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Amphetamine: Still Queensland's No. 1 Drug Threat

Amphetamine remains the primary illicit drug of concern to the Queensland community, ahead of other illicit drugs in terms of potential risk and harm.

Background

In June 1999, the Commission assessed illicit drug markets in Queensland and concluded that the heroin market represented the highest risk at that time.[1]

A further assessment in November 2000 concluded that the amphetamine market had overtaken the heroin market in terms of the risk posed to the Queensland community.[2]

Monitoring of organised crime markets in Queensland since then continues to indicate that the amphetamine problem is worsening, and that the demand for this drug has not waned. As a result, amphetamine in Queensland still poses a significant threat to Queensland from both law enforcement and health perspectives.

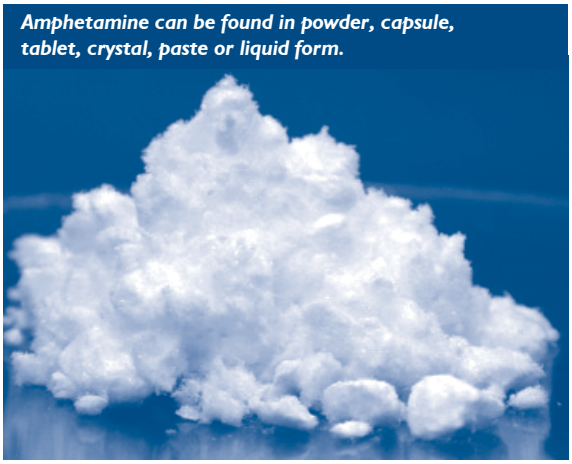
This paper provides a strategic assessment of the illicit amphetamine problem in Queensland, based on an analysis of a diverse range of sources including information from law enforcement, government, industry and members of the community.

The main purpose of this assessment is to inform the community about trends in the market for and supply of amphetamine in Queensland. We:

1. **describe the extent of the amphetamine problem in Queensland**
2. **explain some of the characteristics of Queensland's amphetamine market, including how the market is supplied**
3. **highlight some of the emerging responses to the amphetamine problem**
4. **predict future trends in the supply and use of amphetamine and discuss some of the challenges to law enforcement and the broader community**
5. **summarise the key findings of our assessment.**

WHAT IS AMPHETAMINE?

Amphetamine is a powerful stimulant that acts on the central nervous system causing a person to be more active and alert. The term refers to a range of amphetamine-based substances including amphetamine and methylamphetamine, but excluding amphetamine analogues such as MDMA (ecstasy). Throughout this bulletin, the term 'amphetamine' refers to illicit amphetamine and includes 'methylamphetamine'.



Amphetamine can be found in powder, capsule, tablet, crystal, paste or liquid form.

1. EXTENT OF THE PROBLEM

Determining the extent and impact of the amphetamine problem in Queensland is a complex task. To simplify it, we have used the following indicators:

- **the number of amphetamine-related arrests**
- **the quantity of amphetamine seizures**
- **the number of clandestine-laboratory detections.**

We have also consulted useful data collected by various health and social welfare providers, such as statistics from needle-exchange programs and hospital admissions.[3]

Amphetamine-related arrests

Arrest statistics relating to amphetamine consumers (users) and providers (sellers) are a useful measure of Queensland's amphetamine problem. However, it is important to note that these statistics may be affected by law enforcement priorities, officer discretion, drug availability and changes in user preference.

According to the 2000–01 Australian Illicit Drug Report (AIDR), amphetamine is the second most prevalent illicit drug used in Queensland, after cannabis (ABCI 2001), a position confirmed by the 2001–02 AIDR (ACC 2003) and the 2001 National Drug Strategy Household Survey (AIHW 2002a).

Figure 1 shows a five-year trend in the number of arrests (shown as bars) and the rate of arrests per 100 000 of population (shown as lines) for amphetamine-related offences. The figure shows marked increases in the number and rate of amphetamine-related arrests between 1997–98 and 1999–2000. However, since then the trend has been relatively stable with slight decreases noted in both the number and rate of amphetamine-related arrests in Queensland since the apparent 'peak' in 1999–2000.

While Queensland statistics may show a levelling off of provider arrests from 2000–01 to 2001–02, Figure 2 shows that the rate of Australian amphetamine provider arrests has steadily increased over the past five years.

Other key points to note from Figure 2:

- Queensland's rate of amphetamine-related arrests (per 100 000 population) is consistently above the national rate.
- The five-year trend for amphetamine consumer arrests in Queensland almost mirrors the national trend, declining since 2000–01.
- The rate of amphetamine provider arrests in Queensland has declined noticeably since 1999–2000.

While Queensland continues to have some of the highest amphetamine-related consumer and provider arrests (per 100 000 population) in Australia, arrests of both consumers and providers appear to be on the decline. One possible explanation for this trend is that amphetamine use and supply could be decreasing in Queensland — but the information presented in this bulletin will show that this is unlikely.

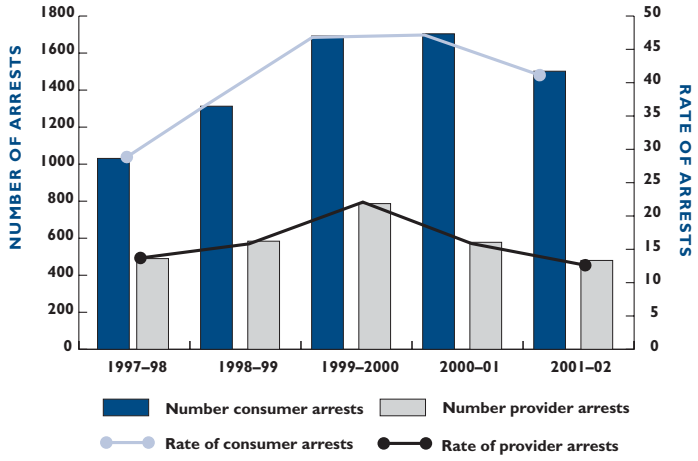
Intelligence reports suggest that supply is increasing and that enthusiasm for amphetamine has not waned.

Data sources

This assessment draws upon statistical information collected and published by other agencies such as the Australian Bureau of Criminal Intelligence (ABCI), now part of the Australian Crime Commission (ACC), the Australian Institute of Criminology (AIC), the Queensland Police Service (QPS) and other law enforcement agencies as well as Queensland Health Scientific Services (QHSS) and the Queensland Ambulance Service (QAS).[4] Statistical information from these sources has been collated and analysed to provide a more comprehensive picture of the trends in the Queensland amphetamine market, which makes it easier to compare it with other illicit drug markets. We also use information derived from intelligence reports.

The aim of this assessment is to give an overview of key amphetamine market indicators and trends.Therefore, rather than reproduce the full detail of each study examined, those readers who require more information should refer to the source publications listed at the end of this paper.

Figure 1. Number and rate of amphetamine provider and consumer arrests Queensland, 1997–98 to 2001–02

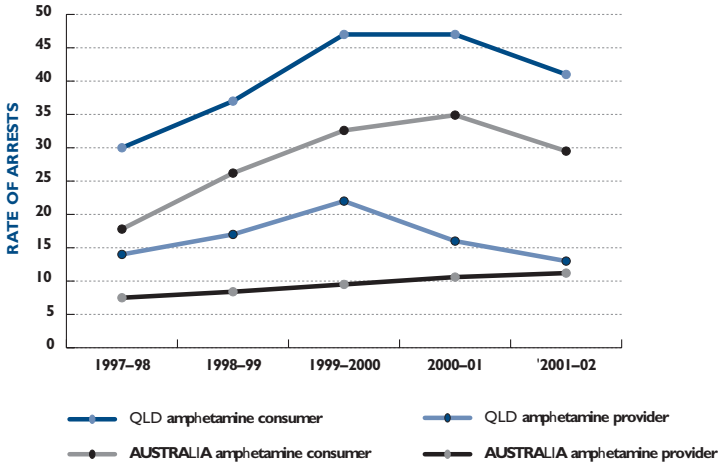


Source: QPS unpub. (preliminary data should be considered an estimate only).

Notes:

1 Rate ^ is represented by the number of reported arrests per 100 000 resident population.
2 Drug data take up to one year to be entered on the QPS system.
3 Arrests include all actions taken against an offender by police (i.e. cautions, notices to appear and attend, summons, warrants issued, community conference and other).

Figure 2. Rate of amphetamine provider and consumer arrests, Queensland and Australia, 1997–98 to 2001–02



Source: QPS unpub.; ABCI 1998–2002; ACC 2003 (preliminary data should be considered an estimate only); ABS 2001, 2000.

Notes:

1 An 'arrest' includes all actions taken against an offender by police (i.e. cautions, notices to appear and attend, summons, warrants issued).

2 A 'consumer' is defined as an individual charged with user-type offences (e.g. possessing or administering drugs for their own use). A 'provider' is defined as a person charged with offences related to illicit drug-supplying (e.g. importation, trafficking, cultivation and manufacturing).

3 The population estimate used to calculate the 2001–02 rate was a 'projection of the population as at June 2002' (see ABS 2002).

4 Rate is represented as a proportion of reported arrests per 100 000 resident population.

5 Queensland data for the five-year period from 1997–98 to 2001–02 were produced using a 'revised' extraction program and are not comparable with previous data reported in the AIDR.

Frequently asked questions about amphetamine (speed)

What is amphetamine?

The term amphetamine refers to a range of synthetic drugs including amphetamine and methylamphetamine. Throughout the 1990s, the proportion of amphetamine-type substances seized that were methylamphetamine steadily increased until methylamphetamine clearly dominated the market (ABCI 2001). Methylamphetamine releases high levels of the neurotransmitter dopamine, which stimulates brain cells, enhancing mood and body movements (NARCONON 2002).

What does it look like?

Amphetamine/methylamphetamine, or 'speed' as it is commonly known, can be found in powder, capsule, tablet, crystal, paste or liquid form (NDARC 2001).

What are its effects?

As its common name (speed) suggests, amphetamine is a strong stimulant. Chemically, amphetamine and methylamphetamine are closely related. Both act indirectly by stimulating the release of peripheral and central monoamines (principally dopamine, noradrenalin, adrenaline and serotonin), and both have psychomotor, cardiovascular, anorexigenic and hyperthermic properties (Seiden, Lewis, Sabol & Ricaurte 1993). Compared to amphetamine, methylamphetamine has proportionally greater central stimulatory effects than peripheral circulatory actions (Chester 1993), and is a more potent form with stronger subjective effects (NDARC 2001).

How is it used?

Amphetamine in Queensland is generally produced as a powder that is dissolved and injected, smoked, or taken orally. Methylamphetamine is most frequently seen as a white, odourless, bitter-tasting crystalline powder that easily dissolves in water or alcohol. The powder form of the drug may be snorted, swallowed, or diluted and injected. The 'crystal' form of the drug tends to be smoked in a glass pipe similar to crack cocaine.

How long do its effects last?

Immediately after smoking, snorting, or injecting amphetamine, the user experiences an intense 'rush' of excitement and pleasure. The rush lasts between 15 and 30 minutes. The other effects tend to last from 6 to 12 hours. During these hours, the user generally feels nervous and agitated. As the high begins to wear off, the user enters a stage called 'tweaking'. Tweakers experience delusions, compulsive behaviour, paranoia and a tendency to violence. Some users may try to avoid the 'crash' at the end of a high by continuing to use the drug until they run out of money or collapse. A binge-and-crash cycle like this is called a 'run' (EROWID 2002). Such a 'run' could last 36 to 48 hours.

What harms are caused by its abuse?

Users of large amounts of amphetamine over a long period can develop an amphetamine psychosis, which is a mental disorder similar to paranoid schizophrenia. The psychosis is manifested by hallucinations, delusions and paranoia. Bizarre, sometimes violent, behaviour is exhibited by those with amphetamine psychosis (EROWID 2002). Methylamphetamine increases the heart rate, blood pressure, body temperature and rate of breathing and frequently results in violent behaviour in users (DEA 2002). Animal research going back more than 20 years shows that high doses of methylamphetamine damage neuron cell endings (NARCONON 2002).

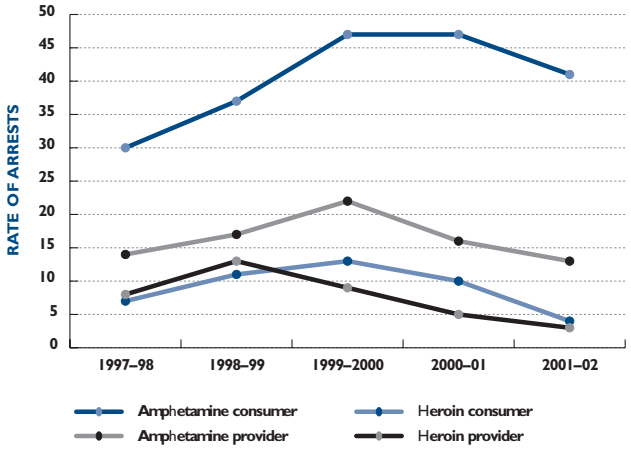
Comparison of amphetamine and heroin arrests

When amphetamine and heroin arrests are compared over the five-year period from 1997 (see Figure 3), the decline in the rate of heroin arrests per 100 000 population appears to coincide with an increase in the rate of amphetamine arrests. One explanation commonly reported for this trend is the 'heroin drought' experienced in Australia between 2000 and 2002.[5] Exponents of this explanation contend that as a result of the 'drought' some heroin users experimented with amphetamine, thereby increasing the number of amphetamine arrest targets.

The counter view, supported by official statistics and intelligence reports, is that the overall rate of amphetamine arrests has continued to be much larger than the rate of heroin arrests since at least 1997–98. In other words, the increase in amphetamine-related arrests is unlikely to be simply a result of a depressed heroin market, but rather the heroin drought exacerbated an already established upwards trend in the use of amphetamines. For example, there were approximately three times more arrests for amphetamine than there were for heroin in 1997–98 and the most recent data indicate that, although the rate of amphetamine- and heroin-related arrests in Queensland has steadily declined since 1999–2000, there were eight times the number of arrests for amphetamine-related offences than for heroin during 2001–02.

The CMC assesses that the heroin drought was not the principal cause of the escalation of the amphetamine market in Queensland. The market's expansion is believed to be a result of a longer-term trend and not an identifiable wholesale switch.

Figure 3. Rate of amphetamine and heroin arrests by consumer and provider, Queensland, 1997–98 to 2001–02



Source: QPS unpub.; ABCI 1998–2002; ACC 2003 (preliminary data should be considered an estimate only); ABS 2001, 2000.

Notes:

1 An 'arrest' includes all actions taken against an offender by police (i.e. cautions, notices to appear and attend, summons, warrants issued).

2 A 'consumer' is defined as an individual charged with user-type offences (e.g. possessing or administering drugs for their own use). A 'provider' is defined as a person charged with offences related to supplying illicit drugs (e.g. importation, trafficking, cultivation and manufacturing).

3 The population estimate used to calculate the 2001–02 rate was a 'projection of the population as at June 2002' (see ABS 2002).

4 Rate is represented as a proportion of reported arrests per 100,000 resident population.

5 Queensland data for the five-year period from 1997–98 to 2001–02 were produced using a 'revised' extraction program and are not comparable with previous data reported in the AIDR.

Amphetamine seizures

Number of seizures

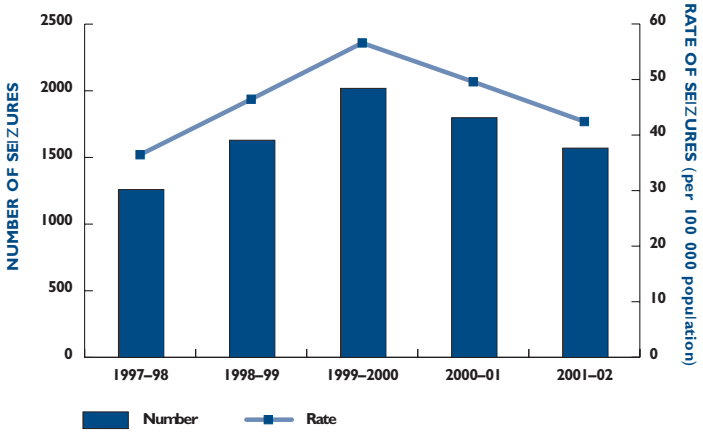
The seizure of amphetamine has largely replicated the arrest data with a peak occurring in 1999–2000. Since then, both the number and rate (per 100 000 population) of amphetamine seizures have fallen. For example, during 2001–02, police recorded details of 1570 amphetamine seizures in Queensland, which is only slightly higher than the number and rate reported five years earlier — see Figure 4 (QPS unpub.).

Quantity of seizures

Accurately determining total amounts of amphetamine seized by police is difficult as often small drug seizures are not measured, and not all seizures are chemically analysed to determine the exact type of drug or the level of purity.

Another problem with amphetamine is that statistics collected and reported by different agencies cannot be readily compared because of the use of inconsistent terminology. For example, some agencies report seizures of amphetamine and methylamphetamine, while other agencies report seizures of

Figure 4. Number and rate of amphetamine seizures, Queensland, 1997–98 to 2001–02



Source: QPS unpub. (preliminary data should be considered an estimate only).

amphetamine-type stimulants — a term that itself may include seizures of MDMA (ecstasy), which is treated by the CMC as a distinct crime market. Despite this, each year the ACC publishes data about the quantity of drugs seized by police in Australia. Considered in the light of the above limitations, these data provide a useful picture of the volume of amphetamine being seized by police in each State.

Queensland

As well as there being a decline in the number of amphetamine arrests and seizures in Queensland, the quantity of amphetamine being seized by Queensland police has decreased since our assessment in 2000. For example, the QPS reportedly seized 15.567 kilograms in 2000–01 and 9.367 kilograms in 2001–02. This decline came about despite an increase in the actual detection of clandestine labs in Queensland. (The increase in detection of these labs is discussed in greater detail later in this bulletin.) This apparent contradiction is explained to a large extent by the fact that 82 per cent of the detected labs were inactive at the time of detection (ABCI 2002; ACC 2003).

The CMC does not believe that the recorded decrease in arrests and in the quantities of amphetamine seized means that the amphetamine problem is diminishing — because the data measure law enforcement activity and success, not the dynamics and dominance of the amphetamine market in Queensland.

Australia

There were significant seizures by the Australian Customs Service (ACS) and the Australian Federal Police (AFP) during this period, including seizures that occurred in Queensland. For example, in July 2001 the ACS detected 168.5 kilograms of methylamphetamine, 152.2 kilograms of crystalline methylamphetamine and 90.7 kilograms of mixed amphetamine-type stimulant tablets on a yacht at Mooloolaba, Queensland (ACC 2003). Law enforcement believes that these drugs were destined in the first instance for southern markets.

Table 1. Average purity of drug samples provided to QHSS for analysis, Queensland, 1998–99 to 2001–02

Drug	Purity %			
	1998–99	1999–2000	2000–01	2001–02
Methylamphetamine	12.1	24.8	29.7	22.1
MDMA	24.8	27.3	36.8	33.4
Heroin	65.0	49.0	37.5	36.4
Cocaine	51.0	28.4	61.5	68.4

Source: QHSS 2002.

As well, it was reported by the ACC (2003) that during 2001–02 a total of 607.5 kilograms of amphetamine-type stimulants were seized across Australia, up from 229 kilograms in 2000–01. This figure includes record amounts of methylamphetamine being seized by the ACS — 324.1 kilograms (ACC 2003, pp. 53, 60).

Quality of seizures

Methylamphetamine in its purest form is an oil and, like many other oils, is not water soluble, making it difficult for the body to ingest. To convert the methylamphetamine oil to a substance that can be readily absorbed by the body, the oil is 'salted out', turning the final product to (generally) methylamphetamine hydrochloride. This methyl-amphetamine hydrochloride in its purest form is about 80 per cent pure. The pure drug is then cut with substances like icing sugar and Epsom salts to reduce the purity and increase the volume of the powder available for sale (QHSS 2002).

As shown in Table 1, the purity of street-level amphetamine seizures has risen steadily in recent years. At the same time, the purity of heroin has plunged. When the purity data of other drugs is analysed for the years 1998–99 to 2001–02, there is a discernable trend towards a higher purity product in all cases except heroin (QHSS 2002).

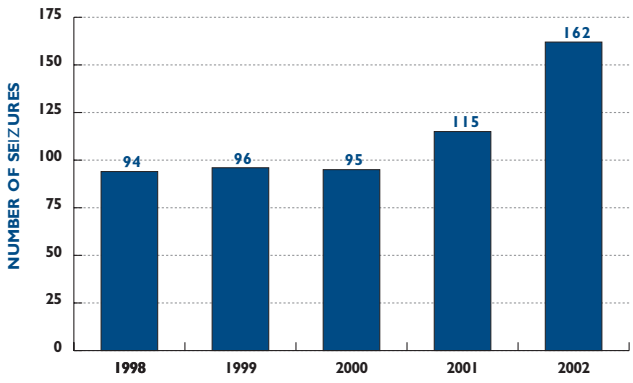
Clandestine-lab detections

Over the last 10 years, Queensland has experienced a sharp rise in the detection of clandestine amphetamine labs. In 1994, 12 labs were detected by police. Most of these were large, professionally established, and able to produce high yields, hence their detection would have been a significant loss to organisers and financiers. In contrast, 162 clandestine labs were detected by police in 2002. These labs tended to be smaller and more portable (QPS unpub.)

Figure 5 shows a five-year trend in the number of amphetamine labs seized or detected by police in Queensland.

The move to portable amphetamine labs in the late 1990s and early 2000s has hindered the detection of

Figure 5. Number of amphetamine laboratory detections, Queensland, 1998 to 2002



Source: QPS unpub.

active labs. These labs provide all the equipment needed for methylamphetamine production in a box that can be placed into the boot of a car. Although small, these labs are capable of rapidly producing reasonable quantities of methylamphetamine and can be set up anywhere in the State.

In recent years, detection of clandestine amphetamine labs has been concentrated in the south-eastern corner of Queensland — with almost 80 per cent of all detected labs located between the Gold Coast and Sunshine Coast.[6] The success in detecting these labs has not, however, resulted in significant seizures of amphetamine, as many of the labs have been inactive at the time of seizure (ACC 2003).

Although the trends presented here regarding arrests and seizures appear to be static or declining, data pertaining to the number of clandestine labs detected over the past two years show dramatic increases. These indicators suggest that while Queensland law enforcement has increased in effectiveness, particularly in detecting laboratories, the amphetamine market has continued to grow in size and complexity. Success toward one aspect of the amphetamine market has not so far affected other aspects of the market. The challenge for law enforcement is to develop strategies that result in more arrests and greater quantities of seized drugs.

Health issues

This section examines the physical and psychological health issues arising from the use of amphetamine.

Physical

One of the primary health concerns surrounding illicit drug use in Australia relates to intravenous drug use. The transmission of diseases (such as Hepatitis C and, to a lesser extent, HIV/AIDS) is more prevalent in intravenous drug users than in any other sector of the community. The Hepatitis C Council of Queensland reports that 80 per cent of all Hepatitis C infections were caused through the injecting of illicit drugs.[7]

In addition to the dangers of intravenous drug use, amphetamine intake in any form increases the heart rate, blood pressure, body temperature, wakefulness and breathing rate. This can cause irreversible damage to blood vessels in the brain, producing strokes. Other effects are respiratory problems, irregular heartbeat and extreme anorexia with abuse of amphetamine possibly resulting in cardiovascular collapse and death (NARCONON 2002).

A portable 'box' amphetamine lab.

Furthermore, methylamphetamine releases high levels of the neurotransmitters dopamine and noradrenaline, which stimulate brain cells, enhancing mood and body function. The neurotoxic effect may damage brain cells that contain dopamine and serotonin. Over time, methylamphetamine appears to reduce dopamine, which can result in symptoms like those of Parkinson's disease (NARCONON 2002). In animals, a single high dose of methylamphetamine has been shown to damage the nerve receptors in the brain.[8]

Preliminary data presented by the QAS to the Australian College of Ambulance Professionals revealed that between 1999 and 2001 there had been a 334 per cent rise in the number of call outs required for amphetamine-related incidents. In 1999, the QAS was called to attend 29 non-fatal amphetamine interventions. In 2000, this figure more than doubled to 80 and in 2001 attendances had risen to 97. The QAS advised that while these attendances were classified as overdoses, the figures were not representative of the extent of the amphetamine problem in Queensland.

Furthermore, while statistics for 2002 were not available, anecdotal information available to the QAS suggests that the upwards trend since 1999 is expected to continue.[9]

Psychological

The United States Drug Enforcement Agency (DEA) reports on its website that methylamphetamine is neurotoxic, meaning that it causes damage to the brain. High doses or chronic use have been associated with increased nervousness, irritability and paranoia. Withdrawal from high doses generally produces severe depression.

> Chronic abuse produces a psychosis similar to schizophrenia and is characterised by paranoia, picking at the skin, self-absorption and auditory and visual hallucinations. Violent and erratic behaviour is often seen in chronic, high-dose methylamphetamine abusers. (DEA 2002)

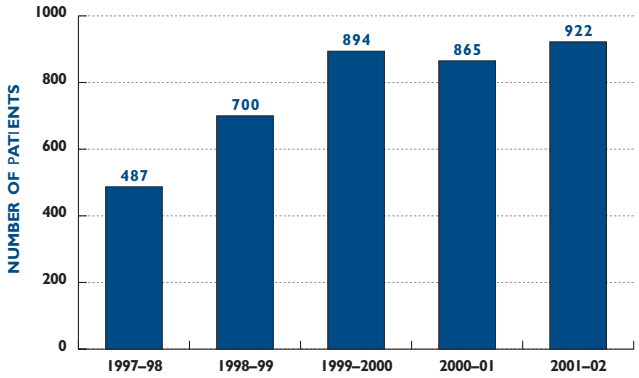
The psychoactive properties of amphetamine can affect the behaviour of the user. Changes in mood, personality and the development of mental disorders are general effects that may follow abuse. The effects of amphetamine on a person's mental state not only occur during intoxication but also afterwards during withdrawal and craving. In studies conducted in the early 1970s, Griffith, Cavanagh, Held and Oates noted that most amphetamine users became psychotic within a week after continuous administration of amphetamine (Griffith et al. 1972). The main characteristics of this psychosis are delusions of persecution, delusion of reference, and auditory and visual hallucination (DEA 2002).

A research study conducted at the University of Queensland and Griffith University to assess the relationship between amphetamine use and mental health collected data from a sample of 252 drug users recruited from an inner city needle exchange. Preliminary analysis of the data collected so far has found that the average age of regular amphetamine use is 21 years. When questioned in relation to mental health, 81 of the respondents (32.1%) reported experiencing a psychotic episode and 50 respondents (19.8%) had been admitted to a psychiatric hospital (Dawe, Saunders, Kevanagh & Young 2002, in press). The study found a significant relationship between the number of days of amphetamine use in the last 30 days and current psychotic symptoms. Specifically, higher use was associated with symptoms of thought disorder, hallucinations and cognitive disorganisation.

Figure 6 shows a five-year trend in the number of treated patients diagnosed with an amphetamine-based disorder. The data reveal that in 2002 there were over 900 patients presenting to the Royal Brisbane Hospital's (RBH) acute psychiatric assessment unit with amphetamine-related diagnoses — an average of 2.5 patients per day. As Figure 6 illustrates, the number of persons being treated at the RBH mental health unit for amphetamine-based disorders has been steadily increasing since 1997–98.

A SPECT (Single Photon Emission Computerized Tomography) analysis of the human brain 'looks directly at cerebral blood flow and indirectly at brain activity (or metabolism)'. By using SPECT analysis, physicians have been able to identify certain patterns of brain activity that may correlate with psychiatric and neurological illnesses. In Figure 7, the left-hand image reflects normal brain functioning while the right-hand image is that of a 28-year old amphetamine user.[10]

Figure 6. Number of treated patients with amphetamine-based diagnoses, Queensland, 1997–98 to 2001–02



Source: Provided by Queensland Health, December 2002..

Note: Amphetamine diagnosis due to drug use/abuse, poisoning and overdoses. The diagnosis code includes other stimulants, such as caffeine. Amphetamine cannot be separated out through ICD codes alone.

These images clearly show that consequences of methylamphetamine use appear as multiple small holes across the cortical surface. These changes in brain activity show 'dead spots' where the amphetamine abuse has altered brain structures.

Amphetamine withdrawal

In 1999, a study was conducted into amphetamine withdrawal by the American Psychiatric Association (APA). The study found that the symptoms of amphetamine withdrawal differ from those of opiate withdrawal and are more closely associated with cocaine withdrawal, although the duration of the symptoms tends to be far longer for amphetamine than for cocaine (APA 2000). A separate study also identified that amphetamine withdrawal may comprise three factors:

1 the *hyperarousal* factor: drug craving, agitation and vivid or unpleasant dreams
2 the *reversed vegetative* factor: decreased energy, increased appetite and craving for sleep
3 the *anxiety* factor: loss of interest or pleasure, anxiety and slowing of movement (Srisurapanont, Jarusuraisin & Kittirattanapaiboon 2003).

Figure 7. Images of brain activity: normal activity and 28-year-old amphetamine user

Normal brain activity image

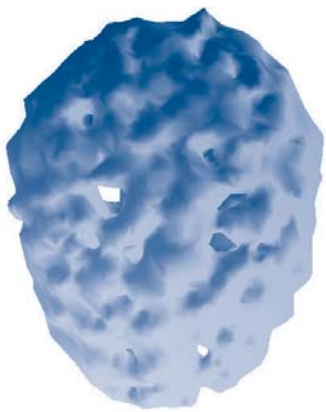


Image of brain activity of a 28-year-old amphetamine user

These factors have both physical and psychological effects upon the health of the amphetamine user.

Aside from the initial, often pleasant, effects experienced by users, the literature and front-line professionals all emphasise the harms observed, the underestimation of the extent of the problem and the number of individuals subject to these negative consequences. The harm inflicted by amphetamine markets is undeniable — a situation that poses very specific challenges for health professionals and law enforcement.

2. MARKET CHARACTERISTICS

The CMC views amphetamine, like other illicit drugs, as a 'commodity' (i.e. a good or service), which is sold or traded by a range of individual or organised criminal enterprises in an effort to service a particular type of illicit market. Like all 'markets', the illicit amphetamine market must be considered in terms of demand and supply.

Demand

To accurately assess current and future trends in the amphetamine market, it is necessary to understand what factors influence demand. The characteristics of 'demand' examined here are:

- the type of people attracted to amphetamine
- the number and proportion of the population using amphetamine
- the age and gender of those users
- the drug's social acceptability
- its popularity compared to other drugs
- the pattern of consumption (i.e. when the drug is used)
- the preferred method of administration
- any tendency to polydrug use
- the price and purity of the drug on the illicit market in Queensland.

User types

Amphetamine use is not restricted to any particular cultural, occupational or social group. It has long been used by people required to work or concentrate for long periods — for example, transport drivers and process workers (BCIQ 2002). Moreover, workers in industries such as construction, farming and entertainment, as well as persons employed in stressful occupations, have been noted as users of amphetamine (QCC 2000; CMC intelligence holdings 2002). Additionally, amphetamine is known to be used in recreational settings, for instance in nightclubs (CMC intelligence holdings 1990–2003).

While no particular ethnic or Indigenous group is predominantly identified as particular participants in amphetamine markets, intelligence reports since 1999 have suggested that Aboriginals and Torres Strait Islanders are increasingly using amphetamine, both orally with alcohol and via injection (BCC 1999; BCIQ 2002).

Number of users

Amphetamine remains the second most popular illicit drug (after cannabis) and the most commonly injected drug in Australia. Results from the National Drug Strategy Household Survey indicate that 8.9 per cent of the Australian population (1.4 million) over the age of 14 have used amphetamine at some time in their lives, which is several times higher than the proportion who have ever used cocaine (4.4%) or heroin (1.6%) (AIHW 2002a). The figure of 8.9 per cent for lifetime use of amphetamine has increased from 5.7 per cent in 1995 (AIHW 2002a). This substantial increase in reported lifetime amphetamine use across the survey periods is a key concern as it tends to reflect a broadening of the amphetamine user base in Queensland.

Table 2 shows that in terms of recent use, slightly less than 3 per cent of Queenslanders reported using amphetamine in the past 12 months, which is slightly less than the national average (AIHW 2002b). This compares with 1.7 per cent of Queenslanders who reported recent use of MDMA (ecstasy) or designer drugs and 0.2 per cent who reported recent use of heroin (AIHW 2002b).

Table 2. Recent illicit amphetamine use — proportion of the population aged 14 years and over, States and Territories, 2001

State/Territory	%
Northern Territory	6.3
Western Australia	5.8
Australian Capital Territory	4.5
South Australia	4.3
New South Wales	3.4
Queensland	2.9
Victoria	2.4
Tasmania	2.1
Australia	3.4

Source: AIHW 2002b.
Note: Use was for non-medical purposes.

Age and gender of users

In contrast to the Commission's earlier assessment, which concluded that amphetamine is attracting increasingly younger users (QCC 2000), data collected during the 2001 National Drug Strategy Household Survey found that the mean age of initiation (first use of amphetamine) in Queensland increased from 19.8 years in 1998 to 21.5 years in 2001 (AIHW 2000 and 2002c). However, when the results from the 1995 Survey are considered (initiation then 22.1 years), it would appear that the mean age of novice amphetamine use in Queensland has not changed dramatically since 1995.

In terms of the gender and age of active users, the CMC, in collaboration with Queensland Health, recently completed a major survey of amphetamine users at 17 sites throughout Queensland. The survey was undertaken by peer interviewers during October and November 2002. In total, 690 amphetamine users were interviewed about their personal experiences with the drug, including their general health, and their views on a range of issues, including sociocultural issues, the availability of the drug, the selling of amphetamine, its links with crime, injecting practices and knowledge, knowledge about blood-borne

viruses, and experiences of information and services relating to drug use. The survey found that well over half of the surveyed amphetamine users were male (55%).[11] In addition, most were young, aged between 19 and 30 years (see Table 3).

The results of the 2002 survey are expected to be published in a variety of reports and research issue papers during 2003.

Table 3. Age of amphetamine users, Queensland, 2002

Age	%
0–18	7.4
19–25	36.2
26–30	23.2
31–35	13.7
36–45	15.6
46 and over	3.8

Source: CMC–Queensland Health data (to be published).

Social acceptability

Based on findings from the National Drug Strategy Household Survey, the proportion of Queenslanders over 14 years who indicated that they found the use of amphetamine 'acceptable' has increased since 1995. However, as Table 4 shows, recent results from the 2001 Survey indicate that the social acceptability of amphetamine has declined since 1998.

Users may find amphetamine more socially acceptable because its use carries less stigma than many other drugs, such as heroin (QCC 2000). This perception may be due to social use (recreational/casual) of amphetamine, which can often involve oral or other non-injecting methods of consumption. As well, Kinner and Roche (2000) report a perception among some users that amphetamine is not addictive and, therefore, relatively harmless.

Table 4: Proportion of the population aged 14 years and over who found regular drug use by adults acceptable, by drug type and gender, Queensland and Australia, 1995, 1998 and 2001

Drug	1995 %		1998 %		2001 %	
	Qld	Aus	Qld	Aus	Qld	Aus
Amphetamine	1.6	2.1	3.2	3.1	2.2	3.2
Cocaine	1.2	1.7	2.3	2.4	1.3	2.2
Heroin	2.3	1.9	1.8	1.8	0.7	1.2

Source: AIHW 2000, 2002c.

Note: Comparability in rates from 1998 to 2001 has been affected through modification of survey question.

Drug preference

In 1998, Queenslanders who responded to the National Drug Strategy Household Survey ranked amphetamine sixth as the drug of first choice, behind alcohol, tobacco, cannabis, heroin, ecstasy and cocaine. As Table 5 shows, amphetamine retained its sixth place ranking in 2001, amidst a substantial shift away from heroin and the emergence of benzodiazepines as a drug of first choice among drug users.[12]

Table 5. Preferred drug of 'first' choice — proportion of the population aged 14 years and over by gender, drug type and ranking, Queensland, 1998 and 2001

1998 Ranking	Drug	2001 Ranking
1	Alcohol	1
2	Tobacco	2
3	Marijuana/cannabis	3
4	Heroin	7
5	MDMA	5
5*	Cocaine	8
6	Amphetamine	6
–**	Benzodiazepines	4

Source: AIHW 2000, 2002c.

Notes:

* MDMA and cocaine received equal rankings (0.2%)

** Benzodiazepines was not identified as a drug of first choice in 1998.

Consumption patterns

The Illicit Drug Reporting System (IDRS) primarily monitors the price, purity, availability and patterns of use of key illicit drugs by intravenous drug users in Australia. According to a recent IDRS report, almost all (85%) of Queenslanders who named amphetamine as their drug of first choice reported that they had used it at least once in the past six months.

The median number of days between each use of amphetamine was 50 days (NDARC 2001).

Table 6 shows the pattern of amphetamine use as reported by recent users participating in the National Drug Strategy Household Survey. The main points are:

- Over half of all of the Queensland amphetamine users surveyed said that they only used amphetamine once or twice a year.
- None of Queensland's female respondents said that they used amphetamine daily, while only 5 per cent of the male users said that they used the drug every day.
- The Survey found that some of the 'most frequent and regular' users of amphetamine are younger males aged 14 to 29 years, whereas infrequent use of amphetamine seems to be far more prevalent among older users.

Table 6. Frequency of illicit amphetamine use — recent users aged 14 years and over, by age, by gender, Queensland, 2001

Frequency	Age group				Gender	
	14–19	20–29	30–39	40+	Male	Female
	%				%	
Daily	7	–	5	–	5	–
One a week	7	8	–	–	5	6
About once a month	29	14	20	13	14	20
Every few months	29	22	5	–	18	16
Once or twice per year	29	53	70	50	55	51
Can't say or no answer	–	4	–	38	5	6

Source: AIHW 2002c.

Note: Use was for non-medical purposes.

The preferred method of administration

How a drug is taken or administered is often considered in any analysis of illicit drug markets because the preferred method of administration often indicates consumption trends among users, the form and type of drug in demand, and trends in polydrug use.

Studies relating to aspects of the amphetamine market in Queensland over the past decade suggest an upwards trend in levels of injecting. For example, a study conducted in 1992 reported that 75 per cent of recreational drug users (street intercept) had used amphetamine at least once. Of this number (581), only one-third had injected the drug, with the remainder taking amphetamine orally or intranasally (Spooner, Flaherty & Homel 1992).

In 2000, the Commission reported that injection was the most common method of consuming amphetamine and that amphetamine was the drug most commonly injected in Queensland (QCC 2000, p. 11). The CMC's recent survey of 690 current amphetamine users showed that over three-quarters (76.2%) of users had used amphetamine intravenously.[13]

Alternatively, statistical data collected by the Queensland Intravenous AIDS Association (QuIVAA) since March 2002 (albeit from a small and non-representative sample) has found that about 38 per cent of users attending the counter of the needle-exchange clinic in Brisbane reported that needles obtained through their visit were to be used to inject amphetamine (see Table 7). In comparison, 45 per cent of users stated the needles obtained would be used to inject heroin.

When examining the extent of amphetamine use by the method of administration, it is important to note that these data relate specifically to the number of presentations at a Brisbane needle-exchange counter and therefore do not adequately assess the oral or intranasal administration of amphetamine. It is far more difficult to complete a survey of recreational amphetamine users (who are more likely to use a means of administration other than injecting) than it is to survey injecting users. This is largely due to non-intravenous users being the least likely to present to a health service or come to the attention of law enforcement. Therefore, it is far more difficult to establish reliably the extent of non-injecting amphetamine use.

Surveys of amphetamine users inherently present a variety of methodological challenges; however, an amalgamation of the results of each study does allow a 'collage-type' picture of amphetamine use and markets to emerge.

The CMC assesses that the level of intravenous administration of amphetamine is increasing, but that the level of administration by other methods is also significant; further research is required to estimate the level of non-intravenous use more reliably.

Table 7. Self-reported use of needle/syringe by drug type and age of user, Brisbane, 2002

Drug type	Age group					Total
	<19	19–25	26–35	36–45	>45	
Amphetamine	155	793	1573	860	139	3520
Heroin	174	881	1722	1283	127	4187
Ecstasy/MDMA	–	4	17	5	–	26

Source: Provided by QuIVAA 2002.

Table 8: Price of amphetamine powders by type and perception of availability, Queensland, 2000 and 2001

	Amphetamine		Methylamphetamine	
	Qld 2000 n = 101	Qld 2001 n = 112	Qld 2000 n=101	Qld 2001 n = 112
Price ($) per gram	$262	$157	$80	$224
Availability (% commenting)				
Very easy	39	32	39	39
Easy	23	18	23	23
Difficult	5	5	5	9
Very difficult	0	0	1	1
Don't know	33	45	33	29

Source: NDARC 2001.

Polydrug use

Many agencies consulted spoke of a noticeable increase in polydrug use in Queensland. In particular, amphetamine users were identified as a prominent polydrug user group. Their polydrug use may constitute concurrent amphetamine use with alcohol, cannabis, heroin, ecstasy, ketamine, anti-depressants and tranquillisers (ABCI 2002; NDARC 2002). As well, benzodiazepines, traditionally used for treating psychiatric complaints, severe anxiety and sleeplessness, is being reported as being commonly used in combination with amphetamine (ABCI 2002 and ACC 2003).

Price

The price of methylamphetamine increased in Queensland from 2000 to 2001. For example, data collected from intravenous drug users in Queensland as part of the IDRS suggest that the price per gram of methylamphetamine has increased 180 per cent — from $80 per gram in 2000 to $224 in 2001. In contrast, survey respondents reported that the price of amphetamine declined from $262 per gram in 2000 to $157 in 2001 (see Table 8).

In Queensland, most amphetamine is sold in 'points' (equal to 0.06–0.1 grams).[14] In 2003, QuIVAA estimated that the cost of a point of methylamphetamine was about $50.[15]

Table 8 shows that 60 per cent of respondents reported that it was either easy or very easy to obtain amphetamine in Queensland. Relatively few of the users surveyed as part of the IDRS said that it was difficult to 'score' amphetamine and virtually none of the respondents reported that it was 'very' difficult to obtain the drug.

Purity

As highlighted in Table 1 (page 5), chemical analyses of seized street-level amphetamine reveal that the purity of amphetamine has risen substantially in recent years. For example, in 1998–99 methyl-amphetamine samples analysed by QHSS were found to be about 12 per cent pure. However, by 2001–02, the purity of the average methyl-amphetamine sample had almost doubled to around 22 per cent.

There are at least three contributing factors to the increase in the purity of amphetamine on the Queensland market:

1 Producers of amphetamine have responded to the market demand for a higher-quality product. This response is possible through the presence of experienced 'cooks' who are able through increasing professionalism and expertise to produce a better quality product.
2 Improved law enforcement practices have resulted in the recovery of more pure forms of amphetamine — which are subsequently tested.
3 There may be a glut or over-supply of amphetamine on the market, resulting in producers and suppliers not needing to drastically 'cut' the drug to increase quantities and satisfy demand.

The actual reason for increasing levels of purity in Queensland samples of amphetamine or methylamphetamine is likely to be a combination of these factors. However, as Queensland purity levels have been reported to be generally higher than other Australian States and Territories, an analysis of the factors at play elsewhere may be able to provide greater clarity as to the reasons for the situation here.

Supply

This section examines aspects of the supply side of the amphetamine market. The discussion focuses on some of the key sources of illicit amphetamine including methods of manufacture, networks involved in supply and distribution, and the links between amphetamine and other crime markets.

Source of amphetamine

As Table 9 shows, friends or acquaintances are overwhelmingly the main sources of supply to amphetamine users. In terms of first-time supply, 84.4 per cent of persons aged 14 and over received the drug from friends or acquaintances. Recent supply (within the last 12 months) of amphetamine was from friends or acquaintances (78.5%), street dealers (10.4%), relatives (6.1%), spouse or partner (2.7%) and other (2.2%) (AIHW 2002a).

Law enforcement intelligence sources continue to indicate that distribution points for amphetamine include nightclubs, cabarets and dance parties, and general street distribution. The large number of users results in amphetamine being readily available through expansive networks.

Manufacture

The supply of amphetamine in Queensland can be likened in many respects to a 'cottage industry' — that is, markets are generally categorised by many relatively small and diverse suppliers collectively producing a significant quantity of product.

Most amphetamine available in Queensland is manufactured in portable 'box labs' (see page 6), using pseudoephedrine as a precursor. Laboratories detected in Queensland in recent years have mainly used the hypophosphorous method of amphetamine manufacture. However, other more complex methods are known to have been used here, particularly before the mid-1990s.

The manufacture of amphetamine requires the use of two main classes of chemicals: precursors/reagents and solvents. Pseudoephedrine-containing products are the primary precursor required to produce methylamphetamine.

Pseudoephedrine is a chemical compound used (legitimately) extensively in pharmaceutical products designed to treat cold and flu symptoms. The manufacture of methylamphetamine using the most commonly encountered methods requires the extraction of the pseudoephedrine from the pharmaceutical product and the subsequent synthesis of the pseudoephedrine to methylamphetamine.[16]

A reagent is primarily used to facilitate this chemical reaction. Some of the reagents used are hypophosphorous acid, hydrochloric acid, hydriodic acid, iodine and red phosphorous. The diversion of some of these chemicals for illicit drug manufacture is subject to a number of controls ranging from international conventions to an individual company's procedures.

The Commission's research of open-source media indicates that substantial amounts of information are available to the general public regarding the production of amphetamine, the synthesis of

Table 9. Source of first and recent illicit amphetamine — recent users aged 14 years and over, by gender, Queensland, 2001

Source	First use %	Recent use %
Friend/acquaintance	84.4	78.5
Relative	4.2	6.1
Spouse or partner	2.7	2.7
Dealer	4.2	10.4
Other	4.5	2.2

Source: AIHW 2002c.

Note: Use was for non-medical purposes.

precursors, necessary equipment and acquisition methods. Several Internet news-groups specifically focusing upon the manufacture of amphetamine have been established. These groups act similarly to a bulletin board, where users may post information for the use of those subscribed to the group. Information contained on these news-groups include recipe locations, how to acquire precursors and answering specific questions about the synthesis for various amphetamine.

Importation

In November 2000, the Commission noted that 'the possibility of large-scale importation of amphetamine with high purity levels is a worst case scenario for law enforcement agencies in Australia' (QCC 2000, p. 13). Since then, importations of both amphetamine and precursor chemicals have been detected by law enforcement agencies in Australia, suggesting the market is evolving in this direction.

Although there does not appear to be any shortage of amphetamine from 'domestic' sources, criminal networks from several South-East Asian countries are known to be exporting more potent forms of amphetamine (predominantly 'ice' and 'ya ba') and precursor chemicals to Australia. In the main, these include several countries with well-established heroin distribution networks, such as China, Thailand, Vietnam, Philippines, Laos and Myanmar (i.e. Burma).

During 2000–01, the ACS detected a total of 86.5 kilograms of illicit amphetamine at Australian borders (ABCI 2002). Although the total number of detections of amphetamine by the ACS actually fell during that period (from 60 in 2000 to 49 in 2001), the weight of the average seizure rose from 358 grams to 1.7 kilograms (ABCI 2002). During 2001–02, 428.3 kilograms of amphetamine were detected at their point of arrival into Australia. However, it should be noted that 411.4 kilograms, or 96 per cent of the total weight seized by the ACS and police in 2001–02, was the result of a single confiscation in South-East Queensland (ACC 2003).

The number of detections increased significantly during the period from 49 to 203, with the average weight increasing to 2.1 kilograms — again largely due to the one significant seizure (ACC 2003).

The most commonly detected method of importing amphetamine into Australia was via 'post' (80% in 2001–02). Only about 8 per cent of all amphetamine importations detected by the ACS were via 'air cargo' (ACC 2003). Of 203 detections made by the ACS at the border, less than 10 per cent occurred in Queensland. But, as noted above, the detections in Queensland accounted for more than 96 per cent of the total weight of all of the amphetamine detected by the ACS in 2001–02 (ACC 2003).

In 2001–02, the ACS reported detecting 1628 attempted importations of chemicals used in the manufacture of amphetamine-type stimulants (i.e. precursors, such as pseudoephedrine or ephedrine). The United States was the main embarkation point for most of these detections (71%), followed by Canada, the United Kingdom and China (ACC 2003). However, some of these chemicals were not intended for the manufacture of illicit amphetamine, but rather were intended for use in health and fitness and weight loss products or as cold and flu preparations. The most common method of importing precursor chemicals into Australia was also via mail (ACC 2003).

The trend towards increased importation of amphetamine, particularly crystal methylamphetamine, and precursors is a concern for a number of reasons. A continuation of the trend could herald a steady supply of higher-purity amphetamine to markets where demand is high. It is likely, given the source and transhipment countries for the imported amphetamine, that the ACS will see dual shipments of heroin and amphetamine at the borders, and local law enforcement will see a far greater role being played on the supply side of the market by South-East Asian organised crime networks.

Links between crime markets

Because amphetamine users tend to consume a variety of illicit drugs, they are often represented in other illicit drug markets, such as the heroin, benzodiazepines and ecstasy markets (QCC 2001). Amphetamine producers also commonly have criminal histories involving the cultivation and/or distribution of cannabis.[17]

Interestingly, over 16 per cent of ecstasy tablets analysed in Queensland in 2000–01 contained additives, including amphetamine and methylamphetamine, with amphetamine tablets often being disguised and sold as ecstasy in Queensland. This practice is believed to occur in order to take advantage of the growing market for designer drugs (QCC 2001).

Based on recent intelligence reports, the Commission believes that the need for large quantities of pseudoephedrine and like precursors has caused some amphetamine networks to attempt illicit importations of precursor chemicals in bulk or to steal precursors from chemical companies and pharmacies. However, individuals and networks making coordinated purchases of pseudoephedrine-based products on behalf of amphetamine 'cooks' now risk being prosecuted under Queensland legislation, which makes it an offence to be in possession of a precursor with the intention of manufacturing or producing a prohibited drug.

Criminal networks that feature in the amphetamine market are also often involved in a range of other (non-drug) crime markets. Recent law enforcement operations against amphetamine networks have seen offenders also charged with the theft and re-identification of motor vehicles, and with firearms and property crime offences.[18] It is believed some amphetamine producers accept payment by swapping amphetamine or precursors for stolen goods.[19] Intelligence reports indicate that links exist between amphetamine networks and some owners of licensed premises suspected or known to be selling amphetamine (particularly in regional centres). In

some cases, the relationship between members of the amphetamine network and licensees also extends to illegal prostitution and other criminal activities.[20]

In all illicit drug markets there is an inevitable close relationship between amphetamine networks and money laundering. As part of the previous amphetamine market assessment in 2000, the Commission estimated the amphetamine market to be worth around $400 million per annum. In 2003, using the same formula, the Commission estimates the amphetamine market in Queensland is now worth about $450 million per annum.[21]

Networks and organisations

In 2000, the Commission's assessment of networks and organisations involved in amphetamine markets indicated that persons implicated in the manufacture and distribution of amphetamine were of diverse ethnic and criminal backgrounds (QCC 2000). In 2003, this assessment remains valid. In fact, the diversity of networks has widened substantially and now is believed to encompass criminal networks not previously linked to the amphetamine market.[22]

Most Australian jurisdictions, other than Victoria and Queensland, report that outlaw motorcycle gangs (OMCGs) continue to play a dominant role in methylamphetamine manufacture and distribution (ABCI 2002 and ACC 2003). The position in Queensland is less clear cut. OMCGs, as distinct and cohesive units, do not appear to be involved in drug manufacture or distribution here, but rather individual OMCG members are part of networks that are involved in such activity.

The Commission is unaware of any case in Queensland in which the entire membership of an OMCG has been implicated in drug-related crime. Conversely, there are many cases of OMCG members colluding with criminals who are not members of an OMCG.[23] The CMC is aware of cases in which members of the same chapter of an OMCG were involved in different criminal networks producing amphetamine for the same market. In fact, the members were technically (and apparently amiably) competing against each other to supply the market.[24]

Intelligence reports suggest another significant factor is that Queensland OMCGs do not appear to exhibit the domination, expertise and sophistication that their interstate counterparts do, particularly in relation to the amphetamine market. However, in some smaller regional Queensland centres OMCGs do exert considerable market control.

The amphetamine production capability of the more sophisticated OMCGs in southern States has not been approached by any OMCG in Queensland. Reasons for this are not fully known and warrant closer scrutiny. It is possible that the situation is a function of the geographic spread of OMCGs along Queensland's eastern seaboard and in the major regional centres and the consequent reduction in direct competition and confrontation between OMCGs in Queensland.

Equally, OMCGs outside Queensland may have evolved to another level in an effort to combat the more effective powers that are available to law enforcement agencies in other jurisdictions. It is also possible that the nature of the Queensland amphetamine market, with its diversity, high demand and domination by simple manufacturing processes, has influenced the shape of local OMCG activity. Regardless of the reasons, there are equally many local criminal networks involved in the manufacture and distribution of amphetamine, at varying levels of sophistication, as those involving OMCG members.[25]

The local networks are significant both in number and their level of influence in several key regional markets. The major amphetamine markets in South-East Queensland, particularly Brisbane and the Gold Coast, attract myriad suppliers, creating a situation where no group is dominant. Most street-level dealers have more than one supplier to guard against temporary shortages of product, and appear to move freely between suppliers (without retribution) as quality of product varies.[26] Networks frequently extend interstate, with precursors and amphetamine being transported between jurisdictions. Networks are also responsible for coordinated purchases of pseudoephedrine-based products from chemists throughout the State, while in several recent cases chemists have been detected consciously participating in criminal networks.[27]

The CMC is aware of two recent examples of Queensland criminals conspiring with interstate and overseas criminals in an attempt to import precursors into Queensland from Europe and North America respectively — in both cases OMCG members were involved in the networks but did not play a central role in the attempted importations.[28] A number of South-East Asian organised crime groups, previously content with heroin distribution, are now involved in the supply of amphetamine in South-East Queensland. Workers in several key industries are also being noted by Queensland law enforcement agencies as regular amphetamine suppliers and users.[29]

As noted previously, there appears to be little conflict, and in many cases even cooperation, between the respective amphetamine supply networks, suggesting the market is sufficiently large and profitable to sustain a large number of independent suppliers. There is also considerable variability of membership within and between the networks. In North Queensland, criminal identities appear to move regularly between cities and towns and may be involved in networks in various places.

Intelligence reports also suggest that among a growing number of individuals who are able to manufacture amphetamine, there are an increasing number of recidivist amphetamine 'cooks'. A number of individuals in Queensland have been apprehended for amphetamine production up to ten times — only to return to 'cooking' upon release from prison or while on bail. Recidivist cooks continue to pose problems for law enforcement. In a dynamic market, the arrest of one cook or distributor does little to disrupt market supply.

Related crime

The AIC's Drug Use Monitoring in Australia (DUMA) Program was introduced in 1999 in part to provide a database that would permit analysis of links between drugs and crime. In 2001, the DUMA Southport Watchhouse Project indicated that, of the sampled males who tested positive for amphetamine, 45.5 per cent were detained for traffic offences, 34.1 per cent for property offences, 31.4 per cent for breaches, 26.7 per cent for violent offences, 23.5 per cent for drug offences, and 14.3 per cent for drink-driving. During 2002, the sampled males who tested positive for amphetamine were detained for drug offences (61.5%), property offences (33.0%), breaches (28.3%), violent offences (21.8%), traffic and disorder offences (17.7% respectively) and drink-driving (13.3%). For both male and female offenders, there was an increasing trend from 1999 to 2002 of detained persons testing positive for ampheta-mine (AIC 2002 and 2003).

The DUMA Program was extended to the Brisbane City Watchhouse for the first time in 2002. At the watchhouse, 26.2 per cent of detained males and 38.8 per cent of detained females tested positive for amphetamine — in both cases a higher percentage than for any other illicit drug except cannabis. The sampled males who tested positive for amphetamine were detained for drug offences (39.1%), property offences (30.1%), breaches (29.3%), disorder offences (21.7%), traffic offences (20.5%), violent offences (19.9%) and drink-driving (11.8%). Data from both Queensland sites add weight to anecdotal reports linking amphetamine use to a range of criminal offending.

In 2002, the former ABCI reported that law enforcement officers continued to express concern at encountering violent persons suffering the effects of amphetamine use — particularly higher-purity forms of methylamphetamine (ACC 2003). Similarly, health agencies have recognised that amphetamine abuse affects the behaviour of the user and can induce amphetamine psychosis, which is characterised by paranoid delusions, hallucinations and aggressive or violent behaviour.[30] While health data reflect significant increases in hospital admissions for amphetamine psychosis, these admissions most likely understate the actual number of people experi-encing harmful consequences of amphetamine use.[31]

As well as conventional types of offending more commonly associated with drug markets, potential offences arising from the environment hazards created by amphetamine 'cooks' who dump the by-products of amphetamine production are of concern to law enforcement and health agencies. The amphetamine manufacturing process generates large quantities of highly toxic, flammable and potentially explosive material. When these substances are buried or dumped illegally, a serious environ-mental threat is posed. The dangers associated with these types of practices warrant further attention (ACC 2003).

3. EMERGING RESPONSES

As amphetamine abuse becomes more prevalent across Australia, law enforcement, government, and health agencies, along with the chemical and pharmaceutical industries, are working together in an effort to minimise the harms associated with amphetamine abuse. This section highlights some of the key responses to the amphetamine problem by government, industry and law enforcement.

Government responses

National action plan

The Australian National Drug Strategy (NDS) aims 'to minimise the harmful effects of drug use in Australian society'.[32] In 1997, the 'National Drug Strategic Framework' was developed by the NDS. This framework, which presents a coordinated action plan aimed at reducing the harm caused by drugs, led to the establishment of the 'National Action Plan on Illicit Drugs'. The plan provides nationally agreed directions for confronting illicit-drug problems and outlines seven key areas for preventing the uptake of illicit drug use and associated harms. These areas are:

1 **demand reduction** (prevent or delay the uptake of illicit drug use)
2 **supply reduction** (reduce street-level dealing, production, supply and distribution)
3 **treatment** (provide support to families of drug users, integrate drug-treatment programs — pharmacotherapy, mental health, detoxification, inpatient, outpatient, relapse prevention)
4 **harm reduction** (decrease drug-related overdoses, spread of infectious diseases, drug-related crime)
5 **workforce development** (increase capacity to identify drug problems, training for health, welfare, law enforcement and corrections and build partnerships across sectors)
6 **research** (promote and engage in integrated and collaborative illicit drug research)
7 **monitoring illicit drug trends** (collect data relating to drug trends: price, purity, perception, prevalence, treatment, overdoses and harms).

Rescheduling of precursors

In September 2001, amphetamine and methylamphetamine were upgraded in the Drugs Misuse Regulation 1987 from 'Schedule Two' to 'Schedule One' drugs. This raised the maximum penalty for serious (trafficking) amphetamine offences from 20 to 25 years' impris-onment in Queensland. Amendments to the Regulation also moved precursor chemicals into Schedule Six, making them controlled substances.

Both the *Drugs Misuse Act 1986* and the Drugs Misuse Regulation 1987 are constantly being reviewed and amended to reflect national and international trends in manufacturing methods and the changing drug markets.

Amphetamine profiling — signature program

In 1997, the Federal Government provided funding for the 'National Heroin Signature Program' (NHSP) as part of its National Illicit Drug Strategy. The NHSP involves a major research effort into chemical profiling of heroin to help stem the trafficking of illicit drugs. Profiling involves the chemical and physical profiling of all significant seizures of heroin so that sources can be traced, allowing comparisons to be made between seizures.

As part of the National Illicit Drug Strategy, the Federal Government recently committed $4.7 million over the next four years to establishing an amphetamine signature program to run parallel to the heroin program. The aim of the program is to counter the rapid escalation in the demand for and supply of amphetamine.

Industry responses

Industry code of practice

Two scientific and chemical industry peak bodies — Science Industry Australia and the Plastics and Chemicals Industries Association — have identified the threat posed by chemical-drug diversion and the illicit use of scientific equipment, and have recently established an industry code of practice. The code of practice is not compulsory, but acceptance of it has reportedly been almost universal throughout the respective industries.

Pharmacy controls at point of sale

The diversion of pseudoephedrine from legitimate pharmaceutical products is an issue of major concern throughout Australia. The Pharmacy Board and the Pharmacy Guild of Australia have been cooperating with law enforcement and health agencies at state and federal levels to minimise the diversion of pseudoephedrine-based products. Discussions have also been held with industry representatives to reformulate the products to hinder the conversion of pseudoephedrine.

The retail and manufacturing pharmaceutical industries have already adopted such controls as the sale of large packs on prescription only, tighter regulations surrounding sales, alerts, getting police to address pharmaceutical meetings, reporting suspicious sales, and an updated curriculum for student pharmacists.

Law enforcement responses

In 2001, the Queensland Amphetamine Strategy Committee was established to aid the QPS Chemical Diversion Desk. This Committee is a representative group made up of industry, pharmacy, law enforcement, health and community representatives. The Committee discusses current and emerging trends in relation to amphetamine, and formulates strategies to combat them.

The QPS Chemical Diversion Desk aims to enhance the early detection of movements of precursor chemicals. It plays an integral liaison role between the law enforcement community, industry and pharmacy groups and Queensland Health, has established education programs, and disseminates documents to pharmacists relating to the sale of pseudoephedrine products.

Since the recognition of amphetamine as a problem, every Australian jurisdiction has established specialist police squads tasked with the identification and dismantling of illicit labs. Such squads have led to training courses specifically designed to address amphetamine-related issues. Recently, the QPS has developed a training package to help police manage drug-affected individuals. This program is expected to noticeably enhance police response in this area.

4. OUTLOOK

There is little cause for optimism in assessing the amphetamine market in Queensland.

The rate of amphetamine-related provider and consumer arrests in Queensland is likely to remain well above the national rate.

While successful in the detection of clandestine laboratories, the challenge for law enforcement is to develop and implement strategies that increase the number of arrests and the amount of drug seizures.

The market continues to be demand-driven with amphetamine production remaining steady, perhaps increasing, and reports of amphetamine abuse remaining at alarming levels. The purity of street-level amphetamine appears to be increasing — a trend that is likely to continue in the short term.

Amphetamine production remains a relatively simple chemical process and recipes are readily obtainable through open-source media (such as the Internet). Although a number of steps have been taken to hinder the chemical and precursor diversion of substances to illicit amphetamine manufacture, in the main these efforts have not had a substantial effect on disrupting the market.

Moreover, since the inception of some precursor controls, there have been noticeable increases in the importation of amphetamine and its precursors. As domestic controls continually reshape the market, it is reasonable to assume that this trend will persist. In particular, new and more efficient suppliers may emerge, becoming a critical factor on the supply side of the Queensland market. The Queensland amphetamine market has a history of

While the focus of this bulletin is on the risk posed by the illicit amphetamine market, the CMC is assessing other illicit drug markets in Queensland. Further publications are expected to be available in late 2003/early 2004.

evolving to more efficient levels in response to law enforcement or pharmaceutical initiatives — this presents a continuous challenge for law enforcement and other stakeholder agencies.

Previously, major health concerns with illicit drug use focused on opiates — specifically, injecting harms, overdoses, and disease transmission. With the emerging prevalence of intravenous amphetamine use, these concerns are replicated. Together with mental health issues and consequences of amphetamine abuse (hostility, aggression, paranoia), they add another dimension to the problem of illicit drug use in Queensland.

Furthermore, the escalating prevalence of amphetamine use and abuse may place an increasing burden upon emergency services, law enforcement and physical and mental health facilities throughout the State. The current demand on these services can reasonably be expected to rise and may have an impact on future resource allocation within the relevant agencies.

In November 2000, the Commission assessed that amphetamine had overtaken heroin in terms of the risk it posed to the Queensland community. That assessment was based upon the reduction in heroin availability and the increase in reliance on the health system as a consequence of amphetamine abuse. In 2003, this assessment holds true — amphetamine remains the pre-eminent threat, in a more diverse illicit drug market, and is unlikely to change in the short to medium term.

RISK ANALYSIS

Findings

- **The amphetamine market poses the highest risk to the Queensland community. The CMC evaluates the amphetamine market as the highest risk drug market because of amphetamine's ready availability and the extensive harm to the community caused by amphetamine abuse.**
- **MDMA (ecstasy) is assessed as a high-risk drug market because of its increasing prevalence and the harm caused by MDMA abuse.**
- **Heroin, though not as prevalent as MDMA, is assessed as a high-risk drug market because of the extensive harm to the community caused by heroin abuse.**

Ratings

VERY HIGH	**Amphetamine**
HIGH	**MDMA (Ecstasy)** **Heroin**
MEDIUM	**Cocaine**
	Benzodiazepines
LOW	**Cannabis**

Endnotes

1 QCC 1999, *Project Krystal: A Strategic Assessment of Organised Crime in Queensland*. (The QCC merged with the CJC on 1 January 2002 to form the CMC.)
2 QCC 2000, 'The Amphetamine Market in Queensland', *Crime Bulletin*, No. 2.
3 This indicator data should not be viewed in isolation but rather in the context of all information presented in this report.
4 The CMC has no direct quality control over statistics sourced from other agencies and limitations applying to these data continue to be applicable in this publication.
5 In late 2000, a significant shortage in the availability of heroin was noted in all States. This 'heroin drought' has been widely reported as prompting some users to seek other types of drugs (Chilvers, Korabelnikoff & Ramsay 2002).
6 Ibid.
7 Personal consultation with Hepatitis C Council.
8 www.nida.nih.gov
9 Personal consultation with QAS, December 2002.
10 www.brainplace.com (accessed 6.6.03)
11 Percentage of male amphetamine users is not representative of the total amphetamine user population. It is likely that the methods employed in this study resulted in a slight bias towards female users.
12 Benzodiazepines affect the central nervous system by slowing down the body physically and psychologically. Common forms include Valium and Serepax (ACC 2003).
13 Percentage of injecting amphetamine users is not representative of the total population. The methods employed in this study involved peer interviewers recruiting respondents from their immediate social networks and via snowballing techniques.
14 Pure 'base' form of amphetamine.
15 Personal consultation with QulVAA.
16 Personal consultation with Queensland Health.
17 CMC database holdings.
18 CMC, QPS and ACC database holdings.
19 ibid.
20 CMC and QPS database holdings.
21 The value of the amphetamine market is estimated by taking an arbitrary consumption of 2 grams of methylamphetamine per month at $224 per gram, multiplied by 84 455 (recent) Queensland users.
22 CMC, QPS and ACC database holdings.
23 ibid.
24 CMC intelligence and operational holdings, 2001–03.
25 CMC, QPS and ACC database holdings.
26 Commission database holdings 1999–2003.
27 ACC 2003; CMC database holdings.
28 CMC intelligence and operational holdings 2001–03.
29 CMC and QPS database holdings.
30 www.adf.org.au
31 Personal consultation with Queensland Health.
32 www.nationaldrugstrategy.gov.au

5. ASSESSMENT & SUMMARY

ASSESSMENT

The CMC assesses that amphetamine remains the primary illicit drug of concern to the Queensland community, ahead of other drugs, such as heroin, in terms of potential risk and harm.

SUMMARY

Extent of the problem

Arrests

- Although showing signs of levelling off, Queensland continues to have some of the highest amphetamine-related arrest rates (per 100 000 population) in Australia.

Seizures

- The number of amphetamine seizures is declining in Queensland, as is the actual quantity of drugs being seized by Queensland police.
- The purity of street-level amphetamine is rising.
- While fluctuations may be expected in seizures and purity levels, the recent trends require monitoring.

Laboratories detected

- There has been a 40 per cent increase in clandestine laboratory seizures from 2001 — and a 70 per cent increase from 2000.

Health

- Amphetamine causes:
  - — adverse physical effects on the body
  - — neurotoxic effects on the brain
  - — transmission of disease through intravenous use
  - — high prevalence of psychotic episodes among regular users.
- The number of amphetamine presentations to psychiatric wards is increasing.
- 2.5 users present daily to RBH with amphetamine-related problems.

Market characteristics

Demand

- Amphetamine remains the second most popular illicit drug (after cannabis) and the most commonly injected drug in Australia.
- Over half of all amphetamine users in Queensland are male and aged between 19 and 30 years.
- Amphetamine is no longer confined to particular user groups.

Social acceptability

- The social acceptability of amphetamine has declined slightly in recent years, but there is still a perception among some users that amphetamine is not addictive and, therefore, relatively harmless.

Drug preference

- Queenslanders ranked amphetamine sixth as their drug of first choice behind alcohol, tobacco, cannabis, benzodiazepines and ecstacy.

Consumption patterns

- Some of the 'most frequent and regular' users of amphetamine are younger males aged 14 to 29 years — casual use of amphetamine seems to be more common among older users.

Administration

- Injection is the most commonly reported method of taking amphetamine.
- Difficulties continue to exist in assessing non-intravenous usage.

Polydrug use

- Amphetamine users have been identified as prominent polydrug users and regularly take the drug concurrently with alcohol, cannabis, heroin, ecstacy, ketamine, anti-depressants and tranquillisers.

Price

- The price of methylamphetamine has increased significantly in Queensland over the last couple of years, but the price of amphetamine has declined.

Purity

- The purity of street-level amphetamine has almost doubled between 1998 and 2002 and is generally higher than elsewhere in Australia.

Supply

Source of amphetamine

- Friends or acquaintances are overwhelmingly the main sources of supply to amphetamine users in Queensland — distribution points include nightclubs, cabarets and dance parties, and general street distribution.

Manufacture

- The supply of amphetamine in Queensland is in many respects a 'cottage industry' — that is, many relatively small and diverse suppliers collectively produce a significant quantity of product.
- Methylamphetamine is the most common form of the drug manufactured in Queensland.
- Most methylamphetamine available in Queensland is manufactured in portable 'box labs'.

Importation

- Criminal networks from several South-East Asian countries are known to be exporting amphetamine and precursor chemicals to Australia.
- Detections in Queensland accounted for 96 per cent of the total weight of all of the amphetamine detected by the ACS in 2001–02.

Links between crime markets

- Amphetamine users tend to consume a variety of illicit drugs and are often represented in other illicit drug markets, such as the heroin, benzodiazepines and ecstacy markets.
- Some illicit amphetamine networks are attempting to import chemicals in bulk or to steal from chemical companies and pharmacies.

Networks and organisations

- People involved in the manufacture and distribution of amphetamine are of diverse ethnic and criminal backgrounds.
- Most Australian jurisdictions report that OMCGs continue to play a dominant role in methylamphetamine manufacture and distribution — however, in Queensland the situation is different. There are many other local criminal networks, besides OMCG members, involved in the manufacture and distribution of amphetamine, at varying levels of sophistication.

Related crime

- Amphetamine abuse has significant effects on the behaviour of the user and can induce amphetamine psychosis, often characterised by paranoid delusions, hallucinations and aggressive or violent behaviour.
- Amphetamine users are more likely to commit a crime as a result of the erratic and unpredictable effects of the drug — younger amphetamine users are increasingly involved in crimes of violence and break and enters.

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ABBREVIATIONS

ABCI
Australian Bureau of Criminal Intelligence

ABS
Australian Bureau of Statistics

ACC
Australian Crime Commission

ACS
Australian Customs Service

ADF
Australian Drug Foundation

AFP
Australian Federal Police

AIC
Australian Institute of Criminology

AIDR
Australian Illicit Drug Report

AIHW
Australian Institute of Health and Welfare

APA
American Psychiatric Association

BCC
Brisbane City Council

BCIQ
Bureau of Criminal Intelligence, Queensland

CMC
Crime and Misconduct Commission

DCS
Department of Corrective Services

DEA
Drug Enforcement Agency (United States)

DUMA
Drug Use Monitoring in Australia

EROWID
Erowid.org is an online library of information about psychoactive plants and chemicals and related topics.

ICD
International Classification of Diseases

IDRS
Illicit Drug Reporting System

MDMA
methylenedioxymethamphetamine (ecstasy)

NARCONON
NARCOtics-NONe — A non-profit drug prevention and education program

NDARC
National Drug and Alcohol Research Centre

NDS
National Drug Strategy

NHSP
National Heroin Signature Program

NIDA
National Institute on Drug Abuse

QAS
Queensland Ambulance Service

QCC
Queensland Crime Commission (now the CMC)

QHSS
Queensland Health Scientific Services

OMCG
Outlaw Motor Cycle Gang

QPS
Queensland Police Service

QuIVAA
Queensland Intravenous AIDS Association

RBH
Royal Brisbane Hospital

ABOUT THE CRIME BULLETIN

The CMC publishes Crime Bulletins to heighten community awareness of organised crime issues and trends of concern to the Queensland community.

Previous issues in the Crime Bulletin series are:

- **Crime Bulletin No. 1, June 1999, 'Organised Crime in Queensland', which describes the nature, extent and impact of organised crime activity in Queensland, and generally explains the law enforcement strategies developed to tackle the problem.**
- **Crime Bulletin No 2, November 2000, 'The Amphetamine Market in Queensland', which assesses the level of risk posed to the Queensland community by the illicit amphetamine market.**
- **Crime Bulletin No. 3, August 2001, 'The "Ecstasy" Market in Queensland', which assesses the level of risk posed to the Queensland community by the market for MDMA or Ecstacy.**
- **Crime Bulletin No. 4. April 2002, 'The Illicit Market for ADHD Prescription Drugs in Queensland', which discussed the problem of illicit diversion and abuse of ADHD prescription drugs in Queensland.**

These bulletins and other CMC publications can be viewed on the CMC's website:
<www.cmc.qld.gov.au/PUBS.html>

CRIME AND MISCONDUCT COMMISSION

QUEENSLAND