistent with New Zealand's international obligations under the United Nations drug classification framework. In addition, the EACD has considered the risk of harm of these drugs and has recommended that their current classification does not provide adequate powers for enforcement outcomes given the level of harm that these substances represent.

STATEMENT OF THE PUBLIC POLICY OBJECTIVE(S)

To minimise the risk of harm from illicit drugs, in particular, MDMA and amphetamine and to ensure New Zealand meets its international obligations under the United Nations drug classification framework.

STATEMENT OF FEASIBLE OPTIONS (REGULATORY AND/OR NON-REGULATORY) THAT MAY CONSTITUTE VIABLE MEANS FOR ACHIEVING THE DESIRED OBJECTIVE (S)

Non-regulatory measures

There are many non-regulatory measures in place to tackle illicit drug use in New Zealand. These include: research and evaluation, health promotion materials; assessment, advice, and treatment services; education of health professionals, guidelines and protocols for good prescribing practice; and enforcement activities. These measures all come under the *National Drug Policy*, which provides the New Zealand Government with a framework for drug policy based on harm minimisation principles.

As is the case with many illicit drugs, it is inevitable that some people will begin using, or continue to use, these drugs regardless of legal status. Therefore, it is important that any legal measures are supported with complementary initiatives, such as the provision of accurate health information and harm minimisation messages for those thinking of using these drugs.

Regulatory measures

Status Quo

MDMA and amphetamine are currently classified under Part 2 of the Second Schedule of the Act (i.e. "Class B2"). This classification means that enforcement

agencies are only able to take action on suspected illegal transactions for sale or purchase of these substances by obtaining a search warrant. The nomenclature adopted in the reference to MDMA in the Act is 2-methylamino-1-(3,4-methylenedioxyphe-nyl)-propane).

The the Act currently provides for a rebuttal presumption that when a person is found with a certain amount of a controlled drug (currently 56 grams for all controlled drugs), he or she possesses the drug for the purpose of dealing by sale or supply.

It is not appropriate to maintain the status quo, as it does not meet the policy objectives.

Preferred Option - Classifying MDMA and amphetamine in Part 1 of the Second Schedule

This option proposes reclassifying MDMA and amphetamine under Part 1 of the Second Schedule of the Act (i.e. "Class B1"). The EACD examined these drugs under a set of criteria set out in the Act and concluded that these criteria indicated that the re-classification they have recommended is the most appropriate for these drugs.

The level of presumption of supply for amphetamine would be set at 5 grams or more of amphetamine, or 100 flakes, tablets, capsules or other drug forms, each containing some quantity of amphetamine.

It is proposed these changes be made by way of a Supplementary Order Paper accompanying the Misuse of Drugs Amendment Bill (No 3), currently before the House of Representatives.

STATEMENT OF THE NET BENEFIT OF THE PROPOSAL, INCLUDING THE TOTAL REGULATORY COSTS (ADMINISTRATIVE, COMPLIANCE AND ECONOMIC COSTS) AND BENEFITS (INCLUDING NON-QUANTIFIABLE BENEFITS) OF THE PROPOSAL, AND OTHER FEASIBLE OPTIONS

Government

The preferred option is consistent with New Zealand's international obligations under the United Nations drug classification framework. This option will also ensure that enforcement agencies will have the power to detain, search and seize without warrant in cases where they suspect amphetamine or MDMA offences are occurring, allowing enforcement officers to act more quickly and take decisive action. This would add to the investigative abilities of police officers in "must-act-now" situations, which would help to enhance enforcement of the offence provisions of the Act, and thus addressing the expansion of a hard drug market in New Zealand.

The preferred option would also align the presumption of supply for amphetamine with the levels for the related substance, methamphetamine.

Costs and benefits related to any impact on health and health provision services of the preferred option cannot be quantified in the short term.

The preferred option is not expected to significantly influence the funds that agencies spend on supply control, demand reduction or problem limitation efforts directed towards these particular substances. The change to the presumption for supply will in some cases mean a slight reallocation in Customs' investigative priorities but only for a narrow range of cases (amphetamine seizures between 5 and 56 grams which would now be considered to be "for supply"). The costs of any such reprioritisation cannot be accurately forecast. Similarly, costs and benefits related to any impact on health and health provision services of any change in use of amphetamine and MDMA as a result of the re-classification cannot be quantified at this time.

Relevant agencies (i.e. Police, Customs, Health, Justice and possibly the Department of Corrections) will monitor any fiscal implications associated with the proposed changes and, if appropriate, report back to Ministers once these issues become clearer.

At this stage it is not anticipated that the proposal to lower the presumption of supply for amphetamine would have significant financial implications for the Ministry of Justice. If however it is later found that it does have an impact on the number of court cases that are non-discretionary and unable to be funded through reprioritisation of existing baseline, then the necessary resourcing will need to be considered in the context of, and met from, the Justice Sector budget allocation.

Industry

Classifying these substances will have negligible direct costs to industry as few, if any, of New Zealand importers, distributors, and manufacturers use any of these substances for legitimate industrial purposes.

Society

In the long-term, re-classification of amphetamine and MDMA as Class B1 and decreasing the presumption of supply for amphetamine are expected to reduce the prevalence of these substances. The change to presumption of supply will send a stronger message that these substances can cause harm to people and, as such, it is not in the public interest for them to be used as 'recreational' drugs.

STATEMENT OF CONSULTATION UNDERTAKEN

The following government agencies were consulted on these proposals: Ministries of Justice; Education; Youth Development; Te Puni Kokiri; the Treasury; Police; Customs; Corrections; and Department of Prime Minister and Cabinet.

Due to the nature of the drugs considered no public consultation was undertaken.

ITEM 6

**ADVICE TO
THE EXPERT ADVISORY COMMITTEE ON DRUGS
ON:**

**LSD today – A review of Scheduling under the MODA and a
Comparison with Methamphetamine**

MARCH 2006

EXECUTIVE SUMMARY

This paper discusses and analyses the public health impacts of LSD and Methamphetamine. It also explores the implications of scheduling these substances in Class A of the Schedules of the Misuse of Drugs Act, 1975.

LSD compares favourably with Methamphetamine in terms of:

- Overall public health risk
- Prevalence
- Harms - including the potential to cause dependence and likelihood of criminal activity associated with maintaining a supply
- Amenability to deterrence.

No research has been undertaken concerning the impact of a change, to the classification of LSD and to what extent this would be tolerated by society.

Discussion

LSD was classified as class A in July 1967. The Misuse of Drugs Amendment Act, 2000, provides that the classification of controlled drugs is based on the risk of harm that the misuse of the drug poses to individuals or society. Drugs that pose a **very high** risk of harm are classified as Class A. Drugs that pose a **high risk** of harm are classified as Class B. Drugs that pose a **moderate risk** are classified as Class C. It is important to re-assess drugs classified prior to the introduction of these criteria to ensure that all drugs are appropriately classified.

Methamphetamine, a more recent addition to Class A, is acknowledged as a very high risk substance and its scheduling as Class A would appear uncontroversial. In New Zealand the association of methamphetamine with criminal violence is well known, its use has increased since 1998 and with it the public health problems associated with this increase are evident. The same cannot be said of LSD, with decreasing prevalence reducing its overall level of risk when viewed from the public health perspective. Prevalence of use may become an important consideration when a high risk substance is used by an increasing proportion of the population. Conversely, a high risk substance with a decreasing prevalence may become less significant to the overall health of the population.

Substance identification

Chemical Name

As listed in the First Schedule of the New Zealand Misuse of Drugs Act 1975. (LYSERGIDE (N, N-diethyllysergamide or lysergic acid diethylamide or lysergic acid – essential precursor for manufacture of LSD). The chemical name for the active ingredient is – d-lysergic acid diethylamide. It is a derivative of the alkaloids of a fungus (the ergot of claviceps purpurea) that grows on cereal grasses, particularly rye.

Similarity to Known Substances

Other hallucinogens commonly used in New Zealand include: Magic Mushrooms (psilocybin), Peyote Cactus (mescaline), PCP (phencyclidine), Ketamine, Datura, DXM (dextromethophan), DMT (dimethyltryptamine), Morning Glory Seed.

Current Classification under the Act

LSD is an illicit drug of abuse in New Zealand and is controlled under the Misuse of Drugs Act 1975. LSD is currently classified as a First Schedule Class A, Controlled Drug.

Rationale for Classification

Likelihood or evidence of drug abuse

LSD has been a widely used drug throughout the western world since the mid 1960's, and there remains evidence of continuing use in New Zealand.

The 2003 Drug Use in New Zealand survey (unpublished) reported that 6.4% of New Zealanders had ever used LSD, with use in the previous year being 1.2%.

In 1990 incidence of (ever used) LSD use was 6%, with 1% having used the substance in the previous year. Incidence in 2001 increased to 9.6% in 2001 with 2% having used the substance in the previous year.

Specific effects of the drug

LSD is a powerful semi synthetic hallucinogenic drug, with the dose being measured in micro grams. LSD's effects are governed by its potency. The most profound impact of LSD is on the distortion of sensory perception and the production of vivid hallucinations and impairment of judgement. Expansion of consciousness is the sought after effect by drug users. The opening of the "doors of perception" (Huxley, 1954) was used as a metaphor for the ability of users to get to the deep seated roots of their psyche. While many experienced pleasure and insight, just as many were frightened and pushed to the edge of their sanity. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) describes LSD as "probably one of the most unpredictable drugs in its effects".

LSD is normally ingested orally by placing a "tab" on the tongue. The LSD is dissolved by the saliva and absorbed through the mucous membrane. This method of ingestion produces the most rapid effects. Onset can take between 30 to 120 minutes and the experience usually lasts around 12 hours. LSD can be mixed with liquids and consumed with food. In the late 60's it was seen as a "mind detergent, capable of washing away years of social programming". These idealists sought to create a mass movement that would receive a "push up the evolutionary ladder" (Yska, 1990).

LSD can also be absorbed through the skin, although this would require prolonged contact. LSD cannot be ingested by smoking.

Potential to cause death

Death due to overdose is rare. Toxic overdose has only been reported for a few cases internationally and may be due to hyperadrenergic crisis and/or CNS mediated respiratory arrest (Blaho et al, 1997)

The main association between the use of LSD and subsequent death would be through the mechanism of accidental or intentional injury. The drug's hallucinogenic properties are unpredictable due to variance in dose between batches, although in recent years it is reported that doses are now consistent and milder than in the past. LSD is the drug that most readily demonstrates the connection between the user's state of mind, the drug's properties and the setting in which it is consumed. No two experiences are the same and a good trip or bad trip appears to be contingent upon the factors of drug, set and setting.

Therapeutic value

LSD has had no recent therapeutic use, however a number of psychiatrists and researchers (including the original synthesist) have called for a re-examination of its potential use as a psychotherapeutic aid. Medical research with LSD began in the 1950's and continued until the mid 60's, when the uncontrolled use of the hallucinogenic drug became widespread internationally. This work was subsequently discredited and the researchers were forced to give up their studies for "socio-political" reasons (Sessa, 2006). Dr Sessa, a British consultant psychiatrist has openly risked controversy to urge that the debate on the therapeutic potential of LSD be reopened.

Ability to create physical or psychological dependence

LSD does not create dependence in the classic sense. There is no linked rise in tolerance matched with a consequent withdrawal experience that reinforces continued use. Tolerance to the effects of the drug occurs after a short period of daily use. The user will have become confused, disorientated, anxious, paranoid and delusional. After a short period time these effects will diminish. Another reinforcer of abstinence is the user's knowledge that the drug will not work again until they have adequately detoxified. The cycle can then be repeated. Through this mechanism, a psychological dependence can develop, with the user seeking a peak spiritual or poetic experience.

International classification and experience

In most jurisdictions LSD has been scheduled as a Class A (very high risk) drug with severe penalties for possession, manufacture or distribution and this is reinforced by international convention.

Methamphetamine

Specific effects of the drug

Methamphetamine can be taken by intranasal, intravenous and oral ingestion, and smoked in its' crystal form. The mode of administration impacts on the speed of onset and the level of euphoria experienced by the user. The basic pharmacology remains the same; however the different modes of administration impact upon the bioavailability of the drug. Oral injection leads to the least bioavailability, while intravenous injection and

smoking yield the highest bioavailability. Methamphetamine is readily absorbed into the bloodstream and crosses the blood/brain barrier to interact with the central nervous system. The half-life of methamphetamine ranges between 10 to 30 hours (Guharoy et. al. 1999). However, the duration of effects vary, powdered methamphetamine lasts for several hours, while crystal methamphetamine can last up to 24 hours (Castro et. al. 2000).

As a central nervous system stimulant, methamphetamine stimulates the release of catecholamines and dopamine, as well as inhibiting re-uptake or degradation (Guharoy et. al. 1999) This leads to an increase in blood pressure, elevated pulse rate and cardiac output as well as enhanced mood and stimulation. The effects of methamphetamine are dose dependent, however, users can expect to experience:

- euphoria
- increased activity and energy levels
- disinhibition
- agitation.
- sense of well-being
- increased confidence
- decreased appetite

A large single dose may also result in a number of unwanted effects including elevated body temperature and convulsions. These conditions may be exacerbated by extended periods of activity that many users engage in. Upon withdrawal of methamphetamine, fatigue, restlessness, nervousness, alienation and irritability often result. Sympathomimetic effects also include tremor, sweating, palpitations, headache, dizziness, dryness of the mouth, and gastrointestinal problems. According to Rawson and colleagues (2002) a large proportion of users presenting for treatment report delusions and hallucinations (for example, formication: the sensation of insects creeping on the skin), while even more report severe paranoia and depression.

Ability to create physical or psychological dependence

Regular methamphetamine users exhibit signs of psychological and psychical dependence. Methamphetamine dependence is evidenced by increased tolerance to the drug, problems in controlling usage, and a range of physical, psychiatric and withdrawal symptoms. There is evidence to suggest that methamphetamine has a faster progression (from initial use, to regular use) than other stimulants such as cocaine. The lag time between initiation and addiction is estimated to be 2-4 years. (Murray, J 1998) Users who inject methamphetamine, or smoke crystal methamphetamine, may also be more susceptible to the development of dependence due to the speed of onset and the intense rush associated with these modes of administration which serves to reinforce usage.

Tolerance to methamphetamine appears to develop rapidly after repeated use. Increasing dosage levels or frequency of use is thereafter required to obtain the desired euphoric effects.

There is a range of physical withdrawal symptoms that are associated with methamphetamine dependence. Sleepiness and fatigue appears to last for several weeks after abstinence. Psychiatric symptoms are typically prevalent and severe in problematic methamphetamine users. Individuals reporting methamphetamine

dependence are also more likely to report suicidal ideation. Dependence is also associated with poor health outcomes and a range of social problems including family breakdown, unemployment and financial difficulties.

Therapeutic value

There are few accepted therapeutic uses for methamphetamine. The drug has previously been used to treat children for attention deficit hyperactivity disorders (ADHD), as an anorectic in obesity, and in the treatment of narcolepsy (National Institute on Drug Addiction 1998). The levo rotatory form has also been used as a nasal decongestant and in bronchial inhalers (Parfitt 1999). However, the use of methamphetamine has largely been discontinued due to the availability of other medications.

Potential to cause death

International studies show that a single dose of methamphetamine may result in a range of potentially life-threatening conditions. Death can occur with methamphetamine concentrations in the blood greater than 0.5 mg/L (Logan, Fligner, & Maddix 1998). However, fatal overdose is more likely in naïve or episodic high dose users, than in regular users who have developed tolerance to the drug (Dukes 1996).

Methamphetamine has been identified as a risk factor for the development of stroke in relatively young people. Other cardiac symptoms include arrhythmia, tachycardia, myocardial infarction, high blood pressure and elevated heart rates.

Further detail, is contained in the 2003 EACD briefing paper on methamphetamine.

Methamphetamine Use in New Zealand

Figures for Amphetamine/Methamphetamine use in New Zealand are as follows:

In 1998, 7.6% (ever tried), 2.9% (used in the last year) and 2.2% (current users)

In 2001, 11% (ever tried), 5% (used in the last year) and 3.5% (current users)

(Relative use of amp/methamphetamine in NZ, Wilkins et al, 2002)

Comparisons

These two Class A substances have different characteristics and offer different experiences to the user. LSD is a drug of which western society has over 50 years experience. It has the potential to cause significant psychiatric problems and distress. LSD can cause frightening negative experiences (the 'bad' trip), particularly if the dose is unusually potent. The majority of users however are reported to have a more positive and interesting experience. There is no evidence of users routinely committing crime to fund its use. The criminal activity associated with LSD is almost entirely linked to its manufacture and supply.

Methamphetamine has a much stronger association with offending and more significant health effects. There has been a marked increase in its use internationally, similar to the initial explosion in the use of psychedelics in the 1960's. While most use is not thought to lead to tragedy, New Zealand society has experienced some major incidents in recent years that have been linked to methamphetamine use. These incidents have been the result of intoxication and withdrawal symptoms of dependent individuals. As previously stated, Methamphetamine has a high conversion rate from misuse to dependent use.

In the recent work, Cannabis Use and Dependence (Hall & Pacula, 2003), the following categories were proposed to assess the public health impact of cannabis, though the categories can be usefully applied to other substances :

- 1) the harm to the health of the user,
- 2) the harm to the health of those who do not use the substance,
- 3) the extent to which the criminal law deters people from using the substance,
- 4) the harms that arise from using the criminal law to deter people from using the substance, and
- 5) the social costs that would arise from changing the laws prohibiting the use of the substance.

Consideration of the questions posed by Hall & Pacula may help to understand the two substances by comparison.

LSD

1) Harms to the user. – These are mainly psychiatric morbidities related to psychosis, acute distress from an overly potent dose, withdrawal related anxiety, confusion, disorientation, paranoia and delusions. Accidental injury is also predictable.

2) Non users may be affected by its impact on a family member, or may be at risk from the unpredictable and impaired behaviour of an acutely intoxicated person.

3) The law deters people from using LSD to some extent. Its incidence and prevalence are low (by comparison with cannabis & methamphetamine). However its price is moderate (average \$35 per dose), and access to supply is not excessively difficult for frequent drug users (Shore, 2005).

4) There is little research into harms associated with using the criminal law (Hall & Pacula, 2003). Sentencing a person to imprisonment is the major sanction imposed by society and is intended to be both retributive and rehabilitative. Claims have been made that imprisonment can enmesh offenders in the culture of criminality. Restrictions on opportunities for work, travel and social integration can follow periods of imprisonment.

5) Social Costs; This question assumes an increase in prevalence of use as a natural consequence of a legalised supply (Hall & Pacula, 2003). The real question is what increase in prevalence would occur, and be tolerated by society if LSD had a lower classification. No research has been conducted in this area.

Methamphetamine:

- 1) Harm to the user. These are the increased psychiatric and physical morbidity, and an increase in mortality due to a range of potentially fatal effects intrinsic to the substance.
- 2) Harm to non users is a potential consequence of intoxication, or the symptoms of withdrawal. A dependent member of the family would place a strain on financial resources and general emotional/ coping and support roles. Children of dependent methamphetamine users have been seriously harmed in New Zealand.
- 3) The increasing prevalence of methamphetamine use and the ongoing demand for the substance this decade, suggest that despite an intensive effort by the interdiction agencies, the provisions of the MODA Class A Schedules have not deterred the development of a black market in the manufacture and supply of methamphetamine. There is little doubt that without the current enforcement initiatives market would be larger.
- 4) The harm derived from using the criminal law to deter use is evident in the area of illicit manufacture of the methamphetamine. Precursor substances are converted via relatively simple recipes into products of quite variable quality and potency. The 'clandestine laboratories' are often set up in domestic environments however some more industrial efforts have also been made. The end user purchases substances of unknown constitution. Legal manufacture would be more likely to provide a substance of standard pharmaceutical quality with a known dose, without dangerous impurities, and that it would be what it claimed to be.
- 5) There is no research available on the social costs of changing the laws prohibiting the use of methamphetamine. Hall suggests that there would be an increased level of use. Some of the health costs of change may be partially ameliorated by improved safety standards for the substance, less contact with the criminal industry currently engaged in illicit manufacture and supply.

The two substances under consideration have distinct and characteristic effects that bring with them their own risks, yet they are scheduled identically. One drug is increasing in its popularity and acceptance by existing and new users, while the other has plateaued in popularity. The public health risks are significantly higher for methamphetamine over LSD, not the least for its increasing prevalence of use, its inherent characteristics as well as the popularity of the injecting route of administration, with the additional risks of blood-borne viruses that this brings. LSD is generally orally administered, a safer form of consumption.

EXPERT ADVISORY COMMITTEE ON DRUGS MEETING

**Thursday, 30 March 2006, 9:30am – 3:35pm
C01 & C02, 180 Molesworth Street, Wellington.**

MINUTES

Members present

Dr Ashley Bloomfield (Chair)
Dr Keith Bedford
Dr Helen Moriarty
Paul Campbell
Professor Tim Maling
Professor Doug Sellman
Rajesh Chhana

Secretariat attending:

Olivia Tuatoko
Chris Laurenson
Colin Lee
Bruce Atmore
Cynthia Maling (Health)

1. WELCOME

Dr Bloomfield welcomed members, and Olivia Tuatoko as a new member of the Secretariat.

2. APOLOGIES

Keremete Warbrick, Dr Stewart Jessamine, Peter Marshall, and Dr Geoffrey Robinson, Professor Tim Maling (lateness)

3. DECLARATION OF CONFLICTS OF INTEREST

Dr Keith Bedford advised of a potential conflict of interest in relation to item 9 and asked if he could leave the meeting at the appropriate time. The Committee agreed with this.

4. CONFIRMATION OF THE MINUTES OF THE MEETING HELD 27 October 2005.

Members noted that there had been media interest in the minutes of the last meeting, which had been placed on the NDP website.

The minutes of the meeting held on 27 October 2005 were confirmed as a true and accurate record of that meeting.

5.0 MATTERS ARISING FROM THE MEETING HELD 27 October 2005

Report on actions arising from 27 October 2005

5.1 Minute item 5.3

Media interest in the suggestion, by one member, of possibly restricting the number of drugs in Class A had been taken out of context. It was reiterated that the issue had been raised in general discussion but that the Committee is not planning to make any recommendations on this.

Members confirmed that having the minutes posted on the website is appropriate in the light of the statutory objectives of the Committee as set out in S5AA of the Misuse of Drugs Act 1975, and that the public have the right to see what is discussed.

5.2 Minute Item 6 Ketamine

The Committee's recommendation on Ketamine had been made to the Minister, who had accepted the Committee's advice.

5.3 Minute Item 7 Nitrous Oxide

The Minister had accepted the recommendation that Nitrous Oxide could be regulated under the Medicines Act, and no further action under the MODA is currently indicated.

5.4 Minute Item 8 Zopiclone

Zopiclone was to be discussed under agenda item 7.

5.5 Minute Item 9 Update on Methamphetamine Activities

Dr Bedford would look into this and report back to the Committee at the next meeting

5.6 Minute Item 10 BZP

BZP was to be discussed under General Business.

6. LSD

Members considered a paper prepared for this agenda item comparing LSD and Methamphetamine. Members then discussed LSD's current classification as a Class A controlled drug.

The current status of LSD, dating originally from 1967, reflects its historical classification as a Class A drug. Based on what is known now about LSD, it does not appear to be as harmful as many other Class A drugs, especially methamphetamine. However, members also agreed that LSD is not alone in this respect and there are other apparent anomalies in the classification of some substances, probably for historical reasons.

Members noted that, given these wider anomalies in the classification of some substances under the MODA, further consideration of the overall framework is indicated in time.

Agreed:

- 1. That no recommendation on LSD would be made at this time.**
- 2. That the Secretariat would prepare a paper on how United Nations decisions on classification are made and see what implications this has for work of the EACD and the obligations New Zealand has to the UN.**
- 3. That the Chair would write to the Minister outlining the substantive issue of apparent anomalies in the classifications of some substances, for example as identified by a comparison of LSD and Methamphetamine, and seek the Minister's view on whether he would like further advice he would like on this issue.**

7. ZOPICLONE AND ZOLPIDEM

Members received two papers for this agenda item:

- An update on Zopiclone, which was a revised paper of item 8 from the previous meeting held 27 October 2005.
- An Overview of the Scheduling of the Hypnotic Sedatives

The Committee considered that further information is required before a recommendation on the matter can be made.

Agreed:

- 1. That the main references from the papers be made available to the Committee.**
- 2. That a further context paper for the next meeting, including details of international research, be prepared by the Secretariat.**
- 3. That further information be obtained from the pharmaceutical manufacturers of Zopiclone.**

8. NOREPHEDRINE

Members received notes from Dr Bedford on Norephedrine.

Dr Bedford pointed out that Norephedrine had the same relationship to Norpseudoephedrine as Ephedrine had to Pseudoephedrine. Norephedrine could also be used as a precursor for amphetamine. Phenylpropanolamine, already listed as a prescription medicine, could be read as including Norephedrine. It had been found that products

containing Norephedrine varied widely and, if possible, it should be listed in the controlled drug schedules.

Members commented that Norephedrine would be too high in the schedules as a B2 and that it should match other precursors. Members noted that Norephedrine was a problem only because it was a precursor to amphetamine and therefore it should be classified no higher than C5, as it is not dangerous in itself, addictive, nor does it lead to psychosis or death.

Agreed:

- 1. That Norephedrine should be considered for classification following a formal assessment process.**
- 2. That the secretariat prepare a formal assessment of Norephedrine for the consideration of the Committee.**

9. METHYLONE TRIALS

At the request of the Minister, the Ministry had requested a Crown Law Office opinion regarding the use of Methylone in trials on human subjects. Questions posed included whether Methylone is an illegal substance in any legislation and if such human trials are legal.

The key points in the Draft Crown Law Office opinion were presented.

While the final Crown Law Office opinion on the legality of the "trial" in question had not been received, members noted that no ethics committee approval had been obtained and that this is considered essential before any such trials are undertaken.

Dr Bedford outlined that ESR considers Methylone to be captured by the Class C7 controlled drug analogue provisions as it is an analogue of Cathinone, a Class B2 controlled drug.

Dr Bedford left the room.

A proposal was made that the Committee recommend Methylone to be specifically listed as a C7 Controlled Drug as it is an analogue of an existing controlled drug. This could be considered an appropriate level of classification at this time as Methylone may prove to be less harmful than Cathinone and other Class B drugs, as has been claimed. A C7 classification provides enforcement and sentencing powers and would still allow for its classification level to be increased, if indicated, as further information about its effects becomes available.

Discussion also occurred around the lack of current evidence to assess the harm of the compound and that an alternative approach would be to recommend a classification to match its parent compound (Cathinone) and schedule Methylone as a B2 controlled drug.

Dr Bedford was invited back in.

Dr Bedford felt that, given a lack of evidence about methylone, classification at the level of the parent compound (Cathinone) could be justified based on the assumption that it has similar effects until proven otherwise.

Agreed:

That the two possible approaches outlining the advantages and disadvantages of each be put to the Minister for his consideration.

10.0 GENERAL BUSINESS

- 10.1** Cynthia Maling from the Ministry of Health was introduced to the Committee by the Chair. The Ministry is looking at what might be done to further restrict access to BZP.

The Committee discussed the issue of setting of a 'safe dose' or upper limit for BZP. This would require greater knowledge of the harms of the substance as well as consistency in the manufacturing process.

The Committee discussed a range of other issues related to the possible regulation of BZP. However, the Chair clarified that the Committee's mandate was to provide advice on drug classification and not on how the legislation or regulations are framed. The Committee could provide advice to the Minister on whether further regulation might be warranted.

- 10.2** Dr Sellman advised that he had been invited to present to the Law and Order Select Committee in relation to the Sale of Liquor (Youth Harm Reduction) Bill and that the Secretary of the Select Committee had referred to his membership of the EACD. The Committee agreed Dr Sellman would present in his own right and not as a representative of the EACD, which had no Committee position on Alcohol. Dr Sellman agreed to make his submission available to Committee members for information.

- 10.3** The Chair thanked Dr Bedford for his notes and the Secretariat for the papers submitted.

11. NEXT MEETING

The next meeting would be scheduled for Thursday 27 July 2006 and would be arranged by the Secretariat.

The meeting closed at 3:35pm.

EXPERT ADVISORY COMMITTEE ON DRUGS

Thursday 6 August 2009, 12.00 pm – 4.30 pm
Medsafe, Level 6, Deloitte House, 10 Brandon Street, Wellington

EACD MEMBERS PRESENT

Dr Stewart Jessamine (Acting Chair)	Adrienne Fruean
Dr Keith Bedford	Dr Geoffrey Robinson
Paul Campbell	Professor Doug Sellman
Rajesh Chhana	Detective Superintendent Win van der Velde (part of meeting)

EACD SECRETARIAT PRESENT

Bronwen Hicks	Sara McFall
Chris Laurenson	Mark Heffernan

GUESTS PRESENT

Hon Peter Dunne (Associate Minister of Health)
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1 WELCOME AND APOLOGIES

Apologies were received from Dr Helen Moriarty and Dr Tim Maling.

2 CONFIRMATION OF 17 JUNE 2009 MINUTES

The minutes from the 17 June 2009 meeting were confirmed and authorised to be forwarded to the Prime Ministerial taskforce alongside the paper titled "Advice to the Expert Advisory Committee on Drugs on Pseudoephedrine".

3 MATTERS ARISING FROM 7 MAY 2009 MEETING

3.1 Norephedrine

Issue: The EACD was to recommend to the Minister that the presumption for supply of norephedrine be set at 56 grams.

Outcome: The Committee noted that the Associate Minister of Health has received it's advice that norephedrine be classified in the second Part of the second Schedule (Class B2) of the Misuse of Drugs Act 1975 (the Act) and also as a precursor substance listed in Schedule 4 of the Act with a presumption for supply set at 56 grams. The Committee also noted that the Ministry of Health has

provided the Minister with free and frank advice regarding the Committee's recommendations.

3.2 Spice Item 5

Spice is to be discussed under agenda item 7.

3.3 Recommendations from the 52nd session of the Commission on Narcotic Drugs

The Minister has been invited to be a guest at this EACD meeting.

3.4 Working schedule of substances/drugs needing to be classified – Overview on hallucinogens - Item 7

LSD is to be discussed at agenda item 5.

Summaries of recent assessments on LSD, BZP, salvia divinorum, ketamine, alcohol, MDMA, methamphetamine and GHB are to be discussed under agenda item 6.

3.5 Law Commission Presentation

Issues raised by the EACD regarding the Law Commission Review are to be discussed under general business.

4 MATTERS ARISING FROM 17 JUNE 2009 MEETING

4.1 Issue: The EACD was to advise the Minister of its preliminary view that pseudoephedrine should be reclassified under the second part of the second schedule (Class B2) of the Act, and that its status as a registered medicine in New Zealand be reviewed by Medsafe. The EACD was also to recommend that ephedrine be reclassified as a Class B2 drug.

Outcome: The Committee noted that the Associate Minister of Health has received the advice of the Committee that pseudoephedrine and ephedrine be reclassified under the second part of the second schedule (Class B2) of the Act.

5 DMAA

Issue: The Committee had previously noted that testing had identified the substance 1,3-dimethylamylamine (DMAA) as an active ingredient in benzylpiperazine (BZP)-free "party pills", since the introduction of these products in April 2008, but had not conducted a formal assessment of this substance against the criteria outlined in the Act to date.

Discussion: The Committee considered the known information on DMAA in view of assessing the risk of this substance against the criteria outlined in the Act.

Members noted that there is no quantified prevalence data on the use of DMAA by the general population, but it is understood that use in New Zealand is low. It was also noted that DMAA is not currently perceived to be a huge problem in the community.

Members considered that there was a potential for DMAA to cause some degree of harm if large doses are administered, and that DMAA has risks consistent with that of other sympathomimetic substances in the event of overdose. The Committee also noted that this potential for harm is greatly increased when methods of administration other than oral, are adopted, such as: injecting or insufflating (snorting). The Committee discussed the merits of generic regulation limiting the sale of synthetic substances only to tablet or capsule form with the intent of prohibiting the practice of selling pure chemical powders to end users of these substances. It was agreed that this would reduce the potential for overdose as well as the likelihood that more harmful methods of administration would be utilised.

The Committee compared DMAA to the substance benzylpiperazine (BZP) and agreed that while there are some similarities between the two substances in terms of physiological effects, there is less known about toxicological and pharmacological effects of DMAA. It was also pointed out that due to the sympathomimetic physiological effects of DMAA, if dosages were to be escalated it could potentially become problematic.

The Committee did not consider that available evidence suggests that DMAA poses a sufficient risk of harm to warrant classification as a controlled drug. However, the Committee did agree that DMAA has some potential to cause harm and that regulation as a restricted substance in conjunction with the making of regulations to prohibit the sale of this substance to the end user in any form other than a tablet or capsule would be an effective approach to mitigate the known harms of this substance. Members also discussed the merits of setting a maximum dosage of DMAA per pill. It was concluded that a maximum dosage could not be recommended based on the available evidence at the current time. However, the Committee would endorse the Ministry of Health discussing dosage with the industry in view of determining a maximum regulated dose. The Committee's view was that this dose should be regulated in order that multiple tablets/capsules would need to be consumed to reach the maximum recommended dose.

Outcome: The Committee agreed that current evidence suggests DMAA poses a low risk of harm and should be classified as a restricted substance under the Misuse of Drugs Amendment Act 2005. The Committee also agreed to recommend that regulations should be made restricting the sale of DMAA to end users of this substance in tablet or capsule form only. The Committee also endorsed in principle that this regulation should be extended to all synthetic restricted substances in general. It was agreed that the Committee would endorse the Ministry of Health approaching the industry in view of determining a maximum regulated dose, and that this dose should be set in a manner which requires taking multiple tablets or capsules to reach this dose.

Action: The EACD is to advise the Minister that DMAA be scheduled as a restricted substance in conjunction with the making of further regulations requiring all synthetic restricted substances, such as DMAA, to be sold in only tablet or capsule form.

The EACD further recommends that Ministry of Health consults with the industry on the plausibility of maximum dosage restrictions for DMAA.

4 LSD

Issue: The Secretariat was requested to prepare an assessment paper on LSD for the next scheduled meeting.

Discussion: The Committee considered the current classification of LSD.

The Committee noted that LSD is not a widely used substance in New Zealand, that use has been steadily falling over the last ten years and that the number of seizures in New Zealand remains relatively low. It was also noted that there was an increase in LSD submissions to ESR in late 2008, however, by comparison the average amount of LSD per ticket has fallen over the years.

Members also noted that LSD's potential to cause death is very low and that the few reported international cases were generally from accidents or possibly related to over-activity of the adrenal gland. Members were advised that there is no evidence that LSD can create dependence.

There was discussion around the appropriateness of New Zealand's classification of LSD as a Class A controlled drug and whether this is proportionate to the risk of harm or danger associated with the substance. The Committee agreed that with regard to the risk of harm, a Class B or even a Class C classification may be more appropriate. The Committee discussed the fact that a Class B classification would provide Police and Customs with sufficient enforcement powers for surveillance and monitoring any involvement of organised crime in supplying LSD. Changing LSD's classification could mean that a stronger focus can be placed on more problematic drugs. Members agreed that the current classification of LSD in New Zealand could have been influenced by historical and international classifications and the Committee was advised that LSD was included in the 1960s drug conventions and classified under psychotropic substances in 1971.

Based on the evidence of the risk of harm associated with LSD in New Zealand, the EACD agreed that LSD is inappropriately classified. The Committee then discussed whether consideration of splitting the classification for LSD e.g. the drug is classified as a Class C unless the quantity exceeds a certain amount and then LSD would be a Class B, was an option. The EACD also discussed whether amending the sentencing and penalties associated with possession or distribution of LSD would achieve the same outcome as introducing a split classification. The Committee requested that the Secretariat investigate previous sentences issued for LSD and how these compare with sentences for other Class A drugs, the Committee also queried if any other countries had considered reducing the

classification of LSD and requested that the Secretariat investigate experience in other jurisdictions.

The Committee considered that the potential impacts of classification on the risks of illegal importation and organised crime are important considerations which should be considered by the EACD when reviewing a drug. In the Committee's opinion these issues come under the section 4B criteria in the Act as "any other matters" which should be considered by the EACD. Clarification that interpretation of the legislation is appropriate as these matters would assist the Committee in future analyses and recommendations to the Minister. The Committee also considered that the Law Commission may wish to address this approach to the legislation as part of its review of the Misuse of Drugs Act.

Outcome: The assessment of LSD on the criteria outlined in the Misuse of Drugs Act 1975, indicates that LSD is inappropriately classified as a Class A drug. The EACD requested the Secretariat to provide a paper outlining organised crime, surveillance, LSD sentencing, and the differences in penalties between substances classed A, B and C to aid it in its future consideration of the classification of LSD.

The Committee agreed that a separate agenda item for a future EACD meeting would focus on further discussion on the scope of section 4b criteria in the act, "any other matters".

Action: The Secretariat is to prepare a paper on LSD for the next scheduled meeting in conjunction with Customs, Justice and Police covering the potential for an increase in criminal activity and importation as a consequence of either the reclassification of LSD to a lower schedule or changes to sentencing issues. International trends and penalties associated with classes B & C is also to be covered.

The Secretariat is to include an item on section 4B criteria in the Act, "any other matters" and what this should encompass, at a future EACD meeting. This agenda item will incorporate the potential risk for organised crime, drug trafficking and any other matters the Committee considers relevant.

7 UPDATE ON SPICE

Issue: The Secretariat had been requested to monitor and collect information on Spice, including an update on any further developments in relation to the determination that the active ingredient incorporated into Spice products is a controlled drug analogue of tetrahydrocannabinol (THC), and report to the Committee.

Discussion: The Committee was updated on developments around Spice and noted that the testing of a related product was found to contain a different synthetic cannabinoid substance, in place of CP 47,497, known as JWH-018.

JWH-018 is not classified in any of the schedules to the MoDA and is unlikely to be considered substantially similar in chemical structure to THC or any other

controlled drug. Accordingly, there are potentially no controls provided for by the Act or the Medicines Act 1981 around this substance. Spice products containing the 1,1-dimethyloctyl homologue of the substance CP 47, 497 had been withdrawn from the market, but related products containing JWH-018 as their active ingredient appeared to have taken their place.

Outcome: The Committee agreed that more information is required on the substance JWH-018 to inform consideration of its potential to cause harm.

8. ANALYSIS OF RECENT ASSESSMENTS ON BZP, SALVIA DIVINORUM, KETAMINE, ALCOHOL, MDMA, METHAMPHETAMINE AND GHB

The Committee noted the assessments.

9. GENERAL BUSINESS

Issue: The Chair was requested to provide the Law Commission with a list of issues from the EACD's perspective to be used to inform the review in relation to the following subject headings:

- Norephedrine: issues and challenges raised by the Committee and summarised by the Secretariat with regard to the current legislation
- Spice: any concerns with regard to the consideration of substances and analogue provisions
- Working Schedule of Substances: any issues with the assessment of hallucinogens

The Committee noted the summary provided at the meeting and agreed the following issues would be forward to the Law Commission to inform its review:

Precursor Substances

Differentiation of harm directly related to a substance itself, rather than the harm resulting from a precursor substance. For example, substances such as norephedrine and pseudoephedrine are precursors to amphetamine and methamphetamine. These are not considered particularly harmful in themselves, but can be considered harmful due to their ability to be manufactured into, amphetamine and methamphetamine.

Circumstances in which it is appropriate to have dual classifications, particularly in relation to precursor substances such as pseudoephedrine, currently listed in schedules 3 & 4.

Controlled Drug Analogues

Clarification over the meaning of "substantially similar structure" in order to provide guidance on whether the removal of part of a molecule, as opposed to adding part of a molecule, can be considered "substantially similar in structure". This clarification would determine if a substance is an analogue of a controlled drug.

Whether a precursor to an analogue of a controlled drug should be considered for inclusion in the precursor schedule.

Consultation

Clarification on the EACD's responsibilities regarding the consultation process prior to providing recommendations to the Minister.

Restricted Substances

Introduction of a Recreational Substances Act to cover substances pertaining to have a low risk of harm. This Act could incorporate age restrictions and other controls, and also include alcohol.

Harm Mitigation

Clarification on the definition of harm within the Act and whether harm takes into account harms resulting from organised crime and drug trafficking etc.

Specification for levels of harm and clarity around the determination for such levels, such as: recorded deaths, morbidity over a certain level, a reasonable amount of therapeutic value, evidence of organised crime, interest in it being used as a precursor etc.

10. DATE OF NEXT MEETING

The Secretariat is to send details on the next scheduled meeting to the Committee.

EXPERT ADVISORY COMMITTEE ON DRUGS

Thursday 5 November 2009, 9.00 am – 2.00 pm
Medsafe, Level 6, Deloitte House, 10 Brandon Street, Wellington

EACD MEMBERS PRESENT

Dr Ashley Bloomfield (Chair)	
Dr Keith Bedford	Dr Stewart Jessamine
Paul Campbell	Dr Tim Maling
Rajesh Chhana	Dr Helen Moriarty
Adrienne Fruean	Detective Superintendent Win van der Velde

EACD SECRETARIAT PRESENT

Bronwen Hicks	Sara McFall
Chris Laurenson	Mark Heffernan

GUESTS PRESENT

Detective Senior Sergeant Stuart Mills (National Drug Intelligence Bureau)	
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1 WELCOME AND APOLOGIES

Apologies were received from Dr Geoffrey Robinson, and Professor Doug Sellman.

2 CONFIRMATION OF 6 AUGUST & 8 OCTOBER 2009 MINUTES

The minutes from the 6 August and 8 October 2009 meeting were confirmed and authorised to be made publicly available on the National Drug Policy website.

3 MATTERS ARISING FROM THE 6 AUGUST & 8 OCTOBER MEETINGS

3.1 All actions arising from the 6 August & 8 October 2009 meetings were completed.

3.2 6 August 2009 minute item 5 DMAA

Issue: The EACD was to advise the Minister that DMAA be scheduled as a restricted substance in conjunction with the making of further regulations requiring all synthetic restricted substances, such as DMAA, to be sold in only tablet or capsule form.

The EACD further recommended that the Ministry of Health consult with the industry on the plausibility of maximum dosage restrictions for DMAA.

Outcome: The Committee noted that the Minister has accepted its advice that DMAA be scheduled as a restricted substance. The Committee also noted that the Minister has directed the Ministry of Health to consult with the industry on the plausibility of maximum dosage restrictions for DMAA. The Committee was advised that the Ministry of Health is not able to commence this consultation process until the proposed scheduling of DMAA as a restricted substance has been announced by the Minister.

4 **FURTHER CONSIDERATION OF LSD** – *Further advice to the Expert Advisory Committee on Drugs on LSD (D-Lysergic Acid Diethylamide), paper prepared by the Secretariat.*

Issue: At the meeting of 6 August, the Committee considered LSD and requested that the Secretariat provide additional information for the meeting of 5 November. The Secretariat was requested to prepare a paper on LSD in conjunction with Customs, Justice and Police to consider issues including trafficking, organised crime and sentencing. The paper was to also include international trends and penalties associated with the different schedules of the Misuse of Drugs Act and the potential consequences of reclassifying LSD in a lower schedule.

Discussion: The Committee agreed that the current classification of LSD as a Class A controlled drug is anomalous and does not reflect LSD's potential risk of harm. The Committee considered that the classification of LSD was historical and reflected anxiety about LSD in the 1960s in the USA and the inclusion of LSD in the UN drug conventions.

The Committee discussed whether it would be appropriate to recommend reclassifying LSD to a Schedule 2 (Class B) or Schedule 3 (Class C) controlled drug. The Committee considered the consequences of a reclassification and whether this might lead to increased prevalence rates, an increase in harms from flash-backs and the potential for increased drugged driving.

The Committee also considered whether reclassification might lead to a greater involvement of organised crime and increased trafficking because of lighter penalties for Class B and C drugs. It was noted that the involvement of organised crime in the importation of drugs was related to the potential return on investment associated with the supply of a particular drug. In recent years, seizures of LSD have been small and there has been peripheral interest by organised crime which might change if LSD was considered to be sufficiently profitable.

Information from Justice was considered in relation to sentencing for LSD offences and offences for other Class A and some Class B controlled drugs. Although penalties set under the Misuse of Drugs Act were different for the different schedules, custodial sentences, which take into account a range of factors, do not differ markedly between Class A and Class B drugs. The Committee noted that there is no evidence of long custodial sentences being given for LSD offences.

Members noted that if LSD was reclassified to a Class B controlled drug, the sentencing would probably not be notably affected.

Members of the Committee considered different approaches for the possible reclassification of drugs, such as LSD. The Committee discussed implementing an incremental approach whereby a drug could be moved to a slightly different schedule and monitored to see whether there were any unintended negative consequences before consideration was given to any further movement. The Committee agreed though, that it would be difficult to determine the potential impact of a reclassification and measure all the relevant indicators.

Members also discussed the merits of a more sophisticated matrix for drug classification within New Zealand. This matrix could allow for drugs to be classed in different schedules of the Act according to the amount found in possession. For small amounts, a drug would carry the penalties of a lower schedule but trafficable amounts would be in a higher schedule. This is similar to the system in Australia. It was noted that powers for Police and Customs for search and seizure and investigative powers are linked to classification and a member advised that the purpose of investigation is targeted towards the extent of criminal offending as opposed to harm related to a substance.

The Committee discussed the classification system within the Act and was reminded that it provides for differentiation between possession, presumption for supply and dealing, however it was agreed that there is relatively little flexibility within the Act. The Committee noted that there is a broad spectrum of penalties between classes A and C and that section 6 of the Act outlines penalties for manufacture ranging from a fine to life imprisonment. It was acknowledged that the Act is currently working to the extent of its limitations and in practice there is not currently a substantive problem, in particular with the current classification of LSD.

Outcome: The Committee reaffirmed its view that the current classification of LSD is inappropriate as LSD does not pose a "very high" risk of harm. The Committee also agreed that its current classification would be inequitable if offenders who commit low risk offences are sentenced to lengthy custodial sentences. However, there was consensus that although LSD is inappropriately classified given its level of harm, there is no evidence that this is causing problems in New Zealand. In particular, the enforcement of the legislation with respect to LSD is broadly commensurate with the extent of harm it is causing in practice when compared with other classified substances. There was also consensus that in practice the Act is effective and is serving its purpose. However, as previously noted, the assessment of LSD has revealed anomalies within the Act that will need to be addressed in the future, and that should be considered as part of the Law Commissions review of the Misuse of Drugs Act (1975).

The Committee concluded that there was no need, therefore, to recommend the reclassification of LSD at the present time but that any future revision of the Misuse of Drugs Act would need to take into consideration the anomalous classification of substances such as LSD, and rectify this if the Act is to be credible and effective into the future.

Action: The Chair is to write to the Minister with the Committee's views concerning the current classification of LSD, and the implications of this for the review of the Misuse of Drugs Act (1975).

The Secretariat is to monitor sentencing for drug offences and bring to the attention of the Committee any inconsistencies between classification under the Act and sentences given.

5 SECTION 4B CRITERIA IN THE MISUSE OF DRUGS ACT 1975 – “ANY OTHER MATTERS” – *Advice to the Expert Advisory Committee on Drugs on Section 4B Criteria in the Misuse of Drugs Act 1975 – “Any Other Matters”*, paper prepared by the Secretariat.

Issue: The Secretariat was requested to include an item on section 4B criteria in the Act, “any other matters that the Minister considers relevant” and what this should encompass, at a future EACD meeting. This agenda item was to incorporate the potential risk for organised crime, drug trafficking and any other matters the Committee considered relevant.

Discussion: The Committee considered the advice on issues under section 4B 2(h).

The Committee noted that organised crime, trafficking, penalties and enforcement were important considerations in two of the EACD's most recent assessments and agreed that this has highlighted the relevance of considering the above additional matters in the assessment of substances. It was agreed that above matters would fall under would fall under section 4B 2(h) and that a criterion on organised crime and trafficking would likely cover enforcement and justice concerns. However, this criterion should be included on an “as needed basis in future assessments dependant on the specific substance being assessed.

There was also some discussion around possible interpretations of section 4B 2(h). It was agreed that the EACD would inform the Minister of considerations the Committee deems appropriate for inclusion under section 4B 2(h) in order to ascertain whether these are matters consistent with what the Minister would expect the EACD to consider in its assessments. It was also agreed that any specific matters the Minister considers relevant to EACD discussions would also need to be determined.

Members discussed societal harm and requested clarification around whether a potential for societal harm is captured within the Act. It was advised that societal harms are included under section 4B 2(c). Members also discussed how drug classifications could be perceived and it was noted that public perception is not currently considered under matters to which the Minister has regard.

Outcome: The Committee agreed that organised crime and trafficking are matters which (when appropriate) should be included under section 4B 2(h) “any other matters that the Minister considers relevant”. It was agreed that this criterion

would cover enforcement and justice concerns, alongside any specific matters the Minister considers relevant, or that the Committee deems to be of particular relevance in the assessment of individual substances.

Action: The Committee's recommendations regarding section 4B 2(h) to the will be added to the EACD's advice to the Minister concerning the assessment of LSD.

6 THE JWH COMPOUNDS – *The JWH Compounds*, paper prepared by the Secretariat.

Issue: At the 6 August 2009 EACD meeting it was agreed that more information is required on the JWH substances, incorporated into products purporting to provide a legal alternative to cannabis, to inform consideration on their potential to cause harm.

Discussion: The Committee discussed developments relating to the international control of legal cannabis alternatives, such as "Spice".

The Committee was advised that whilst Spice products containing the 1,1-dimethyloctyl homologue of the substance CP 47, 497 are understood to be no longer available on the New Zealand market, other products of this type with different, uncontrolled, synthetic cannabinoids have emerged in this substance's place.

The Committee was advised that there is little international, peer reviewed data available on the pharmacology and potential harms of the substances JWH-018, JWH-073 and JWH-015.

The Committee queried whether a possible side effect of these substances could be harm resulting from their inhalation. The Committee was advised that any combustible substance that is inhaled has associated risks to health. However, the Committee was advised that these products are sometimes misleadingly sold as herbal incenses that are advertised as being intended for inhalation.

Members noted that these substances are not covered by legislation and therefore are not able to be labelled with a health warning. Clarification was requested as to whether the Smoke-free Environments Act only applies to tobacco and herbal cigarettes and it was suggested that there may be provisions for regulations within this legislation to provide for the control of legal cannabis substitutes. It was also suggested that this product may require its own tariff code for Customs purposes. A member suggested that the substance *salvia divinorum* should be included in any further discussions surrounding the Smoke-free Environments Act, as it too is "smoked".

The Committee discussed the Hazardous Substances and New Organisms Act (HSNO) and whether this product may fall within this legislation. The Committee was advised that the HSNO applies to bulk goods which require a 'flammable' warning.

Outcome: The Committee noted the paper *The JWH Compounds* and agreed that these potentially present an unregulated health risk. The Committee agreed that clarification on the definition of a 'herbal smoking product' under the Smoke-free Environments Act is required to determine whether this legislation could provide for the control of legal cannabis substitutes. It was also agreed that advice concerning the potential for a new tariff item on this substance is required.

Action: The Secretariat is to investigate the definition of 'herbal smoking products' under the Smoke-free Environments Act and will contact the Ministry of Economic Development and the New Zealand Customs Service on the potential for a requirement for a new tariff item on this substance.

The Secretariat will monitor the situation regarding JWH compounds.

7 EACD RECOMMENDATIONS IN RELATION TO PSEUDOEPHEDRINE AND EPHEDRINE – *EACD recommendations in relation to pseudoephedrine and ephedrine*, letter prepared by the Chair.

Issue: The EACD previously advised the Minister of its preliminary view that pseudoephedrine (and ephedrine) be reclassified as Schedule 2, Part 2 (Class B2) substance, and that its status as a registered medicine in New Zealand be reviewed by Medsafe, and now needs to confirm that advice.

The EACD was also to recommend to the Minister that a presumption for supply for pseudoephedrine (and ephedrine) be set at 10 grams.

Discussion: The Committee discussed the draft advice to the Minister recommending pseudoephedrine (and ephedrine) be reclassified as Schedule 2, Part 2 (Class B2) substances and that the presumption for supply for both substances be set at 10 grams.

It was noted that there has been significant interest in Professor Gluckman's proposal that pseudoephedrine is only available on prescription from hospital pharmacies. It was also pointed out that potential issues could arise if pseudoephedrine is unavailable for international tourists who hold prescriptions for it. It was re-iterated that penalties are not intended to target those using the drug as a medicine.

Outcome: The Committee confirmed its earlier preliminary advice concerning the re-classification of pseudoephedrine (and ephedrine), and agreed the recommend a presumption for supply of these substances of 10 grams

Action: The EACD is to write to the Minister recommending that pseudoephedrine (and ephedrine) be reclassified as Schedule 2 Part 2 (Class B2) substances and that the presumption for supply for both substances be set at 10 grams.

- 8 **Letter for the Law Commission's Review – Recommendations on the Misuse of Drugs Act 1975 review from the Expert Advisory Committee on Drugs**, letter prepared by the Chair.

Issue: The Chair was requested to provide the Law Commission with a list of issues from the EACD's perspective to be used to inform the review.

Discussion: The Committee discussed the advice prepared for the Law Commission.

There was discussion around the EACD consultation process and clarification was requested as to whether responsibilities regarding consultation are stipulated in the Act. It was clarified that the EACD consultation process is not statutory and members agreed that a systematic approach to the consultation process should be taken to inform EACD discussion or advice to the Minister. The Committee noted that agendas for EACD meetings are currently posted on the National Drug Policy website as a source of information. It was agreed that the Secretariat is to write to relevant industry, organisations and manufacturers as part of the development of EACD assessments.

Outcome: The Committee endorsed the draft advice prepared for the Law Commission. It was also agreed that the Law Commission should be invited to attend the forthcoming and any future meetings of the EACD as an observer, while the Misuse of Drugs Act review process is underway.

Action: The Chair is to recommend the issues and challenges identified by the Committee to the Deputy President of the Law Commission.

The Secretariat is to invite the Law Commission to observe the forthcoming and any future EACD meetings.

9 **SECRETARIAT UPDATE**

The Secretariat updated the Committee on the proposed Misuse of Drugs Amendment Bill to give effect to Cabinet in principle the decision to classify pseudoephedrine and ephedrine as Class B2 controlled drugs and also to make other necessary changes to implement decisions for the classification of drugs and to improve the workability of the Act. The Committee was advised that a Cabinet Paper is currently being developed and is to be considered at the Social Development Committee on 30 November 2009.

The Secretariat advised the Committee that the Minister has partially accepted the advice of the Committee and intends to proceed with the classification of norephedrine as a precursor substance, however to request further advice before proceeding with the classification of norephedrine as a Class B2 controlled drug. The Minister has also agreed that the level of norephedrine presumed to be for supply is at or over the default amount of 56 grams, as already provided for in Schedule 5(2) of the Act.

Action: The Secretariat is to update the Committee on the progress of the classification of norephedrine at its next meeting.

10 GENERAL BUSINESS

The Committee agreed that the general rule (half the membership of the Committee, plus one), would be the official quorum for Committee meetings of the EACD. The Committee also agreed that those present at meetings would formulate a preliminary view to be confirmed 'out of session' with additional input from any members unable to attend, as is the Committee's current practice.

11 DATE OF NEXT MEETING

The Secretariat is to advise details of the next scheduled EACD meeting.

DRAFT
Released under the Official Information Act 1982

Hon Peter Dunne
Copy to: Hon Tony Ryall
Noting

**HR 20092279 – Advice from the Expert Advisory Committee on Drugs
regarding LSD**

ACTION REQUIRED

The Chair of the Expert Advisory Committee on Drugs (EACD) has written to you regarding the EACD's recent assessment of LSD. The EACD has not recommended any action in relation to the classification of LSD at this time. The Chair's letter and the relevant minutes are attached.

MINISTRY OF HEALTH RECOMMENDATION

The Ministry recommends that you:

Note: the advice of the EACD with regards to LSD

Yes/No

OTHER VIEWS

There are no other views.

Released under the Official Information Act 1982



Action required by:	Routine	Date sent to Minister:	
Minister's reference/ OIA number:	20092279	File number:	AD20-90-1

Hon Peter Dunne
Copy to Hon Tony Ryall

Advice of the Expert Advisory Committee on Drugs regarding LSD

Advice

1. The purpose of this paper is to inform you of recent discussions by the Expert Advisory Committee on Drugs (EACD) in relation to LSD and provide you with a letter in this regard from the Chair of the EACD.
2. The EACD has not recommended any action in relation to the scheduling of LSD at this time but notes that reclassification should be considered in the future.

Background

3. The EACD met on 6 August and 5 November 2009 and discussed, amongst other agenda, the controlled drug d-lysergic acid diethylamide (LSD). The minutes of these meetings are attached (the draft minutes of the meeting of 5 November 2009 will be confirmed at the next meeting of the EACD).
4. As you may recall from your attendance at the meeting in August, the EACD considered LSD in accordance with the criteria set out in Section 4B(2) of the Misuse of Drugs Act including the risk of death and dependence, public health harms and likelihood of misuse. It was agreed by the EACD that there was a very low risk of death, no evidence of dependence and a low number of hospitalisations.
5. The EACD agreed that the current scheduling of LSD as a Class A drug was inappropriate as the use of LSD was not associated with a very high risk of harm. The EACD considered that Class B or Class C would be more appropriate representing a moderate to high risk of harm.
6. When the EACD considered LSD once more in November, the members broadened their discussion to include enforcement and justice issues such as the involvement of organised crime in trafficking and supply, as well as sentencing patterns for LSD offences. The intention was to estimate the possible impact of a reclassification of LSD and assess whether or not it could lead to an increase in the importation and supply of LSD. The EACD noted that currently LSD is of peripheral interest to organised crime groups however it is unclear what impact a lower classification might have.
7. The EACD discussed data provided by Justice about custodial sentences for LSD offences as well as for other Class A and Class B drug offences. It was noted that offenders were not receiving long custodial sentences for LSD offences and the EACD concluded therefore that, in spite of LSD's inappropriate classification, people were not being excessively penalised.
8. The EACD agreed that no action was required at this time to reclassify LSD but that the inappropriate scheduling of this substance, and potentially a number of other substances, should be addressed in the future.

Comment

9. In recent assessments, most notably pseudoephedrine and LSD, the EACD has broadened its discussion to include issues that could be considered to fall under the final criterion of Section 4B(2) "any other matters" including the involvement of organised crime and other enforcement issues as well

as sentencing. The EACD agreed that, when considering substances in the future, it would routinely include these matters as part of the assessment. The Ministry supports this approach given that it provides a greater range of measures to assess not only the potential harms to the individual but also the societal harms of organised crime and trafficking. However, the Ministry considers it important that these matters do not disproportionately outweigh the other criteria linked to abuse.

10. The Ministry considers that the credibility of a classification system rests on its basis in evidence and notes that many of the substances in the MoDA were classified prior to the establishment of the EACD and the systematic assessment of drug classifications. Therefore, the Ministry would support the future reclassification of LSD and the assessment by the EACD of other substances which they suspect of being anomalously classified under the MoDA.

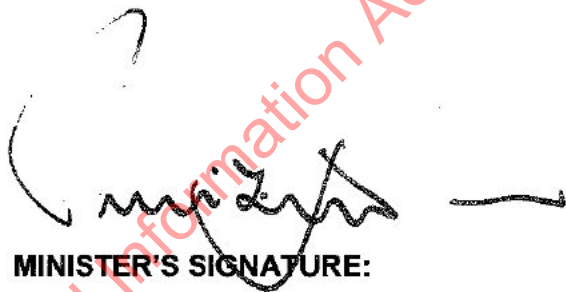
Recommendations

The Ministry recommends that you:

- a) **Note:** the advice of the EACD with regards to LSD

Yes / ~~No~~


Janice Wilson (Dr)
Deputy Director-General
Population Health


MINISTER'S SIGNATURE:

DATE: 18.01.10

Ministry Contact 1:	
Name:	Barbara Phillips, Group Manager, Minimising Harm Group
Cellphone:	s9(2)(a)

Ministry Contact 2:	
Name:	Chris Laurenson, Team Leader, National Drug Policy Team
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22 December 2009

Ref. No _____

Hon Peter Dunne
Associate Minister of Health
Parliament Buildings
WELLINGTON

Dear Minister

EACD advice in relation to LSD and other matters arising

The Expert Advisory Committee on Drugs (the Committee) met on 6 August and 5 November 2009 and discussed, *inter alia*, the controlled drug LSD (d-lysergic acid diethylamide). The minutes from these meetings are attached.

You will recall from your attendance at the meeting of 6 August that the Committee discussed LSD in accordance with Section 4B of the Misuse of Drugs Act 1975 (MoDA). LSD is currently scheduled as a Class A controlled drug and the Committee agreed that this is a historical classification and most likely influenced by widespread use and concern about LSD in the sixties in the USA and the subsequent classification under the UN drug conventions. As LSD was included in the original schedule to the Act it has not been classified according to the criteria set out in Section 4B of the MoDA, which came into force in 2000. LSD has not previously been formally assessed by the Committee.

At the meeting of 6 August, the Committee noted that LSD is not widely used in New Zealand and use has been falling steadily over the last ten years. The effects associated with the use of LSD include sensory distortion, hallucinations, exacerbation of existing psychiatric conditions and flashbacks. Serious harms are rare and there are a low number of hospital admissions for hallucinogens including LSD. The Committee agreed that there was no evidence of dependence associated with the use of LSD and a very low risk of death with fatalities generally the result of accidents.

The Committee agreed at this meeting that the scheduling of LSD as a Class A drug is anomalous and disproportionate to the risk of harm associated with its use. The Committee requested that the Secretariat provide further information in order to consider whether or not a reclassification of LSD would be appropriate.

At the meeting of 5 November, the Committee considered further information on LSD provided by the Secretariat, Justice, Police and Customs. In particular, the Committee discussed issues in addition to the health effects and harms of LSD to the individual including organised crime, trafficking and sentencing.

The Committee noted that recent seizures were generally small and LSD was currently of peripheral interest to organised crime groups. There does appear to be some increased interest in LSD amongst those who also use ecstasy and a single large seizure was reported for 2009 in the Wellington region. The Committee discussed whether a reclassification of LSD to either a Class B or Class C controlled drug would lead to increased prevalence rates and increased importation. It is unclear whether the potential return on investment for LSD importation would be sufficient for organised crime to increase its involvement.

The Committee also compared the penalties associated with the different schedules of the Misuse of Drugs Act. The Committee agreed that the current classification of LSD would be inequitable if offenders who commit low risk offences were being sentenced to lengthy custodial sentences. The maximum sentence for the trafficking and supply of LSD, as a Class A controlled drug, is life imprisonment. However, the Committee noted that according to data provided by Justice, long custodial sentences are not being given for LSD and the sentences appear to be similar to those for Class B controlled drugs.

There was consensus that, although LSD is inappropriately classified, according to its assessed level of harm, there is no evidence that this is currently causing undue problems in New Zealand. This led the Committee to conclude that there was no need for any action at this time as on balance, the Act is achieving its purpose with respect to LSD. However, the assessment of LSD has confirmed extant anomalies within the Act which will need to be addressed in the future, notably during the Law Commission's review of the Misuse of Drugs Act.

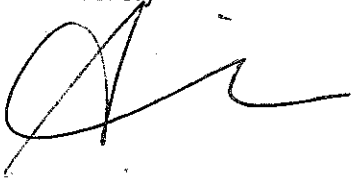
The discussion around LSD has highlighted the relevance of considering additional matters such as organised crime and trafficking in the assessment of substances. It was agreed that these matters would fall under section 4B 2(h) "any other matters that the Minister considers relevant". Issues that this criterion might cover include enforcement and justice concerns, but this would depend upon the specific substance under assessment. The Committee intends to continue to include these issues as appropriate in future assessments and would be interested to learn of any specific matters that you consider relevant to our discussions under this criterion.

In summary, the advice of the Committee is as follows:

- In light of its potential to cause harm, LSD is inappropriately scheduled as a Class A controlled drug. However, sentencing data indicate that offenders are not suffering unduly long custodial sentences and the Committee considers there is no need for a reclassification at this time.
- The discussion of LSD has highlighted anomalies in the scheduling of substances in the MoDA that should be addressed in the future, preferably through the Law Commission's Review of the Misuse of Drugs Act.
- In future assessments, the Committee will routinely consider justice and enforcement issues under Section 4B 2(h) "any other matters".

I would be happy to discuss these issues with you in person if I can provide any further details.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Ashley Bloomfield', written over a horizontal line.

Ashley Bloomfield (Dr)
Chair, Expert Advisory Committee on Drugs

encl:

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EXPERT ADVISORY COMMITTEE ON DRUGS

Friday 16 April 2010, 12.30 pm – 5.00 pm
Medsafe, Level 6, Deloitte House, 10 Brandon Street, Wellington

EACD MEMBERS PRESENT

Dr Ashley Bloomfield (Chair)	Dr Helen Moriarty
Paul Campbell	Dr Geoff Robinson
Rajesh Chhana	Professor Doug Sellman (part of meeting)
Adrienne Fruean	Detective Superintendent Win van der Velde (part of meeting, then was replaced by Detective Senior Sergeant Stuart Mills)
Dr Stewart Jessamine	

EACD SECRETARIAT PRESENT

Bronwen Hicks	Mark Heffernan
Sara McFall	

GUESTS PRESENT

Detective Senior Sergeant Stuart Mills (National Drug Intelligence Bureau – part of meeting)	Jo Dinsdale (Law Commission – part of meeting)
Val Sim (Law Commission – part of meeting)	

1 WELCOME AND APOLOGIES

Apologies were received from Dr Keith Bedford and Dr Tim Maling.

2 CONFIRMATION OF 5 NOVEMBER 2009 MINUTES

The minutes from the 5 November 2009 meeting of the Committee were confirmed, pending correction of a minor typographical error, and authorised to be made publicly available on the National Drug Policy (NDP) website.

3 MATTERS ARISING FROM THE 5 NOVEMBER MEETING

3.1 All actions arising from the 5 November 2009 meeting were completed.

4 NOREPHEDRINE – *Advice to the Expert Advisory Committee on Drugs on Norephedrine*, paper prepared by the Secretariat.

Issue: The Associate Minister of Health requested further advice from the Committee before deciding whether to proceed with a classification of norephedrine as a Class B2 controlled drug in addition to classification as a Schedule 4 precursor substance.

Discussion: Information from the National Drug Intelligence Bureau was considered in relation to a reported increase in the value of Propalin® imports during 2009. There was no additional information as to why Propalin® imports had increased in value. Propalin® (phenylpropanolamine hydrochloride) is a registered animal remedy under the Agricultural Compound and Veterinary Medicines Act 1997 and is most commonly used as a renal and urinary tract modifier. The Committee noted that phenylpropanolamine hydrochloride has two stereo isomers: norephedrine and norpseudoephedrine and is imported and distributed to veterinarians by one supplier in New Zealand. The Committee noted that phenylpropanolamine is also listed as a prescription medicine under the Medicines Act 1981; however, there are no medicines containing this substance on the New Zealand market. Members were advised that despite norephedrine previously being used as an appetite suppressant, the risk of side effects means that phenylpropanolamine will not be used as a human medicine in the future.

Members agreed that the real concern lies in the potential for the diversion of norephedrine into amphetamine, and that there is a real and tangible risk of harm from amphetamine if norephedrine is purchased for this purpose, particularly in large quantities. Members agreed that, on balance, the potential risks of norephedrine (from its diversion to manufacture amphetamine), outweigh its limited benefits.

Members discussed the recent decision to reclassify pseudoephedrine and ephedrine (precursors to methamphetamine) as Class B2 controlled drugs. In view of this decision, a member expressed concern that if norephedrine is classified lower than Class B2, the inherent disparate sentencing could provide an incentive for the importation of norephedrine over ephedrine, or pseudoephedrine, with a flow on effect of increased amphetamine manufacture.

The Committee acknowledged that a Class B2 classification would likely require the concurrent removal of phenylpropanolamine as a prescription medicine under the Medicines Act. The Committee also noted that consideration would be required on the continued status of phenylpropanolamine as a registered animal remedy and, that consultation would be necessary with relevant stakeholders.

Outcome: The Committee reaffirmed its view that norephedrine be classified as a Class B2 controlled drug in addition to classification as a Schedule 4 precursor substance based on the potential for harm caused by the diversion of norephedrine into the manufacture of amphetamine.

Action: The EACD is to write to the Minister reaffirming its previous advice that norephedrine be classified as a Schedule 2 Part 2 (Class B2) controlled drug in addition to classification as a Schedule 4 precursor substance.

5 PRESENTATION & DISCUSSION: LAW COMMISSION'S REVIEW OF THE MISUSE OF DRUGS ACT 1975 – *Recommendations on the Misuse of Drugs Act 1975 Review from the Expert Advisory Committee on Drugs*, letter sent by the Chair to the Associate Minister of Health.

The Law Commission presented the Committee with an update on the MoDA review and a summary of the Law Commission's Issues Paper on the Review of the Misuse of Drugs Act 1975. The Committee discussed the following issues to inform the review:

- ABC Drug Classification System
- Specific criteria used for classification decisions
- Body that makes classification decisions
- Proposed regime for dealing with non-convention drugs
- Presumption of possession for supply and reverse onus

6 ECSTASY ASSESSMENT – *Literature Review and Assessment Report on MDMA/Ecstasy*, prepared by Dr Geoff Noller

Issue: The Literature Review and Assessment Report on MDMA/ecstasy was commissioned by the Ministry of Health and completed in 2009. The commissioning of the report followed the classification of BZP to a Class C drug in 2008 and a concern that users of BZP may switch to ecstasy. The report sought to assess the current situation in New Zealand.

Discussion: The Committee noted the report *Literature Review and Assessment Report on MDMA/Ecstasy* and commended the author, Geoff Noller on the quality of the research. The Committee agreed that it would be beneficial to make the report more widely available; however, the Chair commented that there may be sensitive information which should be caveated prior to the report being made publicly available.

Outcome: The Committee agreed that the assessment report was of a high standard and that it would be beneficial to make this report publicly available.

Action: The Secretariat will ascertain any relevant caveats, or direct quotes, with the author before publishing the report.

7 PRELIMINARY DISCUSSION LEADING TO FORMAL REVIEW APPROACH TO CLASSIFYING SUBSTANCES – *Preliminary discussion leading to formal review approach to classifying substances*, paper prepared by the Secretariat.

Issue: The purpose of this paper is to clarify the process by which EACD makes recommendations on the classification of drugs.

Discussion: The Committee discussed the proposed two-step approach for assessment of substances. The approach is similar to that used by the World Health Organization to ensure that recommendations on drug scheduling are made only after adequate consultation and consideration of a full substance report. This approach would comprise a preliminary consideration so the EACD could decide whether a detailed assessment was required at that time. A decision to undertake a detailed assessment at a future meeting would allow the Secretariat to consult with appropriate parties and collate evidence before presenting the detailed assessment to the EACD.

Members agreed that the formal approach proposed would improve the quality of EACD assessments and would demonstrate rigour throughout the assessment process. It was highlighted that this approach would assist the consumer representative position by having information on the drug prior to the formal assessment. It was agreed that the preliminary discussion could occur in the form of a teleconference and that the reasons proving sufficient need for formal review of a particular drug could be placed on the NDP website.

Outcome: The Committee endorsed the proposed formal approach outlined in the paper to ensure that recommendations on drug scheduling are made only after adequate consultation and consideration of a full substance report.

Action: Preliminary consideration assessments will be prepared on all substances to be considered in the future. Should the EACD agree there is sufficient need for the formal review of a particular drug, the EACD will then request the Secretariat to publish details of the drug, or drugs, to be considered on the NDP website, including the process for making written submissions.

8 UPDATE ON PSEUDOEPHEDRINE – *Update on pseudoephedrine*, paper prepared by the Secretariat.

The Secretariat updated the Committee on progress with the Misuse of Drugs Amendment Bill to give effect to Cabinet's decision to classify pseudoephedrine and ephedrine as Class B2 controlled drugs and also to make other changes to implement EACD decisions and to improve the workability of the Act.

The Committee noted that on 25 November 2009, following receipt of comprehensive advice from the EACD, Cabinet agreed to the drafting of a Misuse of Drugs Amendment Bill to provide for the reclassification of pseudoephedrine and ephedrine as Class B2 controlled drugs, with a presumption of supply level of 10 grams. The Committee also noted that the Amendment Bill will give effect to the following additional matters:

- the removal of thalidomide as a Class A controlled drug from the Act
- amendment to allow hazardous substances to be scheduled also as restricted substances
- an extension of the definition of amphetamine analogues; and
- a broadening of powers for controls relating to the sale of drug paraphernalia.

The Committee noted that the Misuse of Drugs Amendment Bill has been approved for introduction to the House of Representatives on, or before, 20 April 2010.

9 SUBSTANCES TO BE CONSIDERED AT THE NEXT EACD MEETING, *Working Schedule of Substances*, spreadsheet prepared by the Secretariat

The Committee was advised that there is merit in assessing JWH Compounds as these substances may present an unregulated health risk. The Committee noted that there is little international, peer reviewed data available on the pharmacology and potential harms of the substances JWH-018, JWH-073 and JWH-015, and that these substances are not currently covered by the Misuse of Drugs Act.

The Committee also discussed cathinone derivatives and whether there is merit in the EACD examining these substances. The Advisory Council on the Misuse of Drugs in the United Kingdom has recently recommended the classification of mephedrone and its related compounds as Class B controlled drugs and the Committee was advised that the secretariat understands use of these substances to be increasing in New Zealand as an alternative to ecstasy. The Committee agreed to assess the cathinone derivatives at a future meeting.

The Committee will also consider the opioid tapentadol.

Action: The EACD will consider pre-assessments of JWH compounds and cathinone derivatives at a future meeting and the EACD will consider a formal review on tapentadol at its next meeting.

The Secretariat will request an update from the National Drug Intelligence Bureau on codeine to bring to the next meeting.

10 DATE OF NEXT MEETING

The next scheduled meeting is Thursday 29 July 2010. The Secretariat is to send details on this meeting to the Committee.

The meeting closed at 4.35pm.

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