Implementing a drug law enforcement (DLE) performance measurement framework in Australia

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Abbreviations

AFP	Australian Federal Police
AIC	Australian Institute of Criminology
APACS	Analysis of Policing and Community Safety
ATS	amphetamine-type stimulants
COPS	Office of Community Oriented Policing Services
Customs	Australian Customs and Border Protection Service
DAM	Drug Attribution Model
DHI	Drug Harm Index
DLE	drug law enforcement
DPMP	Drug Policy Modelling Program
DUMA	Drug Use Monitoring in Australia
EMI	Ecstasy Market Indicator
HIDTA	High-Intensity Drug Trafficking Areas
IDDI	Illicit Drug Data Initiative
IDDR	Illicit Drug Data Report
IDRS	Illicit Drug Reporting System
IGCD	Intergovernmental Committee on Drugs
LSA	Local Service Area
NAMSDL	National Alliance for Model State Drug Laws
NCPE	National Centre for Policing Excellence
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NIDIP	National Illicit Drug Indicators Project
ONDCP	Office of National Drug Control Policy
PERF	Police Executive Research Forum
PPAF	Police Performance Assessment Framework
PSA	Police Service Area
PSU	Police Standards Unit

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Introduction

This technical report outlines detailed fieldwork findings of the Stage 2 National Drug Law Enforcement Research Fund (NDLERF) funded project, *Developing the capacity and skills for national implementation of a drug law enforcement performance measurement framework*. The report informs, and is intended to be read alongside, the major final report (see Willis, Homel & Anderson 2010). A further two technical reports also underpin the final report—these cover a better practice guide on performance measurement development and implementation (Willis & Anderson 2010), and a business plan for the performance measurement framework's long-term sustainable implementation (Willis, Anderson & Homel 2010), respectively.

The four field locations include the Australian Customs and Border Protection Service (Customs), Tasmania Police, South Australia Police and Victoria Police. The following report outlines detailed fieldwork findings for each site and a summary of overall findings. The report also includes a 'future directions' section, which provides a possible template for future, detailed analytical work.

Chapter one: Australian Customs and Border Protection Service

Customs, Australia's principal border protection agency, plays an important role in preventing the illegal movement of people and harmful goods across Australia's border while also facilitating the movement of legitimate travellers and goods (Customs 2008). As a national agency (supported by regional offices in each of the eight states and territories – see Figure 1.1), Customs works closely with other Australian government and international organisations. Specifically in terms of drug law enforcement (DLE), Customs has a close working relationship with the Australian Federal Police (AFP). Customs' central role is illicit drug detection; the AFP's is drug seizure and investigation of those responsible for drug importation.

Protecting the Australian community through the interception of illegal drugs is considered a high priority of Customs and is highlighted in their annual strategic plan as an important agency-wide commitment (Customs n.d.). Customs uses sophisticated techniques to target high-risk aircraft, vessels, cargo, postal items and travellers. This includes intelligence analysis, computer-based analysis, detector dogs and other technologies. They also have an important role in addressing the threats to Australia's maritime environment through their contribution to Border Protection Command, which provides security for Australia's offshore maritime areas (Customs 2008).

Customs has undergone a number of changes in its organisational structure since completion of the first stage of this project in late 2006. Current management arrangements ensure that regional executives report to national program managers or directors, ensuring a direct and transparent line of communication between the regions and central office.

Customs' three national programs are:

Passenger & Trade Facilitation Program	(Passengers Division, Cargo Division, Trade Division, Compliance Division)
Border Enforcement Program	(Enforcement and Investigations Division, Intelligence and Targeting Division, Research and Development Branch, Law Enforcement Strategy Branch, Border Protection Command)
Corporate Operations Program	(People and Place Division, Financial Services Division, Customs Information Technology, International Branch, Internal Affairs Unit, Customs Legal Unit)

The enforcement of illicit drugs and chemical precursors law occurs within the Passenger & Trade Facilitation and Border Enforcement Programs under specific legislation, including the *Criminal Code Act 1995* (Cth), *Customs Act 1901* (Cth), *Narcotic Drugs Act 1967* (Cth) and the *Psychotropic Substances Act 1976* (Cth) (among others). Much of the agency's drug interdiction work occurs from its regional offices.

Figure 1.1: Location of Customs offices in Australia

Source: Customs 2008

Measures and indicators of national-level DLE performance

Fieldwork interviews indicated that performance monitoring and reporting of illicit drugs within Customs occur at all organisational levels; from corporate through to program, division, branch and also regional levels. As is typical in a large agency, each level has its own reporting needs and requirements. At the branch level, indicator data tend to be largely administrative and are focused on day-to-day operational requirements, whereas, at the corporate level, indicator data are generally more outcome-focused. This is not to say that staff within branches are not concerned with high-level agency outcomes. Indeed, some branch-level staff have developed their own outcome measures in an attempt to determine agency impacts on illicit drug markets. For example, some staff within the Passengers Division use a drug harm index (DHI) for internal performance monitoring and reporting. Based on the AFP's DHI (see Willis, Homel & Anderson 2010), this is an example of a localised attempt within Customs to grapple with the ability of the agency to attribute their DLE work to improving drug-related social harms. While different branches within Customs use a small number of illicit drug indicators to measure performance, these in fact form only one component of many branches' total performance measurement system as their work includes other forms of illicit trade that require monitoring, as well as the monitoring of legitimate movement of people and goods across Australia's border.

Most of the systematic, long-term monitoring and reporting of illicit drugs occurs within Customs' Intelligence, Planning and Corporate Statistics branches. In these branches, emphasis is placed on the importance of combining a range of internal and external information and data sources to generate a picture of the larger illicit drugs environment. For instance, both branches conduct 'gap analyses' where drug seizure data (for example, type and weight of drugs seized, as well as their means of entry into Australia) are assessed and triangulated against information such as:

- drug market intelligence
- social harms from illicit drugs (for example, overdoses and deaths from illicit drugs)

- Drug Use Monitoring in Australia (DUMA) data[1]
- Illicit Drug Reporting System (IDRS) data[2]
- the Australian Crime Commission's Illicit Drug Data Report (IDDR) data.

While the small number of drug seizure indicator data form an important part of regular, formal agency monitoring and reporting processes (such as the agency's annual report), other drug market data (for example, drug purity and price) and social harm data are chiefly used informally and are not publicly reported.

Planning and Corporate Statistics branches indicate that there is increasing external pressure on Customs to account for resources expended on DLE and to demonstrate impacts in real terms. For example, there is a requirement in Portfolio Budget Statement reporting[3] for all agencies to report on organisational effectiveness and include contextual issues as they affect their operations. Given this, the model performance measurement framework could form a means through which this is formally undertaken.

Reduced drug crime and drug-related crime

As noted above, Customs incorporates a number of different types of indicator data into its informal performance measurement processes; however, formal and regular monitoring and reporting is restricted to a small set of drug market indicators. A list of indicators used by Customs, alongside the relevant framework indicators for this outcome area, is provided in Table 1.1 below. Also included in this list are a number of other suggested indicators of DLE performance.

While Customs does not currently officially monitor drug price, purity and availability data, it would be possible for them to do so, particularly since they already incorporate these types of data in their gap analyses. While relevant IDRS and IDDR data are only annually reported, these data could still form a useful source of information to monitor longer-term shifts in drug market activity. In particular, data from annual IDDR reports could be used to undertake more sensitive time-series analyses because the publications include quarterly breakdowns of illicit drug purity levels at jurisdictional and national levels. If Customs was to set-up a formal data-sharing arrangement with the AFP, inclusion of more up-to-date price and purity data would be possible.

The model framework also includes three measures that are designed to monitor changes within drug markets. The original rationale for including these measures was that any changes over time in them could be reasonably argued to be a result of DLE work because criminal groups are unlikely to change a successful *modus operandi* unless the risks of being caught outweigh the financial benefit (Willis, Homel & Gray 2006). These measures centre on where users obtain their drugs, changes in trafficking modes and changes in the types of drug trafficker. The first of these measures is intended to be underpinned by indicator data from DUMA, while the other two measures included in the framework to monitor changes in drug market dynamics are specifically geared towards Customs and AFP aims to disrupt major illicit drug trafficking operations.

Data on illicit drug trafficking modes is one of Customs' core performance data elements and analysis of these data can be found in the relevant section below. Customs also uses an intelligence assessment of organisational sophistication of criminal enterprise involved in a particular border detection of drugs or precursors – their 'business, professional, amateur, opportunist' typology. Stage 1 fieldwork suggested this as a potentially useful additional indicator of shifts in the underlying criminal scene. Stage 2 fieldwork reveals that supporting data are somewhat problematic, rendering the indicator less viable than first thought. Major issues include:

[1] For a brief description of DUMA, including its major strengths/limitations, see p. 13
[2] For a brief description of IDRS, including its major strengths/limitations, see p. 13
[3] Portfolio Budget Statements (PBSs) inform Senators, Members of the House of Representatives and the public of the proposed allocation of resources to government outcomes. The PBS provides an important means by which agencies remain accountable to the parliament.

- The typology dates back to 2003–2004 only.
- The different classifications cannot be extracted with aggregated data due to the technical limitations of the database.
- Collation of the typology is not impossible, but resource-intensive because the rating has to be manually broken out of an unstructured text data field for each separate record.
- The typology was originally conceived as an internal intelligence tool and involves a quick and largely arbitrary assessment of information available for a given detection for a match with a loose profile. As such, it is not considered a rigorously objective data item (C Kordzik, pers. comm., 2 July 2008).

If Customs still considers this a useful gauge of drug market activity it would be possible for them to include this measure in future performance measurement activity, providing they address its current limitations, especially the data extraction constraints.

Table 1.1 Performance indicators currently used by Customs to monitor drug crime and drug-related crime

Framework measure	Framework indicator	Customs indicator
Trends in illicit drug detections/ seizures	Number of illicit drug detections/seizures by drug type	Total number of border illicit drug detections. Monthly data available.
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Weight of illicit drug detections. Sum of weights in any given month available.
Trends in illicit drug arrests	Number of illicit drug traffic/ supply arrests by drug type	Not currently formally used/reported by Customs
	Number of illicit drug possession/use arrests by drug type	Possible use of number of illicit drug traffic/supply arrests by drug type (IDDR/ AFP data)
		Possible use of number of illicit drug possession/use arrests by drug type (IDDR/ AFP data)
Trends in illicit drug street prices	Median street price of illicit drugs by drug type	Not currently formally used/reported by Customs
		Possible use of national IDRS data/IDDR data
Perceived purity of illicit drugs	Number of people who perceive the purity of illicit drugs to be high, medium, low or to fluctuate by drug type	Not currently formally used/reported by Customs
		Possible use of national IDRS data/IDDR data

Table 1.1 Performance indicators currently used by Customs to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Customs indicator
Perceived availability of illicit drugs	Number of people who perceive the availability of illicit drugs to be very easy, easy, difficult or very difficult by drug type	Not currently formally used/reported by Customs Possible use of national IDRS data
Changes in where users obtain their drugs	Number of users who sourced their illicit drugs the last time from: • a house/flat • a public building • home delivery • on the street/outdoors Number of users who contacted their drug supplier the last time by: • calling them on a mobile • calling them on the telephone • visiting a house/flat • approaching them in public • obtaining drugs through a third party • being with them already Number of users who got their drugs the last time from: • a regular source • an occasional source • a new source Number of users who got their drugs the last time from a location different to the arrest location	Not currently formally used/reported by Customs Possible use of DUMA data

Table 1.1 Performance indicators currently used by Customs to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Customs indicator
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Total number of detections that were trafficked via: • air cargo • sea cargo • air passengers/crew • sea passengers/crew • postal services Monthly data available.
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently formally used/reported by Customs Underlying dataset requires work to permit monitoring of this measure.
Trends in robberies	Number of people arrested for armed and unarmed robbery	Not currently formally used/reported by Customs Possible use of Recorded Crime Victims data collection (Australian Bureau of Statistics). Monthly breakdowns available.

Reduced organised crime

This outcome area addresses high-level drug crime, and the underlying measures were specifically designed to target national-level DLE effort in terms of disrupting major illicit drug trafficking operations. As described above, Customs already regularly monitors and reports on two of the three measures for this outcome domain – trends in illicit drug weights and changes in trafficking modes (Table 1.2). For the reasons already provided, the measure relating to Custom's typology is not viable at this stage. This is disappointing as it was this measure that most directly related to potential changes in the underlying criminal scene.

An additional measure of DLE's impact on high-level crime worth future exploration may include one that focuses on asset confiscation (for example, of real estate, luxury goods and so on) and/or money laundering, as the 'high-end' illicit drug trade is frequently and increasingly associated with these (Stamp & Walker 2007; 'Cash, heroin seized in Melbourne police raids' http://www.news.com.au/story/0,23599,24530599-1243,00.html?from=public_rss, accessed 22 October 2008). For instance, recent estimates are that up to $12 billion in illicit drug money flows out of Australia annually (www.theage.com.au/national/12bn-in-illicit-loot-flowing-offshore-20080926-40, accessed 29 Sept 2008). Underlying data to assess levels of money laundering are at this stage somewhat equivocal, although data on asset confiscation may be more readily available and useful in the short to medium term. The Australian Crime Commission (ACC) is doing work to improve

data flow between jurisdictions through a new intelligence tool (ACC 2008a) and this may serve a useful means through which the requisite data could become available.

Table 1.2 Performance indicators currently used by Customs to monitor organised crime

Framework measure	Framework indicator	Customs indicator
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Weight of illicit drug detections. Sum of weights in any given month available.
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company on the person (not including air passengers/crew)	Total number of detections that were trafficked via: • air cargo • sea cargo • air passengers/crew • sea passengers/crew • postal services Monthly data available.
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently formally used/ reported by Customs Underlying dataset requires work to permit monitoring of this measure.

Improved public health

Regular illicit drug use can often result in a range of adverse health outcomes on the individuals who take them, both in terms of their physical and mental health. These can be due to:

- direct pharmacological effects of the drugs (for example, overdoses)
- long-term consequences (for instance, psychological disorders)
- lifestyle factors associated with taking the drugs (such as exposure to violence) (Trewin 2001).

Stage 1 of the project identified several data collections containing useful indicator data of illicit drug-related morbidity, mortality and user behaviour – these formed the basis of measures and indicators in the model framework. Discussions with health data experts at various points throughout Stage 2 of this project helped to refine the framework measures and indicators, leading to the suggested amendment, removal or inclusion of certain measures and indicators. A brief synopsis of each measure and associated data collection(s) is outlined below, as well as the rationale for inclusion of new (or removal of existing) indicators. For a couple of the indicators, multiple data collections are suggested as being useful for monitoring trends. Where this is the case, no one data collection is considered definitive and each has its own particular strengths and weaknesses, which are discussed below. As such, no specific recommendation is made in this report as to which collection to use. The choice is left open to DLE, based on local operational needs and data availability.

A summary list of all indicators is provided in Table 1.3 on page 13.

Trends in the frequency of illicit drugs consumed by drug type

The major data collections identified as useful for informing this measure are:

- DUMA
- IDRS
- Alcohol and Other Drugs Treatment Services – National Minimum Data Set (AODS-NMDS)

While each of these surveys captures information on drug consumption behaviour, the questions that elicit this information vary, which means that they may not exactly match the relevant framework indicator (for example, in DUMA the question relates to past 30 day's illicit drug consumption, in the IDRS it relates to the last month's injecting drug use and in the NDSHS it relates to the last 12 months' drug use). The important point is that, regardless of which data collection is used, what matters most is that the data capture trends in *regular and frequent* illicit drug use, rather than use that is occasional or ad hoc. Given this, the two framework indicators that address this measure could be simplified and collapsed into one overall indicator of the level of drug consumption – that is, 'the number and proportion of people who consume illicit drugs more than three times a week, by drug type'.

DUMA: managed by the AIC, DUMA was established in 1999 and is a quarterly collection of drug-related information from police detainees in several sites (police stations or watchhouses) across Australia. DUMA includes both a survey of police detainees (which includes basic demographic data, drug use history, drug market information, treatment history and information on prior contact with the criminal justice system) as well as a urine sample that is tested for seven different drug types. DUMA is voluntary and confidential and results are not identifiable (Adams et al. 2008). DUMA's major strength is that its urinalysis results objectively demonstrate whether selected drugs have been consumed by detainees within a specified period and allows for valid comparisons across time. Because it is conducted quarterly in each site (with site-specific data being fed back to participating police stations within four to six weeks of capture), it also provides very timely data that can be used for both tactical and strategic policing purposes. Additional strengths are that both the survey and urinalysis provide a consistent, national perspective of illicit drug use and local drug market behaviour and that the results can be broadly compared with similar international surveys (for instance, ADAM in the Unites States of America). However, DUMA has a number of limitations, including the following:

- It is a survey of a reasonably heavy drug-using population (police detainees) and so results cannot be extrapolated to the general population.
- It is not a random sample because detainees can opt not to be surveyed, which may bias the sample.
- While there are now ten sites across Australia, it is still not a truly national collection as it is absent in Tasmania and there is only one regional site (Alice Springs). This limits its representativeness within jurisdictions.

DUMA annual reports are located at http://www.aic.gov.au/publications/annual_reports/duma.html. The AIC also provides free access to certain DUMA data via an interactive data tool on its website (see http://www.aic.gov.au/research/duma/data_tool.html).

IDRS: managed by NDARC, the IDRS aims to act as an early warning system by monitoring key trends in illicit drug use in Australia. It was established nationally in 1999. The system includes a convenience survey of injecting drug users (IDU), interviews with key informants from a range of relevant fields and also includes an analysis of other indicators. IDU are targeted because

they are considered to be a sentinel group for monitoring local illicit drug market trends. Survey participants are asked about their patterns of drug use, health, drug treatment and involvement in crime, as well as their perceptions of drug price, purity and availability (Black et al. 2008b). The major strength of the IDRS is that data are collected in each state and territory using a consistent methodology. In addition, because survey data come from a heavy drug-using population, who are typically polydrug users, the data may indicate emerging trends in illicit drug markets for those who do not inject (Trewin 2001). However, its major limitations are:

- It is limited to major capital cities and so may not be representative of drug markets in regional/rural locations.
- It uses convenience sampling rather than random sampling, which again limits its representativeness and may mean that annual changes represent changes in the samples obtained rather than changes in actual drug markets.
- In some cases it does not reveal trends within a timeframe that is required for the data to serve as an early warning system (Wardlaw 2008). For example, the National Drug Strategy Household Survey (NDSHS) data component is available only a lengthy period after the survey is actually conducted.[4] The IDRS itself is also only undertaken on an annual basis, which can also impact on its timeliness and use (at least for tactical police purposes and short-term performance measurement).

National and jurisdictional annual reports are located at http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/IDRSa. Quarterly bulletins highlighting certain data are also available at this internet link.

AODTS-NMDS: managed by the AIHW, the AODTS-NMDS is an annual data collection derived from health treatment data collated at the state and territory level. The AODTS-NMDS, a nationally agreed set of common data items, includes basic information about clients of government-funded drug and alcohol treatment services (such as primary drugs of concern, demographic information and a detailed breakdown of the type of drug treatment provided). While the collection does not provide an indication on drug use behaviour *per se*, the number of clients who have received drug treatment does provide some insight into the different proportions of drug users, which is useful for assessing major drugs of concern.

The collection's major strength is that data undergo a rigorous validation process before they are released. Major caveats around this data collection include the following:

- The collection is only released annually and, because of the rigorous validation process, there are extensive delays from capture to release. This means that the data are not particularly useful for tactical police purposes and short-term performance measurement.
- The collection does not include clients who have received methadone treatment who have not received any other form of drug treatment.
- Clients whose treatment is still open (that is, not finalised) are not included.
- Clients that receive inpatient treatment or treatment from general practitioners are not captured (Barker et al. 2005; Degenhardt & Dietze 2005).

[4] For a brief description of the NDSHS, see p. 19

As such, the data are an under-estimate of clients who have received drug treatment in Australia at any given point in time.

The AIHW provides free access to certain nationally aggregated data from 2001–02 via a data cube on its website (see http://www.aihw.gov.au/drugs/datacubes/index.cfm). Breakdowns by jurisdiction are possible but attract a fee.

Trends in HCV/HIV

Blood-borne viruses like hepatitis C (HCV) and HIV-AIDS (HIV) are possible health hazards for injecting drug users. The National Notifiable Diseases Surveillance System (NNDSS) was established in 1990 and co-ordinates the national surveillance of more than 50 communicable diseases or disease groups, including HCV and HIV. There are a number of issues to do with NNDSS data for example, the quality and completeness of data compiled in the NNDSS are influenced by various factors. In particular:

- Notifications may be required from treating clinicians, diagnostic laboratories or hospitals.
- The mechanism of notification varies between states and territories and in some cases different diseases are notifiable by different mechanisms.
- The proportion of cases seen by health care providers which are the subject of notification to health authorities is not known with certainty for any disease, and may vary among diseases, between jurisdictions and over time (http://www.health.gov.au/internet/main/Publishing.nsf/Content/cda-surveil-nndss-nndssintro.htm – accessed 11/9/08).

Aside from these issues, there are a number of other limitations with these data that impact on their use as a framework indicator. For instance, while the transmission of HCV continues to occur at high rates among injecting drug users, the sharing of equipment for injecting illicit drugs only infrequently results in HIV transmission in Australia (Degenhardt & Dietze 2005). Irrespective of any of this, and indeed any of the other above limitations, specific drugs of concern cannot be ascertained from these data, which limits its usefulness in tracking particular drug markets. For this reason, this indicator was removed from the framework.

Trends in drug-related death by drug type

The chief source of information on drug-related deaths comes from the Australian Bureau of Statistics' (ABS) Causes of Death Collection—this is an electronic database of information drawn from state and territory registries of births, deaths and marriages, as well as jurisdictional coronial systems. Using this collection, the AIHW has compiled long-term annual mortality data on selected causes of death (including drug-related deaths) in interactive Excel workbooks (see http://www.aihw.gov.au/mortality/data/grim_books.cfm). National-level data in the workbooks are free but highly aggregated and so it is not possible to determine deaths related to specific drug types from these. However, the AIHW can provide breakdowns of these data by drug type and by jurisdiction if requested. The AIHW provided these breakdowns to the AIC for free because they were straightforward to produce (the AIHW officer who the AIC dealt with indicated that if the work involved came to less than about 30 minutes then the AIHW would not charge for the service (R Van der Hoek, pers. comm., 28 August 2008), although they do charge a fee where more detailed breakdowns/effort are required.

Causes of death data are coded using the International Classification of Diseases (ICD). The primary purpose of mortality coding is to identify the underlying cause of death. That is, the condition which initiated the train of events leading directly to death (Trewin 2001). There are a number of limitations to the collection, including among other things:

- Deaths resulting from drug use may be classified to a number of categories and each drug of interest may not have a unique code (for example, amphetamines and MDMA have the same code).
- The ICD does not focus on the identity of the drug(s) involved at time of death, rather on the circumstances of death, resulting in probable under-reporting of drug-related deaths.
- There is considerable delay in data compilation undertaken by the ABS; sometimes this is because the toxicology reports associated with drug-related deaths are delayed (Degenhardt & Dietze 2005; Trewin 2001). At the time of reporting, 2007 data had not been released.

Trends in drug-related emergency department presentations

Currently, there is no national collection of data from hospital emergency departments; rather, information concerning this is collected by state and territory health agencies. Data quality varies across the collections in terms of completeness and accuracy of the application of ICD and other coding systems. Despite this, the collections provide the only routine data on the more acute complications related to illicit drug use. For instance, they include the only source of data on accidents, overdose and acute psychotic illness involving the use of illicit drugs (Degenhardt & Dietze 2005; Trewin 2001). Publication of these data (for instance, whether they are published and how frequently they are published) varies by jurisdiction. Access to state-specific data requires the permission of each relevant jurisdictional health department.

Ambulance attendances at overdose

As for emergency department data above.

Trends in clients participating in drug treatment

There are two major data collections relating to clients of drug treatment programs: AODTS-NMDS and the National Opioid Pharmacotherapy Statistics Annual Data collection (NOPSAD).

AODTS-NMDS: described above, the AODTS-NMDS is an annual data collection that is managed by the AIHW and derived from health treatment data collated at the state and territory level. The collection holds a nationally agreed set of common data items, including basic information about clients of government-funded drug and alcohol treatment services. In particular, it is possible to extract nationally aggregated data on the number of clients who have received specific drug treatment interventions (that is, whether a client received detoxification, rehabilitation, counselling and so on). While the original framework indicator specified the type of intervention, fieldwork discussions suggest that the better approach is simply to monitor the number of clients who received treatment for a given drug type. In this way, it is clear which drugs are contributing most to public health outcomes. As such, the revised indicator would be 'the number of clients in treatment by drug type'.

NOPSAD: managed by the AIHW since 2005, NOPSAD provides national data on clients being treated with medication (mostly methadone) for their dependence on opioid drugs such as heroin. Due to particular complexities in collecting information about pharmacotherapies, agencies whose sole activity is to prescribe and/or dose for opioid pharmacotherapy treatment are excluded from the AODTS-NMDS. The strength of these data is that there is an agreed standard for jurisdictional reporting, although the collection is not a national minimum data set and some discrepancies do exist between the ways jurisdictions report data. The data collection is also based on a 'snapshot' period only—usually one day in June (AIHW 2008c). This means that only those clients who have received treatment on that day are counted in the collection and that new people entering the system after that day (or who exited the treatment before that day) are not counted.

Neither national nor jurisdictional-level NOPSAD data are available online at this stage. However, the AIHW has commenced producing a series of bulletins that include national and jurisdictional breakdowns of numbers of clients in pharmacotherapy treatment (AIHW 2008c).

Table 1.3 Performance indicators of improved public health

Framework measure	Framework indicator	Health indicator
Trends in the frequency of illicit drugs consumed by drug type	Number of people who used illicit drugs in the past month by drug type Number of people who used illicit drugs in the past month who used: • at least once a day • at least once a week (not daily) • less than weekly	Not currently formally used/reported by Customs. Possible use of DUMA, IDRS or AODTS-NMDS data. Simplify indicators to 'the number and proportion of people who consume illicit drugs more than three times a week, by drug type'.
Trends in HCV/HIV	Number of people with positive status of HCV/HIV	Not currently formally used/reported by Customs. Removal from framework.
Trends in drug-related deaths	Number of drug-related deaths by drug type	Not currently formally used/reported by Customs. Possible use of AIHW mortality data.
Trends in drug-related emergency department presentations	Number of drug-related emergency department presentations by drug type	Not currently formally used/reported by Customs. National-level data unavailable at this stage.Possible use of AIHW's hospital separations data.
Trends in ambulance attendances at overdose	Number of ambulance attendances at overdose by drug type	Not currently formally used/reported by Customs. National-level data unavailable at this stage.
Trends in clients participating in drug treatment	Number of clients: • in detoxification • in a rehabilitation program/ therapeutic community • in outpatient/counselling • in a support group • in methadone maintenance • in buprenorphine treatment • in naltrexone treatment • seeing a general practitioner	Not currently formally used/reported by Customs. Possible use of AODTS-NMDS data. Simplify indicator to 'number of clients in drug treatment by drug type'

Additional drug-related health indicators and data collections identified in Stage 2

A number of additional drug-related health indicators and datasets were identified as useful by health experts during Stage 2 fieldwork and the national workshop: the AIHW's National Hospital Morbidity Database (NHMD) and National Drug Strategy Household Survey (NDSHS). The NHMD contains annual data that could be used to monitor drug-related hospital stays, particularly at the national level where no other hospital data collections are available (see below). The NDSHS (see below for description) was also identified as a useful collection to monitor drug use patterns, although, because it is only conducted once every two to three years (and since 1995 it has only been undertaken once every three years), its use for performance measurement is questionable, especially where other more regular data collections could fulfil similar purposes (for example, DUMA or the AODS-NMDS).

Trends in the number of drug-related hospital separations

The AIHW has developed an interactive national hospital morbidity data page, which contains a link to a data cube containing nationally aggregated information on the principal diagnoses (among other things) of patients admitted to Australian hospitals (see http://www.aihw.gov.au/hospitals/datacubes/index.cfm). The source of data is the NHMD. Compiled by the AIHW from data supplied by state and territory health departments, it is a collection of records for admitted patients separated from public and private hospitals in Australia and includes annual data from 1993–94. As well as these data being available at a national level, the other advantage is that it is possible to examine trends in the number of psychiatric hospital stays that related to illicit drug use.

Diagnoses of ill health are classified using the ICD. This coding system groups some drug types together, although most of the major drug types of concern in this project are separately identifiable. As already highlighted earlier, the number of separations may be underestimated as identification of the illicit drug may only be present at secondary diagnoses and beyond. In addition, there are relatively few illicit drug-related hospital separations as illicit drug-related morbidity often results in treatment in hospital emergency departments or at ambulance attendances, for which there are no national data compilations. Furthermore, it is not possible to determine which separations represent multiple individuals or multiple separations for the same individual, which is important for assessing the full extent of drug-related morbidity within the community (Degenhardt & Dietze 2005; Trewin 2001).

National data can be downloaded from the data cube for free. Jurisdictional breakdowns are also possible but they attract a fee and their release requires jurisdictional permission.

Improved public amenity

As outlined in Willis, Homel & Gray (2006), there is a dearth of data on issues to do with the impact of illicit drugs on the community's quality of life or public amenity (Table 1.4). However, the annually conducted National Survey of Community Satisfaction with Policing (NSCSP), which monitors levels of community satisfaction with policing, includes questions on perceptions of safety in local areas as well as perceptions about local drug problems that can be used for DLE performance management purposes. Since July 2006, the NSCSP has been conducted on behalf of the police services by Roy Morgan Research, although between 2001 and 2006 the survey was conducted by AC Nielsen and between 1995 and 2000 the ABS. Under Roy Morgan Research the methodology and questionnaire have remained relatively unchanged from previous years.

NSCSP data are generally used for internal reporting use only within jurisdictions. However, the annual *Report on Government Services* (ROGS) does include these data at both nationally aggregated and jurisdictional levels. In 2006–07 around 35,000 people were surveyed across

Australia (Steering Committee for the Review of Commonwealth/State Service Provision 2008). Care needs to be taken in interpreting these data, particularly over time and where the survey provider has changed. This is because the statistical reliability of the survey data is highly dependent on key elements of the survey method (including the survey instrument, the collection method and the sample size and design). It should also be said that attitudinal data can be influenced in the short term by rare, but significantly adverse or highly publicised events (for instance, a police corruption incident). As such, point-in-time responses may vary from longer-term satisfaction with police and perceptions of safety and crime levels (Steering Committee for the Review of Commonwealth/State Service Provision 2009).

Table 1.4 Performance indicators of improved public amenity

Framework measure	Framework indicator	Public amenity indicator
Trends in level of safety felt by the community	Number and proportion of people who feel very unsafe, unsafe, safe or very safe in their local area	Not currently formally used/reported by Customs. Possible use of NSCSP data.
Trends in community concern about the 'drug problem'	Number and proportion of people who are very concerned, concerned, unconcerned about the drug problem in their local area and the state	Not currently formally used/reported by Customs. Possible use of NSCSP data.

Additional drug-related public amenity indicators and data collections identified in Stage 2

There is another potential source of data to assess public amenity issues—the NDSHS. The AIHW is responsible for conducting the NDSHS, a regularly conducted survey that aims to provide estimates of licit and illicit drug use in the general population. More specifically, the survey is intended to:

- provide data on the level, patterns and trends in the use of tobacco, alcohol and other substances
- identify groups with a high risk for drug abuse
- measure community awareness and knowledge of licit and illicit drugs
- measure community support for various drug-related policies (http://www.aihw.gov.au/drugs/ndshs07.cfm – accessed 15/9/08).

The survey has been conducted every two to three years since 1985 (in 1985, 1988, 1991, 1993, 1995, 1998, 2001, 2004 and 2007).

The survey includes a number of questions related to public amenity issues. For example, it includes questions on the use of illicit drugs in public settings, work missed through illicit drug use, as well as several other useful questions that centre on community impacts. While data from the NDSHS may not fulfil the needs of short-term performance measurement, in the near absence of any other more regularly collected data source, these data could be used to monitor longer-term public amenity trends.

There are a number of important caveats around these data. Aside from how often the survey is conducted, the most important of these are concerned with the representativeness of the NDSHS.

The NDSHS is a general population survey. As the prevalence of illicit drug use is generally very low in the broader community, the data are likely to underestimate the number of regular illicit drug users (particularly those who regularly use 'harder' drugs like heroin, amphetamines and cocaine). This is partly because the survey targets households only and thus may miss users in the population who do not live in stable housing, those who are homeless or who are otherwise inaccessible through the type of sampling strategy used in the NDSHS (Degenhardt & Dietze 2005).

Data collection, analysis and results

Customs collects, analyses and reports on several DLE performance data elements. Specific data indicators used are outlined above. This section provides a statistical report of these indicators, as well as a report of other identified potential indicators of performance. The statistical analysis is presented by outcome area. All figures referred to below can be found at Appendix 1 of this report.

Reduced drug crime and drug-related crime

Total number of border cannabis detections: monthly data are available and provided from January 1998. Figure 1.2 indicates that between January 1998 and June 2008 Customs made 7,499 cannabis detections at the border. The number of detections has varied throughout this period, although the long-run trend between the end of the 1990s and early 2000s was relatively stable at a median number of 70 cannabis detections every month. After that time the monthly number of detections fell considerably. Since mid-2007 the median number of detections has been 55 per month.

Total number of border heroin detections: monthly data are available and provided from January 1998. Figure 1.3 indicates that between January 1998 and June 2008 Customs made 1,477 heroin detections. The number of detections has varied throughout this period, although the long-run trend is for increasing numbers of detections. For example, between January 1998 and August 2002 the median number of detections was two each month; however, from June 2006 onwards the median number of detections was 25.

Total number of border cocaine detections: monthly data are available and provided from January 1998. Figure 1.4 indicates that between January 1998 and June 2008 Customs made 3,199 cocaine detections. As for heroin, while the number of detections has varied throughout the period under observation, the long-run trend is for increasing numbers of detections. For instance, between January 1998 and March 2003 the median number of detections each month was five, whereas between April 2003 and June 2008 the number was 32.

Total number of border ATS detections: monthly data are available and provided from January 1998. Figure 1.5 indicates that between January 1998 and June 2008 Customs made 2,720 ATS detections, with the number of detections each month fluctuating throughout the period under observation. Despite this, the number of detections each month has grown considerably in recent years, with the median number of detections each month between June 2006 and June 2008 numbering 48; between January 2003 and January 2006 the median number of monthly detections was only 14.

Total number of border MDMA detections: monthly data are available and provided from January 1998. Figure 1.6 indicates that between January 1998 and June 2008 Customs made 1,816 MDMA detections. Again, the number of detections has varied from month to month, although the long-run trend indicates a reduction in the number of detections from around early 2005. For instance, between May 2001 and February 2005 the median number of detections each month was 23, whereas they numbered only 10 between March 2005 and June 2008.

Total number of border chemical precursor detections: monthly data are available and provided from 1998. Figure 1.7 indicates that between January 1998 and June 2008 Customs made 5,565 chemical precursor detections. The number of detections has varied throughout this period, with a large increase in overall detections from January 2002 onwards (and particularly the period between January 2002 and August 2003). To illustrate this, between January 1998 and December 2001 the median number of monthly detections was two; however, the median number of monthly detections between September 2005 and June 2008 was 51. In the period between January 2002 and August 2003, the period with the greatest number of detections, the median number was 146 each month.

Total weight of border cannabis detections: monthly data are available and provided from January 1998 (Figure 1.2). The total weight of cannabis seized at the border by Customs between January 1998 and June 2008 was 3,984 kilograms. There was a median weight of 0.2 kilograms of cannabis seized each month (range of <1 gram to 2,932 kilograms), indicating that many cannabis seizures at the border are of small amounts of the drug. In fact, 46 per cent of all cannabis seized each month at the border by Customs weighs less than one kilogram. With the exception of two very large seizures (one in August 2001 of nearly 3,000 kilograms and another in June 2004 of nearly 650 kilograms), the pattern of cannabis seizures was stable in the period under observation.

Total weight of border heroin detections: monthly data are available and provided from January 1998 (Figure 1.3). The total weight of heroin seized at the border by Customs between January 1998 and June 2008 was 2,194 kilograms. There was a median weight of 1.1 kilograms of heroin seized each month (range of <1 gram to 390 kilograms). About 22 percent of total monthly seizures weigh less than one kilogram and a little over one-third (35 percent) weigh less than two kilograms. While there were eight large detections (around 100 or more kilograms) in the period January 1998 to March 2005, no heroin detections of over 35 kilograms have been made since that time.

Total weight of border cocaine detections: monthly data are available and provided from January 1998 (Figure 1.4). The total weight of cocaine seized at the border by Customs between January 1998 and June 2008 was 4,266 kilograms. There was a median weight of 1.7 kilograms of cocaine seized each month (range of <1gram to 938 kilograms). Sixteen per cent of total monthly cocaine seizures weighed less than one kilogram. The weight of cocaine seizures has varied over the past 10 years, with several very large seizures (>100 kilograms) occurring in the early 2000s, followed by a period of mostly small seizures between August 2001 and August 2006 (median weight per month was 6.3 kg in this period). The number of large seizures again spiked after this time (median monthly weight between September 2006 and June 2008 was 16.1 kg).

Total weight of border ATS detections: monthly data are available and provided from January 1998 (Figure 1.5). The total weight of ATS seized at the border by Customs between January 1998 and June 2008 was 1,345 kilograms. There was a median weight of 0.2 kilograms of ATS seized each month (range of <1gram to 412 kilograms). Most ATS seizures were of small amounts, with over half (57 percent) of total monthly seizures weighing less than one kilogram.

Total weight of border MDMA detections: monthly data are available and provided from January 1998 (Figure 1.6). The total weight of MDMA seized at the border by Customs between January 1998 and June 2008 was 6,316 kilograms. There was a median weight of 0.8 kilograms of ATS seized each month (range of <1gram to 1,328 kilograms). Nineteen percent of total monthly MDMA seizures weighed less than one kilogram. Since around mid-2004 there has been a slight trend towards larger seizures of the drug.

Total weight of border chemical precursor detections: monthly data are available and provided from January 1998 (Figure 1.7). The total weight of chemical precursors seized at the border by

Customs between January 1998 and June 2008 was 7,541 kilograms. There was a median weight of 0.9 kilograms of ATS seized each month (range of <1gram to 2,000 kilograms). Thirteen percent of total monthly seizures of chemical precursors weighed less than one kilogram.

Total number and weight of cannabis detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.8 indicates that the overwhelming majority of cannabis seizures were made through postal services (5,749), followed by air passengers (1,572). These comprised 77 percent and 21 percent of all cannabis seizures in the period, respectively. Of particular interest is the trend away from seizures via air passengers/crew after late 2002. To illustrate this, between January 1998 and November 2002 the median number of detections via air passengers/crew was 22 per month; however, between January 2003 and June 2008 they numbered just four. While the number of monthly detections through postal services varied in the same period, the long-run trend did not shift greatly.

While most seizures were made through postal and air streams, 94 percent (3,748 kilograms) of all cannabis seized entered via sea cargo; 2,932 kilograms of that was seized in a single month in August 2001. This underscores the trend towards many seizures of very small amounts of the drug through the post. No marked trend in the weight of seizures is evident over time for any of the means of entry, although it appears that heavier postal seizures have been intervened at the border in the last few years (between November 2005 and June 2008 the median weight of monthly detections was 1 kilogram; prior to this it was 0.5 kilograms), while the weight of seizures made via air passengers/crew has generally decreased (Figure 9).

Total number and weight of heroin detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.10 indicates that most heroin seizures were made through postal services (908); these comprised 61 percent of all heroin seizures in the period. However, air passengers/crew (293) and air cargo (254) were also common means of entry that were detected, comprising 20 and 17 percent of seizures, respectively. Over the 10-year period, the number of heroin seizures varied month to month across the different means of entry; however, the long-run trend was relatively stable until around the middle of 2006 when the number of detections through postal and air cargo streams increased. For example, the median number of monthly detections via post between January 1998 and March 2006 was one, but rose to 18 in the period April 2006 to June 2008. Similarly, the median number of monthly detections via air cargo between January 1998 and July 2006 was less than one, but rose to seven per month in the period August 2006 to June 2008.

As for cannabis, while most heroin seizures were made through the post, the majority in terms of weight (1,205 kilograms or 55 percent) of heroin entered via sea cargo. A further 515 kilograms (23 percent), 259 kilograms (12 percent) and 118 kilograms (5 percent) entered via small craft, air passengers/crew and air cargo, respectively. Again, this highlights the trend towards many seizures of small amounts of the drug through the post. Over the ten years, the weight of detections via the different means of entry remained relatively stable, although it appears that small increases in the weight of heroin detections have occurred via postal and air cargo streams in recent years (Figure 1.11). For instance, the median weight of monthly detections via post between January 1998 and March 2006 was 0.02 kilograms, but increased to 1.6 kilograms from April 2006 onwards.

Total number and weight of cocaine detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.12 indicates that most cocaine seizures were made through postal services (2,422); these comprised 76 percent of all cocaine seizures in the period. However, air cargo (412)

and air passengers/crew (293) were also common means of entry that were detected, comprising 13 and 9 percent of seizures, respectively. Over the 10-year period, the number of cocaine seizures varied month to month across the different means of entry; however, the long-run trend was relatively stable until around the middle of 2003 when the number of detections through postal and air cargo streams increased. For example, the median number of monthly detections via post between January 1998 and March 2003 was two, but rose to 22 in the period April 2003 to June 2008 (and 25 between October 2005 and June 2008). Similarly, the median number of monthly detections via air cargo between January 1998 and May 2003 was less than one, but rose to five per month in the period June 2003 to June 2008.

While most cocaine seizures were made through the post, the bulk of the drug (1,798 kilograms or 42 percent) entered via small craft. A further 1,239 kilograms (29 percent), 584 kilograms (14 percent) and 362 kilograms (8 percent) entered via sea cargo, air cargo and air passengers/crew, respectively. Over the last ten years, the weight of detections via the different means of entry varied considerably with no discernable trend for most means of entry. However, there was an increase in the weight of postal detections from late 2002 onwards (although with a slight trend downwards again after late 2005, Figure 1.13). For example, between December 2002 and June 2008 the median weight of postal detections was 1.9 kilograms each month, although between January 1998 and November 2002 it was less than a gram.

Total number and weight of ATS detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.14 indicates that the majority of ATS seizures were made through postal services (2,400); these comprised 88 percent of all seizures in the period. Few other means of entry were detected, although air passengers/crew (175) and air cargo (123) were the next most common means of entry detected for ATS, comprising 6 and 5 percent of seizures, respectively. In the 10 years between January 1998 and June 2008, the number of detections of ATS was stable for each means of entry, with the exception of entry via postal services. For post, the number of monthly detections increased significantly, particularly between the middle of 2006 to June 2008; the median number of detections in this period was 46 per month (compared to three a month between January 1998 and September 2001).

The majority of ATS in terms of its weight was detected in sea cargo (656 kilograms), representing some 49 percent of the weight of all ATS detections. However, considerable amounts were also detected via small craft (412 kilograms) and, to a lesser extent, air cargo and the post, 96 kilograms each) and air passengers/crew (76 kilograms). Between January 1998 and June 2008 there was no strong trend in ATS seizure weights, with the possible exception of detections made through postal services. In this case, from late 2004 onwards there was a general increase in seizure weights (Figure 1.15).

Total number and weight of MDMA detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.16 indicates that the majority of MDMA seizures were made through postal services (1,412); these comprised 78 percent of all seizures in the period. Few other means of entry were detected, although air passengers/crew accounted for 272 (15 percent) detections of the drug. In the ten years between January 1998 and June 2008, the number of detections of MDMA was generally stable for most means of entry, with the exception of entry via postal services and possibly air passengers/crew. For post, the number of monthly detections increased significantly between early to mid-2001 and mid-2005, but then declined again after this period. To illustrate this, between March 2001 and 2005 the median number of detections was 18 per month, while the median number of detections numbered only four between January 1998 and February 2001, and eight between April 2005 and June 2008. For air passengers/crew, the number of monthly

detections appears to have decreased in recent years. Between January 1998 and June 2004 the median number of monthly detections of MDMA was three, but between July 2004 and June 2008 they numbered less than one.

The majority of MDMA in terms of its weight was detected in sea cargo (4,325 kilograms), representing some 68 percent of the weight of all MDMA detections. However, a considerable amount was also detected via air cargo (1,353 kilograms), representing a little over one-fifth of the weight of all detections. Between January 1998 and June 2008 there was no strong trend in MDMA seizure weights, with the possible exception of detections made through air passengers/crew. In this case, from early 2006 onwards there was a general decrease in seizure weights (Figure 1.17).

Total number and weight of chemical precursor detections that were trafficked via: air cargo, sea cargo, air passengers/crew, sea passengers/crew, postal services: monthly data are available and provided from 1998. Figure 1.18 indicates that the majority of precursor seizures were made through postal services (4,868); these comprised 87 percent of all seizures in the period. Few other means of entry were detected, although air passengers/crew accounted for the next largest number of detections at 427 (8 percent). In the ten years between January 1998 and June 2008, the number of detections of precursors increased greatly from the beginning of 2002, particularly via postal, air passenger/crew and air cargo streams. For post, the median number of monthly detections between January 2002 and June 2008 was 48 (although highly variable in that period); however, they numbered less than one between January 1998 and December 2001. In the same two periods the median number of monthly detections via air passengers/crew was four and less than one, respectively.

The majority of precursor chemicals in terms of weight was detected in sea cargo (6,458 kilograms), representing 86 percent of the weight of all precursor detections. However, 503 kilograms (7 percent) and 490 kilograms (6 percent) were also detected via air cargo and postal streams, respectively. While there appears to have been a small increase in the weight of detections of precursors across the different entry streams between January 1998 and June 2008, with the exception of postal services there was no strong trend. In the case of postal services, the weight of detections rapidly increased from around the beginning of 2002 (Figure 1.19). Between January 2002 and June 2008 the median number of monthly precursor detections was a little over four kilograms, whereas in the period January 1998 to December 2001 it was less than one kilogram.

Additional indicators of reduced drug crime and drug-related crime

As suggested above, Customs could incorporate additional measures of drug crime and drug-related crime in formal agency performance management practices that would provide further insight into different illicit drug markets operating inside Australia. The following provides a statistical report of the suggested indicators by drug type.

Cannabis

Total number of cannabis traffic/supply arrests: annual data are publicly reported in the IDDR as 'provider' arrests and are provided here from 1996–2007. Figure 1.20 indicates that, following a sharp fall in arrests in 1999–2000, the number of cannabis traffic/supply arrests has remained relatively stable since then; there have been an average of 8,600 traffic/supply arrests each year in Australia since 1999–2000.

Total number of cannabis possession/use arrests: annual data are publicly reported in the IDDR as 'consumer' arrests and are provided here from 1996–2007. Figure 1.21 indicates that the number of cannabis possession/use arrests has remained stable over the past ten years. The average number of arrests in Australia each year was just over 47,000.

Median street price of cannabis: annual data are publicly reported in the national IDRS annual reports. Self-reported median price (per gram) of last purchase in the preceding six months is provided here from 2000–2007. Figure 1.22 indicates that the median street price of hydroponic cannabis has remained relatively stable over the last seven years, with prices paid for hydroponic cannabis typically higher than for 'bush' forms of the drug. For example, while prices paid for hydroponic cannabis varied between $20 and $30 across jurisdictions in any given year, the overall median street price of hydroponic cannabis has stayed around $25 each year.

Prices paid for bush cannabis have trended downwards in the period under observation, reflecting a greater user demand for hydroponically grown forms of the drug. Self-reported prices for bush cannabis between 2000 and 2007 ranged between $10 and $30 across jurisdictions; however, the overall median street price of bush cannabis was around $5 less in the late 2000s than earlier in the decade.

Number/proportion of people who perceive the purity (potency) of cannabis to be high: annual data are publicly reported in the national IDRS annual reports. Perceived potency of the last cannabis purchase made in the preceding six months is provided here from 2003 to 2007. Figure 1.23 indicates that the perceived potency of bush cannabis declined between 2003 and 2004, with the percentage of respondents perceiving potency levels dropping from around 56 percent in 2003 to only 16 percent in 2007. In contrast, perceptions about the potency of hydroponic cannabis trended upwards over the same period, with 56 percent of respondents indicating that the potency of hydroponically grown cannabis was high in 2003 and 58 percent thinking the same in 2007.

Number/proportion of people who perceive the availability of cannabis to be difficult/very difficult: annual data are publicly reported in the national IDRS annual reports. Perceived difficulty of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007. Figure 1.24 indicates that the perceived availability of bush cannabis has changed considerably over the last seven years, with five times more people perceiving bush cannabis to be difficult/very difficult to obtain in 2007 (6 percent) than 2000 (32 percent). While the perceived difficulty in obtaining hydroponic cannabis also increased between 2000 and 2007 (from 6 to 11 percent, respectively), the increase was not as marked.

Number/proportion of users who sourced their cannabis the last time from: a house/flat, a public building, home delivery, on the street/outdoors: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.25 indicates that the proportion of users who sourced their cannabis the last time was highly variable quarter-to-quarter across the different sources. The most frequent means of sourcing cannabis over time was from a house/flat, while the least frequent was in an abandoned building. Overall there was a decrease in the proportion of users who sourced their cannabis from houses/flats, and a corresponding increase in the proportion of users who sourced their cannabis via home delivery.

Number/proportion of users who contacted their cannabis supplier the last time by: calling them on a mobile, calling them on the telephone, visiting a house/flat, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends.

This allows for distinct local patterns in one of Australia's key illicit drug markets to emerge, rather than be swamped by variations in the data from other DUMA locations. Figures 1.26a and 1.26b indicate considerable variability quarter-to-quarter in the methods users employ to contact their drug supplier for cannabis. Despite this, there are some evident trends. For example, the proportion of users who contacted their supplier by telephone steadily decreased between October–December 1999 and October–December 2007; at the same time, the proportion of users who contacted their supplier using a mobile telephone increased. A slight fall in the proportion of users who contacted their suppliers by visiting a house/flat also occurred between around the end of 1999 and mid-way through 2004.

Number/proportion of users who got their cannabis the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.27 indicates that, while there was considerable variability quarter-to-quarter in the last source a user obtained their cannabis from, two overarching trends are apparent. The first is that the proportion of users who obtained cannabis from a regular source has steadily fallen over time. The other is that the proportion of users who obtained cannabis from a new source has increased during the same period. There was also a period of convergence between the three types of sources in mid- to late 2006, where the proportion of users who sourced their cannabis from a regular source dropped, but the proportion that sourced the drug from occasional and new sources increased. This suggests a contraction of the cannabis market at this time.

Heroin

Total number of heroin traffic/supply arrests: annual data are publicly reported in the IDDR as 'provider' arrests and are provided here from 1996–1997. Figure 1.20 indicates that in the period under observation the number of heroin traffic/supply arrests rose to a peak in 1998–1999 (at 3,734), before declining thereafter. The number of traffic/supply arrests for heroin is at its lowest in ten years in 2006–2007 at 744.

Total number of heroin possession/use arrests: annual data are publicly reported in the IDDR as 'consumer' arrests and are provided here from 1996–1997. Figure 1.21 indicates that the pattern observed for heroin traffic/supply arrests is also true for possession/use arrests. The most number of possession/use arrests occurred in 1998–1999 (10,607), while the least were in the period 2006–2007 (1,411). As such, the number of heroin possession/use arrests in 2006–2007 was around one-tenth of the number in 1998–1999.

Median street price of heroin: annual data are publicly reported in the national IDRS annual reports. The median price per gram of the last purchase made by participants in the preceding six months is provided here from 1998 to 2007. Figure 1.28 indicates that price of heroin has remained relatively stable since around 2002, with the overall median price at around $400 per gram for most of that time.

Number/proportion of people who perceive the purity of heroin to be high: annual data are publicly reported in the national IDRS annual reports. The perceived purity of the last purchase made by participants in the preceding six months is provided here from 2003 to 2007. Figure 1.29 indicates that the proportion of people who perceived the purity of heroin to be high dropped markedly between 2004 (14 percent) and 2005 (6 percent). Since 2005, the proportion of people who indicated that purity is high has risen, although not to the same level as in 2005.

Using the actual purity of heroin seized by NSW Police as a proxy for the rest of Australia, Figure 1.30 indicates that median heroin purity levels have dropped greatly since the late 1990s/early

2000s. In early 2000 the median purity of heroin in NSW was 65.5 percent, but for most of 2006 and 2007 median heroin purity was around 19 percent. In mid-2008 heroin purity rose to around 30 percent.

Number/proportion of people who perceive the availability of heroin to be difficult/very difficult: annual data are publicly reported in the national IDRS annual reports. The perceived difficulty of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007. Figure 1.31 indicates that IDRS respondents found heroin increasingly more difficult to obtain between 2000 (6 percent) and 2006 (25 percent), but that reported availability improved in 2007 compared to 2006 (13 percent).

Number/proportion of users who sourced their heroin the last time from: a house/flat, a public building, an abandoned building, on the street/outdoors: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.32 indicates that the proportion of users who sourced their heroin the last time was highly variable across the different sources. The most common means of sourcing the drug over time was in a street/alley, although towards the middle of 2004 and onwards the proportion of users who sourced their heroin from home delivery increased steadily.

Number/proportion of users who contacted their heroin supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figures 1.33a and 1.33b indicate considerable variability quarter-to-quarter in the methods users employ to contact their drug supplier for heroin. Despite this, there are some evident trends. For example, as for users of cannabis, the proportion of users who contacted their supplier by telephone steadily decreased between October–December 1999 and October–December 2007; at the same time, the proportion of users who contacted their supplier using a mobile telephone increased. A slight fall in the proportion of users who contacted their suppliers by visiting a house/flat also occurred between around the end of 1999 and mid-way through 2004.

Number/proportion of users who got their heroin the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.34 indicates that, while there was considerable variability quarter-to-quarter in the last source a user obtained their heroin from, the long-run trend is relatively stable for each of the three sources. However, there are two points of particular interest. The first follows the period considered the start of the heroin shortage at the beginning of 2000; in the 12 months following this period, the number of users sourcing heroin from a regular source plummeted, while the number sourcing the drug from a new source increased sharply. The second point of interest occurs in around the middle of 2005 when a similar pattern is evident. This also suggests an impact on heroin supply at that time.

Number/proportion of people arrested for armed and unarmed robbery: Annual data are available through the Australian Bureau of Statistics (ABS) Recorded Crime – Victims data collection. Figure 1.35 indicates that in the years between 1998 and 2007 the number of armed and unarmed robberies rose to a peak of 26,591 offences in 2001, before steadily falling to 16,513 robberies in 2004. By 2007 the number of robberies in Australia gradually increased again to 17,988.

Monthly robbery data from New South Wales are available on-line through the Bureau of Crime Statistics and Research's interactive Crime Trends Tool (located at http://bocd.lawlink.nsw.gov.

au/bocd/cmd/crimetrends/DateInp). Because they are monthly, and represent Australia's largest jurisdictional population, these data provide a more regular picture of robbery trends that can be used as a useful proxy for national-level robbery trends. Figure 1.36 indicates that the trend observable in New South Wales essentially mirrors the national trend, although the more recent data available (at the time of reporting, up to September 2008) suggests that the number of robberies has continued to fall.

Cocaine

Total number of cocaine traffic/supply arrests: annual data are publicly reported in the IDDR as 'provider' arrests and are provided here from 1996–1997. Figure 1.20 indicates that there are few cocaine traffic/supply arrests compared to any other drug type in any given year in Australia. The number of arrests does vary from year to year. For example, the most number of traffic/supply arrests occurred in 2006–2007 when there were 315, while the least number of arrests were in 2002–2003 when there were 105. The average number of arrests each year in the period was 197.

Total number of cocaine possession/use arrests: annual data are publicly reported in the IDDR as 'consumer' arrests and are provided here from 1996–1997. Figure 1.21 illustrates a similar pattern to the above. The number of possession/use arrests varies from year to year with most number reported in 2000–2001 (405), and the least in 2002–2003 when there were 145. The average number of arrests each year in the period was 277.

Median street price of cocaine: annual data are publicly reported in the national IDRS annual reports (the Ecstasy and Related Drugs Reporting System (EDRS) also includes these data and it would be possible to use these reports as an alternative source of data). The median price per gram of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007. Figure 1.37 indicates that cocaine prices steadily increased throughout the 2000s. In 2000 the median price paid for cocaine by IDRS respondents was $250 per gram, while in 2007 the amount had increased to $340 per gram of the drug. While the price of cocaine typically varies between jurisdictions in any given year (for example, in 2007 median prices ranged from $200 to $400), within most jurisdictions there have been steady price rises in the period under observation.

Number/proportion of people who perceive the purity of cocaine to be high: annual data are publicly reported in the national IDRS annual reports. The perceived purity of the last purchase made by participants in the preceding six months is provided here from 2003 to 2007. Figure 1.38 indicates that IDRS respondents considered that cocaine purity rose greatly between 2003 and 2004, with 12 percent of respondents indicating purity was high in 2003 and 24 percent in 2004. Between 2004 and 2007 perceptions of cocaine purity remained reasonably consistent, although with some slight shifts during the period (particularly in 2006 and 2007 where there was a slight downturn in perceived purity levels).

Using the actual purity of cocaine seized by NSW Police as a proxy for the rest of Australia, Figure 1.39 indicates that while there was volatility in purity levels between quarters, median cocaine purity levels steadily increased between the middle of 2002 until mid-2007. In the quarter July–September 2002, median purity levels were around 23 percent, but by April–June 2007 they were around 60 percent. Although there are breaks in the data series in the early 2000s, it seems apparent that purity levels in that period were also quite high.

Number/proportion of people who perceive the availability of cocaine to be difficult or very difficult: annual data are publicly reported in the national IDRS annual reports. The perceived difficulty of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007. Figure 1.40 indicates that there was a six-fold increase in the proportion of IDRS respondents who considered that cocaine was difficult/very difficult to obtain between 2000 and 2003. After 2003, perceptions that obtaining cocaine was difficult fell before essentially plateauing between 2005 and 2007.

Number/proportion of users who sourced their cocaine the last time from: a house/flat, a public building, an abandoned building, on the street/outdoors: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of cocaine users within the Parramatta sample (and indeed any of the DUMA samples) is small within any given quarter (n<10) and so it is difficult to determine patterns over time for most of the sources. As such, any interpretation of the data must be undertaken with caution. However, between 1999 and 2007 the data suggest that there may have been a small decrease in the number of users sourcing their cocaine from houses/flats and a corresponding increase in those sourcing the drug via home delivery. For example, in October–December 1999 63 percent (n=5) of users sourced their cocaine from houses/flats, but by October–December 2007 no user did. In comparison, no user sourced their cocaine via home delivery from October–December 1999 right through to July–September 2004; however, after this time nine users used this means to source the drug.

Number/proportion of users who contacted their cocaine supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of cocaine users within the Parramatta sample is small within any given quarter (n<10) and so it is difficult to determine patterns over time for most of the sources. As such, any interpretation of the data must be undertaken with caution. However, between 1999 and 2007 the data suggest that there may have been an increase in the overall number of users who contacted their supplier using a mobile telephone (Figures 1.41a and 1.41b). A possible decrease in the number of users contacting their supplier via the telephone may also be evident.

Number/proportion of users who got their cocaine the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of cocaine users within the Parramatta sample is small within any given quarter (n<10) and so it is difficult to determine patterns over time for most of the sources. As such, any interpretation of the data must be undertaken with caution. Figure 1.42 indicates that, while there was considerable variability quarter-to-quarter in the last source a user obtained their cocaine from the long-run trend was relatively stable (for regular and new sources) from the end of 1999 until around the middle of 2005. After this point the proportion of cocaine users who sourced their cocaine from a regular source appeared to decrease, while those who sourced the drug from a new source increased.

ATS

Total number of ATS traffic/supply arrests: annual data are publicly reported in the IDDR as 'provider' arrests and are provided here from 1996–1997. These data include MDMA arrest figures. Figure 1.20 indicates that the number of ATS traffic/supply arrests has steadily increased over time. Indeed, ATS is the only drug type where there has been a continued increase in numbers of arrests in the period under observation.

Total number of ATS possession/use arrests: annual data are publicly reported in the IDDR as 'consumer' arrests and are provided here from 1996–1997. These data include MDMA arrest figures. Figure 1.21 indicates a similar pattern to the above, although there appear two periods of growth – one between 1996–1997 and 2000–2001 and the other between 2002–2003 and 2006–2007. Between 1996–1997 and 2006–2007 there was a more than four-fold increase in the number of ATS possession/use arrests (from 2,702 to 10,896, respectively).

Median street price of ATS: annual data on *methamphetamines* (including data on powder, base/paste and crystalline forms of the drug) are publicly reported in the national IDRS annual reports. The median price per gram of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007; however, it should be noted that for 2000 there is no distinction in the data between the three drug forms, and for 2001 base/paste and 'ice' are also combined. For all other years the three drug forms are reported separately. Figure 1.43 indicates that reported prices for each drug form increased in the early 2000s. For ice, there was a more than three-fold increase in median price per gram between 2001 and 2002 (from around $80 in 2001 to $290 in 2002) and for base/paste the price more than doubled in the same period (from around $80 to $200). While the price of powder also increased in the same period, the price rise was more modest than for the other two drug forms. The most evident pattern, however, is that the reported median price of ice continued to rise until 2007, whereas prices for base/paste and powder essentially plateaued.

Number/proportion of people who perceive the purity of ATS to be high: annual data on *methamphetamines* (including data on powder, base/paste and crystalline forms of the drug) are publicly reported in the national IDRS annual reports. The perceived purity of the last purchase made by participants in the preceding six months is provided here from 2003 to 2007 for each drug form. Figure 1.44 indicates that the proportion of IDRS respondents who considered the purity of each of the three drug forms as 'high' steadily decreased in the period under observation. It is also interesting to note that purer forms of the drug (that is, ice and base/paste) were consistently considered to be of higher purity than powder.

Using the actual purity of methamphetamines seized by NSW Police as a proxy for the rest of Australia, Figure 1.45 indicates that while there was substantial volatility in median methamphetamine purity levels between mid-1999 and mid-2007, the purity levels steadily increased throughout the period. In the quarter July–September 1999 median purity levels were at 6 percent, but by April–June 2007 they were at 14 percent. In mid-2008 median methamphetamine purity was around 12 percent. The highest median purity level observed for methamphetamines was 26 percent in the quarter October–December 2006.

Number/proportion of people who perceive the availability of ATS to be difficult or very difficult: annual data on *methamphetamines* (including data on powder, base/paste and crystalline forms of the drug) are publicly reported in the national IDRS annual reports. The perceived difficulty of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007; however, it should be noted that for 2000 there is no distinction in the data between the three drug forms and for 2001 base/paste and 'ice' are also combined. For all other years the three drug forms are reported separately. Figure 1.46 indicates that, for base/paste and powder, the proportion of people reporting these forms of the drug as difficult to obtain has been essentially stable since 2003. In contrast, the proportion of respondents who reported ice as difficult to obtain has risen sharply and fallen away a couple of times in the same period, suggesting a more volatile market.

Number/proportion of users who sourced their ATS the last time from: a house/flat, a public building, an abandoned building, on the street/outdoors: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.47 indicates that the proportion of users who sourced their ATS the last time was highly variable across the different sources. Overall, the most common means of sourcing the drug was in a house/flat, although the proportion of users who sourced their ATS via home delivery increased from around the beginning of 2004. Sourcing ATS from the street/alley was also common throughout the period under observation.

Number/proportion of users who contacted their ATS supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figures 1.48a and 1.48b indicate considerable variability quarter-to-quarter in the methods users employ to contact their drug supplier for ATS. Despite this, there are some evident trends. For example, as for users of other drug types, the proportion of users who contacted their supplier by telephone steadily decreased between October–December 1999 and October–December 2007; at the same time, the proportion of users who contacted their supplier using a mobile telephone increased. A slight fall in the proportion of users who contacted their suppliers by approaching them in public also appears to have occurred.

Number/proportion of users who got their ATS the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.49 indicates that the proportion of users who sourced their ATS the last time from the three sources was highly variable in the period under observation. The long-run average of the proportion of users sourcing ATS from regular sources appears to have remained relatively stable, although the same is not necessarily true for those obtaining ATS from occasional and new sources. In particular, the proportion of users obtaining their drugs from new sources appears to have increased since around the middle of 2005 (note the two points of overlap with regular source at July–September 2005 and 2006).

MDMA

Total number of MDMA traffic/supply arrests: The IDDR combines MDMA and ATS arrest data. See description above.

Total number of MDMA possession/use arrests: The IDDR combines MDMA and ATS arrest data. See description above.

Median street price of MDMA: annual data on MDMA are publicly reported in the national EDRS annual reports. The EDRS follows a similar methodology to the IDRS but aims to capture data on the use of MDMA and related drugs by regular MDMA users; the EDRS is also managed by NDARC. The median price per tablet of the last purchase made by participants in the preceding six months is provided here from 2000 to 2007; however, it should be noted that the median prices provided for 2000 to 2002 relate to data from New South Wales, South Australia and Queensland only. For all other years the data relates to all jurisdictions. Figure 1.50 indicates that, nationally, the median price of MDMA fell from $40 to $30 a tablet between 2000 and 2007. Median prices varied across jurisdictions in any given year. For instance, in 2007 the price of one MDMA tablet cost between $30 and $50, depending on the state/territory it was bought in.

Number/proportion of people who perceive the purity of MDMA to be high: annual data on MDMA are publicly reported in the national EDRS annual reports. The perceived purity of the last purchase made by participants in the preceding six months is provided here from 2003 to 2007. Figure 1.51 indicates that regular MDMA users perceived the purity of MDMA to peak in 2004, with 32 percent of those surveyed indicating that MDMA purity was high, before falling to just below 20 percent indicating the same in 2006 and 2007.

Number/proportion of people who perceive the availability of MDMA to be difficult or very difficult: annual data on MDMA are publicly reported in the national EDRS annual reports. The perceived difficulty of the last purchase made by participants in the preceding six months

is provided here from 2000 to 2007. The data show that few regular users of MDMA find the drug difficult/very difficult to obtain. In any given year in the observation period, fewer than 8 percent of those surveyed indicated that MDMA was difficult/very difficult to obtain. The national breakdowns for each year are as follows: 2003–3 percent; 2004–5 percent; 2005–3 percent; 2006–7 percent; 2007–7 percent.

Number/proportion of users who sourced their MDMA the last time from: a house/flat, a public building, an abandoned building, on the street/outdoors: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of MDMA users within the Parramatta sample is too small within any given quarter (n<3) to draw any conclusions.

Number/proportion of users who contacted their drug supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of MDMA users within the Parramatta sample is too small within any given quarter (n≤3) to draw any conclusions.

Number/proportion of users who got their MDMA the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of MDMA users within the Parramatta sample is too small within any given quarter (n≤3) to draw any conclusions.

Chemical precursors

Publicly available information on the diversion of chemical precursors into illicit drug markets is poor. For instance, the IDDR does not currently report arrests relating to chemical precursors. If Customs was to include these data in an updated performance measurement regime, it would need to obtain these data from the AFP.

Reduced organised crime

See descriptions of drug weight and trafficking-mode trend data above, under 'Reduced drug crime and drug-related crime'.

Improved public health

Cannabis

Number/proportion of people who consume cannabis more than three times a week: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.52 indicates that there was a steady decrease in the number of 'regular' users of cannabis (those who used more than three times a week) in the period July–September 1999 to October–December 2007. For instance, between July–September 1999 and April–June 2003 a mean number of 25 cannabis users were regular users of the drug each quarter. In contrast, between July–September 2003 and October–December 2007 the mean dropped to 18 percent of users.

Number/proportion of cannabis-related deaths: annual data are provided from 1998 to 2006 on the number of accidental deaths where cannabis contributed to the deaths. Figure 1.53 indicates

that the number of cannabis-related deaths has varied considerably over the past several years. The number of deaths rose steadily from 30 deaths in 1998 to a peak of 47 deaths in 2000. While the number of deaths fell to a low of 14 in each of 2003 and 2004, the number of deaths increased again to 43 in 2006.

Number/proportion of cannabis-related emergency department presentations by drug type: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of ambulance attendances at cannabis overdoses: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of clients in drug treatment for cannabis use: annual data (financial year) on the number of closed episodes of treatment are available from 2001–2002 to 2005–2006. Figure 1.54 indicates that the number of treatment episodes for cannabis increased steadily in the period under observation from over 23,800 episodes of treatment to over 35,600.

Methamphetamines

Number/proportion of people who consume methamphetamines more than three times a week: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. DUMA combines amphetamine and methamphetamine data; as such, data referred to here include the use of ATS. Figure 1.52 indicates that, while variable from quarter-to-quarter, the number of regular users of ATS was relatively stable in the longer term; the mean number of regular users in the period July–October 1999 to October–December 2007 was three per quarter.

Number/proportion of methamphetamine-related deaths: annual data are provided from 1997 to 2005 on the number of accidental deaths where methamphetamines contributed to the deaths. Figure 1.55 indicates that the number of deaths increased steadily throughout the late 1990s and early 2000s, peaking at 99 deaths in 2000. After that time the number of deaths halved, before increasing again to a mean number of 72 deaths in 2004 and 2005.

Number/proportion of methamphetamine-related emergency department presentations: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of methamphetamine-related ambulance attendances at overdoses: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of clients in drug treatment for methamphetamine use: annual data (financial year) on the number of closed episodes of treatment for *amphetamine* use are available from 2001–2002 to 2005–2006. Figure 1.54 indicates that the number of treatment episodes increased steadily in the period under observation from over 12,200 episodes of treatment to over 15,900.

Heroin

Number/proportion of people who consume heroin more than three times a week: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. Figure 1.52 indicates that there was a marked decrease in the number of 'regular' users of heroin (those who used more than three times a week) in the period July–September 1999 to October–December 2007. In particular, between July–September 1999 and October–December 2000 a mean of 26 heroin users each quarter were regular users of the drug. In contrast, between January–March 2001 and October–December 2007 the mean dropped to 5 users per quarter.

Number/proportion of heroin-related deaths: annual data are provided from 1998 to 2006 on the number of accidental deaths where heroin contributed to the deaths. Figure 1.56 indicates that nationally the number of deaths related to heroin use fell sharply between 2000 and 2001, from 396 to 106. While the number of deaths between 2001 and 2003 rose somewhat, overall the number of deaths continued to decline to 70 in 2006.

Number/proportion of heroin-related emergency department presentations: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of heroin-related ambulance attendances at overdose: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of clients in drug treatment for heroin use: annual data (financial year) on the number of closed episodes of treatment for heroin use are available from 2001–02 to 2005–06. Figure 1.54 indicates that, while there was some variation from year to year, the number of treatment episodes has remained reasonably stable. In 2001–2002 the number of closed episodes of treatment for heroin use was 20,027 and in 2005–2006 the number was 19,776.

Cocaine

Number/proportion of people who consume cocaine more than three times a week: quarterly data are available through the DUMA program from 1999 for four sites (Parramatta, Bankstown, Southport and East Perth). Data from the Parramatta site only are provided here as a proxy for national trends. The number of cocaine users within the Parramatta sample is small within any given quarter (n<10) and so it is difficult to determine patterns over time for most of the sources. As such, any interpretation of the data must be undertaken with caution. Figure 1.52 indicates that, other than a small spike in the number of regular cocaine users in mid-2001, the number of regular users remained stable in the period under observation. The mean number of regular users in the period July–September 1999 to October–December 2007 was one per quarter.

Number/proportion of cocaine-related deaths: annual data are provided from 1998 to 2006 on the number of accidental deaths where cocaine contributed to the deaths. Figure 1.57 indicates that nationally the number of deaths related to cocaine use fell by more than half between 2000 and 2006, from 33 to 16 deaths, respectively. The number of deaths remained at 16 for the last three years under observation.

Number/proportion of cocaine-related emergency department presentations: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of cocaine-related ambulance attendances at overdose: As outlined earlier, national-level data are not publicly available. Access to state-specific data requires the permission of each relevant jurisdictional health department. As such, these data are not presented in this report.

Number/proportion of clients in drug treatment for cocaine use: annual data (financial year) on the number of closed episodes of treatment for cocaine use are available from 2001–2002 to 2005–2006. Figure 1.58 indicates that the number of episodes of treatment fell sharply between 2001–2002 and 2003–2004 from 804 to 272. After this time the number of episodes of treatment rose gradually and in 2005–2006 they numbered 434.

Additional indicators of improved public health

Cannabis

Number/proportion of cannabis-related hospital separations by principal diagnosis: annual data (financial year) on the number of cannabis-related hospital separations are available from 1998–99 to 2006–2007. Figure 1.59 indicates that, while there was considerable year-to-year fluctuation, the number of cannabis-related hospital separations steadily increased in the period under observation from 40 separations in 1998–99 to over 100 in 2006–2007.

Methamphetamines

Number/proportion of methamphetamine-related hospital separations by principal diagnosis: annual data (financial year) on the number of methamphetamine-related hospital separations are available from 1998–1999 to 2006–2007. Figure 1.60 indicates that the number of separations increased between 1998–1999 and 2000–2001, from 597 to 768. While there was a spike in the numbers in 2003–2004, the general pattern is of stable numbers in separations between 2000–2001 and 2006–2007.

Heroin

Number/proportion of heroin-related hospital separations by principal diagnosis: annual data (financial year) on the number of heroin-related hospital separations are available from 1998–1999 to 2006–2007. Figure 1.60 indicates that the number of separations fell markedly between 1999–2000 and 2001–2002, from 1,795 separations to 515. While the number of separations varied from year to year after that time, the overall pattern was one of declining numbers.

Cocaine

Number/proportion of cocaine-related hospital separations by principal diagnosis: annual data (financial year) on the number of cocaine-related hospital separations are available from 1998–1999 to 2006–2007. Figure 1.59 indicates that, while there is volatility year-to-year in the number of separations, the long-run trend is essentially stable.

Improved public amenity

Number/proportion of people who feel safe/very safe walking/jogging locally after dark: annual data (financial year) are provided from 1998–1999. Figure 1.61 indicates that the proportion of people who feel safe (walking/jogging) in public after dark was stable until the middle of the 2000s (mean of 42 percent). However, in 2006–2007 the proportion of people who indicated they felt safe jumped to 61 percent and then remained at that level in 2007–2008.

Number/proportion of people who think that illegal drugs are a major problem/somewhat of a problem in their neighbourhood: annual data (financial year) are provided from 2001–2002; data on neighbourhood perceptions of illegal drugs are not reported prior to this time. Figure 1.62 indicates that the proportion of people who consider illegal drugs to be a major problem/

somewhat of a problem has steadily fallen in the period under observation. In 2001–2002, 74 percent of people indicated that illegal drugs were a problem in their neighbourhood, but in 2007–2008, 59 percent indicated that illegal drugs were a problem. Between 2004–2005 and 2007–2008 the proportion of the public that considers illegal drugs a problem in the neighbourhood was reasonably stable (mean of 58 percent).

It should be noted that these figures need to be interpreted within a broader context. Perceptions of crime tend to fall as respondents focus on their local neighbourhood. For example, in 2007–2008, while 59 percent of people indicated that they considered illegal drugs to be a major problem/somewhat of a problem in their neighbourhood, 91 percent considered them to be so nationally. National figures have remained reasonably stable for several years.

Additional indicators of improved public amenity

Number/proportion of people who usually use illicit drugs in public places (for example parks): data are available every three years through the NDSHS since 1985. Data from the 1998, 2001 and 2004 surveys are presented here – 2007 data were unavailable at the time of reporting. Figure 1.63 indicates that the proportion of people who reported that they usually used illicit drugs in public places declined for each drug type between 1998 and 2004. The most evident drop was among those who used heroin in public. In 1998 and 2001, 13 and 22 percent (respectively) of people surveyed in the NDSHS indicated that they used heroin in public places; however, in 2004 the proportion had dropped to just two percent.

Number/proportion of days missed from work due to illicit drug use: data are available every three years through the NDSHS since 1985. Data from the 1998, 2001 and 2004 surveys are presented here – 2007 data were unavailable at the time of reporting. In 1998 there were a total of 1,698 days missed at work, school or TAFE in the three months before the survey due to drug use (not including alcohol); this figure represents 2 percent of NDSHS respondents. In 2001 the number of days missed declined to 720 (0.6 percent of respondents) and in 2004 it was 750 (0.5 percent of respondents). As such, both the absolute number of days missed and the proportion of those who took time off both decreased substantially between 1998 and 2004.

Summary of Customs indicator data

A sound knowledge of drug markets is crucial in being able to effectively intervene in drug and drug-related crime; the indicator data outlined in the above section should provide a solid foundation upon which this can be done. As also outlined above, during fieldwork interviews Customs staff emphasised the importance of combining a range of internal and external information and data sources to generate a picture of the larger illicit drugs environment, and certain areas of the agency conduct gap analyses where drug seizure data are assessed and triangulated against other relevant data and information (such as public health and offending data and drug market intelligence). While the drug seizure indicator data that Customs regularly reports on form an important part of regular, formal agency monitoring and reporting processes, other drug market data (for example, data on drug purity and price) and social harm data are chiefly used informally, on an ad hoc basis, and are not publicly reported.

Findings from analysis of the framework's indicator data suggest that, by systematising the analysis of a range of relevant and appropriate data, a rigorous and comprehensive assessment can be achieved—this can then feed into regular accountability reporting and strategic management processes.

A summary of all suggested indicator data is provided below by drug type.

Cannabis

Taken as a whole, the indicator data suggest that the Australian cannabis market is mature and relatively stable, although has probably undergone some change over the past few years. This is evidenced by the following:

- A steady reduction in total detections at the border of the drug over the past 10 years. Total detection weights did not alter greatly in the same period.
- Long-run stability in the number of detections via postal services (the most common means of entry into the country), but a trend towards increased detection weights in the post, particularly from around the end of 2005.
- A marked drop in the number (and to some extent weight) of detections via air passengers/crew, particularly from around mid-2003.
- A sharp fall in the number of traffic/supply arrests, especially in around early 2000. After that time the number of arrests was essentially stable. Consumer arrests were stable throughout the same period.
- Stability in the price of hydroponic cannabis; however, the price of 'bush' cannabis was more variable was lower than for hydroponic cannabis and dropped after 2000.
- Stability in perceptions of the potency of hydroponic cannabis. Perceptions of the potency of bush cannabis were more variable than for hydroponic cannabis and bush cannabis was considered much less potent.
- The perceived availability of hydroponic cannabis increased slightly between 2006 and 2007 but there were too few data points to make conclusive comments. The availability of bush cannabis increased greatly from 2005.
- Cannabis was mostly sourced from a house/flat, although there was an increase in home delivery from around late 2003. This corresponded with an increase in users calling on mobile phones to contact their cannabis suppliers (and a decrease in users calling on a standard telephone or visiting a house/flat).
- Cannabis was usually obtained from a regular source; however, in around mid-2006 there was a sharp increase in new and occasional sources that corresponded with a decrease in users seeking cannabis from a regular source. This suggests an impact on supply of the market at this time.
- A steady decline in regular cannabis use among police detainees, particularly from around mid-2003 onwards. The use of cannabis in public places also declined between 1998 and 2004 (awaiting 2007 data).
- The number of deaths in which cannabis was a contributing factor was highly variable between 1998 and 2006; however, between 2004 and 2006 the number of deaths tripled. While variable year-to-year, overall the number of hospital separations tripled between 1998–1999 and 2006–2007.
- The number of episodes of treatment steadily rose between 2001/2002 and 2005/2006.
- Public perceptions of safety and drug use (in general) improved between 1998–1999 and 2000–2007.

The Australian cannabis market is largely domestic because, among other things, cannabis importations into Australia remain economically unattractive due to low prices and plentiful supplies from local cultivation. Over half of all border detections of cannabis involve the attempted importation of cannabis seeds (ACC 2008).

The general pattern observed in the indicator data reflects what has been observed elsewhere at national and even international levels (ACC 2008b; AIHW 2008a; Black et al. 2008b). For example, while cannabis continues to account for the majority of all drug detections, overall declines in cannabis production and seizures have been observed in North America, West and Central Europe and elsewhere in Oceania (UNODC 2008). Global changes in the cannabis market may mean that risk awareness among cannabis consumers is growing and contributing to some declines in demand. Despite this global trend (at least in many western nations), because cannabis in Australia is largely domestically-produced and is also the most widely used and accessible illicit drug (AIHW 2008a), it is unlikely that supply of and demand for the drug will fall dramatically in the future. This is especially the case for hydroponically cultivated cannabis where there is high potential financial gain, coupled with a relatively low risk of detection, to growers (Willis 2008). Moreover, the broad levels of use of this drug and its suggested increasing potency (particularly for hydroponic forms of the drug) make long-term containment of this market very important. This is especially the case at the state/territory level of DLE.

While cannabis seizure and arrest data show a probable overall market contraction, public health data are suggestive of an increase in cannabis-related health problems, with increases in cannabis-related deaths, hospital admissions and treatment provision over the past several years. *A priori*, these data are contradictory; however, cannabis use in the general population and even among many heavy users of the drug in Australia has actually been declining (Adams et al 2008; AIHW 2008a). Only a small proportion of cannabis users go on to develop dependence and to experience problems associated with their cannabis use, and research evidence appears to indicate that early cannabis use (that is, before the age of 16) is prognostic of later cannabis dependence (Fergussen et al. 2003). As such, observed increases in public health data possibly reflect *delayed effects* of dependence among cannabis users who were initiating use at a relatively young age in Australia in the 1990s (Roxburgh, Burns & Degenhardt 2008). It is also possible that increased use of hydroponic cannabis, which (as outlined above) may be more potent than 'bush' cannabis, is contributing to increases in cannabis-related health problems.

Methamphetamines

The combined indicator data suggest that there was rapid growth in the Australian methamphetamine market during the 2000s, although it has undergone possible contraction at key points. The following summarises major methamphetamine (and, where indicated, ATS more broadly) market trends:

- The total number of ATS detections at the border increased between January 1998 and June 2008. This was particularly evident in around late 2001/early 2002, and then again in around the middle of 2006. There were no similar trends apparent in the total weight of ATS detections over time.
- The number of detections of ATS through the post mirrored the pattern for total detections of the drug; however, the weight of postal detections also appears to have increased from around late 2004 onwards.
- The number of ATS traffic/supply and possession/use arrests in Australia increased gradually between 1996–1997 and 2006–2007.
- While the price per gram of base/paste increased between 2000 and 2004 and then remained reasonably stable until 2007, the price per gram of ice and powder rose steadily between 2000 and 2007. The price of ice was consistently higher than that of the other two forms of the drug.
- The perceived purity of each drug form decreased steadily between 2003 and 2007. Actual purity of methamphetamines (no distinction is made between the different forms of the drug by the analytical laboratories) was highly variable quarter to quarter, although an increase in

overall purity was evident from around mid-2003 onwards. For example, median purity was at around 6 percent in the period July–September 1999 but at 14 percent in April–June 2007.

- Generally, perceptions of the availability of the three major forms of the drug were highly variable year to year; however, overall a greater proportion of users thought that each form of the drug was more difficult to obtain in 2007 than those who indicated the same in 2000.
- There appeared to be an increasing trend towards obtaining ATS via home delivery from around the end of 2003. In contrast, there appeared to be a slight trend away from obtaining the drug from a house/flat in recent years.
- Users were more likely to use a mobile telephone to contact their dealer and less likely to use a standard telephone since around early to mid-2001. Users were also increasingly less likely to approach their dealer in public between late 1999 and mid-2007.
- While users were most likely to obtain ATS from a regular source, at key points in 2005, 2006 and (to some extent) again in 2007, users were more likely to obtain the drug from new sources and/or occasional sources.
- The number of regular ATS users was volatile from quarter-to-quarter between July–September 1999 and October–December 2007, although the long-run trend was essentially stable.
- There was a gradual increase in the number of episodes of treatment for ATS use between 2001–2002 and 2005–2006.
- The number of deaths where methamphetamines contributed to those deaths rose sharply between 1997 and 2000, before falling by around one half in 2001. The number of deaths increased again between 2001 and 2005, although not to the same extent as in 2000. The number of hospital stays related to methamphetamine use was similar to this pattern.
- The use of ATS in public steadily decreased between 1998 and 2004.

The indicator data for methamphetamines are typically volatile month-to-month or quarter-to-quarter, although long-run trends for several data indicators suggest that the market has evolved over time, undergoing expansion throughout the 2000s, but especially in the early to mid-2000s. This is evidenced by general increases in the number of ATS seizures at the border (particularly via postal streams), increases in arrests and overall purity of tested seizures (as opposed to self-reported perceptions) and increases in health-related problems and treatment in the period. However, against this backdrop, regular methamphetamine users reported that methamphetamines were more difficult to obtain in 2007 than in 2000 and that they were also more likely to source their methamphetamines from new and/or occasional sources from 2005 onwards. In addition, use in the general population declined in 2007 (AIHW 2008a; Black et al. 2008). Finally, the number of clandestine laboratories detected in 2006–2007 declined for the first time since at least 1997–1998 (ACC 2008) and the average weight of detections fell between 1998 and 2008.

Again, these trends generally parallel those observed overseas (UNODC 2008). As such, there appears to have been a period of growth in the global ATS/methamphetamine market, followed by a shift towards market stability for this drug type (particularly from around 2005 onwards). This is not to say that local DLE or other local action is marginal to market development—far from it. The stabilisation of Australian domestic production of ATS is the result of a combination of at least the following local factors including:

- aggressive pursuit of the operators of clandestine methamphetamine laboratories
- introduction in early 2006 of legislation to restrict over-the-counter sales of pharmaceuticals containing pseudoephedrine (a chemical precursor of ATS)
- active monitoring of pharmaceutical sales through Project STOP, whereby pharmacists are notified as to whether a customer is eligible to purchase pseudoephedrine-based pharmaceuticals and, where not, pass this information on to DLE.

In this way the collective evidence suggests that DLE, together with other interventions, has played a major role in restricting expansion of the Australian ATS/methamphetamine market and all of the flow-on effects to the broader community in terms of reduced public harms; however, as manufacturers and distributors find new ways of avoiding detection, it will remain important for DLE to continue to regularly monitor and intervene in market activity.

Heroin

The combined indicator data suggest that the heroin market is essentially stable, although this follows a period of decline from the early 2000s. The following summarises key heroin market trends:

- Overall, there was an increasing number of detections of heroin at the border from around mid-2002 onwards (particularly from early 2006). The weight of detections was reasonably stable, although fewer large detections (>20 kilograms) were made after early 2005.
- Overall, an increasing number of detections were detected via post from early 2006 onwards. There was also an increase in the weight of detections in both air cargo and post from around mid-2005.
- While variable year-to-year, the overall price per gram of heroin remained reasonably stable after 2002.
- The proportion of heroin users who considered heroin purity to be 'high' fell sharply between 2004 and 2005; however, between 2005 and 2007 the proportion of users who indicated that heroin purity was high steadily increased again. Actual heroin purity decreased between 1999 and 2007.
- Heroin users' perceptions of heroin availability suggest that the drug was increasingly more difficult to obtain (particularly in 2006).
- Fewer heroin users sourced heroin from the street/alley in late 2007 than did in early 2001; there was also a corresponding increase in home delivery of the drug.
- Users increasingly contacted their heroin suppliers using mobile telephones between late 1999 and late 2007. At the same time, calls made to suppliers on standard telephones decreased.
- Users generally sourced their heroin from a regular source; however, there were two periods in which users contacted new sources for the drug (one at the end of 2001 and one in mid-2005).
- Overall, the number of robberies across Australia each year steadily decreased between 2001 and 2004. Between 2004 and 2007 the number of robberies essentially stabilised. The number of robberies in NSW steadily fell between early 2001 and mid-2008.
- The number of regular heroin users fell sharply between late 2000 and early 2001. While the number of regular users varied quarter-to-quarter after that time, the overall pattern was relatively stable.
- The number of heroin users who had completed treatment was stable between 2002–2003 and 2004–2005, although dropped in 2005–2006.
- The number of deaths in which heroin contributed to those deaths fell sharply between 2000 and 2001. While the absolute number of deaths after that period varied year-to-year, the overall trend was relatively stable. The number of heroin-related hospital stays followed a similar pattern.
- Overall, the public now feels safer and considers 'drugs' less of a problem in their neighbourhood than they did several years ago. Heroin was used far less in public in 2004 than it was in 1998.

As noted above, the Australian heroin market is relatively stable. While the number and weight of seizures at the border (particularly seizures via postal services and air cargo) increased in the 10 years between 1998 and 2008, most other indicator data suggest market stabilisation. For instance, the purity of heroin tested by analytical laboratories decreased between 1999 and 2007, while the average price of a gram of heroin remained steady between 2002 and 2007. Regular users perceived heroin to be more difficult to obtain in the late 2000s than earlier in the decade and the proportion of users in treatment remained reasonably stable, as did the number of regular users and the number of people dying or admitted to hospital because of the drug. Also telling are the robbery figures, which have either fallen (or at least remained stable) over the past decade. Finally, use of heroin in public places and a public perception that 'drugs' are a local problem have both fallen.

It is sometimes tempting to view recent shifts in indicator data as a sign of imminent market change; however, it is important to understand that short-term fluctuations are often simply normal variations in the data and not necessarily cause for immediate concern (or celebration!). Most important is the long-run trend information, which is more meaningful and indicative of substantive market change. This is why it is necessary to monitor and compare data over the longer term, rather than focusing on say month-to-month or year-to-year movements.

While the overall data are indicative of stability and containment of the Australian heroin market, sustaining these will require ongoing monitoring and DLE intervention, as well as adequate provision of jurisdictional prevention and treatment services. This is because data from overseas point to a rapid expansion of opium production over the past several years, particularly in Afghanistan, but also more recently in South East Asia (UNODC 2008). While the importation of heroin into Australia generally originates from South East Asia, changes in international production may see global trafficking routes shift towards Afghanistan and new transit points to Australia (for example, via India) emerge (ACC 2008). If this occurs, then demand for heroin may increase over the longer term.

Cocaine

The following is a summary of major developments within the Australian cocaine market over the past decade:

- Over the ten years, there was an increase in the number of cocaine detections at the border, particularly from around mid-2003 onwards. The weight of detections was variable month-to-month, although there was a possible increase towards the end of 2006.
- The number of detections via post increased greatly from around early 2003 onwards. The weight of postal detections also increased in the same period.
- Cocaine prices (per gram) steadily increased between 2000 and 2007.
- Perceptions of cocaine purity as 'high' increased markedly between 2003 and 2004 but essentially stabilised after that point. Actual cocaine purity was highly variable but appears to have increased greatly in mid-2004 after a period of low purity.
- Cocaine availability increased sharply between 2000 and 2003, although fell away between 2003 and 2005; availability appeared reasonably stable from 2005 onwards.
- There was a possible increase in mobile calls made to suppliers and a corresponding decrease in standard telephone calls between late 1999 and late 2007.
- There was a possible decrease in the use of regular sources to obtain cocaine and an increase in new sources.
- The number of regular cocaine users decreased after around mid-2001 and was reasonably stable after that time.

- Overall, the number of cocaine-related deaths decreased between 1998 and 2002; between 2002 and 2006 the number of deaths was relatively stable.
- The number of users who had completed treatment decreased sharply between 2001–2002 and 2002–2003, although increased steadily between 2002–2003 and 2005–2006.
- Overall, the number of cocaine-related hospital separations was variable between 1998–1999 and 2006–2007; however, they were reasonably stable between 2004–2005 and 2006–2007.
- The proportion of people who used cocaine in public fell between 1998 and 2004.

The collective evidence suggests that the Australian cocaine market is highly volatile but that it probably underwent a period of growth in the early to mid-2000s and then may have stabilised after that time. Noteworthy trends among these data are:

- overall increases in average price
- stability in perceptions among certain regular users of cocaine availability
- a reduction in the number of regular users of the drug
- overall stability in the numbers of users dying from cocaine-related episodes and hospital admissions
- more users seeking treatment.

The chief centre of the world's cocaine production is Colombia, South America. Cocaine production in that country has undergone significant decline over the past decade, which has resulted in reduced demand for the drug in a number of countries, particularly in North America, its primary market (UNDOC 2008). Seen within this context, and together with the key data indicators outlined above, the increasing numbers of border detections of the drug suggest that Australian DLE agencies are probably minimising expansion of the cocaine market in this country. However, it is difficult to say this with absolute certainty because the indicator data sample sizes are small in some instances.

MDMA

The following is a summary of major developments within the Australian MDMA market over the past decade:

- Overall, the number of detections of MDMA at the border steadily increased between early 2001 and early 2002, although decreased again after the middle of 2004. The weight of detections each month was variable, although a possible increase in weight of detections occurred in around mid-2004.
- The trend in postal detection numbers followed the pattern for total detection numbers above. The weight of detections via air passengers/crew appeared to decrease over time.
- The price of MDMA steadily fell between 2000 and 2007.
- MDMA purity peaked in 2004 but fell between 2004 and 2007.
- The number of users who completed treatment increased greatly between 2001–2002 and 2005–2006.
- The proportion of people who used MDMA in public fell between 1998 and 2004.

MDMA-specific data are not necessarily as available/accessible as data relating to other drug types (such as cannabis, heroin and even cocaine) as they are often combined with other amphetamine-based drugs data under the umbrella term 'ATS' (this is particularly the case for public health-related data) or the sample sizes are very small. As such, it is difficult to interpret the limited indicator data presented above and draw any firm conclusions of relevance to DLE performance. However, what can be said is that the global MDMA market has been relatively stable for several years (UNDOC

2008) and that, according to an Australian study of regular MDMA users (Black et al. 2008a), use and availability levels in 2007 were generally consistent with those over the past several years. As such, the body of evidence suggests that the MDMA market is stable in this country.

Chemical precursors

The following is a summary of major developments within the Australian chemical precursor market over the past decade:

- The number of detections of chemical precursors at the border increased greatly in early 2002, but then gradually declined after then. Between mid-2005 and mid-2008 the number of detections remained reasonably stable. There was no clear trend in detection weights, although there were several large seizures (>20 kilograms) from 2003 onwards.
- The number of postal detections follows the same pattern as the trend for total detections of chemical precursors. There was also a slight increase in the number of detections via air passengers/crew.
- The weight of postal precursor detections increased after late 2001 and there also appears to have been a further increase from around the middle of 2007 onwards.

Data on the nature and extent of the market in chemical precursors is limited compared to other drug types. Because drug users don't consume chemical precursors as such, but rather the drugs manufactured through use of precursors (for example, methamphetamines or MDMA), there are no public health data or drug user self-report data available in which to interpret chemical precursor detections and seizures. Data that are available indicate that the market in chemical precursors grew exponentially in the early to mid-2000s but remained relatively stable after that, suggesting a levelling off in supply and demand for the drugs. This corresponds more generally with the pattern observed for the methamphetamine market outlined above.

Monitoring and evaluating performance

An effective performance management system should be able to help set, monitor and assess short, medium and long-term goals. Monitoring and evaluating achievement of these goals should occur at all organisational levels, from the individual through to agency-wide. Without strong performance review processes embedded at all organisational levels, performance measurement runs the risk of becoming detached from day-to-day operations and of being little use in helping inform and/or drive performance improvements.

The focus of fieldwork discussions in Customs was at the organisational level, rather than at local operational or individual levels. At this level, Customs is positioned well in terms of monitoring and assessing DLE impacts and feeding this information back into high-level strategic planning. For example, and as already outlined in the introduction, while formal performance reporting continues to focus on types of illicit drugs detected, detection weights and where drugs are detected, Customs' corporate statistics and intelligence and border targeting functions also undertake regular 'gap analyses' in which a range of other quantitative and qualitative information (usually that which is publicly available) is used to informally assess drug market characteristics and to triangulate with Customs' detection/seizure data to examine impacts. These information sources include among others:

- IDDR
- market intelligence
- drug-related health data, particularly illicit drug overdoses

- DUMA data
- IDRS data.

Customs could improve its monitoring and assessment by *formally* incorporating the above-listed data sources to more regularly inform the measures of drug market impacts suggested in this report. This would be advantageous, particularly as federal agencies are increasingly required to provide context around desired outcomes and report on impacts in real terms through the Department of Finance and Deregulation's Portfolio Budget Statement process (http://www.finance.gov.au/budget/budget-process/portfolio-budget-statements.html, accessed 13 October 2008).

As argued previously (Willis, Homel & Gray 2006), such measures outlined above are also designed to be monitored collectively, as no single measure is considered definitive. Use of multiple measures from each of the high-level outcome areas is intended to reduce the risk of error in identifying drug market trends. This is especially important given that the framework is comprised of indirect measures of drug-related phenomena that are linked to both DLE and health and public amenity consequences.

Finally, Customs owns numerous databases, and each business area within the agency typically has its own administrative systems. Regional offices also manage their own administrative systems. While these largely separate information management systems meet the day to day operational needs of Customs business areas, fieldwork discussions revealed that they can hinder the agency's ability to compare the performance of different business areas and regions because they lack consistency (for example, in terms of data definitions, availability of data fields and data entry itself) across the systems. In addition, such an arrangement makes it very difficult to aggregate data, which is particularly important where national-level reporting is required.

Communicating results and accountability structures

A close relationship exists between performance monitoring and evaluation and communicating results to agency managers and executives (and beyond) for accountability purposes—the former usually forms an important part of the latter. At the time of reporting, Customs monitored and reported DLE activity (number and type of illicit drug/chemical precursor detections) within their intelligence and border targeting functions on a monthly basis; this monitoring/reporting process also included examination of regional trends. Quarterly reviews (or 'check point' reviews as they are called in some parts of the agency) in which Customs' national directors, managers and other relevant staff were involved were also undertaken to determine what had been achieved in the previous quarter and to aid short- to medium-term strategic planning. Similar high-level review processes occur at Customs' division and whole-of-organisational levels on an annual basis.

Fieldwork discussions highlighted recent overall improvements in Customs' governance arrangements, particularly in the centralising of illicit drug policy initiatives, performance measurement and long-term strategic goal-setting. However, these discussions also suggested that Customs needed to further improve certain performance monitoring and reporting feedback processes. For example, while there appears to be effective quality control processes in place in central office between corporate statistics and current intelligence (the 'certification' process), some staff indicated that feedback procedures were not as well defined, or at least did not function as well, between central and regional offices. This may suggest that Customs needs to standardise its monitoring and reporting processes to help improve information flow between central and regional offices. The model framework presented here may be the means through which this can be achieved.

Chapter two: Tasmania Police

Tasmania Police is one of four agencies that falls under the broader department of Police and Emergency Management. The department's secretary is responsible for managing the department and is also the Commissioner of Tasmania Police. The department has four output groups that include community safety, crime, traffic and emergency management. This project is chiefly concerned with the first two outputs, in which police must:

- provide support to the community
- undertake crime investigation
- provide forensic science services
- provide protection of primary industry and marine resources
- support judicial services.

Tasmania Police is comprised of four district commands – Southern, Eastern, Northern and Western (Figure 2.1). These districts are further arranged into 13 geographical divisions. The Southern, Northern and Western districts have several support services that include the following:

- District Support
- Criminal Investigation Branch
- Prosecution
- Drug Investigation
- District Response

The Eastern district includes District Support, the Criminal Investigation Branch and District Response only. Prosecution and Drug Investigation services for this district are managed by the Southern District.

DLE within Tasmania Police is undertaken at two levels. The Drug Investigation Service (or DIS) in each district provides specialist, targeted DLE intervention using a problem-solving approach, whereby activity is focused on medium- to high-level offenders. Local-level 'beat' police also play an important role in DLE, particularly in terms of diverting less serious drug offenders into drug education and treatment programs.

In addition to these functions, Tasmania Police has several services including Drug Policy Services and Corporate Reporting Services that undertake a range of activities to support both district- and executive-level objectives and needs. The service of most relevance in the context of this project is Corporate Reporting Services, which has administrative responsibility for (among other things) corporate reporting, including performance reporting (Department of Police and Emergency Management 2007).

Figure 2.1 Tasmania Police districts

Source: http://www.police.tas.gov.au/permits/other/party-safe

Measures and indicators of state and local-level DLE performance

Tasmania Police measure, monitor and report on a range of DLE indicators at both the local and state levels, which are essentially mirrored in aspects of the model performance measurement framework. The range of indicators reflects Tasmania's particular illicit drug market environment. For example, Tasmania Police reported during fieldwork that they do not have significant heroin or cocaine markets and so indicators that they use regularly for performance and accountability purposes focus on other more prevalent illicit drug types, such as cannabis, amphetamines and amphetamine-type stimulants (ATS). The specific indicators currently used by Tasmania Police that are reflected in the model framework, as well as some possible new measures, are outlined below. A full list of indicators used by Tasmania Police, including associated explanatory notes, is provided in Appendix 2 of this report.

Reduced drug crime and drug-related crime

Most of the indicators already used by Tasmania Police for both performance improvement and accountability purposes are reflected in this outcome area of the model framework. Currently, the indicators focus on the more traditional measures of DLE performance, such as detections, seizures and drug weights. The quality of these data has improved significantly over the past five years; for example, until the 2006/2007 financial year 'serious' drug offenders charged by the DIS (those charged with a supply offence) and 'minor' drug offenders charged by DIS (those charged with possession/use drug offences) were each aggregated by drug type and so there is no simple way of analysing the policing of the separate drug types prior to this time. The revised approach will

allow for improved monitoring of separate drug markets in the future. A list of indicators used by Tasmania Police, alongside the relevant framework indicators for this outcome area, is provided in Table 2.1 below. Also included in this list are a number of other suggested indicators of DLE performance.

Tasmania Police do not regularly or systematically incorporate drug price, purity and availability data into their performance reporting processes, although it would be possible for them to do so by including data from the IDRS. As already outlined, the IDRS is designed to monitor key trends in illicit drug use in Australia and includes (among other things) a convenience survey of IDU, who are considered an important sentinel group for monitoring trends in illicit drug use within the community (Degenhardt & Dietze 2005).

The Tasmanian IDRS survey includes questions on self-reported patterns of drug use, perceptions of price, purity and availability, health status and involvement in drug-related crime. These data have been collected annually in Tasmania since 2000 and are publicly available on the NDARC website (see http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/IDRSJurisdictional#Tas). There is about a 12 month lag from time of data capture to release. While these data relate to injecting drug users' self-reported information only (and so cannot be extrapolated to the general population), they could nevertheless be a useful flag for issues that may require DLE action in Tasmania, particularly in the absence of other more regularly captured data of this type in Tasmania.

Illicit drug price and purity data are also available in the Australian Crime Commission's annual IDDR, and (in Tasmania) the DIS. Price data are collected from each police service, including Tasmania Police, and are based on information supplied by covert police units and police informants. Purity data are obtained from jurisdictional analytical laboratories. These data do not represent the purity figures of all seizures, only those analysed at a forensic laboratory, and so the drug purity figures obtained may not be representative of all drug seizures. For Tasmania, published purity figures represent the purity levels of drugs received at the laboratory during the relevant quarter and not the purity level of drugs seized by police during the quarter as occurs in some other jurisdictions. Other issues to do with purity data reported in the IDDR include:

- The time between the date of seizure by police and the date of receipt at the laboratories can vary from a few days to several months and sometimes (in isolated cases) years.
- Purity data in any given IDDR represent those seizures analysed during a given financial year and not necessarily all seizures made during that period (ACC 2008b).

The drug crime and drug-related crime outcome area also includes three measures that are designed to monitor changes within drug markets. These include measures of where users obtain their drugs, changes in trafficking modes and changes in the types of drug trafficker. The original rationale for including these measures was that any changes over time in them (and hence the underlying criminal scene) could be reasonably argued to be a result of DLE work, or a lack thereof.

The first of the three measures was intended to be underpinned by indicator data from the DUMA program. Currently, DUMA does not operate in Tasmania; however, IDRS data could be used by Tasmania Police to gain some insights into the impact of their work on local illicit drug markets. For example, the IDRS includes a question on the main place a user obtained their drugs in the last six months (by drug type), such as in an indoor/outdoor setting. While the IDRS is an annual data collection only, in the absence of DUMA in Tasmania, trend data based on this question may still be useful for monitoring and assessing DLE impact on local drug markets.

The other two measures included in the framework to monitor changes in drug market dynamics were specifically geared towards national DLE agency aims of disrupting major illicit drug trafficking operations. As such, these measures may not be as relevant to the work of state and territory DLE agencies, particularly at the street level. Discussions at the May 2008 national planning workshop, in which representatives from all levels of DLE and from most jurisdictions participated, generally appeared to confirm this view.

Tasmania Police indicated during fieldwork that Tasmania does not have large or established heroin and cocaine markets. This view is supported by Tasmanian drug seizure data (see the analysis of seizure data below). While robbery is considered a reliable indicator of heroin availability in Australia (Chilvers & Weatherburn 2003), its relationship with other drug types is less clear. As such, the measure addressing robbery trends would not provide a satisfactory means of assessing DLE impact on drug-related crime in Tasmania at this stage. Should a heroin market be established in Tasmania in the future, this measure may then prove useful.

Table 2.1 Performance indicators currently used by Tasmania Police to monitor drug crime and drug-related crime

Framework measure	Framework indicator	Tasmania Police indicator
Trends in illicit drug detections/ seizures	Number of illicit drug detections/seizures by drug type	Total number of district drug detections. Monthly data from 2004/2005.
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Number of cannabis plants seized by district. Monthly data from 2003/2004.
		Total weight (kg) of cannabis plants seized by district. Monthly data from 2003/2004.
		Total weight (gm) of amphetamines/ dexamphetamines seized by district. Monthly data from 2003/2004.
		Number of MDMA tablets seized by district. Monthly data from 2005/2006.
		Total number/weight (ml or gm) of narcotics seized by district. Monthly data from 2004/2005.

Table 2.1 Performance indicators currently used by Tasmania Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Tasmania Police indicator
Trends in illicit drug arrests	Number of illicit drug traffic/ supply arrests by drug type Number of illicit drug possession/use arrests by drug type	Number of 'serious' drug offenders charged by district. Monthly DIS data from 2006/2007 can be analysed by drug type. Number of 'minor' drug offenders charged by district. Monthly DIS data from 2006/2007 can be analysed by drug type. Number of offenders charged by 'uniform' officers. Monthly data.
Trends in illicit drug street prices	Median street price of illicit drugs by drug type	Not currently used/ regularly reported by Tasmania Police Possible use of Tasmanian IDRS data
Perceived purity of illicit drugs	Number of people who perceive the purity of illicit drugs to be high, medium, low or to fluctuate by drug type	Not currently used/ regularly reported by Tasmania Police Possible use of Tasmanian IDRS data
Perceived availability of illicit drugs	Number of people who perceive the availability of illicit drugs to be very easy, easy, difficult or very difficult by drug type	Not currently used/ regularly reported by Tasmania Police Possible use of Tasmanian IDRS data

Table 2.1 Performance indicators currently used by Tasmania Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Tasmania Police indicator
Changes in where users obtain their drugs	Number of users who sourced their illicit drugs the last time from: • a house/flat • a public building • home delivery • on the street/outdoors Number of users who contacted their drug supplier the last time by: • calling them on a mobile • calling them on the telephone • visiting a house/flat • approaching them in public • obtaining drugs through a third party • being with them already Number of users who got their drugs the last time from: • a regular source • an occasional source • a new source Number of users who got their drugs the last time from a location different to the arrest location	Not currently used/ regularly reported by Tasmania Police DUMA not in Tasmania Possible use of Tasmanian IDRS data, specifically: Number of users who mainly sourced their drugs in the last six months from: • street dealer • dealer's home • friend • mobile dealer • home delivery
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/ regularly reported by Tasmania Police Measure considered more relevant to national level DLE

Table 2.1 Performance indicators currently used by Tasmania Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Tasmania Police indicator
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/ regularly reported by Tasmania Police Measure considered more relevant to national level DLE
Trends in robberies	Number of people arrested for armed and unarmed robbery	Not currently used by Tasmania Police for DLE purposes. Robbery is a reliable indicator of heroin availability, but its relationship with other drug types is less clear. At this stage, Tasmania is not considered to have an established heroin market.

Reduced organised crime

This outcome area addresses high-level drug crime and the underlying measures were specifically designed to target national-level DLE effort in terms of disrupting major illicit drug trafficking operations. However, it was also envisaged that these measures could be applied at a state level. Discussions at the May 2008 national planning workshop, in which representatives from all levels of DLE and from most jurisdictions participated indicated that data underpinning these measures may not actually be as easily obtained or usefully applied at a state level as first thought. While jurisdictions (including Tasmania) do record and report drug weights, they do not categorise their serious drug offenders in a manner similar to the way Customs does, nor is there a simple way to extract, collate and analyse detailed trafficking information (such as the modes used by drug traffickers to distribute their drugs). At this stage at least, it appears that these measures may not be able to be practically applied beyond the national level. Table 2.2 outlines the status of each indicator under this outcome area.

Table 2.2 Performance indicators currently used by Tasmania Police to monitor organised crime

Framework measure	Framework indicator	Tasmania Police indicator
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Number of cannabis plants seized by district. Monthly data from 2003/2004. Total weight (kg) of cannabis plants seized by district. Monthly data from 2003/2004. Total weight (gm) of amphetamines/ dexamphetamines seized by district. Monthly data from 2003/2004. Number of MDMA tablets seized by district. Monthly data from 2005/2006. Total number/weight (ml or gm) of narcotics seized by district. Monthly data from 2004/2005.
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/ regularly reported by Tasmania Police Measure considered more relevant to national level DLE
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/ regularly reported by Tasmania Police Measure considered more relevant to national level DLE

Improved public health

Tasmania Police use a small amount of health data to regularly inform DLE performance—this is chiefly comprised of drug diversion data sourced from the Tasmanian Police Illicit Drug Diversion Initiative (Table 2.3). The Initiative allows for Tasmania Police to use their discretion to provide a caution or divert low-level or first time drug offenders, found using or possessing small quantities of illicit drugs or pharmaceutical drugs being used for non-medicinal purposes, to health services to receive education, counselling or appropriate treatment.

At the discretion of the police officer involved, both adults and young persons (if the offender is under 18 years of age, a parent, guardian or responsible adult must witness and sign the caution or diversion notice being issued) can be diverted for minor drug offences.

Tasmania Police determine eligibility for the program according to several criteria including:

- the offender must have no more than three drug events in the last ten years
- the offender admitting to the offence
- there is sufficient evidence that a conviction could occur
- whether the offence involved violence
- the quantity of drugs involved must be consistent with being for personal use only.

There are three levels of drug diversion in Tasmania. The level of drug diversion issued to offenders is at the discretion of the Tasmania Police officer involved. The three levels include:

- Level 1 Cannabis Caution Notice (issued to cannabis offenders only). Offender is cautioned regarding the legal consequences if they are detected committing further similar offences in the future
- Level 2 Drug Diversion Notice (issued to cannabis offenders only). Offender is required to make contact with the Alcohol and Drug Service (ADS). A brief intervention is conducted, which is normally a one-off face to face information and education session with an alcohol and drug worker
- Level 3 Diversion Notice (issued to cannabis offenders and those in possession of any other illicit drug or licit drug (pharmaceuticals) being used illicitly). Offender attends assessment and one or more follow-up appointments for treatment as agreed with the alcohol and drug worker.

If a person is issued with a Level 2 or Level 3 Drug Diversion Notice, they must contact the Alcohol and Drug Service (ADS) within three days. The ADS is required to advise the police if the person does not attend the health appointments (non compliance). If the offender fails to comply, then depending on the age of the offender the case will either be referred to a Youth Justice Officer to determine what course of action will be taken or referred for prosecution.

Tasmania Police indicate that they forward data on all levels of the initiative to the Tasmanian Department of Health and Human Services (DHHS) for capture within the AODTS-NMDS.

Table 2.3 Performance indicators of improved public health

Framework measure	Framework indicator	Health indicator
Trends in the frequency of illicit drugs consumed by drug type	Number of people who used illicit drugs in the past month by drug type Number of people who used illicit drugs in the past month who used: • at least once a day • at least once a week (not daily) • less than weekly	Not currently used in formal reporting by Tasmania Police. Possible use of Tasmanian IDRS data, specifically 'the number and proportion of IDU who consume illicit drugs more than three times a week, by drug type'.
Trends in HCV/HIV	Number of people with positive status of HCV/HIV	Not currently used in formal reporting by Tasmania Police. Removal from framework (see Customs technical report above)
Trends in drug-related deaths	Number of drug-related deaths by drug type	Not currently used in formal reporting by Tasmania Police. Possible use of AIHW data.
Trends in drug-related emergency department presentations	Number of drug-related emergency department presentations by drug type	Not currently used in formal reporting by Tasmania Police. DHHS indicate they do not collect these data. Possible use of AIHW's hospital separations data, although would attract a fee and require permission to use by DHHS.
Trends in ambulance attendances at overdose	Number of ambulance attendances at overdose by drug type	Not currently used in formal reporting by Tasmania Police. DHHS indicate they do not collect these data.
Trends in clients participating in drug treatment	Number of clients in treatment by drug type	Number and proportion of offenders diverted into Tasmania's Illicit Drug Diversion Initiative (IDDI) program

Tasmania Police indicated during fieldwork that they do in fact use other drug-related health mortality and morbidity statistics on an ad hoc basis, although these are not included in their formal performance monitoring, improvement and reporting processes. Such data are obtained informally as no official data sharing arrangements exist currently between DHHS and Tasmania Police.

There are a number of administrative health collections that contain useful indicator data of illicit drug-related morbidity and mortality in each jurisdiction. Typically, state health departments collect data on:

- ambulance attendances at drug overdoses
- illicit drug-related emergency department admissions
- hospital admissions/separations where illicit drugs were the primary or an underlying reason for admission
- illicit drug treatment
- causes of death due to illicit drugs.

As is the case with any administrative data set, each of the above collections may provide a useful flag for DLE on possible drug market changes, but care also needs to be taken when using them as they each have inherent limitations. Major strengths and limitations of these types of datasets are outlined in the Customs technical report above. However, as a general comment, illicit drugs data within these collections: may be limited (be of insufficient sample size); elements may change over time; they may lack stringent quality checks for missing or incorrectly entered data; and they may not be completely comparable with definitions/coding systems used by other agencies (Barker et al. 2005; Trewin 2001). There may also be additional issues to do with specific collections. For example, within the hospital separations and emergency department data collections, there is evidence that coding of diagnoses are only reliable for primary diagnoses, which may mean that illicit drug-related emergency department presentations and hospital separations are underestimated because identification of the illicit drug may only be present at secondary diagnosis and beyond (Degenhardt & Dietze 2005).

There may be a similar issue of under-reporting within the Tasmanian coronial database. In this case toxicology tests are not necessarily performed by the coroner unless there was a suspicion drugs played a part in the death. There may also be considerable time-lag issues because some cases are not resolved (and therefore entered into the system) for several years after death.

Drug-related health data in Tasmania are difficult to obtain and the AIC was only able to access mortality data through the AIHW. In response to a request for certain drug-related health data (number of illicit drug-related emergency presentations, number of ambulance attendances at overdoses and number of clients in drug treatment) the DHHS indicated that the department did not collect these data (correspondence to the AIC from the Acting Secretary of DHHS, 5 September 2008). This means that the only health data collections easily available for monitoring and measuring drug-related health outcomes in Tasmania are:

- diversion data (for drug treatment)
- mortality data
- IDRS data (for drug consumption patterns).

An analysis of these data is provided below. It would also be possible for Tasmania Police to obtain data on the number of drug-related hospital separations in Tasmania from the AIHW, although this would attract a fee and would require permission from DHHS to use.

Another potential source of data identified during Stage 2 fieldwork that could be used to measure drug-related public health outcomes in Tasmania is the police's random road drug-test data. These data can help quantify levels of illicit drug use in the general population. They may be of particular use given that they are collected by police and can be monitored on a frequent and regular basis (for example, monthly), unlike the IDRS data. However, there are some limitations with these

data. For example, they may not be representative of the general population's drug use – fieldwork discussions with DLE personnel indicated that not all testing is random, rather some testing is targeted at 'hot spot' locations. Roadside drug testing may also be particularly sensitive to DLE policy changes (such as, the number of test units in use at any point in time), which means that when more units are in use the levels of detection go up and when fewer units are in use the levels of detection go down.

Improved public amenity

As outlined above, there is a dearth of data (either publicly available or otherwise) on issues to do with the impact of illicit drugs on the community's quality of life or public amenity. However, the annually conducted NSCSP, which aims to monitor levels of community satisfaction with policing, includes questions on perceptions of safety in local areas as well as perceptions about local drug problems that can be used to measure DLE performance.

Since July 2006, the NSCSP has been conducted on behalf of the police services by Roy Morgan Research. Under Roy Morgan Research, the sample size in Tasmania has increased from 1,800 to 2,400 but the methodology and questionnaire remain relatively unchanged from previous years when the survey was conducted by AC Nielsen. For further information about the NSCSP, see the Customs technical report above.

To date, Tasmania Police have not included these data in their formal DLE performance management system, although it would be possible for them to do so even if on an annual basis only. Table 2.4 outlines the relevant status of each indicator.

Table 2.4 Performance indicators of improved public amenity

Framework measure	Framework indicator	Tasmania Police indicator
Trends in level of safety felt by the community	Number and proportion of people who feel very unsafe, unsafe, safe or very safe in their local area	Proportion of people who feel safe at: • home alone • walking/jogging • during the day and after dark. Not formally reported
Trends in community concern about the 'drug problem'	Number and proportion of people who are very concerned, concerned, unconcerned about the drug problem in their local area and the state	Proportion of population who thinks drugs are a problem in their: • local area • state. Not formally reported

Additional drug-related public amenity indicators and data collections identified in Stage 2

The NDSHS is another potential source of data to assess public amenity issues, especially since state-based data are available through the AIHW. The survey includes a number of questions related to public amenity issues. For instance, it includes questions on the use of illicit drugs in public settings, adverse public behaviour caused by illicit drug use and work missed through illicit drug use. It should be noted that data from the NDSHS may not fulfil the needs of short-term performance measurement, although, in the near absence of any other more regularly collected data source, these data could be used to monitor longer-term public amenity trends in Tasmania. Major strengths and limitations of these data are outlined in the Customs technical report above.

Data collection, analysis and results

Tasmania Police collects, analyses and reports on a range of DLE performance data. Specific data indicators used are outlined above. This section provides a statistical report on these indicators, as well as a report on other identified potential indicators of performance. The statistical analysis is presented by outcome area. All figures referred to below can be found at Appendix 3 of this report.

Reduced drug crime and drug-related crime

Total number of drug detections: monthly data are available by district from July 2004. Figure 2.2 provides a frequency distribution for Tasmania. While the number of drug detections has varied since July 2004, the general pattern is one of increasing drug detections. Without a breakdown by drug type it is not possible to attribute the increase to any particular drug.

Total number of cannabis plants seized: monthly data are available by district from July 2003. Figure 2.3 provides a frequency distribution for Tasmania. While the number of cannabis plants seized varies over time, the overall trend is stable. There appears to be a seasonal effect in play, with more plants typically seized over the warmer, growing months.

Total weight (grams) of cannabis plants seized: monthly data are available by district from July 2003. Figure 2.4 provides a frequency distribution for Tasmania. While there were a number of large cannabis seizures in late 2003 through to mid-2004, the weight of cannabis seizures has generally fallen since this time.

Total weight (grams) of amphetamine type stimulants (ATS) seized: monthly data are available by district from July 2003. Figure 2.5 provides a frequency distribution for Tasmania. With the exception of a large spike in weight in May 2007, the pattern observed is relatively stable for the period.

Total weight (grams) of MDMA seized: monthly data are available by district from July 2005. Figure 2.6 provides a frequency distribution for Tasmania. What is immediately evident is that there is a large number of MDMA seizures during the warmer months compared to the cooler months. As occurs elsewhere, MDMA use in Tasmania usually occurs at music-related events (Black et al. 2008a), which are often held around summertime. Police are frequently in attendance and so the observed pattern is of little surprise.

Total number/volume/weight (number of tablets, millilitres or grams) of narcotics seized: monthly data are available by district from July 2007 (a breakdown by narcotic type, which only includes opiates and cocaine, is not possible). Compared to the other drug types, and with the possible exception of tablet forms of the drugs, few seizures of narcotics were made in the financial year 2006–2007, confirming both police intelligence and research evidence (ACC 2008b;

Black et al. 2008b) that there is minimal market development in Tasmania for these drug types. Table 2.5 includes a monthly breakdown for Tasmania. While the market for these drug types is typically less developed than for cannabis and ATS, it remains important for police to monitor them for possible future increases, even if only on a quarterly or six-monthly basis.

Table 2.5 Number and weight of narcotics seized in Tasmania, July 2007 to April 2008

Month	grams seized	no. tablets seized	mls seized
July 07	0	358	0
Aug 07	0	3,906	1,385
Sept 07	1.4	134	0
Oct 07	44	24	23
Nov 07	91	209	0
Dec 07	185	0	0
Jan 08	0	25	0
Feb 08	0	0	0
March 08	0	85	3
April 08	44	7	7
Total	365.4	4,748	1,418

Source: Tasmania Police data files

Total number of 'serious' and 'minor' drug offenders charged – cannabis and cannabis derivatives, and cannabis plants: monthly data are available by district from July 2006. Figure 2.7 provides a frequency distribution for the state only. The data plot indicates that more serious and minor offenders are charged with supplying and use/possessing (respectively) cannabis and cannabis derivatives than whole cannabis plants. In fact in the limited period available for analysis, the number of offenders charged for supplying and use/possessing cannabis plants rarely exceeded 10 in any given month. While the number of offenders charged has remained reasonably stable since July 2006, it is evident that there has been a sharp increase in the number of serious offenders charged with supplying cannabis and cannabis derivatives since the end of 2007. While the number of offenders charged for minor cannabis (use/possess) is low, it should be noted that many of these offenders are now diverted into education/treatment (see below). To obtain a clearer picture of the number of people detected in possession of small amounts of cannabis, it would be useful to interpret both data series in tandem.

Total number of 'serious' and 'minor' drug offenders charged – ATS: monthly data are available by district from July 2006. The number of both serious and minor offenders charged with supplying or use/possessing ATS is low in each month (<10) in Tasmania in the defined period. However, as identified above, it is still important to at least keep a 'watching brief' on emerging patterns to ensure that resources can be deployed if drug supply increases. In this instance it may be more useful to monitor data on a quarterly basis. Figure 2.8 provides a frequency distribution of quarterly data for serious and minor offenders charged with supplying and use/possessing ATS. The number of minor offenders charged has remained stable over the period, while the number of serious offenders charged has varied considerably, with more serious offenders charged in the cooler months.

Total number of 'serious' and 'minor' drug offenders charged – MDMA: monthly data are available by district from July 2006. The number of serious and minor offenders charged with supplying and use/possessing MDMA is very low in Tasmania; 'n' is usually less than 10 for each offender type in any given quarter (Figure 2.9). Little can be said about the data at this stage given the low numbers.

Total number of 'serious' and 'minor' drug offenders charged – narcotics: monthly data are available by district from July 2006. Again, the number of serious and minor offenders charged with supplying or use/possessing narcotics is very low in Tasmania in any given quarter and little can be imputed from these data (Figure 2.10). With the exception of a large spike in the plot in the period October to December 2007 (representing 21 serious offenders charged), the number of offenders charged is well below 10 in any given quarter in the period under observation.

Total number of offenders charged by DIS (serious and minor) and uniformed officers for drug offences: monthly data are available by district from July 2002 and represent the combined number of offenders charged by specialist and street-level DLE. Figure 2.11 provides a frequency distribution of monthly data. It is evident from the plot that the overall number of offenders charged by uniformed officers increased sharply in mid-2005 and that, despite considerable monthly fluctuations, the number of offenders charged has not returned to the same level since then; the mean number of offenders charged by uniformed officers pre-July 2005 is 40 per month, while the mean number from July 2005 onwards is 99 offenders charged per month. There also appears to be a similar 'breakpoint' in the number of minor offenders charged by DIS in mid-2005, with more minor offenders being charged each month on average after this period (29) than before (19). While the number of serious offenders charged by DIS during the same period fluctuates to a small degree, there is no clear breakpoint as for the other groups (mean number of offenders charged per month pre-July 2005 is 37, mean July 2005 onwards is 34).

Additional indicators of reduced drug crime and drug-related crime

As outlined above, Tasmania Police could incorporate additional measures in their regular performance management practices that would provide further insight into Tasmania's different illicit drug markets. Drawing on the annual IDRS collection (with the exception of methamphetamine purity data, some of which comes from Forensic Science Service Tasmania), the following provides a statistical report of the suggested indicators by drug type.

Cannabis

Self-reported median street price: the IDRS reports drug price in a number of different ways. To obtain some level of comparability between drug types in this report, the price per modal gram is used throughout the report. According to IDRS data, the amount paid for both bush and hydroponic forms of cannabis has remained unchanged in Tasmania since at least 2003, with one gram of outdoor cannabis costing $10 and one gram of indoor-grown cannabis costing $25 (IDRS Annual Reports 2003-2007). The differential in price is consistent with police intelligence that cannabis grown indoors is in greater user demand because of its higher concentrations of THC (ACC 2008b).

Number/percentage of people who self-report the availability of cannabis as very easy, easy, difficult or very difficult: cannabis is the most readily available illicit drug. Between 92 and 100 percent of injecting drug users (IDU) surveyed as part of the IDRS in any given year between 2003 and 2007 reported that indoor and outdoor forms of cannabis were very easy/easy to obtain in the six months prior to being surveyed.

Number/percentage of users who usually purchased their cannabis from friends, known dealers, street dealer: most IDU in Tasmania between 2003 and 2007 purchased their cannabis from

friends (n≥63), with a smaller proportion purchasing their cannabis from known dealers (Figure 2.12). Few IDU obtained cannabis from street dealers (n<10 in any given year). The IDRS annual report also now includes the place IDU usually scored their cannabis. This will provide additional information about the degree of openness of the cannabis market in the future.

Methamphetamines

Self-reported median street price: since 2002 the IDRS annual reports have reported the three major types of methamphetamines separately as crystal methamphetamine (or ice), base/paste and powder. In the 2000 and 2001 annual reports methamphetamine powder was reported separately from base/paste and ice, which were combined. Figure 2.13 provides a frequency distribution of annual data. It is evident from these data that while price/gram of both base/paste and ice has remained reasonably stable over the period under observation, the price/gram of powder more than tripled between 2002 and 2004 before stabilising and is now comparable in price with the other two forms of the drug.

Self-reported purity: self-reported purity for ice, base/paste and powder has been reported in the Tasmanian IDRS since 2002 (Figure 2.14). The percentage of IDU who self-reported purity of both powder and base/paste as 'high' is stable, although lower than for ice. Self-reported purity of ice as high is variable over the period under observation but is rated by IDU as consistently better in quality than the other two methamphetamine drug types.

Actual purity of methamphetamines as a whole, as determined through laboratory testing of seizures sent by Tasmania Police for analysis to Forensic Science Service Tasmania (and reported in the IDDR), indicates that methamphetamine purity has varied since 2001. Despite this, there appears to be an overall increase in purity throughout the mid-2000s, followed by a decrease in purity in recent times (Figure 2.15).

Drug purity is essentially a test of quality. Typically, as drug purity increases, supply of a drug can be viewed as exceeding demand. The converse of this is that as drug purity decreases, demand exceeds supply. Under the first scenario, drug suppliers have sufficient stocks of a drug so that they are able to provide many users with a high quality product. Under the second scenario, drug suppliers may dilute or 'cut' their product to meet demand (Rhodes et al. 2007).

Number/percentage of people who self-report the availability of ice, base/paste and powder as very easy, easy, difficult or very difficult: a frequency distribution of IDU who self-reported that methamphetamines were very easy/easily available is provided in Figure 2.16. The 'long-run average' of IDU who self-reported on the availability of base/paste and powder is quite stable in the period under observation, with around 86 percent reporting that these drug types were very easy/easily available. The story is different for ice. Self-reported availability of ice fluctuated substantially between 2002 and 2007, with a large dip in self-reported availability in 2005. This may be significant, particularly when considered alongside other indicator data (see summary discussion below).

Number/percentage of users who usually purchased ice, base/paste and powder from a dealer's home, through home delivery, a friend's home, a mobile dealer, off the street: the IDRS annual reports have captured these data in Tasmania since 2002. This information is useful for gauging the degree of openness of a drug market. Figures 2.17 to 2.19 provide frequency distributions for each methamphetamine form. The three plots indicate that there are several similarities between the location in which IDU purchase these drug forms. These include:

- an overall decline in purchases from the street since 2002
- a decline in purchases from friends' homes since 2004

- a sharp decline in purchases from mobile dealers since 2005
- an overall increase in home delivery purchases since 2006.

The only key difference between the drug forms in terms of purchase location is that for both base/paste and powder the most common place of purchase tends to be from dealers' homes, whereas the most common purchase location of ice is from friends' homes. This may suggest a greater level of familiarity between IDU and suppliers of ice than suppliers of either base/paste or powder. It could also indicate that ice has a more closed market system than do the other methamphetamine drug forms.

Heroin and cocaine

As outlined above, DLE seizure data suggest that Tasmania does not currently have well developed heroin or cocaine markets. This is supported by Tasmanian IDRS data, with only a small fraction of IDU reporting recent use of these drugs – five percent of IDU for both heroin and cocaine in 2007 (Black et al. 2008b). These patterns of low numbers of seizures and levels of use appear to have remained relatively stable in the last several years. As such, for the purposes of this report no frequency analyses are provided. However, it remains important that Tasmania Police continue to monitor these markets to ensure that they are ready to deploy DLE resources should they become more established.

MDMA

Self-reported median street price: The Tasmanian EDRS annual reports report street prices paid for MDMA by users. Since 2003, the median price per tablet has ranged between $40 and $50 (in 2008 the price was $45).

Self-reported purity: Self-reported purity for MDMA has been reported in the Tasmanian EDRS since 2002. The percentage of MDMA users who self-reported purity as 'high' varied between 2002 and 2008. In 2008, 21 percent of users reported that purity was high (Table 2.6).

Table 2.6 Proportion of users who self-reported that the purity of MDMA was 'high'

Year	%
2003	19
2004	39
2005	23
2006	13
2007	14
2008	21

Source: Tasmanian EDRS annual reports

There are too few seizures of MDMA in Tasmania that are tested for actual purity to provide any trend information at this stage.

Number/percentage of people who self-report the availability of MDMA as very easy, easy, difficult or very difficult: self-reported availability of MDMA among users of the drug as 'easy/very easy' is high in each given year. Since 2003, the proportion of users indicating that MDMA is easy/very easy to obtain has ranged between 82 and 97 percent – in 2008 it was 86 percent.

Number/percentage of users who usually scored MDMA from friends, known dealers, acquaintances, workmates, and unknown people: the EDRS annual reports have captured these data in Tasmania since 2002. In Tasmania, the most common method of scoring is through friends. Purchases made through known dealers are the next most common method, followed by acquaintances. Only a small proportion of users obtain the drug via workmates and unknown people. This pattern has been consistent since 2002.

Reduced organised crime

See discussion of relevant indicators under 'reduced drug crime and drug-related crime'.

Improved public health

As identified earlier, Tasmania Police formally monitor and report on one key indicator of public health – the number of offenders diverted into Tasmania's Illicit Drug Diversion Initiative (or IDDI) program. Tasmania Police monitor the overall number of offenders charged with a minor drug offence who are either cautioned or diverted to education and/or treatment programs (a brief description of Tasmania's drug diversion program is outlined above). It is also possible for Tasmania Police to break Level 3 diversions down by drug type. However, the large majority of minor drug offenders are in fact diverted for cannabis use/possession under Levels 1 and 2 of the scheme. For instance, in 2007/2008, Level 1 and Level 2 cannabis offences made up 86 per cent of all diversions.

Number of offenders diverted into IDDI: Monthly data are available by district from July 2002. Figure 2.20 provides a frequency distribution of these data. While there are monthly variations in the number of offenders diverted, the overall pattern is one of increasing numbers of diversions, particularly since September/October of 2004 when the numbers of offenders diverted into IDDI dropped sharply from the previous period.

Additional indicators of improved public health

A statistical report of the additional measures of public health that could be used by Tasmania Police is provided below by drug type.

Cannabis

***Number/proportion of IDU who consume illicit drugs more than three times a week*:** the Tasmanian IDRS reports include information about IDU's self-reported use (any and daily use) of cannabis. IDU's self-reported cannabis use, both any use and daily use (expressed as a percentage of IDU) in the six months before being surveyed, is provided in Figure 2.21. Reported daily cannabis use declined between 2001 and 2005 and has remained stable since then at around 54 percent. While reported any use is higher than daily use, it has followed the same general pattern as reported daily use.

Number of cannabis-related deaths: The exact effect of cannabis is unpredictable, since it depends on numerous factors including an individual`s personality, current psychological state, external conditions, previous experience of cannabis, the mode of use, and the quantity of 'THC' (the plant's psychoactive component) taken into the body. Few deaths result from cannabis use because cannabis has low acute toxicity (http://www.identa.biz/geninfo.asp, accessed 24/9/08). To illustrate this, between 1998 and 2006 there were a total of six deaths in Tasmania where cannabis *contributed* to those deaths (AIHW mortality data files). As such, cannabis-related deaths data are not particularly useful for monitoring and measuring cannabis markets.

Regular, heavy cannabis use is more likely to result in health morbidities (for example, negative psychological effects) than fatalities. As such, a better measure would be one that monitors hospital separations. As already indicated, the AIHW provide these nationally-aggregated data for free via interactive workbooks. State-based breakdowns of the data attract a fee and require the permission of the relevant jurisdictional health department. However, Roxburgh, Burns and Degenhardt (2008) recently published jurisdictional trends that provide some insights. While the precise figures are not provided, it appears that cannabis-related hospital separations in Tasmania gradually increased from around 25 per million people in 1994/95 to around 60 per million people in 2003/04, after which there was a sharp increase to around 175 per million in 2005/06.

Number of cannabis test-positive roadside drug tests: Between September 2005 and March 2008 there were a total of 172 (blood test confirmed) positive results for cannabis in Tasmania. To put this in perspective, 29 percent of all roadside tests confirmed the presence of at least one illicit drug type and cannabis was confirmed present in 65 percent of all positive drug tests. Figure 2.22 provides a plot of these data in relation to cannabis (and amphetamines/methamphetamines). The plot shows an overall increase in the percentage of people testing positive for cannabis between September 2005 (when the first positive results were encountered) and March 2008, with a noticeable, although small, peak in positive tests in mid-2007.

Methamphetamines

***Number/proportion of IDU who consume methamphetamines more than three times a week*:** Rather than reporting daily use figures, the Tasmanian IDRS reports include IDU's self-reported methamphetamines use, both any use (expressed as a percentage of IDU) and median number of days use in the six months before being surveyed. These data are provided in Figure 2.23. The frequency distribution indicates that, with the exception of a large spike in median number of days use in 2005, the median number of days of methamphetamines use has remained relatively stable since 2000. Any use of methamphetamines increased steadily from 83 percent of IDU in 2000 to 95 percent of IDU 2005. In 2006 the percent of IDU reporting any use dropped back to 83 percent before rising again in 2007.

Number of methamphetamine-related deaths: Between 1998 and 2006, the number of accidental deaths where methamphetamines contributed to those deaths was very small (n=2) in Tasmania (AIHW mortality data files). As for cannabis, Roxburgh, Burns & Degenhardt (2008) have published jurisdictional trends on methamphetamine-related hospital separations that provide some further insight into market trends. These data indicate that amphetamine-related hospital separations gradually increased in Tasmania between the late 1990s and 2002/03 and thereafter stayed reasonably stable at around 150 per million persons. This reflects the national trend over the same period.

Number of methamphetamine test-positive roadside drug tests: Between September 2005 and March 2008 there were a total of 131 (blood test confirmed) positive results for methamphetamines in Tasmania. To put this in perspective, 29 percent of all roadside tests confirmed the presence of at least one illicit drug type and methamphetamines were confirmed as present in 45 percent of all positive drug tests. Figure 2.22 provides a plot of these data, alongside the test-positive cannabis results. As for cannabis, the plot shows an overall increase in the proportion of people testing positive for the drug between September 2005 and March 2008, with a small peak in positive tests in mid-2007.

Heroin and cocaine

***Number/proportion of IDU who consume heroin or cocaine more than three times a week*:** As already highlighted above, only a small proportion of IDU report recent use of these drugs in Tasmania – five percent of IDU for each of heroin and cocaine in 2007 (Black et al. 2008b). As such, no frequency analysis is provided.

Number of heroin or cocaine-related deaths: Between 1998 and 2006, there were no accidental deaths where cocaine was a contributing factor. In the same period there were five deaths from heroin.

Number of heroin or cocaine test-positive roadside drug tests: Between July 2005 and March 2008, there were two cocaine test-positive results and no test-positive results for heroin in Tasmania.

MDMA

Number/proportion of MDMA users who consume MDMA at least once a week: Tasmanian EDRS reports have provided data on this indicator since 2003. Regular use of MDMA has steadily fallen since 2002. In 2003, 38 percent of users reported use at least once a week, while in 2008 17 percent of users reported the same.

Number of MDMA test-positive roadside drug tests: There are too few MDMA test-positive results (average < one a month) to warrant using this as an indicator of public harm.

There are no reliable hospital admission data concerning MDMA in Tasmania.

Improved public amenity

Indicators of public amenity that could be used by Tasmania Police to formally track and report on public perceptions of illicit drug 'problems' include the following.

Proportion of population who thinks drugs are a problem in their local area and state: annual data are available from the financial year 2002–2003. Figure 2.24 provides a frequency distribution of available data and indicates that a high (but reasonably stable) percentage of Tasmanians view drugs to be a problem in their state. The percentage of Tasmanians who think drugs are a problem in their local area is considerably less than those who think drugs are a problem in the state and has steadily declined since 2003–2004.

Proportion of population who feels safe at home alone, walking/jogging, during the day and after dark: annual data are available from the financial year 2002–2003. Figure 2.25 provides a frequency distribution of these data and indicates that most people feel safe at home (regardless of whether it is day or night time) and when walking during the day. This pattern has remained stable since 2002–2003. Fewer Tasmanians feel safe walking after dark, although the percentage of people who feel safe in this category has increased over time, particularly since the last survey period in 2006–2007.

Additional indicators of improved public amenity

Discussed in the Customs technical report above, the NDSHS is another potential source of data that could be used to assess public amenity issues (refer to that section for a brief description of the strengths and limitations of these data. The survey includes questions on the use of illicit drugs in public settings, adverse public behaviour caused by illicit drug use and work missed through illicit drug use. While data from the NDSHS may not fulfil the needs of short-term performance measurement, in the near absence of any other more regularly collected data source, these data could be used to monitor longer-term public amenity trends. National and jurisdictional breakdowns of NDSHS data are available from the AIHW, although these data (beyond the freely available published findings) would attract a fee. Certain NDSHS data are also available for free via the Australian Social Science Data Archive at the Australian National University and through the AIC.

Summary of Tasmanian indicator data

A good knowledge of drug markets is pivotal to better understanding and intervening in drug and drug-related crime; the indicator data outlined in the above section should provide a good platform from which to do this. The range of Tasmania Police's DLE indicator data has improved greatly since the early 2000s (and particularly in the past two years). Prior to this time drug indicator data was typically aggregated, with no straightforward means of monitoring or analysing the policing of different drug types. Current data management systems now permit improved monitoring of separate drug markets and will assist in the analysis of these markets in the future.

Other indicator data used to assess Tasmanian drug markets are drawn from the IDRS. While these data are only available on an annual basis since 2000, they still provide useful context in terms of IDU's self-reported drug use and purchasing behaviours in which to interpret illicit drug arrests, seizures and diversions. A summary of all indicator data is provided below by drug type.

Cannabis

Taken as a whole, the indicator data suggest that the Tasmanian cannabis market is mature and relatively stable, although has possibly undergone a small contraction in the past two or so years. This is evidenced by:

- overall long-run stability in the number of cannabis offenders charged
- a gradual reduction in the weight of cannabis seized since mid-2004
- a gradual increase in the number of offenders diverted into treatment, especially since the end of 2004
- stability in price for both hydroponic and bush forms of the drug
- a modest fall in the proportion of IDU reporting that cannabis (both hydroponic and bush forms of the drug) was 'very easy/easy' to obtain in the last two years
- a gradual decrease in daily use of cannabis since 2001, as reported by IDU.

This general pattern reflects what has been occurring at national (ACC 2008b; AIHW 2008a Black et al. 2008b) and even international (UNODC 2008) levels and is probably not due to local Tasmanian law enforcement action alone, but rather a broad underlying shift in the cannabis market. However, given that cannabis is largely domestically-produced and is also the most widely used and accessible illicit drug (AIHW 2008a), it is unlikely that supply of and demand for the drug will fall dramatically in the future. As noted elsewhere, this is especially the case for hydroponically cultivated cannabis where there is high potential financial gain, coupled with a relatively low risk of detection, to growers (Willis 2008).

Research published by Roxburgh, Burns & Degenhardt (2008) indicates that the number of cannabis-related hospital separations gradually increased between the mid-1990s and 2000s in Tasmania. Despite this, they suggest that because numbers are still comparatively smaller than those for opioid dependence and that because cannabis use in the general population in Australia has also been declining (for example, recent NDSHS data indicates that reported cannabis use is declining – AIHW 2008a), only a small proportion of cannabis users go on to develop dependence and to experience problems associated with their cannabis use. They also speculate that the observed increases may also reflect delayed effects of dependence among cannabis users who were initiating use at a relatively young age in Australia in the 1990s (Roxburgh, Burns & Degenhardt 2008).

Methamphetamines

The combined indicator data suggest a possible growth in the Tasmanian methamphetamine market between the early to mid-2000s, followed by a more recent retraction (or at least plateauing) of that same market. Key points include:

- a gradual increase in any use of all forms of the drug between 2000 and 2005, followed by a sharp fall in reported use in 2006 and 2007, as reported by IDU
- a small drop in availability in around 2005, as reported by IDU, and particularly for the more potent form of the drug (that is, crystal methamphetamine or 'ice')
- an overall increase in laboratory tested methamphetamine purity between the early to mid-2000s, followed by what appears to be a general decrease in purity in more recent times
- an overall decrease in the number of serious and minor offenders charged with ATS offences since July 2006
- a gradual increase in the number of amphetamine-related hospital separations from the mid-1990s to mid-2000s, followed by a plateauing in those numbers. Adding weight to these data is the rise in the number of Tasmanian public hospital admissions where methamphetamine use was the primary factor contributing to admission. Between 1997–1998 and 2002–2003, the number of admissions rose eight-fold before plateauing in 2003–2004 (de Graaff & Bruno 2008).

Some of the indicator data for methamphetamines are more equivocal. For example, with the exception of one or two spikes in mid-2007 and again in early 2008, monthly ATS seizure data have varied little since mid-2003 and of themselves are not suggestive of a market surge in the mid-2000s. Similarly, reported prices of the three major forms of methamphetamines (powder, base/paste and ice) have remained reasonably flat since 2003 (although between 2001 and 2004 the reported price of powder soared six-fold from around $50 to $300 per gram); however, an important point needs to be made in relation to this second issue. While drug price can play an important role in understanding drug market dynamics, it is also possible for drug price to be affected by how much a supplier dilutes or cuts a drug to meet demand. As such, while the nominal drug price may remain stable, the real price of a drug (the price per pure gram) may actually increase (Caulkins et al. 2004). Unfortunately, without testing the actual purity of the drugs used, it is not possible to say whether the methamphetamines used by IDU and surveyed as part of the IDRS were more or less adulterated from year to year and so care needs to be taken when interpreting reported prices.

Seen within a broader context, a number of the patterns observed within the Tasmanian methamphetamine indicator data may not be all that surprising. For example, nationally methamphetamine use appears to have declined since its peak in the early to mid-2000s (AIHW 2008a; Black et al. 2008). In addition, the number of clandestine laboratory detections decreased in Australia between 2005–2006 and 2006–2007, although it is also true that consumer/provider arrests for ATS more generally have continued to increase (ACC 2008b). These trends parallel those overseas (UNODC 2008) and so, as for cannabis, there does appear to be a more global-level shift towards market stability for this drug type. As highlighted elsewhere, this is not to say that local DLE or other local action is marginal to market development. The stabilisation of Australian domestic production of ATS is the result of a combination of at least the following local factors including:

- aggressive pursuit of the operators of clandestine methamphetamine laboratories
- legislation to restrict over-the-counter sales of pharmaceuticals containing pseudoephedrine (a chemical precursor of ATS)
- active monitoring of pharmaceutical sales whereby pharmacists are notified as to whether a customer is eligible to purchase pseudoephedrine-based pharmaceuticals and, where not, pass this information on to DLE.

A final point that should be made is that some of the Tasmanian methamphetamine indicator data suggest a possible market split between the different drug forms, particularly in terms of purchase location and, to some extent, reported availability. As outlined in the results section above, the most common place of purchase for both base/paste and powder tends to be dealers' homes, whereas the most common purchase location of ice is from friends' homes. These data may suggest a greater level of familiarity between IDU and suppliers of ice than suppliers of either base/paste or powder and could also indicate that ice has a more closed market system than do the other methamphetamine forms. These data are by no means conclusive and it is true that IDU also reported few street transactions for each of the three drug forms during the same period, but they do provide food for thought. For example, if it is the case that the market for ice is a closed system (relative to powder and baste/paste) – one relying on friendship networks and close acquaintances rather than less well known dealers – then the type of DLE required to suppress the market would be different. For instance, strong undercover DLE to reduce supply (and hence availability to users) may not be the best approach if most users in fact obtain their ice from friends.

Heroin and cocaine

As described above, the combined indicator data point to little heroin or cocaine market development in Tasmania. Compared to the other two illicit drug types during the period under investigation, there were:

- few offenders charged with heroin or cocaine offences
- few actual seizures of heroin or cocaine
- only a small number of IDU reporting regular use of heroin or cocaine
- few deaths or hospital separations related to either drug.

Overall, these patterns have remained stable since at least the early 2000s and, at this stage at least, there is no evidence that they will increase dramatically in the future. However, it is still important that Tasmania Police monitor the two markets to ensure that they are in a position to intervene appropriately should the drug types become more firmly established in that state.

MDMA

Tasmanian MDMA indicator data suggest that the MDMA market in that jurisdiction is small, relative to larger jurisdictions. This is chiefly evidenced by:

- few (and small) seizures of the drug
- few health-related data
- declining use among regular users of the drug.

However, what can be inferred from the data is that MDMA is easily obtained, particularly from friends and known dealers. It is also the case that seizures of the drug typically occur during the warmer months compared to the cooler months. As occurs elsewhere, MDMA use in Tasmania usually occurs at music-related events, which are often held around summertime. Police are frequently in attendance and so the observed pattern is of little surprise.

Monitoring and evaluating performance

As outlined above, an effective performance management system should be able to help set, monitor and assess short, medium and long-term goals. Tasmania Police's current performance management regime appears well placed in terms of monitoring and assessing both short- and

even medium-term DLE impacts and feeding this information back into strategic planning. Tasmania Police could improve its longer-term monitoring and assessment by formally incorporating further measures of drug market impacts, as outlined above. As argued previously (Willis, Homel & Gray 2006), these measures are designed to be monitored in concert as no single measure is considered definitive. Use of multiple measures from each of the high-level outcome areas should reduce the risk of error in identifying drug market trends. This is especially important given that the framework is comprised of indirect measures of drug-related phenomena that are linked to both DLE and health and public amenity consequences.

At the time of reporting, Tasmania Police at district and corporate levels monitored DLE activity on a monthly basis for both strategic planning and accountability purposes. Operational police entered data into a centralised, intranet-based data management system. These were then collated by Corporate Reporting Services and fed back to the four districts. The specialist DIS operates in the same way. A major strength of such centralised data systems is that they assist local police through to district and state-level police in Tasmania to record drug indicator data in a systematic way, thus avoiding the pitfalls of idiosyncratic recording and reporting practices often found in agencies with de-centralised, sometimes locally derived, data management systems. When information management systems are de-centralised and include local or regional differences, it makes comparisons between regions or aggregation of the data beyond regional level very difficult.

Communicating results and accountability structures

Tasmania Police's Department of Police and Emergency Management Business Plan July 2000–June 2008 (Department of Police and Emergency Management n.d.) indicates that, for its outcome area 'a reduction in crime,' it will be accountable for every aspect of service delivery through (among other things) internal and external performance review and comparisons.

The most important internal performance review process occurs via the District Corporate Management Review. These reviews are held quarterly by the Corporate Management Group and are a process in which discussion of DLE performance, resourcing and strategic responses are undertaken for each district and division. Participants in these reviews include the executive, commanders, DIS and operational staff. Tasmania Police indicate that these fora are essentially roundtables where an open and frank discussion on the statistics generated by Corporate Reporting Services can take place and decisions about performance improvements are made.

Chapter three: South Australia Police

South Australia Police is part of the Justice Portfolio of the Government of South Australia and operates under a legislative framework prescribed under the *Police Act 1988* (SA). Its mission is 'working together to reassure and protect the community from crime and disorder'. South Australia Police has six core functions prescribed in the Act. They are to:

- uphold the law
- preserve the peace
- prevent crime
- assist the public in emergency situations
- coordinate and manage responses to emergencies
- regulate road use and prevent vehicle collisions (http://www.sapolice.sa.gov.au/sapol/about_us/role_function.jsp).

South Australia Police is led by the Commissioner of Police, who reports directly to the state's Minister for Police. The Commissioner of Police has responsibility for the control and management of South Australia Police and, together with members of the Senior Executive Group, oversees all activities within the organisation. The Commissioner also has direct responsibility for the Executive Support, Corporate Communications and Anti-Corruption branches, which comprise the Commissioners Service. Reporting directly to the Commissioner are the:

- Deputy Commissioner
- Assistant Commissioner Crime Service
- Assistant Commissioner Operations Support Service
- Assistant Commissioner Performance Management and Reporting Service
- Director Business Service.

South Australia Police is divided into ten major services, consisting of:

- Commissioner's Service
- Business Service
- Crime Service
- Human Resources Service
- Information Systems & Technology Service
- Northern Operations Service
- Operations Support Service
- Performance Management and Reporting Service
- Protective Security Service
- Southern Operations Service (http://www.sapolice.sa.gov.au/sapol/about_us/structure.jsp).

South Australia has 14 police Local Service Areas (LSAs) that cover a population of over 1,500,000, across almost one million square kilometres. LSAs are grouped into two major regions of the state: the Northern Operations Service and the Southern Operations Service (see Table 3.1 & Figure 3.1). These are under the responsibility and management of the Deputy Commissioner of Police and are supported by the centralised Crime and Operations Support Services.

Table 3.1 South Australia Police Local Service Area (LSA) breakdown

Northern Operations Service LSA	Southern Operations Service LSA
Elizabeth	Adelaide
Holden Hill	Sturt
Port Adelaide	South Coast
Barossa-York	Hills-Murray
Far North	Riverland
Mid-West	South East
North East	
West Coast	

Source: http://www.police.sa.gov.au/sapol/about_us/strategy_planning/local_service_area_model.jsp (accessed 05 August 2008)

Figure 3.1 Map of South Australia Police's LSAs

Source: http://www.police.sa.gov.au/sapol/about_us/strategy_planning/local_service_area_model.jsp (accessed 05 August 2008

DLE within South Australia Police adopts a problem-solving approach, including engaging in partnerships with government and non-government agencies. South Australia Police indicate that as part of their DLE work they also consider the objectives of the National Drug Strategy 2004–2009, the National Cannabis Strategy 2006–2009, and the National Alcohol Strategy 2006–2009.

Two specialist areas deal specifically with DLE in South Australia Police: Drug Investigations Branch and Operation Mantle. The Drug Investigations Branch is part of Crime Service. Their main focus is on high-level drug operations, with their role including:

- surveillance and analysis of the drug market
- disrupting street-level offending
- minimising the influence of high-level dealers and traffickers in the drugs marketplace
- investigating, targeting and disrupting criminal activity of individuals and groups who are involved in the manufacture and supply of drugs
- seizing illicit drug commodities and clandestine drug laboratories (http://www.sapolice.sa.gov.au/sapol/safety_security/drugs_alcohol.jsp accessed 15 Sept 2008).

South Australia Police also manages Operation Mantle. Conducted in the six metropolitan LSAs, its objective is to reduce crime and community harms associated with illicit drugs by disrupting the illicit drug market for the intermediate level dealers. They have a partnership with both regional and country areas.

Measures and indicators of state and local-level DLE performance

South Australia Police measure, monitor and report on a range of DLE indicators at both the local and state levels, which are reflected in aspects of the model performance measurement framework. The range of indicators reflects South Australia's particular illicit drug market environment. Specific indicators currently used by South Australia Police that are reflected in the model framework, as well as some possible new measures, are outlined below. A full list of indicators used by South Australia Police is provided in Appendix 4 of this report.

Reduced drug crime and drug-related crime

South Australia Police collect and monitor a range of illicit drug indicator data that align with the reduced crime and drug-related crime outcome area (Table 3.2). For example, drug intelligence reports, collated by the Drug Intelligence Desk, are disseminated quarterly to key internal and external stakeholders (including LSAs, relevant managers, Customs, and the ACC). Downloads of these data are available in Excel spreadsheet format and include (for example):

- drug concealment methods
- drug form
- location of drug seizures
- offender criminal histories, including the number of times an offender was convicted of property and/or violent offences
- forensic analyses of drug form and purity
- prices of drugs obtained from prisoners, undercover officers and/or informants
- overdose monitoring (police-generated data rather than data obtained from the public health sector)
- relevant DUMA and IDRS data.

South Australia Police could consider including a small number of additional measures in these reports. The drug crime and drug-related crime outcome area also includes three measures that are designed to monitor changes within drug markets. These include measures of where users obtain their drugs, changes in trafficking modes and changes in types of drug trafficker. The original

rationale for including these measures was that any changes over time in them (and hence the underlying criminal scene) could be reasonably argued to be a result of DLE work, or a lack thereof. The first of the three measures is underpinned by indicator data from the AIC's DUMA program, which is a quarterly collection of self-reported drug behaviour and urinalysis information from police detainees in ten sites across Australia (see Adams et al. 2008). DUMA has operated in South Australia since 2002 in two sites: Adelaide and Elizabeth. Between 2002 and 2007 over 11,000 detainees completed questionnaires in these sites, providing a good sample to monitor changes over time.

The other two measures included in the framework to monitor changes in drug market dynamics were specifically aimed at the objective of national DLE agencies to disrupt major illicit drug trafficking operations. As already outlined in this report, these measures may not be as relevant to the work of state and territory DLE agencies, particularly at the street level. Discussions at the May 2008 national planning workshop, in which representatives from all levels of DLE and from most jurisdictions participated, appeared to confirm this view, although they may be worthy of further future exploration.

While robbery is considered a reliable indicator of heroin availability in Australia (Chilvers & Weatherburn 2003), its relationship with other drug types is less clear. As such, the measure addressing robbery trends is a satisfactory means of assessing DLE impact on the South Australian heroin market only. South Australia Police has been collecting data on armed and unarmed robbery quarterly since 2001.

South Australia has recently introduced a 12 month trial for non-random roadside drug testing. The results have yet to be released; however, if it continues, these data could be used as an additional indicator of the reduced drug crime and drug-related crime outcome area.

Table 3.2 Performance indicators currently used by South Australia Police to monitor drug crime and drug-related crime

Framework measure	Framework indicator	South Australia Police indicator
Trends in illicit drug detections/ seizures	Number of illicit drug detections/seizures by drug type	Not currently available in South Australia Police
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Total weights of drug detections not currently collated by South Australia Police

Table 3.2 Performance indicators currently used by South Australia Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	South Australia Police indicator
Trends in illicit drug arrests	Number of illicit drug traffic/ supply arrests by drug type Number of illicit drug possession/use arrests by drug type	Number of charges for the following drug categories (quarterly data from quarter 1 2002 – quarter 4 2008): Number of people charged with offences relating to: • cultivating, manufacturing, or producing cannabis • total who sell/trade cannabis • total who possess/use cannabis • total who possess/use cocaine • total who possess/use amphetamines • total who produce/ manufacture amphetamines • total who sell/trade amphetamines • total who sell/trade MDMA • total who possess/use MDMA • total who possess/use of heroin • total who sell/trade heroin (excludes Police Drug Diversion initiative and Cannabis Expiation data) Possible use of South Australia Police data on the number of offenders charged through non-random roadside drug testing.

Table 3.2 Performance indicators currently used by South Australia Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	South Australia Police indicator
Trends in illicit drug street prices	Median street price of illicit drugs by drug type	Possible use of South Australian IDRS data
Perceived purity of illicit drugs	Number of people who perceive the purity of illicit drugs to be high, medium, low or to fluctuate by drug type	Possible use of South Australian IDRS data.
Perceived availability of illicit drugs	Number of people who perceive the availability of illicit drugs to be very easy, easy, difficult or very difficult by drug type	Possible use of South Australian IDRS data
Changes in where users obtain their drugs	Number of users who sourced their illicit drugs the last time from: • a house/flat • a public building • an abandoned building • on the street/outdoors Number of users who contacted their drug supplier the last time by: • email/the internet • calling them on a mobile • calling them on the telephone • visiting a house/flat • paging them on a beeper • approaching them in public • obtaining drugs through a third party • being with them already Number of users who got their drugs the last time from: • a regular source • an occasional source • a new source Number of users who got their drugs the last time from a location different to the arrest location	Possible use of DUMA data. Quarterly DUMA data for SA sites (Adelaide) Also, possible use of South Australia IDRS data, specifically 'number of users who mainly sourced their drugs in the last six months from': • street dealer • dealer's home • friend • mobile dealer • home delivery

Table 3.2 Performance indicators currently used by South Australia Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	South Australia Police indicator
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/regularly reported by South Australia Police Measure considered more relevant to national level DLE
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/regularly reported by South Australia Police Measure considered more relevant to national level DLE
Trends in robberies	Number of people arrested for armed and unarmed robbery	Number of times an offender is convicted of property and/or violent offences. Data available daily through Drug Intelligence Desk Quarterly data collection since 2001 (financial year) Robbery is a reliable indicator of heroin availability, but its relationship with other drug types is less clear.

Reduced organised crime

This outcome area addresses high-level drug crime, and the underlying measures were specifically designed to target national-level DLE effort in terms of disrupting major illicit drug trafficking operations. However, it was also envisaged that these measures could be applied at a state level. As already outlined, discussions at the May 2008 national planning workshop, in which representatives from all levels of DLE and from most jurisdictions participated, indicated that data underpinning these measures may not actually be as easily obtained or usefully applied at a state level as first thought. While some jurisdictions record and report drug weights, they do not categorise their serious drug offenders as Customs does, nor is there a simple way to extract, collate and analyse detailed trafficking information (such as the modes used by drug traffickers to distribute their drugs). At this stage at least, it appears that these measures may not be able to be practically applied beyond the national level, although (and as noted above) they may be worthy of further future exploration. Table 3.3 outlines the status of each indicator under this outcome area.

Table 3.3 Performance indicators currently used by South Australia Police to monitor organised crime

Framework measure	Framework indicator	South Australia Police indicator
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Weight not currently reported by South Australia Police.
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/ regularly reported by South Australia Police Measure considered more relevant to national level DLE
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/ regularly reported by South Australia Police Measure considered more relevant to national level DLE

Improved public health

Currently public health data (overdoses and hospital admission data) are not formally accessed by South Australia Police for performance measurement purposes (Table 3.4), although they do have access to IDDI drug diversion data. While South Australia Police's Drug Intelligence Desk monitors the number of drug overdoses, these data are police generated. That is, they are obtained from daily police journals, where a police officer has been in attendance at an overdose, rather than data obtained from the public health sector. As such, they are likely to be an under-representation of the actual number of overdoses.

Drug and Alcohol Services South Australia (DASSA)[5] indicates that (in principal at least) it would be possible for South Australia Police and DASSA to share certain data through the state's *Public Intoxication Act 1984* (SA), which provides for the apprehension and care of persons found in a public place under the influence of a drug or alcohol (Richard Cooke, pers comm. 29 July 2008). Historical data under the Act may be available from DASSA but are currently collated by South Australia Police. Although there are no explicit data-sharing provisions outlined in the Act, if police and DASSA were to engage in formal data sharing, DASSA suggest that a memorandum of understanding with AIHW be established to streamline data collection as AIHW collect a range of jurisdictional drug-related public health data and act as a 'one-stop-shop' for these data. However, the collection of South Australian Ambulance Service data might best be achieved through direct negotiation with the South Australia Health Department as these data are not collated by AIHW.

As already outlined in this report, there are a number of health administrative data collections that contain useful indicator data of illicit drug-related morbidity and mortality in each jurisdiction, including South Australia. These collections formed the basis upon which selection of the framework's health outcome indicators were chosen, as they include:

- ambulance attendances at drug overdoses
- illicit drug-related emergency department admissions
- hospital admissions/separations where illicit drugs were the primary or an underlying reason for admission
- illicit drug treatment
- causes of death due to illicit drugs.

A discussion of the major strengths and limitations of these types of data collections are provided in the Customs technical report above and so will not be covered again here. However, key issues and limitations pertaining to the South Australia data are provided below. It should be said that information DASSA provided to the AIC for analysis was all sourced from publicly available data sources by that agency.

- To measure trends in frequency of illicit drugs consumed (by drug type), quarterly data were extrapolated from the South Australian DUMA collection. These data can be used to determine the proportion of people who used illicit drugs in the past month by drug type, as well as regular users. Regular users are those who used a particular drug at least 12 times a month. IDRS could also be a potential source for this information, specifically around their 'self reported use by drug type' question. However, these data are only available every few years, and therefore it would be difficult to monitor any trends or effects from DLE operations from this dataset.

[5] DASSA is responsible for providing a state-wide drug and alcohol health service and forms part of the Southern Adelaide Health Service. It operates as a separate entity to the South Australian Department of Health and must go through a formal request process to obtain certain data from them (including hospital and emergency department admission data).

- Although annual data are available on clients participating in drug treatment, these data were not provided to the AIC disaggregated by drug type. As such, the associate framework measure could not be tested. If this information could be provided in a disaggregated form in the future, it would be worthwhile for South Australia Police to incorporate this into performance monitoring and measurement. However, caution would need to be applied in interpreting these data if this was to occur. Specifically, there are two components to gaining information on the number of clients in drug treatment. The first is through government-funded agencies like DASSA, who assign a unique identification to each client. The second is through the non-government sector that provides drug treatment, which DASSA obtains and then sends to AIHW for collation. These agencies do not typically assign unique identifiers to clients, so the information that AIHW reports only documents the number of *episodes*, not clients. Therefore, it is not possible to determine how many 'unique' people are seeking drug treatment in South Australia.

Another limitation in the drug treatment data is that the number of pharmacotherapy places available in South Australia is capped. As such, the figures obtained reflect only the capacity of the system and any unmet demand for drug treatment would not be able to be monitored.

- Trends in drug related deaths were only available for opioid-related deaths between 2001 and 2005. Annual data on the number of drug-related deaths originate from the State Coroner's Office, although are obtained by NDARC every year. Somewhat surprisingly, these data are not necessarily disseminated to the South Australian Department of Health or DASSA, although DASSA indicate that they are in the process of developing an agreement with the AIHW to obtain these data on a routine basis. Additional limitations with these data are that there is sometimes a long lag from data capture to release, and the *actual* cause of death (in contrast to the underlying or contributing causes) is frequently difficult to determine.
- Annual data are collected and collated by the South Australian Department of Health on hospital admissions and hospital emergency department presentations. These data are publicly available but there are frequent lags in reporting. DASSA are attempting to obtain more up-to-date, routine documentation of drug-related admissions from the Department via formal request (Richard Cooke, pers. comm. 29 July 2008). There are coding inconsistencies across the state's hospitals for both of these data collections. Royal Adelaide Hospital data are considered the more reliable for monitoring drug-related morbidities, although generalising these data to the South Australian population as a whole would be problematic.
- As noted above, the collection of South Australian Ambulance Service data is best achieved through direct negotiation with the South Australia Health Department. Ambulance attendances are described as either 'carry' (where a person was taken to hospital in an ambulance) or 'non-carry' (where ambulance officers were in attendance only at the scene of an overdose and did not transport the person). The typology used by the South Australian Ambulance Service for classifying the particular drug type involved is very broad, and certain drug types are aggregated (for example, 'narcotics' is used and refers to heroin and other opioids). This can make it difficult to determine the precise drug type involved in an overdose.

Table 3.4 Performance indicators of improved public health

Framework measure	Framework indicator	Health indicator
Trends in the frequency of illicit drugs consumed by drug type	Number of people who used illicit drugs in the past month by drug type Number of people who used illicit drugs in the past month who used: • at least once a day • at least once a week (not daily) • less than weekly	Not used in formal reporting by South Australia Police Use of DUMA data. Also possible use of South Australia IDRS data, specifically 'self-reported use by drug type'
Trends in HCV/HIV	Number of people with positive status of HCV/HIV	Not used in formal reporting by South Australia Police. Removal from framework (see Customs technical report above)
Trends in drug-related deaths	Number of drug-related deaths by drug type	Not used in formal reporting by South Australia Police Yearly data available from SA Health/NDARC
Trends in drug-related emergency department presentations	Number of drug-related emergency department presentations by drug type	Not used in formal reporting by South Australia Police Yearly data available from SA Health/IDRS
Trends in ambulance attendances at overdose	Number of ambulance attendances at overdose by drug type	Not used in formal reporting by South Australia Police Yearly data available from SA Health/SA Ambulance Service
Trends in clients participating in drug treatment	Number of clients: • in detoxification • in a rehabilitation program/ therapeutic community • in outpatient/counselling • in a support group • in methadone maintenance • in buprenorphine treatment • in naltrexone treatment • seeing a general practitioner	Possible use of number and proportion of offenders diverted into South Australia's Illicit Drug Diversion Initiative (or IDDI) program (by drug type)

Improved public amenity

As outlined in Willis, Homel & Gray (2006), there are limited data (either publicly available or otherwise) on issues to do with the impact of illicit drugs on the community's quality of life or public amenity. However, the annually conducted National Survey of Community Satisfaction with Policing (NSCSP), which as its name suggests aims to monitor levels of community satisfaction with policing, includes questions on perceptions of safety in local areas as well as perceptions about local drug problems that can be used for DLE performance management purposes. Table 3.5 outlines the relevant status of each indicator for South Australia.

Table 3.5 Performance indicators of improved public amenity

Framework measure	Framework indicator	South Australia Police indicator
Trends in level of safety felt by the community	Number and proportion of people who feel very unsafe, unsafe, safe or very safe in their local area	Proportion of people who feel safe at: • home alone • walking/jogging • during the day and after dark. Not formally reported by South Australia Police. Data available from ROGS annual reports (Report on Government Services)
Trends in community concern about the 'drug problem'	Number and proportion of people who are very concerned, concerned, unconcerned about the drug problem in their local area and the state	Proportion of population who thinks drugs are a problem in their: • local area • state. Not formally reported by South Australia Police. Data available from ROGS annual reports (Report on Government Services)

Data collection, analysis and results

South Australia Police collects, analyses and reports on a range of DLE performance data. Specific data indicators used are outlined above. This section provides a statistical report on these indicators, as well as a report on other identified potential indicators of performance. The statistical analysis is chiefly presented by outcome area, although is presented by drug type where additional indicators are suggested for use. All figures referred to below can be found at Appendix 5 of this report. Aside from police data, much of the data were gathered from various sources including IDRS, AIC DUMA records, and AIHW records. Data collection periods for the indicators used are not collated in comparable time periods because of the way the different data collections are managed. Below is a list of the indicators and their collection periods:

- Police data are recorded quarterly by financial year (2004–2008).
- DUMA data are recorded quarterly by calendar year (2002–2007).
- IDRS data are recorded annually (varies by indicator, but generally 1997–2007).
- Ambulance data are recorded annually by calendar year (2002–2006).

South Australia Police data collection

South Australia Police collects data in two major systems: the Police Information Management System (PIMS), and the Property Management System (PMS). Operation Mantle collects data through an intranet-based repository. Data from the three systems are stored on the same mainframe. While PMS is an ancillary system to PIMS, data flow between the two systems is limited. The PIMS database has the ability to provide daily downloads of drug reports, available in an Excel spreadsheet (Anne Rathjen, pers. comm. 29 July 08).

At South Australia Police, officers in specialist investigation areas (for example, Drug Investigations Branch) use an 'e-journal', which is completed daily (operational staff in general patrols use handwritten patrol logs). In the journal, officers record key events that occurred during their shift. This information is also stored on the police mainframe. This may be a useful source of performance data for South Australia Police, and should be considered in any future iterations of the framework.

Reduced drug crime and drug-related crime

It is important to note that all quarters in the police file data refer to the financial year rather than the calendar year. Therefore, quarters three and four precede quarters one and two in a calendar year. For this analysis, many drug categories that were combined to obtain the indicators are outlined in Appendix 4.

Total number of people charged with offences relating to cultivating, manufacturing, or producing cannabis: quarterly data available from July–September 2004. Since new classification categories were introduced primarily in 2007 and 2008, all categories referring to cultivating, manufacturing or producing cannabis were aggregated to ensure continuity. Figure 3.2 indicates that while there was variation quarter to quarter, the overall number of people charged with this offence has remained relatively stable, with generally around 250 or more counts each quarter.

Total number of people charged with sell/trade cannabis: police quarterly data available from quarter one 2004. The number of people charged varied throughout the period under observation, although averaged around 80 charges a quarter (Figure 3.3). However, there was a significant decrease in the number of charges after late 2007 (for example, n= 6 in April–June 2008).

Total number of people charged with possess/use cannabis: police quarterly data available from July–September 2004. Despite some fluctuation, the number of people charged with possessing/using cannabis generally remained around 80 per quarter, but the number of people charged declined steadily after early 2007 (Figure 3.4).

Total number of people charged with possess/use cocaine: police quarterly data available from July–September 2004. The cocaine market in South Australia is small. Since 2004 there have been two or less counts in all but three quarters (Figure 3.5).

Total number of people charged with possess/use amphetamines: police quarterly data available from July–September 2004 to April–June 2008. The number of people charged for possess/use amphetamines in South Australia has fluctuated, though it remained above 20 counts at any given point in the collection period. With the exception of April–June 2007, there appears to have been a slight upward trend in the number of charges (Figure 3.6).

Total number of people charged with produce/manufacture amphetamines: police quarterly data available from July–September 2004 to quarter 4 2008. Arrests for producing and manufacturing amphetamines were volatile across the time period. After a low of five arrests in quarter 3 2003, there were three distinct peaks in arrests: July–September 2005 (n=32); October–December 2006 (n=24); and October–November 2007 (n=31). This was followed by a decline to fewer than 10 arrests in the 2008 quarters (Figure 3.7).

Total number of people charged with sell/trade amphetamines: police quarterly data available from July–September 2004 to April–June 2008. The number of people charged with selling/trading amphetamines fluctuated across the time period, although dipped markedly from October–December 2007 (Figure 3.8).

Total number of people charged with sell/trade MDMA: police quarterly data available from July–September 2004 to April–June 2008. Overall, MDMA arrests were variable, although it appears that the long-run trend is for a declining number of arrests. In particular, the number of people charged decreased dramatically in 2008, with only one charge in each of the first two quarters of 2008 (Figure 3.9). This downturn is also present in the amphetamines and cannabis sell/trade indicators. There could be various explanations for the downturns, which may have resulted from:

- a change in the way those who sell/trade drugs are classified
- a shift in priorities for the police to other drug types
- a shift in police priorities away from those who sell/trade to other drug offences
- a genuine decrease in drug usage for these particular drugs.

Total number of people charged with possess/use MDMA: police quarterly data available from July–September 2004 to April–June 2008. MDMA figures for possession and use were consistently fewer than seven counts across the period (Figure 3.10).

Total number of people charged with possess/use heroin: police quarterly data are available from July–September 2004 to April–June 2008. There were consistently fewer than five counts across the period for heroin use/possession (Figure 3.11).

Total number of people charged with sell/trade heroin: police quarterly data available from July–September 2004 to April–June 2008. The number of people charged with sell/trade heroin fluctuated, with three periods where there were noticeable spikes in arrests (July–September 2004; July–September 2005; and July–September 2006), suggesting a seasonal pattern in the data. There does appear to be a slight downward trend in the number of people charged from July–September 2007, as there are fewer than five arrests recorded in each quarter after this time (Figure 3.12).

Total number of people charged with trafficking/trafficking commercial quantity/trafficking large commercial quantity of MDMA: police quarterly data from July–September 2004 to April–June 2008. There were no recorded charges from July–September 2004 until July–September 2007, and therefore no frequencies are reported. However, in the subsequent three quarters there were six, 19 and 36 charges respectively, indicating that MDMA trafficking could be an area warranting further attention by South Australia Police in the future.

Number of people arrested for armed and unarmed robbery: police quarterly data available aggregated to state level from October–December 2001. The number of people charged with robbery offences declined steadily from around 400 in October–December 2001 to 275 in January–March 2002, and remained relatively stable at around 300 thereafter (Figure 3.13).

Additional indicators of reduced drug crime and drug-related crime

South Australia Police could incorporate additional measures in their regular performance measurement practices that would provide further insight into South Australia's different illicit drug markets. Drawing on the annual IDRS collection, the following provides a statistical report of the suggested indicators by drug type. AIC's DUMA data are also used to obtain statistics for these measures. Care must be taken when interpreting the two different datasets because:

- IDRS data are collected annually and are available for 2003 until 2007.
- DUMA data are collected quarterly by calendar year, with data available from 2002 until 2008. The figures for DUMA are obtained by combining the two South Australian DUMA sites of Adelaide and Elizabeth. It should also be noted that in June 2007 the Elizabeth site ceased being a DUMA collection point. As such, data from this period onwards reflects the Adelaide site only.

Cannabis

Self-reported median street price: The IDRS reports drug price in a number of different ways. To obtain some level of comparability between drug types in the South Australian technical report, the price per 'bag' is used. A bag usually has a weight of two or three grams. Between 2003 and 2007 data were separated into outdoor grown and indoor grown categories. Regardless of this distinction, the IDRS data show that the amount paid for both outdoor and indoor forms of cannabis has remained unchanged since at least 2003, with one bag of outdoor cannabis costing $25 and one gram of indoor-grown cannabis costing $25 (IDRS Annual Reports 2003–2007). South Australian prices for cannabis mirror prices paid in both Tasmania and Victoria. The differential in price paid per gram is consistent with police intelligence that cannabis grown indoors is in greater user demand because of its higher concentrations of THC (ACC 2008).

Number/percentage of people who self-report the availability of cannabis as very easy, easy, difficult or very difficult: Cannabis is the most readily available illicit drug. Between 84 and 91 percent of injecting drug users (IDU) surveyed as part of the IDRS in any given year (between 2003 and 2007) reported that indoor forms of cannabis were very easy/easy to obtain in the six months prior to being surveyed (Figure 3.14). Interestingly, the availability of outdoor cannabis appears to have declined in the same period. This pattern could reflect the increased production and availability of indoor cannabis, widely considered to be of superior quality to outdoor cannabis.

Source of last cannabis purchase (percentage of those who reported cannabis use): DUMA data indicate that sources for cannabis have remained relatively stable over time (Figure 3.15), with a greater proportion of people obtaining their cannabis from regular sources, rather than from either occasional or new sources. However, it should be noted that where there are declines in the use of regular sources, greater use of new and occasional sources are evident.

Location of last cannabis purchase (percentage of those who reported cannabis use): The DUMA survey records information on the place of last cannabis purchase for South Australia from April-June 2002. Figure 3.16 overwhelmingly illustrates that cannabis users purchase the drug at a house. The proportion of people obtaining cannabis from a public building, through home delivery, and from a street or alley, is consistently very low, with most quarters for each category recording less than 20 percent of the respondents per category. It is extremely rare for respondents to purchase cannabis within an abandoned building, with most quarters reporting no counts of this location.

Means of contact for last cannabis purchase (percentage of those who reported cannabis use): DUMA data contain information on the means of contact for last cannabis purchase since April–June 2002. As Figure 3.17 shows, the means of contact for cannabis are highly variable across time; however, the majority of users contact their cannabis source via a house or flat (long-range average of approximately 40 percent), followed by a mobile call, averaging about 20 percent of respondents over time. The landline telephone calls, third party contacts, being approached in public, and being with the source already all remained under 20 percent over the quarters.

Methamphetamines

Self-reported median street price: Since 2001, the IDRS annual reports have reported the three major types of methamphetamines separately as crystal methamphetamine (or ice), base/paste and powder. Prior to this time the price of methamphetamine was only reported as 'powder'. Figure 3.18 provides a frequency distribution of annual data. The data show that the price of base has remained stable over the period of observation. The price of ice prices was similar to that for base between 2001 and 2004; however, there was a large spike in the price of ice in 2005 and 2006. In 2007 the price of ice returned to a figure comparable to levels prior to the spike. Powder prices over the time period were consistently lower than for base and ice, although fluctuated between 2003 and 2007. Overall, the price of powder has increased to levels comparable in price with the other two forms of the drug.

Median purity of seizures (percent): Methamphetamine seizures by South Australia Police are determined through laboratory testing by Forensic Science South Australia. Quarterly data are available between July–September 1999 and January–March 2007 (although there are no data available for the period July–September 2000 to April–June 2001). The median purity of methamphetamines rose sharply after January–March 2002, from below 10 percent purity to a peak of over 30 percent in January–March 2003. Median purity then dropped back to pre-peak levels of just over 10 percent purity. Although volatile quarter-to-quarter, purity has averaged around 18 percent since at least the early 2000s (Figure 3.19).

Drug purity is essentially a test of quality. Typically, as drug purity increases, supply of a drug can be viewed as exceeding demand. The converse of this is that, as drug purity decreases demand exceeds supply. Under the first scenario, drug suppliers have sufficient stocks of a drug so that they are able to provide many users with a high quality product. Under the second scenario, drug suppliers may dilute or 'cut' their product to meet demand (Rhodes et al. 2007). In South Australia's case, demand for methamphetamine appears to be decreasing (relative to supply).

Percentage of people who self-report the availability of ice, base/paste and powder as very easy, easy, difficult or very difficult: A frequency distribution of IDU who self-reported that methamphetamines were very easy/easily available is provided in Figure 3.20. Since 2001, the proportion of IDU respondents indicating that base/paste, ice or powder is very easy/easily available has generally remained above 80%. This long-term trend appears to be relatively stable over time.

Percentage of users who usually purchased ice, base/paste and powder from a dealer's home, through home delivery, a friend's home, a mobile dealer, off the street: The IDRS annual reports have captured these data in South Australia since 2002. This information is useful for gauging the degree of openness of a drug market. Figures 3.21–3.23 provide frequency distributions for each methamphetamine form. The three plots indicate that there are some similarities between the location in which IDU purchase these drug forms. These include:

- a decline in purchases from friends' homes since 2004
- a sharp decline in purchases from mobile dealers since 2005
- an overall increase in home delivery purchases since 2006. This is most pronounced in

powder purchases, where in 2006 the proportion is similar to that of purchases from a friend's home, which has the greatest proportion of respondents.

These location results are similar to the results found in Tasmania for the same time period.

A key difference between the drug forms in terms of purchase location is that for both base/paste and powder the most common place of purchase tends to be from dealers' homes, whereas the most common purchase location of ice is from friends' homes. This is also true of the Tasmanian methamphetamine market. This may suggest a greater level of familiarity between IDU and suppliers of ice than suppliers of either base/paste or powder may. It could also indicate that ice has a more closed market system than do the other methamphetamine drug forms.

Location of last speed purchase (percentage of those who reported ATS use): The DUMA survey records information on the place of last 'speed' purchase for South Australia since April–June 2002 (Figure 3.24). Purchasing speed from a house was consistently the most reported method of obtaining speed. Although the proportion fluctuated each quarter, it remained above 40 percent for all but one quarter for the time period, and peaked at approximately 70 percent of respondents in October–December 2002 and July–September 2008. In most cases when purchasing from a house drops, the proportion of respondents purchasing from a street/alley appears to increase (and vice versa). For example, in the last quarter of 2008 there was a large drop in the proportion of people obtaining speed from a house; however, this was preceded by a large spike in the July–September 2008 quarter.

Means of contact for last speed purchase (percentage of those who reported ATS use): The DUMA collection contains information on the means of contact for last speed purchase from April–June 2002 (Figure 3.25). The two most commonly reported means of contact across the quarters were via a mobile phone call and a visit to a house/flat respectively, although the percentage of self reported users fluctuated each quarter. In the quarters where contact via a mobile dropped (January–March 2003; October–December 2003; April–June 2008), contact via a house/flat increased, as did being approached in public within either that or the subsequent quarter.

Source of last speed purchase (percentage of those who reported ATS use): Since April–June 2002, DUMA has collected data from detainees on whether they obtain speed from a regular source, an occasional source or a new source. Unsurprisingly, users predominantly contact a regular source, followed by an occasional source, and then a new source (Figure 3.26). All categories were relatively stable in the period, with only two marked decreases – obtaining ATS from a regular source fell by over 20 percent in April–June 2005 and by around 30 percent in June–September 2008. On both occasions, occasional and new sources for the drug increased.

Heroin

Self-reported median street price: IDRS has been collecting information on the self-reported price of heroin per gram since 1997 (Figure 3.27). Whereas it appears that the long-run average of heroin prices is roughly $400 per gram, there was noticeable drop in price in 2000 to below $350 per gram, corresponding with the period considered to be of peak heroin shortage. Prices appeared to rise again in 2002 to a median of $450, then dropped to levels seen in 2001, after which they stabilised once again to around $400 per gram.

People who self-report the availability of heroin as very easy, or easy (percent): Data have been collected by IDRS since 1997. The proportion of self-reported heroin users shows that availability remains relatively stable in the 80–100 percent range, with it dipping below 75 percent in 2001, consistent with the theory of a heroin shortage in that year (Figure 3.28).

Source of last heroin purchase (percentage of those who reported heroin use): Since April–June 2002, DUMA has collected quarterly data from police detainees on whether they obtained heroin from a regular source, an occasional source, or a new source. From the small sample available, it is clear that users typically obtain heroin from a regular source, although the proportions fluctuate across time (between 50 and 100 percent). It is also the case that, where there are decreases in the proportion of people obtaining heroin from regular sources, there are corresponding increases in those obtaining the drug from occasional and new sources (Figure 3.29).

Location of last heroin purchase (percentage of those who reported heroin use): Location of last heroin purchase is available quarterly from DUMA since quarter 2 2002. Due to the small numbers of detainees reporting heroin use it is difficult to make any firm comment about this indicator. From what is available, it appears that, while purchasing heroin from a house was more common than purchasing from a street/alley until the end of 2005, this appears to have reversed from 2006 onwards (Figure 3.30).

Median purity of seizures (percent): Purity seizures by South Australia Police are determined through laboratory testing by Forensic Science South Australia. With the exception of the four quarters from July–September 2000 to April–June 2001, when there were no data recorded, quarterly data are available between July–September 1999 and January–March 2007. Between July–September 2001 and April–June 2006, heroin purity fluctuated somewhat, but generally ranged between 10 and 25 percent (Figure 3.31). Following a drop in purity to just five percent in July–September 2006, there was a sharp increase in purity to over 50 percent in April–June 2007, up from 20 percent in January–March 2007. It remains to be seen whether this increase is a short- or long-term proposition.

Cocaine

Data collected from South Australia Police suggest that the cocaine market is extremely small in that jurisdiction (no counts were recorded for each indicator in the majority of quarters). Therefore, for the purposes of this report no frequency analyses are provided.

MDMA

As for cocaine, the MDMA market in South Australia appears to be quite small. The DUMA program only commenced collection of information on the location, source, and means of contact from January–March 2006.

Self-reported median street price: Data collected by South Australian EDRS from 2002 onwards. Data reflect the median price paid per tablet. The price of MDMA appears to have gradually decreased over time, falling from $35 per tablet in 2002 to a median price of $25 per tablet in 2008.

Number/percentage of people who self-report the availability of MDMA as very easy, easy, difficult or very difficult: Data collected by South Australian EDRS from 2002 onwards. Availability of MDMA has been consistently high, with the proportion of respondents reporting availability as very easy/easy to obtain at, or over, 84 percent since 2002.

Source of last MDMA purchase: Data collected by South Australian EDRS from 2002 onwards. Overall, friends are consistently the primary suppliers of MDMA to users, supplying almost 70 percent of respondents over the time period. This is followed by known dealers and acquaintances. It is not common for users to source MDMA from either workmates or unknown people. These patterns have been consistent throughout the period under observation.

Self-reported purity: Self-reported purity for MDMA has been reported in the South Australian EDRS since 2002. The percentage of MDMA users who self-reported purity as 'high' varied between 2002 and 2008. In 2008, 21 percent of users reported that purity was high (Table 3.6).

Table 3.6 Proportion of users who self-reported that the purity of MDMA was 'high'

Year	%
2002	18
2003	18
2004	22
2005	26
2006	17
2007	24
2008	21

Source: South Australian EDRS annual reports

Actual purity results for South Australian MDMA-tested seizures are available from the ACC's IDDR. These data are reported quarterly under 'phenethylamine', which is the group of drugs to which MDMA belongs. Overall, the median purity of South Australian MDMA seizures has trended down in the past few years. For example, in April–June 2005, median purity was 80 percent, while in April–June 2005 it was around 47 percent.

Reduced organised crime

See discussion of relevant indicators under 'Reduced drug crime and drug-related crime'.

Improved public health

DASSA collates health data that could be used by South Australia Police to report on the improved public health indicators. Most of the data it can provide are annual and available through AIHW publications. The health data for MDMA is limited to the following.

Number of clients participating in drug treatment: although data for publicly funded drug and alcohol services closed-treatment episode are available by main treatment type, this was not provided to the AIC for each drug type. As such, these data are unable to be reported here. There is potential to use this indicator in South Australia in the future if South Australia Police is able to obtain the data via drug type. It would also be possible to monitor the number of people diverted by police into education/treatment programs.

Number of people who used illicit drugs in the past month by drug type (percent of SA population): Data from AIHW for cannabis, heroin, meth/amphetamines (speed), cocaine and MDMA are available for 1998, 2001, 2004 and 2007, for the population 14 years and older (Figure 3.32). From the data available, it appears that, over the nine year period, the proportion of people using cannabis decreased by around seven percent. There was also a 1.5 and 0.1 percent drop (respectively) in the proportion of people using methamphetamines and heroin between 2004 and 2007.

A more frequent data collection for each drug type is available through the DUMA collection. This information is available by drug type below.

Cannabis

***Self-reported use of cannabis in last 30 days by detainees (percentage of all DUMA respondents*):** DUMA collects information on detainee's self-reported use of cannabis in the 30 days before a detainee is surveyed. Data for South Australia are available from April–June 2002 until October–December 2008 (Figure 3.33). Use appeared to remain fairly stable, with around 60–70 percent of detainees reporting use between mid-2002 until late-2005. After this period, the rate of detainees reporting cannabis use steadily fell to around 45–50 percent.

Self-reported regular use of cannabis detainees (percentage of all DUMA respondents): Using quarterly DUMA data, regular use of cannabis was calculated by counting the number of self-reported users who recorded using cannabis more than 12 times in a month. Figure 3.34 presents a pattern that is similar to the self-reported use of cannabis above, with an overall decline in regular use after around mid-2005.

Number of cannabis-related deaths: No data currently available at this time. However, it is anticipated that there would rarely be cannabis-related drug deaths.

Number of cannabis-related public hospital admissions: Data for public hospital admissions where cannabis use was the primary factor contributing to the admission have been available annually since the 1993–1994 financial year. Since 1993–1994, admissions rose steadily from 493 to over 3,000 in 2003–2004, the most recent year of data collection (Figure 3.35).

Number of cannabis-related attendances to hospital emergency department: Data for attendances to the hospital emergency department concerning cannabis have been collected each financial year since 1998–1999. Figure 3.36 indicates that the number of admissions varied over the period, although has averaged around 12 admissions since 2000–2001.

Number of cannabis-related ambulance attendances: No data available for cannabis attendances in South Australia.

Number of clients participating in cannabis-related treatment: As already reported, no data are available for clients participating in cannabis-related drug treatment in South Australia.

Methamphetamines

Self-reported use of 'speed' in last 30 days (percentage of all SA DUMA respondents): DUMA collects information on detainee's self-reported use of speed over the last 30 days, and data for South Australia are available from April– June 2002 until October–December 2008. In DUMA, the term 'speed' is used to capture use of methamphetamines, amphetamines, and speed, as respondents may not be able to accurately distinguish among the different drug forms. The use of speed among detainees remained relatively stable over time, with a slight decrease in usage from April–June 2007 to the end of 2008 by just over 10 percent (Figure 3.37).

Self-reported regular use of 'speed' in last 30 days (percentage of all SA DUMA respondents): Regular use of speed was calculated by counting the number of self-reported users who recorded using speed more than 12 times in a month. Figure 3.38 indicates that the proportion of regular speed users has fluctuated over time. However, it also appears that there has been a small overall decrease in the number of regular users over the time period.

Number of methamphetamine-related deaths: No data available at this time.

Number of methamphetamine-related attendances to hospital emergency department: Data for attendances to the hospital emergency department concerning methamphetamines have been collected each financial year since 1998–1999 and reported in the annual IDRS report. Figure 3.39 indicates that the number of attendances has varied each year, although has averaged around 80.

Number of methamphetamine-related public hospital admissions: Data for public hospital admissions where methamphetamine use was the primary factor contributing to the admission has been available annually since the 1993–1994 financial year (Figure 3.40). Overall admissions were reasonably stable at around 40 to 60 admissions until 1997–1998. After that time the number of admissions more than doubled and by 1999–2000 there were over 150 admissions. Between 1999–2000 and 2003–2004 the number of people admitted to hospital for methamphetamine-related reasons continued to increase.

Number of methamphetamine-related ambulance attendances at overdose: No data available for methamphetamines attendances in South Australia.

Number of clients participating in methamphetamine-related treatment: No data available for South Australia. See note in the introduction to this section above.

Heroin and cocaine

Self-reported use of heroin in the last 30 days (percentage of all SA DUMA respondents): DUMA has collected data on self-reported use of heroin in South Australia since April–June 2002. The overall pattern is of declining use (Figure 3.41). In October–December 2008 less than three percent of police detainees reported use of heroin in the 30 days before being surveyed.

Self-reported regular use of heroin in last 30 days (percentage of all SA DUMA respondents): There were no respondents who reported using heroin more than 12 times in a month in the time period.

Number of accidental opioid deaths between 15 and 55 years old: Accidental deaths related to opioid use can be found in IDRS annual reports from 2001 to 2005. Figure 3.42 indicates that the number of deaths in South Australia fell sharply between 1999 (in which there were over 60 deaths) and 2001 (in which there were 18 deaths). Between 2001 and 2005 the number of opioid-related deaths increased to 37.

Number of heroin-related emergency department presentations: IDRS data available between1998–1999 and 2006–2007. Attendances for heroin were over 100 counts in 1998–1999 and peaked to over 200 in the 1999–2000 financial year, just before the onset of what is considered to be the peak period of heroin shortage (Figure 3.43). This figure then fell to fewer than 40 presentations by 2001–2002. After remaining low in 2003–2004 (n=25), the numbers gradually increased again to 39 in 2006–2007.

Number of cocaine-related emergency department presentations: Cocaine consistently had fewer than seven recorded presentations each financial year, and therefore it is difficult to offer any relevant analysis of the data.

Number of heroin-related public hospital admissions: Data for public hospital admissions where heroin use was the primary factor contributing to the admission have been available annually since the 1993–1994 financial year. The most recent, publicly available data relate to 2003–2004. Figure 3.44 indicates that there was a jump in admissions between 1993–1994 and 1998–1999. The number of admissions fell thereafter and in 2001–2002 there were around 150 heroin-related admissions. The number stabilised after that time.

Number of 'narcotic'-related ambulance attendances at overdose: The South Australian Ambulance Service collects attendance data as an estimate of narcotic-related callout trends for both carries (where the patient is transported to hospital in an ambulance) and non-carries (where an ambulance is called but the patient is treated onsite). Annual data are available for the period 2002 to 2006. The number of narcotic-related carries increased between 2002 and 2004, but then stabilised after that time (Figure 3.45). The number of non-carries generally fell in the same period.

Number of clients participating in heroin-related treatment: See note in the introduction to this section above. Data not available by drug type, only treatment type.

MDMA

***Self-reported use of MDMA in last 30 days by detainees (percentage of all DUMA respondents*):** DUMA collects information on detainee's self-reported use of MDMA in the 30 days before a detainee is surveyed. Data for South Australia are available from April–June 2002 until October–December 2008. Recent (any use in the 30 days prior to interview) MDMA usage remained fairly consistent in the early 2000s (between five and ten percent); however, usage appears to have increased from mid-2006 onwards. In late 2008 the proportion of detainees reporting recent use increased to 20 percent.

Self-reported regular use of MDMA by detainees (percentage of all DUMA respondents): There were insufficient data to draw any conclusions about regular users of MDMA. Data on self-reported recent use (in last 12 months) are available from the NDSHS for 1998, 2001, 2004 and 2007 for the general population. With only four data collection periods in the past 10 years, it is difficult to make any concrete observation of changes over time; however, self-reported recent use has increased from 1 percent in 1998 to 2.9 percent in 2007. Increases in the use of MDMA in the general South Australian population reflect what is occurring elsewhere in Australia.

Number of clients participating in MDMA-related treatment: See note in the introduction to this section above. Data not available by drug type, only treatment type.

Other MDMA-related public health data are limited, either because the sample sizes are very small, or because MDMA-related data are aggregated with other ATS.

Improved public amenity

Indicators of public amenity that could be used by South Australia Police to formally track and report on public perceptions of illicit drug 'problems' include the following:

Proportion of population who thinks illegal drugs are a problem in their local area: annual data (financial year) are reported from 2001–2002 by the Productivity Commission for South Australia. Figure 3.46 indicates that the proportion of people who thought that illegal drugs were a major problem/somewhat of a problem in their neighbourhood fell from nearly 70 percent in 2003–2004 to under 60 percent in 2004–2005. After that time the proportion of people who indicated that illegal drugs were a problem was relatively stable.

Proportion of population who feels safe in public after dark: the Productivity Commission provide annual data (financial year) from 2001–2002 until 2007–2008. Figure 3.47 indicates that the proportion of people who felt safe (walking/jogging) in public after dark in their neighbourhood was relatively stable at just above 40 percent between 2001–2002 and 2005–2006. After this period, there was a large increase in the proportion of people who felt safe in the neighbourhood after dark with over 60 percent of respondents indicating this was the case. The figure remained above 60 in 2007–2008.

As highlighted earlier in this report, these figures need to be interpreted within a broader context. Perceptions of crime tend to fall as respondents focus on their local neighbourhood. For example, in 2007–2008, while 55 percent of people indicated that they considered illegal drugs to be a major problem/somewhat of a problem in their neighbourhood, 91 percent considered them to be so nationally. National figures have remained reasonably stable for several years.

Summary of South Australia Police indicator data

South Australia Police already collate a suite of indicators that could be complemented by the other suggested data outlined in this report. South Australia Police data are available on a quarterly basis for over six years, which assists in the identification of underlying trends and patterns in local illicit drug markets. For the purposes of this report, data for some of the South Australia Police categories are aggregated due to small counts. Where data are aggregated, this is done according to similar offence types (for example, 'trading' and 'selling' are combined, as are 'manufacturing' and 'producing'). As already noted, a full list of aggregated data is provided in Appendix 4). South Australia Police may wish to disaggregate these data or create different categories in future analyses.

Analysis of the data indicated a large downturn in the number of people charged across many of the South Australia Police indicators from 2007 onwards. This may be due to different classification of offences, although the pattern was still observed where offence categories were aggregated. However, some cannabis and methamphetamine offences remained stable or increased, so it would be useful to compare DLE operations and priorities to the data in this period to determine precisely why these differences were observed.

Taken as a whole, methamphetamines appear to have been the primary drug problem in South Australia in the last ten years; however, there are some indications that there may be a re-emergence of the heroin market in South Australia. More up-to-date public health data would be useful to determine the extent of this. The South Australian cocaine market is small, and limited indicator data make it difficult to draw any inferences about its condition. Despite this, it is important to continue to monitor local cocaine trends. For instance, if an upward trend in cocaine use (or other cocaine market indicator) was to occur, then South Australia Police would be in a position to determine if remedial action was necessary.

A more detailed summary of all indicator data is provided below by drug type.

Cannabis

Overall, the cannabis market in South Australia appears to be stable. One exception to this overall trend is the downward trend in selling and trading cannabis from mid-2007 onwards, and an overall decline in cannabis use. Arrests for cultivating, manufacturing or producing cannabis have remained relatively stable since 2004. In general, most cannabis users obtain the drug from a regular source, contacted through a house or a flat, and eventually purchased in a house. The number of hospital attendances also remained relatively stable until 2006–2007, although the number of hospital admissions appeared to trend upward. Unfortunately, these latter data are only available until 2003–2004, and therefore it is difficult to make any inferences about more recent patterns. Street prices for cannabis remained stable, but this reflects the general trend nationally.

Data on the number of charges for possessing and using cannabis fluctuated quarter-to-quarter, although there was a gradual decline after mid-2007 – this drop was not as sharp as the decline for selling and trading. There may be a number of explanations for this decline. In terms of police data, different reporting methods may have influenced the large drop in numbers. It is also

possible that law enforcement focus may have shifted somewhat. However, this general pattern reflects what has been occurring at national (ACC 2008; AIHW 2008 Black; et al. 2008b) and even international (UNODC 2008) levels, and is probably not due to local South Australian law enforcement action alone, but rather a broad underlying shift in the cannabis market. As already highlighted, given that cannabis is largely domestically-produced, and is also the most widely used and accessible illicit drug (AIHW 2008), it is unlikely that supply of and demand for the drug will fall dramatically in the future. This is especially the case for hydroponically cultivated cannabis (which is predominantly grown in South Australia), where there is high potential financial gain, coupled with a relatively low risk of detection, to growers (Willis 2008).

Methamphetamines

Methamphetamine market indicators suggest that the South Australian market has had periods of stability, but has also undergone periods of change that have affected different elements of that market. In particular, changes have occurred in:

- the number of people charged with methamphetamine-related offences
- the way methamphetamines are obtained
- the number of people needing hospital attention
- the price of the three types of methamphetamines
- the proportion of regular users of the drug.

South Australian data on the number of people charged with methamphetamine-related offences indicated significant drops in the following methamphetamines indicator data:

- trade/sell – overall, a large drop occurs from late 2007 onwards
- produce/manufacture – overall, a large decrease in 2008.

Despite recent drops in these data, this trend is not necessarily evident in other police data sources. For instance, in contrast to the above patterns, the number of people charged with possession/use of methamphetamines did not significantly fall in late 2007/early 2008. This may indicate specific targeting of this offence type by South Australia Police.

Most South Australian users source methamphetamines from a regular source, though this is trending downwards. The most common method used by police detainees for contacting dealers is the mobile phone; however, contact via a house/flat has increased in more recent times. Another change appears in the way the drug is purchased. Purchasing in a house/flat was the most common method until late 2008, when there was a substantial decrease in the use of this method. Wherever a drop in purchasing via a house/flat occurs, it is often accompanied by an increase in purchasing from a street or alley, suggesting that law enforcement suppression of the market has at least short-term impacts in purchasing behaviours.

IDRS data indicate that, where there are declines in purchases from the dealer's homes and mobile dealers, there are increases in the use of home delivery. This trend is most pronounced for purchases of powder. Base/paste is usually purchased from a dealer's home, whereas ice is more likely to be obtained from a friend's home. These location trends are similar to those observed in Tasmania.

Methamphetamine-related hospital attendances rose markedly in the late 1990s and early 2000s, although increased gradually in the mid-2000s (data for 2003–2004 were unavailable at the time of reporting). This trend aligns with what we know more broadly about the methamphetamine market domestically and overseas (see the Customs technical report above) – that is, that the

methamphetamine market underwent a period of significant growth in the early to mid-2000s, but has more or less stabilised since that time.

The price of methamphetamines varies depending on its form. Over time, the price of base has remained stable, although the price of the two other forms of the drug has varied. In particular, the price of ice and powder both spiked in 2005. While the price of ice returned to be reasonably comparable with base in 2007, the price of powder (the less pure form of the drug) remains high compared to prices for that form of the drug three and more years ago.

Certain indicator data have remained relatively stable over time. For instance, all forms of methamphetamines (that is, base, powder and ice) are consistently considered easy or very easy to obtain. In addition, methamphetamine purity (although volatile quarter-to-quarter) has averaged around 18 percent for the past several years.

Heroin and cocaine

As demonstrated by the indicator data outlined in this report, the heroin and (particularly) the cocaine markets in South Australia appear to be less well developed than those in larger jurisdictions. Compared to the cannabis and methamphetamine markets, there were far fewer:

- offenders charged with heroin or cocaine offences
- actual seizures of heroin or cocaine
- regular users of heroin or cocaine.

Small sample sizes make it difficult to infer much about the condition of either market. Despite this, it appears from the limited indicator data available that, while small, the heroin market is stable. This is evidenced by long-run stability (in contrast with short-term fluctuations) in:

- the number of people charged with heroin offences
- the number of armed and unarmed robberies
- price
- availability
- purity (with the exception of the spike in April-June 2007. It remains to be seen whether this increase is a short- or long-term proposition)
- use
- hospital emergency department admissions (from 2001–2002 onwards)
- public perceptions of illegal drug problems.

MDMA

The MDMA market in South Australia is small in comparison to the markets for methamphetamines and cannabis. As much of the DUMA data illustrate, small sample sizes limit inferences about the market. Despite this, there are a number of observations of interest from the available indicator data – for example:

- increases in recent use among police detainees
- increases in use in the general population
- recent increases in the number of people charged for trafficking in the drug
- decreases in median purity (suggesting that demand for the drug is strong, relative to its supply).

These indicator data all point to growth in the market, particularly in terms of demand. This underscores the importance for ongoing monitoring of the MDMA market in South Australia.

Monitoring and evaluating performance

An effective performance management system should be able to help set, monitor and assess short-, medium- and long-term goals. South Australia Police has a suite of indicators that provide a useful illustration of the level of DLE activity regarding users, producers and sellers of illicit drugs. They could enhance longer-term monitoring and assessment by formally incorporating further measures of drug market impacts, as outlined above. As argued previously (Willis, Homel & Gray 2006), these measures are designed to be monitored in concert as no single measure is considered authoritative. Use of multiple measures from each of the high-level outcome areas should reduce the risk of error in identifying drug market trends. This is especially important given that the framework is comprised of indirect measures of drug-related phenomena that are linked to both DLE and health and public amenity consequences.

South Australia Police has effective performance management and evaluation strategies in place. A management program of activities is developed annually in Operation Mantle, and reporting on activities is conducted quarterly – reports are disseminated to South Australia Police's senior executives (including the Commissioner), and Corporate Reporting function. Information for these reports is sourced from LSA data and includes (for example):

- arrest reports
- expiation notices
- number of people diverted
- seizure data
- collaborative work with other agencies.

Drug market intelligence summaries are also developed by the Drug Intelligence Desk and provided to LSAs two to three times a week. These summaries alert operational staff to emerging issues and include data on (for example):

- drug concealment methods
- drug form
- location of drug seizures
- offender criminal histories, including the number of times an offender was convicted of property and/or violent offences
- forensic analyses of drug form and purity
- prices of drugs obtained from prisoners, undercover officers and/or informants
- overdose monitoring (police-generated data rather than data obtained from the public health sector)
- relevant DUMA and IDRS data.

Seizure and charge data from PIMS and PMS are also used for both monitoring and evaluating performance and are collated by the Business Information Section and fed to Corporate Reporting. The PIMS database in particular has the ability to provide daily downloads of drug reports, available in an Excel spreadsheet. Although data from each system is available on the same mainframe, the systems are not fully compatible, limiting the scope for comparisons to be made across the databases.

At South Australia Police each officer is equipped with an e-journal, which is completed daily. In the journal, officers record key events that occurred during their shift. Information from the journal is uploaded to the police mainframe. This may be a useful source of performance measurement data in the future.

Communicating results and accountability structures

Approximately 30 percent of South Australia Police's drug seizures are attributable to Operation Mantle, which provides a strong accountability and communication function within South Australia Police. As noted above, Operation Mantle collects drug data covering arrests, diversions, expiation notices and seizures. Members of Operation Mantle are located across the different LSAs in South Australia; however, they are recognised as having a specific DLE function within the LSA to which they are attached. There are six metropolitan teams (with around 35 staff at any given time), and these have partnerships with regional and rural LSAs. Operation Mantle's primary DLE role is to target mid-level (street) dealers.

As outlined above, a management program of activities for Operation Mantle is developed annually, and performance against these activities is reported to senior executives on a quarterly basis. These reports are designed to generate a picture of where the Operation is placed at specific points each year.

Operation Mantle is also overseen by a coordination group that meets quarterly to review progress and best practice. This group is chaired by the Assistant Commissioner, and results from meetings (including any changes in strategic priorities) are fed back to each Operation Mantle team. More specifically, this group meets to discuss:

- any changes that have occurred in the drug markets
- good practice
- resourcing and budgets.

Information collected by Operation Mantle is uploaded to an intranet-based data collection repository, which is also stored in the mainframe that includes PIMS and PMS.

Chapter four: Victoria Police

Victoria Police is led by the Chief Commissioner of Police. High-level strategic direction for Victoria Police is provided by the Executive Management Group, whose members include the Chief Commissioner, two Deputy Commissioners and the Chief Information Officer. The organisation's peak decision-making body is the Corporate Committee. Chaired by the Chief Commissioner and comprising 25 senior executives, the Committee is responsible for setting overall corporate policy, strategic direction, organisational performance targets, corporate budget priorities and for monitoring corporate performance. Committee executives also report directly to the Chief Commissioner and are accountable for the work performance of their respective portfolio, region, department or work unit (Victoria Police 2008).

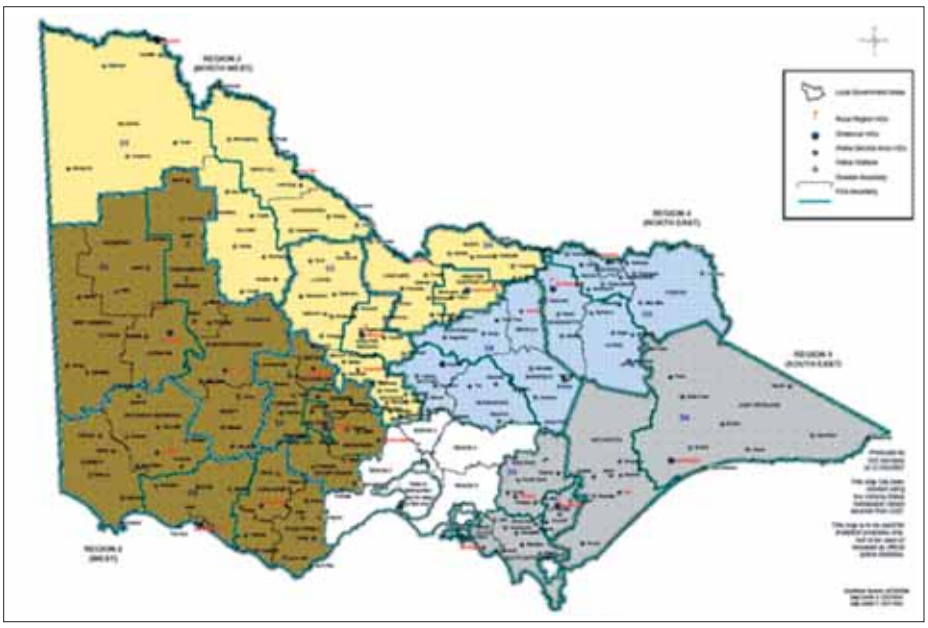
Victoria is divided into five police regions, which are underpinned by 56 Police Service Areas (PSAs) (Figure 4.1). Each region is managed by an assistant commissioner who is responsible for the management and provision of policing services within the region.

In addition to the division of services at regional and PSA level, Victoria Police has 12 'portfolios', which are the agency's major work areas. These include:

- drugs and alcohol
- youth
- mental health
- property theft and damage
- motor vehicle theft
- burglary
- family violence, sexual assault, child abuse and child protection
- robbery and public order
- traffic and road trauma
- assault
- operational data quality
- regulation.

While there is a portfolio specifically devoted to enforcement action around drugs and alcohol, some parts of this work straddle other portfolios (for example, the portfolios of Robbery and Public Order and Operational Data Quality). Within this portfolio structure, Victoria Police operate 27 'crime theme desks', including the Drugs, Robbery and Firearms Trafficking theme desks. Theme desks are the intelligence functions that largely support operational activities.

Figure 4.1 Victoria Police regional boundaries



Source: Victoria Police

Measures and indicators of state and local-level DLE performance

Victoria Police has put considerable effort into improving the way the agency monitors and measures DLE in the past two years. In recognition of the continuing harms caused to Victorians through illicit drug supply and use, Victoria Police developed and introduced a new Illicit Drug Strategy in 2007 to:

- coordinate a state-wide policing approach to illicit drugs
- focus efforts on the connections between illicit drugs and volume of crimes
- take action on issues over which Victoria Police could exert an influence
- develop and align systems and processes to support the strategy's principles.

The strategy emphasises the importance of being able to effectively measure the impact of its different elements. Victoria Police is attempting to achieve this through the introduction of two new tools: a Drug Harm Index (DHI) and Drug Attribution Model (DAM).

Victoria Police's DHI attempts to quantify the amount of harm being caused by drug and drug-related offending at both state and PSA levels. This is done to measure Victoria Police's progress against the strategy's objective of reducing harm and how police activity affects the level of harm experienced by the community. The DHI estimates the total quantity of harm from drug and drug-related crime using a combination of both police data (from their Law Enforcement Assistance Program (LEAP database) and research. As such, the DHI is not designed as a tactical analytical tool, rather, it is a high-level strategic planning and reporting instrument. The DHI includes three major components. These are:

- a drug-related crime component – this includes drug attributable fractions or the proportion of major offence categories in PSAs that are considered drug-related
- a drug availability component – the availability of five key drug types (amphetamines, MDMA, heroin, cocaine and cannabis) based on average purity of drugs seized
- a PSA susceptibility component – this includes an estimation of the susceptibility of a PSA's population to drug use. This is calculated using population data and rates of drug use for specific age groups (based on NDSHS data).

The DHI enables users, principally intelligence analysts and managers, to monitor overall harms and to determine the key drivers of these harms (by offence or drug types). This is intended to then direct users to the DAM to examine in more detail specific local drug markets.

The DAM collects and analyses information gathered from internal and external sources and is intended to illustrate what the 'drug problem' looks like at both state and PSA levels. The model helps to establish the extent of the problem and provides the basis for trend analysis of its integrated data components. For example, it is intended to determine drug-related activity occurring locally, in neighbouring areas or elsewhere, the magnitude of that activity and how it relates to a PSA's volume or violent crime levels, drug treatment usage and public health outcomes. As such, it provides a broader view of local drug issues beyond just monitoring police activity in terms of illicit drug detections and seizures. Key data sources informing the DAM include:

- law enforcement data (a range of both drug and drug-related offence data)
- coronial data
- ambulance data
- needle exchange data
- alcohol and drug treatment data
- hospital admission data
- hospital emergency department data.

Integrated within Victoria Police's accountability framework (see discussion below), users of both the DHI and DAM are able to produce standard reports from the system. This will aid consistency in its application and use. Victoria Police are currently building the system tools and they are due for release at the end of 2008. Roll-out of the tools is to begin in early 2009. In building and using these tools Victoria Police have demonstrated that it is possible to implement a sound DLE performance management regime that captures a range of data better reflecting the size and extent of the drug problem in that jurisdiction.

While the DHI has been designed as a high-level analytical tool, the DAM is designed, and currently intended to be used, for largely tactical purposes. That is, to determine location and extent of local drug problems to assist local police in deciding where, and what type of resources, they need to deploy. As such, both tools are natural complements to the performance measurement framework, whose emphasis is to monitor and measure DLE *effectiveness*.

Reduced drug crime and drug-related crime

As described above, the DHI and particularly the DAM include a wide range of law enforcement data to inform Victorian drug markets and so capture most of the framework's drug crime and drug-related crime measures and indicators (Table 4.1). The DAM also captures additional local information not included in the framework, including (for example) up-to-date locations of

licensed premises, location and time of drug incidents and 'use of force' data, which help to provide as detailed a picture as possible of local drug use and offending behaviours. There are a small number of framework indicators that Victoria Police does not currently include in the DAM (one relating to perceived drug availability and two relating to where users obtain their drugs), although it would be possible for them to do so should they consider them to be useful additions to their already comprehensive DLE performance measurement system.

There are a number of caveats to do with certain Victoria Police indicator data. Key issues include:

- If drug detection information is not required for investigative purposes, then data are not recorded in LEAP. Staff in Victoria Police's Crime Strategy Group estimate that around 50 per cent of drug detections only are recorded.
- Standard Victoria Police counting rules measure offenders processed rather than arrests made.
- Reliable drug price data are not currently centrally available in Victoria Police. No systematic, electronic collection of historical data is kept on prices paid for drugs purchased by the undercover unit. While price data could be manually extracted from individual data records, it would be a resource-intensive exercise. The systematic collection of median price paid for drug buys is currently being investigated.
- Information on the number and weight of drug seizures is available from a combination of LEAP and Victoria Police Forensic Services Department (VPFSD) data. There is a six month lag in the availability of VPFSD data.
- VPFSD collect and analyse the purity of seized drugs by seizure and by mass. Again, there is a six month time lag for these data. Purity testing is undertaken on all drugs seized in Victoria; however, purity testing of drugs that are court contested are prioritised and so further time delays in the recording all other drug seizures sometimes occur.
- Drug weight/amount data in LEAP are based on estimated weights/amounts at point of seizure. Actual weighing of drug seizures is undertaken by the VPFSD. There are no standardised weight categories within LEAP and so police may enter metric or imperial amounts – there is also no decimal point in the system. In some cases (particularly where there is insufficient detail in the free text entry that clarifies the information) it is not clear which measurement system a police officer has used. For example, a police officer may enter a weight of '2' for cannabis, but this may relate to either two kilograms or two pounds of the drug.

Table 4.1 Performance indicators currently used by Victoria Police to monitor drug crime and drug-related crime

Framework measure	Framework indicator	Victoria Police indicator
Trends in illicit drug detections/ seizures	Number of illicit drug detections/seizures by drug type	Number of illicit drug seizures by drug type
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Mean weight/amount of illicit drug detections/ seizures by drug type
Trends in illicit drug arrests	Number of illicit drug traffic/ supply arrests by drug type	Number of illicit drug traffic/supply offenders processed by drug type
	Number of illicit drug possession/use arrests by drug type	Number of illicit drug possession/use offenders processed by drug type
Trends in illicit drug street prices	Median street price of illicit drugs by drug type	Not currently used/ regularly reported by Victoria Police
Perceived purity of illicit drugs	Number of people who perceive the purity of illicit drugs to be high, medium, low or to fluctuate by drug type	Mean purity (forensic laboratory tested) of illicit drug seizures by drug type
Perceived availability of illicit drugs	Number of people who perceive the availability of illicit drugs to be very easy, easy, difficult or very difficult by drug type	Not currently used/ regularly reported by Victoria Police. Possible use of IDRS data
Changes in where users obtain their drugs	Number of users who sourced their illicit drugs the last time from: • a house/flat • a public building • home delivery • on the street/outdoors	Location where users sourced their illicit drugs by drug type. Also possible use of DUMA data

Table 4.1 Performance indicators currently used by Victoria Police to monitor drug crime and drug-related crime *continued*

Framework measure	Framework indicator	Victoria Police indicator
Changes in where users obtain their drugs	Number of users who contacted their drug supplier the last time by: • calling them on a mobile • calling them on the telephone • visiting a house/flat • approaching them in public • obtaining drugs through a third party • being with them already	Not currently used/ regularly reported by Victoria Police. Possible use of DUMA data
	Number of users who got their drugs the last time from: • a regular source • an occasional source • a new source	Not currently used/ regularly reported by Victoria Police. Possible use of DUMA data
	Number of users who got their drugs the last time from a location different to the arrest location	Number of users who got their drugs/committed offences inside/outside PSA
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/ regularly reported by Victoria Police. Measure considered more relevant to national level DLE
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/ regularly reported by Victoria Police. Measure considered more relevant to national level DLE.
Trends in robberies	Number of people arrested for armed and unarmed robbery	Number of robbery offences

Reduced organised crime

This outcome area addresses high-level drug crime and the underlying measures were specifically designed to target national-level DLE effort in terms of disrupting major illicit drug trafficking operations. However, it was also envisaged that these measures could be applied at a state level. Discussions at the May 2008 national planning workshop, in which representatives from all levels of DLE and from most jurisdictions participated, indicated that data underpinning these measures may not actually be as easily obtained or usefully applied at a state level as first thought. While jurisdictions (including Victoria) do record and report drug weights, they do not categorise their serious drug offenders in a manner similar to the way Customs does, nor is there a simple way to extract, collate and analyse detailed trafficking information (such as the modes used by drug traffickers to distribute their drugs). At this stage at least, it appears that these measures may not be able to be practically applied beyond the national level. Having said that, one measure that the AIC considers could be included in future iterations of the framework to reflect the impact of Victorian DLE on state-level organised crime is the number/proportion of offenders processed for trafficking large commercial and commercial drug quantities.

Table 4.2 outlines the status of each indicator under this outcome area.

Table 4.2 Performance indicators currently used by Victoria Police to monitor organised crime

Framework measure	Framework indicator	Victoria Police indicator
Trends in weight of illicit drug detections	Median weight of illicit drug detections/seizures by drug type	Weight/amount of illicit drug seizures by drug type
Changes in trafficking modes	Number and weight of illicit drug detections/seizures (by drug type) that were trafficked via: • cargo • air passengers/crew • postal services • car • private transport company • on the person (not including air passengers/crew)	Not currently used/regularly reported by Victoria Police. Measure considered more relevant to national level DLE
Changes in the type of illicit drug trafficker	Number of illicit drug traffickers who are categorised as 'business', 'professional', 'amateur' or 'opportunist'	Not currently used/regularly reported by Victoria Police. Measure considered more relevant to national level DLE

Improved public health

Victoria Police's DAM includes several indicators of drug-related public health which mirror indicators contained in the framework (Table 4.3). Key data sourced to populate these indicators include drug-related data pertaining to:

- coronial cases
- ambulance attendances
- hospital department emergency presentations
- hospital admitted episodes
- treatment services
- needle exchanges.

While drug consumption data are not explicitly included in the DAM, these data already underlie a number of the other indicators, particularly the drug treatment data. A discussion of major issues relating to these data types is provided in the Customs technical report above and so to avoid unnecessary repetition is not repeated here; however, specific issues to do with drug-related health data managed by the Victorian Department of Human Services (DHS) are as follows:

- Drug-related deaths data are sourced from the National Coroner's Information System (NCIS). The NCIS includes both open and closed cases where the specific drug was seen to have contributed to the death. The specific drug is identified by DHS either from the 'object or substance producing injury' code, or where the drug is mentioned in 'object' free text. Information may be modified by DHS once the coroner has made a finding and so figures are subject to change. It can take up to six weeks for a case to be registered on NCIS and hence figures provided for later periods may also be subject to change. In addition, any revised findings at case closure will affect the data-set sample size.
- Drug-related emergency presentation data are sourced from Victorian hospital emergency departments through the Victorian Emergency Minimum Dataset (VEMD). This data set details presentations at public hospitals with 24-hour emergency departments. The Mental Health and Drugs Division of DHS review, these data to identify drug-related presentations; identifying these via diagnosis and/or where a particular illicit drug was mentioned in diagnosis 'free text'. Again, it can take up to six weeks for a hospital to provide emergency presentation data to DHS and hence data in later periods may be subject to change.
- Ambulance data are currently sourced from Turning Point Alcohol and Drug Centre's Ambulance Attendances data set. The data includes all Melbourne metropolitan ambulance attendances at overdose events. Amphetamine-related attendances include those where crystal methamphetamine or other amphetamines were mentioned by the ambulance paramedic. Heroin-related attendances include those where there was a positive response to naloxene administration, or where evidence of heroin use was established through the clinical assessment of the ambulance paramedic and/or by the patient or another person at the scene, but naloxone was not administered. In all attendances at overdose events, other drugs and alcohol may also have been ingested. There is a lag of about three months in these data.
- DHS regularly monitors three illicit drug types—amphetamines (not broken down into subtype), cannabis and heroin. As such, data obtained from DHS and reported here reflect only these drugs.

Inclusion of public health data sources within the DAM has been made possible through extensive negotiation with the various health data-collection custodians, a process that has taken two years to achieve. Victoria Police has developed and entered into separate memoranda of understanding

with DHS, the State Coroner's Office of Victoria and Victoria's Metropolitan Ambulance Service; they are also in final negotiations with the state's Rural Ambulance Service. Fieldwork discussions indicate that these agreements have been reached partly because they have been strongly supported and led by Victoria Police's executive, but also because Victoria Police have clearly articulated precisely what data were being requested, why they were being requested and the use to which they would be put (that is, emphasising that data would not be obtained to directly target drug users but to obtain de-identifiable information to better monitor and act on local drug market activity).

Table 4.3 Performance indicators of improved public health

Framework measure	Framework indicator	Health indicator
Trends in the frequency of illicit drugs consumed by drug type	Number of people who used illicit drugs in the past month by drug type Number of people who used illicit drugs in the past month who used: • at least once a day • at least once a week (not daily) • less than weekly	Not currently explicitly used in formal reporting by Victoria Police. However, captured using drug treatment data (see below)
Trends in HCV/HIV	Number of people with positive status of HCV/HIV	Not currently used in formal reporting by Victoria Police. Removal from framework (see Customs technical report above)
Trends in drug-related deaths	Number of drug-related deaths by drug type	Number of drug-related deaths by drug type
Trends in drug-related emergency department presentations	Number of drug-related emergency department presentations by drug type	Number of drug-related emergency department presentations by drug type (number of admitted episodes of care also included in the DAM)
Trends in ambulance attendances at overdose	Number of ambulance attendances at overdose by drug type	Number of ambulance attendances at overdose by drug type
Trends in clients participating in drug treatment	Number of clients in drug treatment by drug type	Number of clients in drug treatment by drug type

Improved public amenity

As already highlighted, there is little publicly available data on the impact of illicit drugs on the community's quality of life or public amenity. However, the annually conducted NSCSP (which monitors levels of community satisfaction with policing and includes questions on perceptions of safety in local areas as well as perceptions about local drug problems) can be used for DLE performance measurement purposes. Since July 2006, the NSCSP has been conducted on behalf of the police services by Roy Morgan Research, although between 2001 and 2006 the survey was conducted by AC Nielsen and between 1995 and 2000 the ABS. Under Roy Morgan Research the methodology and questionnaire have remained relatively unchanged from previous years. For further information about the NSCSP, see the Customs technical report above.

Victoria Police do not include these data in the DAM, although they do report perceptions of public safety in their annual reports.

Table 4.4 outlines suggested indicators for this outcome area.

Table 4.4 Performance indicators of improved public amenity

Framework measure	Framework indicator	Victoria Police indicator
Trends in level of safety felt by the community	Number and proportion of people who feel very unsafe, unsafe, safe or very safe in their local area	Proportion of people who feel safe in their local area. Used by Victoria Police in annual reporting
Trends in community concern about the 'drug problem'	Number and proportion of people who are very concerned, concerned, unconcerned about the drug problem in their local area and the state	Proportion of people who think that illegal drugs are a major problem/somewhat of a problem in their local area. Not currently formally reported by Victoria Police

Additional drug-related public amenity indicators and data collections identified in Stage 2

As outlined above, the NDSHS is another potential source of data that could be used to assess public amenity issues, especially since state-based data are available through the AIHW. The survey includes a number of questions related to public amenity issues. For instance, it includes questions on the use of illicit drugs in public settings, adverse public behaviour caused by illicit drug use and work missed through illicit drug use. It should be noted that data from the NDSHS may not fulfil the needs of short-term performance measurement, although in the near absence of any other more regularly collected data source, these data could be used to monitor longer-term public amenity trends in Victoria. Major strengths and limitations of these data are outlined in the Customs technical report above. National and jurisdictional breakdowns of NDSHS data are available from the AIHW, although these data (beyond the freely available published findings) attract a fee. Certain NDSHS data are also available for free via the Australian Social Science Data Archive at the Australian National University and through the AIC.

Data collection, analysis and results

Victoria Police collect, analyse and report on a range of DLE performance data. Specific data indicators used are outlined above. This section provides a statistical report of these indicators, as well as a report of other identified potential indicators of performance. The statistical analysis is presented by outcome area. All figures referred to below can be found at Appendix 6 of this report.

Reduced drug crime and drug-related crime

Total number of cannabis seizures: VPFSD do not collate data on cannabis seizures.

Total number of heroin seizures: monthly data are available and provided from January 1998. It is important to note that (for example) a seizure of a single bag containing 20 foils is recorded by VPFSD as 20 separate seizures. Figure 4.2 indicates that between January 1998 and October 2008 Victoria Police made over 48,900 seizures of heroin. The overall pattern in this period was of declining numbers of seizures. For instance, in January 1998, 780 seizures of heroin were recorded, while in October 2008 there were four.

Total number of cocaine seizures: monthly data are available and provided from January 1998. It is important to note that (for example) a seizure of a single bag containing 20 foils is recorded by VPFSD as 20 separate seizures. Figure 4.3 indicates that between January 1998 and November 2008 Victoria Police made close to 3,000 cocaine seizures. Other than a large spike in October 1999, the overall pattern was relatively stable. There were a median of nine seizures of cocaine each month.

Total number of ATS seizures: monthly data are available and provided from January 1998. It is important to note that (for example) a seizure of a single bag containing 20 tablets is recorded by VPFSD as 20 separate seizures. Figure 4.4 indicates that between January 1998 and November 2008 Victoria Police made over 153,500 seizures of ATS. While there was a trend towards increased seizures in the early 2000s, the number of seizures essentially decreased thereafter.

Total number of MDMA seizures: monthly data are available and provided from January 1998. It is important to note that (for example) a seizure of a single bag containing 20 tablets is recorded by VPFSD as 20 separate seizures. Figure 4.5 indicates that between January 1998 and November 2008 Victorian Police made over 551,100 seizures of MDMA. While there were a number of very large seizures in the early 2000s, the pattern since then has been reasonably stable.

Total weight of cannabis detections: Victoria Police Forensic Services Department do not collate data on cannabis seizures.

Total weight of heroin detections: monthly data are available and provided from January 1998. Figure 4.6 indicates that between January 1998 and October 2008 Victoria Police seized over 71 kilograms of heroin. Since December 2000, the weight of seizures has remained relatively stable. The median monthly weight of heroin seizures was 2.49 kilograms.

Total weight of cocaine detections: monthly data are available and provided from January 1998. Figure 4.7 indicates that between January 1998 and November 2008 over 16 kilograms of cocaine was seized in Victoria. Aside from a small number of large volume seizures in the late 1990s and early 2000s, the overall pattern was relatively stable until around 2007, when there was a small rise in the overall weight of seizures.

Total weight of ATS detections: monthly data are available and provided from January 1998. Figure 4.8 indicates that between January 1998 and November 2008 Victoria Police seized over 191 kilograms of ATS. Other than a large volume seizure in June 2001, the overall pattern of seizures was reasonably stable.

Total weight of MDMA detections: monthly data are available and provided from January 1998. Figure 4.9 indicates that between January 1998 and November 2008 Victoria Police seized over 154 kilograms of MDMA. Other than a large volume seizure in November 2000, the overall pattern of seizures was reasonably stable in the period under observation.

Total number of cannabis traffic/supply offenders processed: monthly data are available and provided from July 1998. Figure 4.10 indicates that between July 1998 and June 2008 Victoria Police processed over 10,400 people for cannabis trafficking offences. The total number of offenders processed varied considerably month-to-month, although the long-run trend was reasonably stable with a median of 86 offenders processed each month.

Total number of heroin traffic/supply offenders processed: monthly data are available and provided from July 1998. Figure 4.10 indicates that between July 1998 and June 2008 Victoria Police processed nearly 10,000 people for heroin trafficking offences. The total number of offenders processed varied month-to-month, although from around late-2005 onwards the number of offenders processed was reasonably stable with a median of 30 offenders processed each month.

Total number of cocaine traffic/supply offenders processed: monthly data are available and provided from July 1998. Figure 4.10 indicates that between July 1998 and June 2008 Victoria Police processed 389 people for cocaine trafficking offences. While the number of people processed for cocaine trafficking offences was small compared to those processed for other drug trafficking offences, the number was reasonably stable throughout the period under observation. The median number of people processed by Victoria Police for cocaine trafficking offences was two per month.

Total number of ATS traffic/supply offenders processed: monthly data are available and provided from July 1998. Figure 4.10 indicates that between July 1998 and June 2008 Victoria Police processed well over 5,000 people for ATS trafficking offences. As for the total number of people processed for ATS offences, the long-run trend for the number of people processed for ATS trafficking offences increased steadily over the 10 years. For instance, in July 1998 there were 25 people who were processed by Victoria Police for ATS trafficking offences, but by June 1998 the figure had more than tripled (n=82).

Total number of MDMA traffic/supply offenders processed: monthly data are available and provided from July 1998. Figure 4.10 indicates that between July 1998 and June 2008 well over 2,000 people were processed by Victoria Police for MDMA trafficking offences. Again, while based on smaller absolute numbers, the long-run trend is similar to that for ATS with an increasing number of offenders processed for MDMA trafficking offences. For instance, in July 1998 there were 2 people who were processed by Victoria Police for MDMA trafficking offences, but by June 1998 the figure had increased to 37.

Total number of cannabis possess/use offenders processed: monthly data are available and provided from July 1998. Figure 4.11 indicates that between July 1998 and June 2008 Victoria Police processed over 53,600 people for cannabis possess/use offences. The total number of offenders processed varied considerably month-to-month, although the long-run trend was reasonably stable with a median of 443 offenders processed each month.

Total number of heroin possess/use offenders processed: monthly data are available and provided from July 1998. Figure 4.11 indicates that between July 1998 and June 2008 Victoria Police processed over 19,500 people for heroin possess/use offences. The total number of offenders processed varied month-to-month, although from around late–2005 onwards the number of offenders processed was reasonably stable with a median of 113 offenders processed each month.

Total number of cocaine possess/use offenders processed: monthly data are available and provided from July 1998. Figure 4.11 indicates that between July 1998 and June 2008 Victoria Police processed around 450 people for cocaine possess/use offences. The total number of offenders processed varied in each period, although with a median of three offenders processed every month. While the number of people processed for possess/use cocaine offences was small compared to those processed for other possess/use drug offences, the number of people processed steadily increased over time; this contrasts with the traffic cocaine data where the number of people processed was relatively stable over the same period. For example, in the period between July 1998 and September 2004, the median number of offenders processed was two each month, but in the period between October 2004 and June 2008 the median number of offenders processed was 5.

Total number of ATS possess/use offenders processed: monthly data are available and provided from July 1998. Figure 4.11 indicates that between July 1998 and June 2008 Victoria Police processed over 12,300 people for ATS possess/use offences. As for the total number of people processed for ATS offences and those processed for ATS traffic offences, the long-run trend for the number of people processed for ATS possess/use offences increased steadily over the 10 years. For instance, in July 1998 there were 58 people who were processed by Victoria Police for ATS trafficking offences, but by June 1998 the figure had more than tripled (n=187).

Total number of MDMA possession/use offenders processed: monthly data are available and provided from July 1998. Figure 4.11 indicates that between July 1998 and June 2008 over 3,700 people were processed by Victoria Police for MDMA possess/use offences. Again, while based on smaller absolute numbers, the long-run trend is similar to that for ATS with an increasing number of offenders processed for MDMA possess/use offences. For instance, in July 1998 there were 10 people who were processed by Victoria Police for MDMA trafficking offences, but by June 1998 the figure had increased to 73.

Mean purity (forensic laboratory tested) of heroin: monthly data are available and provided from January 1998. Figure 4.12 indicates that the median purity of heroin fell sharply between the late 1990s and early 2000s, corresponding with the peak period of heroin shortage. Median purity has remained low since this time. For example, while median heroin purity was around 73 percent between January 1998 and March 1999, between August 2006 and October 2008 it was 16 percent.

Mean purity (forensic laboratory tested) of cocaine: monthly data are available and provided from January 1998. Figure 4.13 indicates that the purity of cocaine is highly volatile month to month. Despite this, the long-run average cocaine purity was around 34 percent. The median purity of cocaine rose throughout 2008.

Mean purity (forensic laboratory tested) of ATS: monthly data are available and provided from January 1998. Figure 4.14 indicates that the median purity of ATS increased gradually between January 1998 and June 2003, before falling again thereafter. Median purity was around 35 percent in June 2003, but less than five percent in both January 1998 and November 2008.

Mean purity (forensic laboratory tested) of MDMA: monthly data are available and provided from January 1998. Figure 4.15 indicates that, while volatile month-to-month, the median purity of MDMA essentially sat around 30 percent for much of the 2000s, before dropping somewhat in mid- to late 2008.

Number/proportion of users who sourced their cannabis the last time from: a house/flat, a public building, home delivery, on the street/outdoors: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.16 indicates that a greater proportion of users sourced their cannabis from a house/flat or from the street/alley; however, the number that sourced the drug from a house/flat increased greatly in the second half of 2008, while the number that purchased from the street/alley decreased in the same period. Indeed, these two sources appear inversely related in each period. The number of users who sourced their cannabis the last time from a public building or via home delivery was stable throughout the period under observation.

Number/proportion of users who sourced their heroin the last time from: a house/flat, a public building, home delivery, on the street/outdoors: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.17 indicates that the most common way that users sourced their heroin was from the street/outdoors, although the proportion of people who last obtained their heroin this way trended downwards between July–December 2007 and July–December 2008. The proportion of users who sourced their heroin the last time from a public building, via home delivery or from a house/flat remained reasonably stable in the same period.

Number/proportion of users who sourced their cocaine the last time from: a house/flat, a public building, home delivery, on the street/outdoors: There were insufficient data to draw any conclusions about where users sourced their cocaine.

Number/proportion of users who sourced their ATS the last time from: a house/flat, a public building, home delivery, on the street/outdoors: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.18 indicates that the proportion of users who sourced their amphetamines the last time from a house/flat, a public building, home delivery, on the street/outdoors varied over the period under observation. Small sample sizes make it difficult to draw any conclusions, although the data do suggest that the preferred methods of sourcing the drug was from the street/outdoors and from a house/flat. As for cannabis, there appears to be an inverse relationship between these two methods.

Number/proportion of users who sourced their MDMA the last time from: a house/flat, a public building, home delivery, on the street/outdoors: There were insufficient data to draw any conclusions about where users sourced their MDMA.

Number/proportion of users who got their cannabis the last time from a location different to the arrest location: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. DUMA data relate to whether an offender obtained their drugs from inside or outside their own suburb. Figure 4.19 suggests that the

proportion of people who obtained cannabis outside their own suburb was relatively stable and similar to the number who obtained the drug inside their own suburb; that is, until around the beginning of 2008, when the number who obtained cannabis outside their suburb increased greatly, with the reverse being true for those who obtained their cannabis from inside their own suburb.

Number/proportion of users who got their heroin the last time from a location different to the arrest location: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. DUMA data relate to whether an offender obtained their drugs from inside or outside their own suburb. Figure 4.20 suggests that the pattern for heroin was in some ways similar to that for cannabis. While a smaller proportion of users sourced heroin from their own suburb in January–June 2006 than did so outside their suburb, the pattern after that time may suggest that the proportion of people who obtained heroin both inside and outside their own suburb was similar until around mid- to late 2007, whereupon the proportion of users who obtained heroin outside their suburb increased greatly (while the proportion of those who obtained the drug inside their own suburb moved in the opposite direction).

Number/proportion of users who got their cocaine the last time from a location different to the arrest location: There were insufficient data to draw any conclusions about the location users obtained their cocaine.

Number/proportion of users who got their ATS the last time from a location different to the arrest location: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. DUMA data relate to whether an offender obtained their drugs from inside or outside their own suburb. Figure 4.21 suggests that the proportion of people who obtained amphetamines outside their own suburb was volatile in the period under observation, although (like for cannabis and heroin) suggestive of an increase in the latter half of 2008.

Number/proportion of users who got their MDMA the last time from a location different to the arrest location: There were insufficient data to draw any conclusions about the location users obtained their MDMA.

Number of people processed for armed and unarmed robbery: monthly data are available and provided from July 1998. Figure 4.22 indicates that between July 1998 and June 2008 Victoria Police processed nearly 32,000 people for robbery offences in Victoria, with a monthly mean of 264 offences. The long-run trend was variable, although some patterns of interest occur within this. For instance, between January 2001 and September 2004 the number of robberies was in steady decline (in January 2001 there were 441 recorded offences, while in September 2004 there were 153); however, from October 2004 onwards the overall trend was for increasing numbers of offences (by June 2008 the number of robbery offences had risen to 289). This latter trend is of particular interest when viewed alongside the heroin use/possess data. As outlined earlier in this report, the number of people arrested or processed for heroin use/possess charges is typically related to the number of robbery offences, for the reasons already explained. While this appears to be the case for much of the Victorian data (although with possible lags), it is also clear that heroin use/possess data in no way explain all changes in the robbery data. As can be seen, while the number of people processed for heroin use/possess offences in Victoria remained reasonably stable between early 2005 and mid-2008, the number processed for robbery offences actually steadily *increased* in the same period (while there is a small inverse relationship between the two series of

data in this period (coefficient = –0.4) it is not statistically significant; p=0.12). This suggests that other influencing factors were at play for the increase in robberies in Victoria in this period.

Additional indicators of reduced drug crime and drug-related crime

As suggested above, Victoria Police could incorporate additional measures of drug crime and drug-related crime in formal agency performance management practices that would provide further insight into different illicit drug markets operating inside Australia. The following provides a statistical report of the suggested indicators by drug type.

Cannabis

Median street price of cannabis: annual data on cannabis prices (including data on indoor and outdoor forms of the drug) are publicly reported in the Victorian IDRS annual reports. The price per gram of the last purchase made by participants in the preceding six months is provided here from 1997 to 2007. It should be noted that between 1997 and 2002 there is no distinction in the data between the two drug forms; for all other years the three drug forms are reported separately. Figure 4.23 indicates that, other than a dip in the price of outdoor cannabis in 2006, reported prices for each drug form were stable in the period under observation.

Number/proportion of people who perceive the availability of cannabis to be easy/very easy: annual data on the ease of obtaining cannabis (including data on indoor and outdoor forms of the drug) are publicly reported in the Victorian IDRS annual reports. Data on the ease of obtaining cannabis in the preceding six months is provided here from 2004 to 2007. Figure 4.24 indicates that the proportion of people who considered indoor forms of the drug to be easy/very easy to obtain was relatively stable in the period under observation, while the proportion of people who considered outdoor forms of the drug as easy/very easy to obtain increased over time (although was absolutely lower relative to the proportion of people commenting on indoor cannabis in each year).

Number/proportion of users who contacted their cannabis supplier the last time by: calling them on a mobile, calling them on the telephone, visiting a house/flat, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.25 indicates that the preferred method of contacting cannabis dealers has varied over time, although a greater proportion of users contacted their suppliers the last time via telephone and visiting a house/flat than any other method throughout 2008. In particular, the proportion of users who used a telephone to contact their dealer increased markedly after 2007.

Number/proportion of users who got their cannabis the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.26 indicates that throughout the period under observation the most common source for cannabis was a regular source. Regular sources for cannabis supply increased throughout 2008, while occasional and new sources decreased slightly in this period.

Heroin

Median street price of heroin: annual data on heroin prices are publicly reported in the Victorian IDRS annual reports. The median price per gram of the last purchase made by participants in the preceding six months is provided here from 1997 to 2007. Figure 4.27 indicates that the price of

heroin has varied over time, peaking in 2001 (coinciding with the period known as the 'heroin shortage'), before falling and then stabilising later in the 2000s.

Number/proportion of people who perceive the availability of heroin to be easy/very easy: annual data on heroin availability are publicly reported in the Victorian IDRS annual reports. The ease of the last purchase made by participants in the preceding six months is provided here from 1997 to 2007. Figure 4.28 indicates that, among regular injecting drug users, heroin is relatively easy to obtain. Since 2002, the proportion of people indicating that heroin is easy/very easy to obtain has remained at around 90 percent.

Number/proportion of users who contacted their heroin supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.29 indicates that the preferred method of contacting heroin dealers has varied over time, although a greater proportion of users contacted their suppliers the last time by approaching them in public or via a mobile phone than any other method throughout 2008. In particular, the proportion of users who contacted their dealer the last time by approaching them in public increased markedly after 2007.

Number/proportion of users who got their heroin the last time from: a regular source, an occasional source, a new source: quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.30 indicates that throughout the period under observation the most common source for heroin was a regular source, followed by occasional and then new sources. All sources were relatively stable throughout the period under observation.

Cocaine

Median street price of cocaine: annual data on cocaine prices are publicly reported in the Victorian IDRS annual reports. The median price per gram of the last purchase made by participants in the preceding six months is provided here from 1997 to 2007. Figure 4.31 indicates that the price of cocaine remained relatively stable between 1998 and 2004 but then increased greatly after that time. The drug doubled in price between 2004 and 2006.

Number/proportion of people who perceive the availability of cocaine to be easy/very easy: annual data on cocaine availability are publicly reported in the Victorian IDRS annual reports. Insufficient data were available to draw any conclusions about how easy or difficult cocaine is to obtain in Victoria.

Number/proportion of users who contacted their cocaine supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: There were insufficient data to draw any conclusions about the way users contacted their cocaine supplier.

Number/proportion of users who got their cocaine the last time from: a regular source, an occasional source, a new source: There were insufficient data to draw any conclusions about the cocaine source.

Methamphetamines

Median street price of methamphetamines: Since 2002 the Victorian IDRS annual reports have reported the three major types of methamphetamines separately as crystal methamphetamine (or ice), base/paste and powder; prior to that time the reports combined the data. Figure 4.32 provides a frequency distribution of annual data since 1997. It is evident from these data that the price/gram of each drug type has varied considerably over time; however, the long-run trends indicate that the price of ice has risen, while the price of both base/paste and powder have essentially fallen.

Number/proportion of people who perceive the availability of methamphetamines to be easy/very easy: annual data on the ease of obtaining methamphetamines (including data on the three different forms of the drug) are publicly reported in the Victorian IDRS annual reports. Data on the ease of obtaining methamphetamines in the preceding six months is provided here from 2002 to 2007. Figure 4.33 indicates that the proportion of users who considered powder easy/very easy to obtain remained reasonably stable in the period under observation, while the proportion of users of the other two drug forms who considered their drugs easy/very easy to obtain varied (particularly users of ice). Overall, base/paste became much easier to find between 2002 and 2007 than either of the other drug forms.

Number/proportion of users who contacted their ATS supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: quarterly data on *ATS* are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.34 indicates that the preferred method of contacting amphetamine dealers has varied over time, although overall a greater proportion of users contact their suppliers by approaching them in public or via a mobile phone than any other method.

Number/proportion of users who got their ATS the last time from: a regular source, an occasional source, a new source: quarterly data on *ATS* are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.35 indicates great volatility in the type of amphetamine source and that there is an inverse relationship between regular sources, and occasional and new sources. In particular, in the first half of 2008 regular sources for amphetamines fell, while occasional and new sources increased substantially.

MDMA

Median street price of MDMA: annual data on MDMA prices have been publicly reported in the Victorian EDRS annual reports since 2003. The median price paid per tablet in Victoria has been $30 since 2003.

Number/proportion of people who perceive the availability of MDMA to be easy/very easy: annual data on perceptions of MDMA availability have been publicly reported in the Victorian EDRS annual reports since 2003. Perceptions of the availability of MDMA have been reasonably stable since reporting began in 2003, with more than 90 percent of regular users indicating that MDMA was very easy or easy to obtain in any given year.

Number/proportion of users who contacted their drug supplier the last time by: email/the internet, calling them on a mobile, calling them on the telephone, visiting a house/flat, paging them on a beeper, approaching them in public, obtaining drugs through a third party, being with them already: There were insufficient data to draw any conclusions about the way users contacted their MDMA supplier.

Number/proportion of users who got their MDMA the last time from: a regular source, an occasional source, a new source: There were insufficient data to draw any conclusions about the MDMA source.

Reduced organised crime

See discussion of relevant indicators under 'reduced drug crime and drug-related crime'.

Improved public health

Victoria police incorporate a range of drug-related public health indicators in their DAM. A statistical report of the types of drug-related public health measures that are used by Victoria Police is provided below by drug type.

Cannabis

***Number/proportion of users who consume cannabis more than three times a week*:** quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.36 indicates that the number of users who consumed cannabis more than three times a week in the 30 days before being surveyed steadily decreased in the two years between January–June 2006 to January–June 2008, but then increased again after that time.

Number of cannabis-related deaths: quarterly data on the number of cannabis-related deaths are available from July–September 2003 to April–June 2008. Figure 4.37 indicates that while the number of deaths varied between mid-2003 and the end of 2006, the overall pattern was relatively stable; however, after that time the number of deaths fell gradually. In the first half of 2008 there were no cannabis-related deaths in Victoria.

Number of cannabis-related emergency department presentations: quarterly data on the number of cannabis-related emergency department presentations are available from July–September 2003 to April–June 2008. Figure 4.38 indicates that the number of cannabis-related emergency department presentations was reasonably stable in the five years between July–September 2003 and April–June 2008.

Number of cannabis-related ambulance attendances at overdose: quarterly data on the number of cannabis-related ambulance attendances are available from July–September 2003 to January–March 2008. Figure 4.39 indicates that the number of cannabis-related ambulance attendances was essentially stable between July–September 2003 and April–June 2008.

Number of clients in drug treatment for cannabis use: quarterly data on the number of clients in treatment for cannabis use are available from July–September 2003 to January–March 2008. Figure 4.40 indicates that the number of clients in treatment for cannabis use grew gradually between mid-2003 and the end of 2006, but then slowly decreased after that time.

Methamphetamines

***Number/proportion of users who consume methamphetamines more than three times a week*:** quarterly data are available on *amphetamines* through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.36 indicates that the number of users who consumed amphetamines more than three times a week in the 30 days before being surveyed was relatively stable in the period under observation (although note small sample size).

Number of methamphetamine-related deaths: quarterly data on the number of *amphetamine*-related deaths are available from July–September 2003 to April–June 2008. Figure 4.37 indicates that while the number of deaths varied between mid-2003 and mid-2007, the overall pattern was relatively stable; however, after that time the number of deaths fell gradually. In the period April–June 2008 there were fewer than five amphetamine-related deaths.

Number of methamphetamine-related emergency department presentations: quarterly data on the number of *amphetamine*-related emergency department presentations are available from July–September 2003 to April–June 2008. Figure 4.38 indicates that the number of amphetamine-related emergency department presentations was reasonably stable in the five years between July–September 2003 and April–June 2008.

Number of methamphetamine-related ambulance attendances at overdose: quarterly data on the number of *amphetamine*-related ambulance attendances are available from July–September 2003 to January–March 2008. Figure 4.39 indicates that the number of amphetamine-related ambulance attendances was essentially stable between July–September 2003 and April–June 2008.

Number of clients in drug treatment for methamphetamine use: quarterly data on the number of clients in treatment for *amphetamine* use are available from July–September 2003 to January–March 2008. Figure 4.40 indicates that the number of clients in treatment for amphetamine use was reasonably stable between mid-2003 and mid-2006, but then grew slightly between mid-2006 and mid-2008.

Heroin

***Number/proportion of users who consume heroin more than three times a week*:** quarterly data are available through the DUMA program from January–March 2006 onwards for Footscray (although DUMA was not conducted at the Footscray site between January 2006 and July 2006), although because the sample is small (in many cases n<10 for each given quarter), data are aggregated six-monthly. Figure 4.36 indicates that the number of users who consumed heroin more than three times a week in the 30 days before being surveyed decreased in the period between January–June 2006 to July–December 2006, before rising sharply in early to mid-2008. In January–June 2006 the number of users who consumed heroin more than three days a week was 12, but by July–December 2008 the number had more than doubled (n=29).

Number of heroin-related deaths: quarterly data on the number of heroin-related deaths are available from July–September 2003 to April–June 2008. Figure 4.37 indicates that between mid-2003 and mid-2006 the number of heroin-related deaths fell five-fold; however, the number of deaths gradually increased again after this period.

Number of heroin-related emergency department presentations: quarterly data on the number of heroin-related emergency department presentations are available from July–September 2003 to April–June 2008. Figure 4.38 indicates that the number of heroin-related emergency department presentations mirrored the pattern observed for heroin-related deaths (and ambulance attendances – see below).

Number of heroin-related ambulance attendances at overdose: quarterly data on the number of heroin-related ambulance attendances are available from July–September 2003 to January–March 2008. Figure 4.39 indicates that the number of heroin-related ambulance attendances mirrored the pattern observed for both heroin-related deaths and emergency department presentations, where the overall pattern was for decreasing numbers of deaths and presentations until around mid-2006, whereupon an increase in numbers occurred after that time.

Number of clients in drug treatment for heroin use: quarterly data on the number of clients in treatment for heroin use are available from July–September 2003 to January–March 2008. Figure 4.40 indicates that the number of clients in treatment for heroin use fell steadily in the period under observation. In July–September 2003 there were over 1,700 clients in treatment for heroin use, but by April–June 2008 the number had fallen to 1,100. Despite this, the number in treatment was reasonably stable in the period January–March 2007 to April–June 2008.

Cocaine

***Number/proportion of users who consume cocaine more than three times a week*:** There were insufficient data to draw any conclusions about regular consumption of cocaine.

Number of cocaine-related deaths: DHS do not regularly monitor and report on the number of cocaine-related deaths. The number of cocaine-related deaths is likely to be very small and it would therefore be difficult to draw any firm conclusions from the data.

Number of cocaine-related emergency department presentations by drug type: DHS do not regularly monitor and report on the number of cocaine-related emergency department presentations; however, annual data on the number of cocaine-related hospital admissions in Victoria indicates that the number of admission gradually increased during the early 2000s, before stabilising around 2003–2004 and 2005–2006 (Roxburgh & Degenhardt 2006, in Quinn 2008).

Number of cocaine-related ambulance attendances at overdose: DHS do not regularly monitor and report on the number of cocaine-related ambulance attendances at overdose; however, Quinn (2008) indicates that the number of cocaine-related ambulance attendances has increased annually since 2003 (there were 61 in total in 2006, 48 in 2005, 26 in 2004 and 23 in 2003).

Number of clients in drug treatment for cocaine use: DHS do not regularly monitor and report on the number of clients in treatment for cocaine use.

MDMA

***Number/proportion of users who consume MDMA more than three times a week*:** There were insufficient data to draw any conclusions about regular consumption of MDMA.

Number of MDMA-related deaths: DHS do not regularly monitor and report on the number of MDMA-related deaths. The number of MDMA-related deaths is likely to be very small and it would therefore be difficult to draw any firm conclusions from the data.

Number of MDMA-related emergency department presentations: DHS do not regularly monitor and report on the number of MDMA-related emergency department presentations. The number of MDMA-related emergency department presentations is likely to be very small and it would therefore be difficult to draw any firm conclusions from the data.

Number of MDMA-related ambulance attendances at overdose: DHS do not regularly monitor and report on the number of MDMA-related ambulance attendances at overdose; however, Quinn (2008) indicates that the number of MDMA-related ambulance attendances remained relatively

stable in the 24 months between January 2005 and December 2006. However, the annual figures represent an increase from previous years (there were a total of 331 ambulance attendances in 2006, 387 in 2005, 276 in 2004, 191 in 2003 and 174 in 2002).

Number of clients in drug treatment for MDMA use: DHS do not regularly monitor and report on the number of clients in treatment for MDMA use.

Improved public amenity

Indicators of public amenity that could be used by Victoria Police to formally track and report on public perceptions of illicit drug 'problems' include the following:

Proportion of population who thinks illegal drugs are a problem in their local area: annual data (financial year) are provided from 2001–2002. Figure 4.41 indicates that the proportion of people who thought that illegal drugs were a major problem/somewhat of a problem in their neighbourhood fell between 2001–2002 and 2007–2008, although was reasonably stable from 2004–2005 onwards; in 2001–2002 the proportion of Victorian's surveyed who considered that illegal drugs were a major problem/somewhat of a problem in their neighbourhood was around 76 percent in 2001–2002, but in 2007–2008 the figure was around 61 percent of those surveyed.

Proportion of population who feels safe in public after dark: annual data (financial year) are provided from 2001–2002. Figure 4.42 indicates that the proportion of people who felt safe (walking/jogging) in public after dark in their neighbourhood increased between 2001–2002 and 2007–2008; in 2001–2002 the proportion of Victorian's surveyed who felt safe in public after dark in their neighbourhood was around 43 percent, but in 2007–2008 the figure had risen to around 61 percent of those surveyed.

As highlighted earlier in this report, these figures need to be interpreted within a broader context. Perceptions of crime tend to fall as respondents focus on their local neighbourhood. For example, in 2007–2008, while 59 percent of people indicated that they considered illegal drugs to be a major problem/somewhat of a problem in their neighbourhood, 91 percent considered them to be so nationally. National figures have remained reasonably stable for several years.

Summary of Victorian indicator data

Cannabis

Taken as a whole, the indicator data suggest that the Victorian cannabis market is mature and stable, although has probably experienced some local-level impacts in the past two years. The following is a summary of key data:

- Long-run stability in the number of people processed for cannabis offences, including both possess/use and trafficking cannabis offences. There is a clear seasonal effect in the data with a greater number of people processed in cooler months.
- Cannabis is typically sourced from: a house/flat or from a street/alley (with a strong inverse relationship between these two methods); outside an offender's own suburb (particularly in 2008 when the number who did so increased markedly); a regular source. In 2008, users also typically contacted their supplier via telephone or visiting a house/flat.
- The median price per gram of cannabis is stable and perceptions of its availability high (but stable), particularly for indoor forms of the drug.

- Cannabis-related deaths have steadily fallen since 2005 (with no deaths recorded in 2008), while cannabis-related emergency department presentations and ambulance attendances have been relatively stable since at least 2003.
- The number of clients in treatment for cannabis-related use is relatively stable.

As outlined earlier in this report, the Australian cannabis market is largely domestic because (among other things) cannabis importations into Australia remain economically unattractive due to low prices and plentiful supplies from local cultivation. Fieldwork interviews also revealed that a close relationship exists between the cannabis markets operating across south-eastern Australia, particularly those in Victoria, South Australia and New South Wales. For example, drug intelligence experts in Victoria Police and South Australia Police indicated that high quality, hydroponically grown cannabis is regularly shipped along the major highways between jurisdictions in exchange for different illicit drug types and other items.

The general pattern observed in the Victorian indicator data reflects to some extent what has been observed in the other field sites. For example, cannabis continues to account for the vast majority of all drug offences in Victoria, as it does elsewhere. In addition, because cannabis is largely domestically-produced and is the most widely used and accessible illicit drug (AIHW 2008a), it is unlikely that supply of and demand for the drug will fall dramatically in the future in Victoria or elsewhere in Australia. This is especially the case for hydroponically cultivated cannabis where there is high potential financial gain, coupled with a relatively low risk of detection, to growers (Willis 2008). Moreover, the broad levels of use of this drug and its suggested increasing potency (particularly for hydroponic forms of the drug) make long-term containment of this market very important. This is especially the case at the state/territory level of DLE.

As noted above, there appears to have been some local-level impacts on the cannabis market in Victoria between 2006 and 2008. In particular, DUMA data appear to indicate that in and around Footscray the cannabis market sustained a shock sometime in early to mid-2008. The combined indicator data at this time reveal that: a greater proportion of users sourced their cannabis from a street/alley than from a house; a substantially greater proportion of users travelled outside their own suburb to obtain the drug; and that a slightly smaller proportion of users obtained their cannabis from a regular source, corresponding with a slight increase in the proportion of users obtaining their cannabis from new sources. These data may suggest that targeted DLE efforts in Footscray and its surrounds effectively reduced cannabis supply at that time.

Methamphetamines

The following summarises major methamphetamine (and, where indicated, ATS) market trends in Victoria over the past several years:

- While there was a trend towards increased seizures in the early 2000s, the number of seizures essentially decreased thereafter.
- Between July 1998 and June 2008 there was a steady increase in the number of people processed for amphetamine offences. The pattern was similar for both trafficking and possess/use offences.
- Although there were a small number of large volume seizures in the early 2000s, the weight of seizures between 1998 and 2008 was relatively stable.
- The median purity of ATS seizures increased gradually between 1998 and 2003, although then fell steadily thereafter.
- The Victorian DUMA data are somewhat volatile, although some patterns are still evident. Users mostly source amphetamines from a house/flat and street/alley, from outside their own

suburb and from a regular source (although increases in occasional and new sources in early to mid-2008 suggest an impact on the market at that time). Users mostly contacted their supplier by approaching them in public and through a third party, although visiting a house/flat was also a common method in mid- to late 2008.

- The price per gram of each of the three different forms of methamphetamines was variable between 2001 and 2007, although overall the price of ice appears to have increased at the same time that the prices of powder and base/paste decreased. The availability of powder in this same period was high, but stable. The availability of ice was highly variable and base/paste (where it had been stable and low) increased dramatically in 2007.
- The number of amphetamine-related deaths fell after 2005, while emergency department presentations and ambulance attendances remained relatively stable.
- There was a small increase in the number of clients in treatment between around 2006 and 2007, but the pattern is now reasonably stable.

The combined Victorian indicator data generally support the pattern observed in the other jurisdictional field sites and even overseas (see the summary sections of each field site report above). That is, that the local methamphetamine market underwent expansion throughout the 2000s, but that it has more or less stabilised (albeit, with some level of market volatility within this overall trend). While overall increases in the number of people processed for ATS offences have been observed in Victoria, the proportion of regular methamphetamine users has remained stable since at least January–June 2006. In addition, the purity of methamphetamine seizures has fallen since the mid-2000s and amphetamine health-related data have either fallen or remained reasonably stable over the past two to three years.

The Victorian DUMA data underscore the importance of regularly collected drug market data to inform short-term market shifts. Although the Victorian DUMA sample is small (and so some caution needs to be applied when interpreting these data), indicator data reported here suggest that local methamphetamine markets are indeed sensitive to DLE activity. For instance, there are key points in the past two years that the market appears to have contracted. The most evident of these occurred only recently, sometime in around early to mid-2008. At this time, the proportion of DUMA amphetamine users reported that they were having to use more occasional and new sources to obtain the drug and a (slightly) smaller proportion of users were regularly using (that is, using at least three times a week). Just after this time (in the latter half of 2008), a greater proportion of users were sourcing their amphetamines from outside their suburb than inside and by approaching suppliers in public.

The stabilisation of Victorian (and Australian) domestic production of ATS is the result of a combination of at least the following local factors including:

- aggressive pursuit of the operators of clandestine methamphetamine laboratories
- introduction in early 2006 of legislation to restrict over-the-counter sales of pharmaceuticals containing pseudoephedrine (a chemical precursor of ATS)
- active monitoring of pharmaceutical sales through Project STOP, whereby pharmacists are notified as to whether a customer is eligible to purchase pseudoephedrine-based pharmaceuticals and, where not, pass this information on to DLE.

As such, the combined evidence suggests that Victorian DLE (together with other interventions) has played a major role in restricting expansion of the local ATS/methamphetamine market and all of the flow-on effects to the broader Victorian community in terms of reduced public harms. However, and as already highlighted elsewhere, as manufacturers and distributors find new ways of avoiding detection, it will remain important for DLE to continue to regularly monitor and intervene in market activity.

Heroin

The following summarises major heroin market trends in Victoria over the past several years:

- The overall pattern in the ten years between 1998 and 2008 was of declining numbers of heroin seizures.
- There were essentially three periods in the heroin offences data: in the first period (between early 2000 and late 2001) there was a dramatic decrease in the number of people processed for heroin offences; in the second period (between late 2001 and mid-2005) the pattern was then reasonably stable; in the third period (from mid-2005 onwards) the number of people processed for heroin offences fell again before essentially stabilising. A similar pattern was observed for both possess/use and heroin trafficking offences.
- With the exception of a small number of seizures, the weight of heroin seizures remained relatively stable over time.
- Heroin purity fell steadily over the ten years, although remained relatively stable in the two years between 2006 and 2008.
- The predominant method used to source heroin was from a street/alley between January–June 2006 and July–December 2008. While there were some changes in the proportions of people who obtained their heroin from the four different sources (that is, a house, public building, via home delivery or from the street/alley), the overall pattern was relatively stable for each, particularly in the twelve months between July–December 2007 and July–December 2008.
- There was a marked increase in the proportion of users who obtained their heroin from outside their own suburb and a downturn in the number who did so from within their own suburb.
- The overall number of people processed for robbery offences followed a similar pattern to the number of people processed for possess/use heroin offences until around the middle of 2005, when the number of robbery offences steadily climbed while the number of heroin offences continued to fall, before stabilising.
- The median price per gram of heroin was at its highest in 2001, following the peak period of heroin shortage. After that time the price of heroin fell steadily, before essentially stabilising in 2006.
- Among regular heroin users, perceptions of how easy the drug was to obtain were high in the period under observation. Since 2002, around 90 percent of users in any given year have indicated that heroin was either easy or very easy to obtain; however, these figures are still lower than prior to the heroin shortage, when the proportion who indicated that the drug was easy/very easy to obtain was around 98 to 100 per cent.
- Between January–June 2006 and January–June 2008, there was a marked increase in the proportion of users who approached their heroin supplier in public settings; in the same period there was a decrease in the proportion of users who obtained their heroin via a third party. For all other methods employed by users the pattern was reasonably stable. The proportion of users who obtained their heroin from a regular source was higher in any given year than the proportion of people who obtained their heroin from either occasional or new sources. The pattern for regular and new sources was relatively stable in the period, although the number of occasional sources increased considerably between July–December 2006 and July–December 2007, before stabilising.
- There was a marked increase in the proportion of regular users of the drug between July–December 2007 and January–June 2008, although this was followed by a small decrease in the proportion of regular users in July–December 2008.

- The number of heroin-related deaths fell steadily between July–September 2003 and January–March 2006. After that time the number gradually increased again (although not to the same levels observed in 2003). Heroin-related emergency department presentations and ambulance attendances followed the same overall pattern.
- The number of clients in treatment for heroin-related issues fell steadily between July-September 2003 and January–March 2008.
- The proportion of Victorians who indicated that illegal drugs were a problem fell between 2001–2002 and 2004–2005, before stabilising. More Victorians felt safer walking/jogging after dark in their neighbourhood in 2007–2008 than did so in 2001–2002.

The combined heroin market indicator data are equivocal. While much of the data suggest that the Victorian heroin market is relatively stable (or even in continuing decline) and that both supply of, and demand for, the drug remain low compared to the situation ten years ago, other data point to a slight resurgence in the market. Indicator data that support market stability/decline include the steady decreases in the number of seizures, purity and the number of people processed for heroin offences, coupled with *overall* decreases in the number of people experiencing heroin-related health problems and reductions in the number of clients in treatment. There has also been relative stability in the price and availability of heroin over the past few years and reductions in public perceptions of 'drug problems' in Victoria. Finally, Victorian DUMA data indicate that an increasing proportion of users obtain their heroin outside the suburb in which they live. That is, they have to travel further afield to obtain their drugs because they are harder to find locally.

Despite the above, other indicator data suggest that there may be a slight resurgence in demand for heroin in Victoria, particularly from around the end of 2007/beginning of 2008. For example, although overall reductions in heroin-related health problems have occurred in the past five years, since the beginning of 2006 these have again been on the rise. The number of robberies has followed a similar pattern. Furthermore, the number of regular users of heroin in the Victorian DUMA sample increased dramatically sometime after late 2006 and remained high in the most recent period where data were available (July–December 2008). Finally, the proportion of DUMA heroin users who sourced their heroin from the street/alley declined in this same period.

These apparent contradictions in the indicator data may be because the Victorian heroin market is transitioning from a state of relative stability to a renewed period of growth. Monitoring the market over the next 12 months will be critical in determining whether this is actually occurring. Clearly, it will be of particular concern to Victorian DLE.

Cocaine

The following summarises major cocaine market trends in Victoria over the past several years:

- Other than a large spike in cocaine seizures in October 1999, the overall pattern was relatively stable between 1998 and 2008.
- The number of people processed for cocaine offences is typically low compared to other drug types. Despite this, there was a gradual increase in the number of people processed for cocaine offences between mid-2003 and mid-2008. The number of people processed for possess/use and trafficking cocaine offences followed a similar pattern.
- With the exception of a small number of seizures, the weight of cocaine seizures remained relatively stable over time.
- The median purity of cocaine seizures was highly volatile between 1998 and 2008, although throughout 2008 the purity of cocaine seizures gradually increased.

- The median price per gram of cocaine was essentially stable between 1998 and 2004, although increased markedly between 2004 and 2007. The data suggest a levelling off in the price of cocaine in 2007
- Compared to regular users of other drug types (except regular users of MDMA), the number of regular users of cocaine was consistently low in the period under observation
- Published data (Roxburgh et al 2008) indicate that the number of cocaine-related hospital separations in Victoria were relatively stable between 1993–1994 and 2002–2003, but then increased dramatically between 2002–2003 and 2004–2005. The number of cocaine-related hospital separations then fell somewhat between 2004–2005 and 2005–2006.

Data on the Victorian cocaine market are less available than for cannabis, heroin and amphetamines. The use of cocaine in the general population and among regular illicit drug users is low. For instance, according to the 2007 National Drug Strategy Household Survey, 1.6 percent of Victorians reported recent use (used in past 12 months) of cocaine (AIHW 2008b), while only one person from the Victorian DUMA sample in 2007 tested positive to cocaine (Adams et al 2008). Despite an apparent pattern of low cocaine use, there is clearly ongoing (and possibly increasing) supply of, and demand for, the drug into Victoria, as evidenced by recent increases in purity, the increasing number of people processed for cocaine offences and for cocaine-related hospital stays in Victoria over time. This contrasts with the pattern observed at the national level (see the Customs technical report above), which suggests that the cocaine market is relatively stable.

MDMA

The following summarises major MDMA market trends in Victoria over the past several years:

- While there were a number of very large seizures in the early 2000s, the pattern since then has been reasonably stable.
- There was a steady increase in the number of people processed for MDMA offences in the period under observation. A similar pattern for trafficking and possess/use MDMA offences was evident.
- The weight of MDMA seizures has been relatively stable since the early 2000s.
- The median purity of MDMA was volatile month-to-month, although the long-run average was around 30 percent. Throughout 2008 there was a small drop in overall purity levels.
- The price per tablet of MDMA has been stable since 2003.
- Compared to regular users of other drug types (except regular users of cocaine), the number of regular users of MDMA was consistently low in the period under observation.

Data on the Victorian market for MDMA are, like those for cocaine, less available than for other major illicit drug types. While greater than for cocaine, the use of MDMA in the general population and among regular illicit drug users is low (at least, relative to the use of cannabis). For example, 3.6 percent of Victorians indicated recent use of MDMA in the 2007 National Drug Strategy Household Survey, while only one percent of the Victorian DUMA sample in 2007 tested positive to MDMA (Adams et al. 2008). However, when MDMA is used it is most frequently done so in public settings, such as at nightclubs, parties and at live music events (Black et al. 2008). As such, suppliers of the drug appear to cater to a specific user group.

In the absence of much other data, particularly health indicator data, it is difficult to comment in detail on the condition of the Victorian MDMA market, although indications are that the market is at the very least strong and stable. Aside from a steady increase in the number of people processed for MDMA offences in Victoria between 1998 and 2008, some of the largest seizures of MDMA

have occurred in recent times, suggesting considerable demand for the drug. For instance, in June 2007, 4.4 tonnes of MDMA tablets, the world's single largest seizure of MDMA, was seized from a shipping container in Melbourne ('World's largest ecstasy seizure in Melbourne', Australian Customs and Australian Federal Police joint media release, 8/8/08). Similarly, the proportion of the Victorian population reporting recent use of the drug has remained around three percent since 1998—in 1998 it was 3.1 percent, in 2001 it was 3 percent, in 2004 it was 3.1 percent, and in 2007 it was 3.6 percent. Indeed, MDMA was one of few illicit *or* licit drug types to undergo an increase in recent usage in the general population between 1998 and 2007 (AIHW 2008a).

Monitoring and evaluating performance

As described above, a sound performance management system should be able to do a number of things, including helping to set, monitor and assess short- to long-term goals. To work effectively, monitoring and evaluating achievement of these goals should occur at all organisational levels. If performance review processes are not embedded at all organisational levels, then performance measurement can come detached from day-to-day operations and is then of limited use in helping to inform and drive performance improvements.

Victoria Police is now well positioned to more effectively monitor DLE impacts and feed this information into both tactical and strategic planning processes. As identified above, Victoria Police has recently started collecting and analysing a range of information to better determine the nature of the different drug markets at both state and local levels. The DHI provides a high-level indicator of performance interest, while the DAM helps to establish the extent of the problem and provides the basis for trend analysis of its integrated law enforcement and health data components.

Users of the DHI, and particularly the DAM, are able to produce standard reports from the system, which help to generate organisational consistency in performance monitoring, measurement and analysis. One advantage of this is that it assists Victoria Police to compare the performance of individual PSAs and police regions and to better understand not just that different trends may be occurring in different PSAs and regions but why they are occurring. It also allows for the tracking of displacement effects of police activity. Under the previous performance management system in which drug seizure data only were used, it was not really possible to determine this. Finally, the new system permits better aggregation of these data so that state-wide performance management is possible, which aids organisational accountability.

While the DAM draws upon many different data sources, the overarching information technology platform provides a 'one-stop-shop' or central access point where it is possible to drill down into different areas of performance interest. For example, the system allows users to produce standard tabular and graphical reports of among other things:

- the number and location of offences committed by drug-involved offenders who live in a given PSA
- home and offending locations of drug-involved offenders who commit crimes in a PSA
- the number of local residents in drug treatment by drug type and level of abuse
- the number of local and non-local residents attending drug treatment within a PSA
- the number of heroin overdoses within a PSA, and so on.

The model does not link individuals from LEAP to the external data sources incorporated within the model.

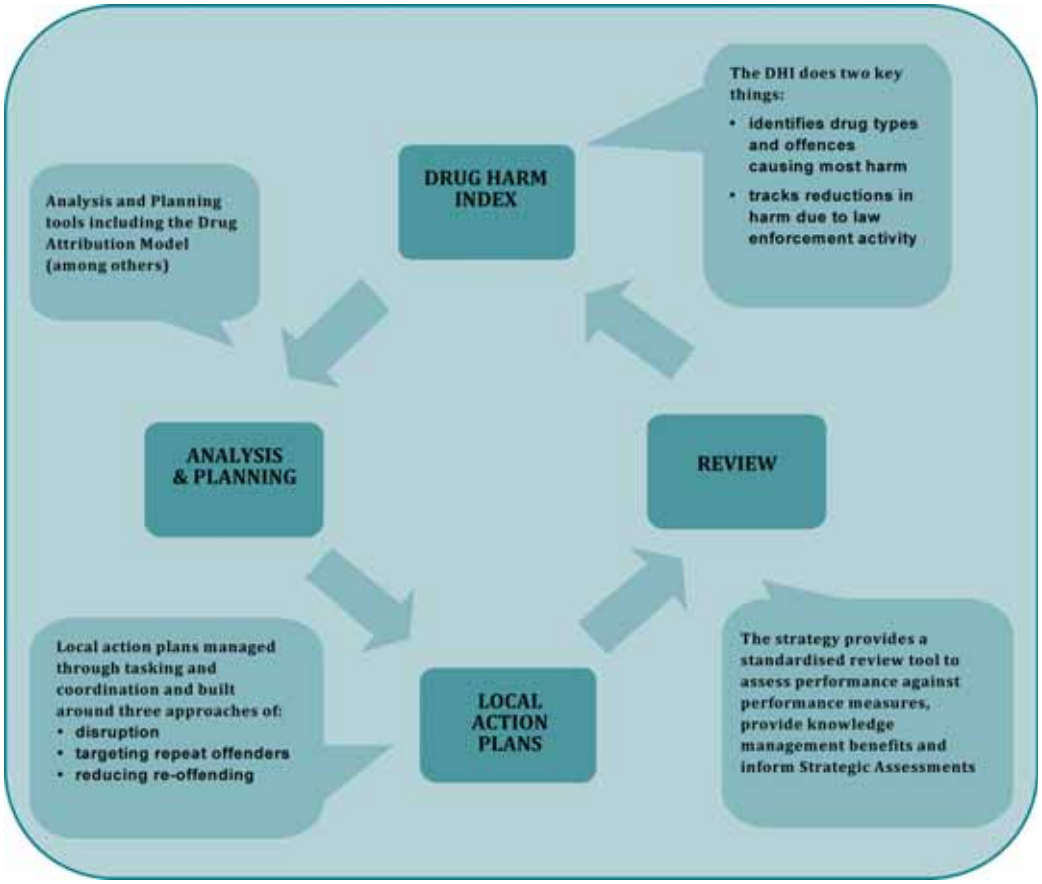
Communicating results and accountability structures

Victoria Police report DLE performance in a number of different fora; however, their major internal reporting and accountability process is via COMPSTAT. COMPSTAT brings together a range of police personnel from senior management to operational staff in which thematic performance reviews are undertaken once every six months. The drug theme review includes a discussion of the market situation of each major drug type and discussion focuses on drug market impacts on crime types and on the community. Any gaps identified in intelligence gathering are also discussed and action items are determined for each police region.

More regular reviews are also undertaken at other agency levels. For example, quarterly reviews are undertaken to determine work unit focus for Victoria Police's Drug Task Force. These reviews focus on tasking and largely include an assessment of input and process indicators. Quarterly stakeholder meetings are also held between the Clandestine Laboratory Squad, Purana team, Drug Theme Desk, Drug Task Force and other relevant personnel—these meetings focus on major issues of concern/action required in relation to given illicit drug market conditions.

The new DHI and DAM will be an important inclusion to each of the review processes highlighted above. In particular, they will inform Victoria Police's corporate performance, COMPSTAT and tasking/co-ordination functions. How and where the DHI and DAM fit into Victoria Police's accountability chain is illustrated in Figure 4.2.

Figure 4.2 Victoria Police's accountability framework



Source: Victoria Police Illicit Drug Strategy 2007–2011, Intelligence Practitioners' Course 2008 notes

Figure 4.2 illustrates that the DHI commences the operational planning cycle through identification of offences and drug types causing the most harm. It then tracks trends in harm over time. For instance, the DHI may show that in one PSA robberies and theft from motor cars are the highest harm-causing offences related to drugs. Once this harm is identified, then the DAM provides a more detailed picture of local issues contributing to the problem. It does this by:

- enabling the collection and analysis of information gathered from a range of internal and external data sources to illustrate what the drug problem looks like at both PSA and state-levels
- identifying the symptoms and causes of the drug problem relevant to a geographical location
- providing tactical information including location and time of incidents.

For instance, the DAM may show that a large number of illicit drug users travel into a given PSA to both commit offences and obtain drugs. Further analysis from external data then shows that there are hotspots for overdoses in a particular area and high rates of hospital admissions relating to methamphetamine use.

Information gained through the DHI and DAM inform PSA tasking and co-ordination decisions and local planning. The approach taken depends on the precise nature of the drug problem and may include:

- an operational order
- a problem profile
- a strategic assessment
- a three-year strategic plan (if the problem is severe).

After these steps have been undertaken, any operational responses developed and acted upon are reviewed to determine their success. Initially, this includes examination of the DHI for each PSA. Ideally, appropriately designed and executed local action plans should result in a decrease in a PSA's DHI. If an expected result is not achieved, then a PSA can undertake more detailed analysis to determine areas of intractability and adjust their action plans accordingly (Victoria Police Illicit Drug Strategy 2007–2011, Intelligence Practitioners' Course 2008 notes).

Chapter five: Summary and conclusions

In-depth testing of the model performance measurement framework in four field locations (Customs, Victoria Police, South Australia Police and Tasmania Police) demonstrates that the framework can be feasibly applied at national and state/territory DLE levels—this is both in terms of its practical application (that is, availability of the indicator data) as well as its use as a performance measurement tool. Indeed, each of the jurisdictions that participated in the field study already use many of the framework measures, including drug-related public health measures, even if only informally and semi-regularly. In addition, where regular drug market monitoring and review does take place within jurisdictions, it occurs within prescribed agency accountability structures.

Input from key stakeholders at different points throughout the project (particularly during the national workshop and field visits) helped to refine a number of framework indicators. A discussion of the rationale of any substantive changes to framework indicators is in the relevant section of the jurisdictional technical reports above. Additional indicators that could be explored for future inclusion in the framework are also discussed in the technical reports, although these are not listed in the revised framework, which is found at Appendix 7.

Practical application of the framework

Fieldwork findings reveal that the various DLE agencies sometimes use different data definitions and counting methods, although the framework can accommodate these differences. This is achieved through flexibility in the framework's design. Specifically, although the high-level outcomes and measures are essentially prescriptive, the indicators can be tailored to suit prevailing jurisdictional monitoring and reporting needs. For example, where the framework suggests the use of an incidence-based count (such as the number of cannabis traffic/supply arrests), an offender-based count can be substituted (such as the number of offenders processed for cannabis traffic/supply offences). In this way the basic intent and integrity of the core framework elements are maintained, while also allowing for local data recording conventions.

Fieldwork findings also broadly support application of the model framework in different jurisdictions, although it is clear that (a) there are data limitations that need to be understood and considered when interpreting changes in market conditions, and (b), some jurisdictions are currently better positioned than others to use the framework for regular performance monitoring, measurement and reporting.

Data limitations

An effective performance measurement system should be built on appropriate measures of performance that are supported by high quality data. Ideally, these data should be regularly collected, accurate, reliable, accessible, and have no missing elements. In practice, such data are rarely available. Much of the data suggested as being useful to inform DLE performance in the framework come from a range of administrative collections, including from both the law enforcement and health sectors. These collections are largely designed to monitor agency outputs and can be viewed in many cases as simply a by-product of service delivery. As described in the four jurisdictional technical reports above, these data collections are also sometimes limited in scope (that is, relate to tightly prescribed elements), change over time (particularly in terms of recording practices), lack stringent quality checks for missing or incorrectly entered data, have long

lags between incidence recording and reporting, among other limitations. Although survey data can assist to fill some knowledge gaps, they often reflect specific sub-populations (such as injecting drug users or police detainees) and so may not be representative of the population as a whole. In addition, they may not be collected very often and they may be of insufficient size, which impedes the detection of real changes over time. For example, fieldwork testing of the DUMA indicator data found that sample sizes were sometimes too small (that is, n<10) to be used to interpret changes over time with any confidence, particularly changes from quarter to quarter. Where this was the case it was more meaningful to aggregate the data to six-monthly instalments. However, in some instances even this was not all that helpful. For instance, the DUMA samples relating to cocaine and MDMA in both Victoria and South Australia were too small to be of use in monitoring and/or measuring the state of those drug markets, except to demonstrate that police detainees either rarely consume those drug types or are only infrequently engaged in those drug markets in other ways.

With the exception of the Alice Springs site, DUMA (and IDRS) is based exclusively in metropolitan locations and does not necessarily reflect the state of drug markets in regional and rural locations. For DLE personnel operating in these areas, there is still scope for obtaining, in a systematic way, the same types of market information that DUMA and IDRS collect. Stage 1 of this project demonstrated that by modifying standard offender debriefing practices to include questions relating to offenders' patterns of drug use and purchasing behaviour, it was possible to generate a picture of drug market activity in a broad range of locations (see Chapter 7 in Willis, Homel & Gray 2006). Enhanced offender debriefing was found to have the potential to improve both tactical and strategic responses and to monitor and assess performance on a long-term basis. Further exploration of this data-gathering technique was outside the scope of the Stage 2 project; however, given the success of this in Stage 1, it is something worthy of future investigation.

Finally, administrative and survey data do not in and of themselves address the more complex issues of performance successes and failures. Coupled with the limitations outlined above, this underscores the point that DLE agencies use multiple and appropriate measures and indicator data to minimise the risks of error in identifying emerging illicit drug market trends.

Use of the framework for regular performance monitoring, measurement and reporting

While Customs, South Australia Police and Tasmania Police use a range of information from sources external to their agencies (including drug-related public harm data), this information does not form part of formal performance measurement practices, nor do these agencies have any explicit arrangements with third parties to regularly capture this information. However, Victoria Police recently instituted DAM, a new drug market analytical tool that combines much of the same (or similar) types of indicator data as that identified in the framework as being useful for performance measurement purposes (although nothing as yet that reflects public amenity issues). Not only does DAM incorporate a range of supply-side indicator data, but it also includes key public harm indicator data obtained from a number of data sources external to Victoria Police. Victoria Police invested a considerable amount of time and energy in negotiating access to these data through DHS, the Victorian State Coroner's Office and Turning Point Alcohol and Drug Centre. Nevertheless, this second example illustrates that it is possible for law enforcement agencies to obtain these types of data through formal arrangements, such as memoranda of understanding.

With the exception of the Tasmanian DHHS, which declined to provide drug-related public health indicator data for the project, the AIC was able to obtain with relative ease de-identifiable, quarterly or annual data from each of the field location's other health agencies via an exchange of correspondence at the executive level. Although our requirements were for a once-off research project, it suggests that health agencies may be receptive to law enforcement agencies accessing these data on a regular basis, providing they are fully informed as to precisely why

and in what way the data will (and will not) be used. This is supported by the views of the public health representatives at the national workshop (see Willis, Anderson & Homel 2010), where they indicated that there was need for frank data exchange so that both sectors could effectively monitor changes within the illicit drug environment, including new and emerging issues.

One potential forum through which law enforcement agencies could start the process of obtaining drug-related public health data is through the Intergovernmental Committee on Drugs (IGCD). The IGCD provides policy advice to ministers on the full range of drug-related matters and is responsible for implementing the National Drug Strategic Framework. This committee consists of senior officers representing health and law enforcement in each Australian jurisdiction and also has people with expertise in identified priority areas, including representatives from Customs and a number of other agencies.

However, where DLE agencies are unable to access drug-related public health data directly from health agencies in the short-term, there are alternative sources (albeit, 'second best' sources) of data that could be used. For example, the IDRS includes annual trend data on key drug-related public harms in their annual reports that could be used to assess longer-term drug market impacts. Other sources of drug-related public health data (usually annual data) are also available on-line through the websites of AIHW and NDARC.

The framework includes a small number of indicators that require the use of DUMA data. Currently, DUMA does not have a Tasmanian site and so Tasmania Police are unable to populate the relevant framework indicators with these data. However, as demonstrated in the Tasmanian technical report above, there are relevant IDRS data that could be used instead. Although IDRS data are annual, and so not sensitive to short-term market shifts in the way that DUMA data are, in the absence of more regularly collected drug market data of these kind, these data may be used for longer-term performance monitoring and reporting. As identified above, there is also the potential to use offender de-briefing techniques to capture relevant drug market information.

The framework as an effective performance measurement tool

The rationale behind the use of the framework as a DLE performance measurement tool is that the framework's measures address a combination of supply and demand-side market issues. The theoretical underpinning of the framework is that DLE has an impact on both of these. In theory, illicit drug supply is reduced through things such as controls on drug production and distribution, seizures and the arrest (and ultimately incarceration) of those involved in the importation, production and distribution of illicit drugs (for a detailed summary of supply-side controls, see Willis, Homel and Gray (2006)). In essence, the aim of supply-side DLE is to disrupt the supply or availability of illicit drugs, thereby increasing the costs and risks associated with drug importation and distribution. The aim of demand-side DLE is to reduce the level of demand for illicit drugs within the general community. Demand-side DLE is primarily directed at the drug user. The rationale behind demand-side DLE is that, even if DLE agencies are unable to increase the financial cost of illicit drug use or restrict its availability, they can increase the non-monetary costs associated with its use. So, as the level of inconvenience, time, risk or cost of trying to find a drug seller increases, more drug purchasers are tempted to leave the illicit drug market (say by entering treatment) while those who remain tend to use illicit drugs less frequently (Weatherburn et al. 2000). This then has clear flow-on effects in terms of reducing public harms.

Feasibility testing of the model framework in four DLE jurisdictions reveals that the framework provides a useful basis for monitoring and measuring key illicit drug markets at both national and state levels and that, as noted above, there is sufficient flexibility to accommodate local

measurement needs and practices. In the absence of direct measures of DLE effectiveness, the suite of measures and indicators outlined in the framework provide a broad platform upon which the impact of drug seizures and arrests can be systematically assessed over time. To illustrate this general point, two scenarios are provided below relating to two hypothetical drug markets.

Changes over time in drug market A and drug market B

Measure	Drug market A	Drug market B
Seizures	→	↑
Arrests	→	↑
Purity	↑	↓
Availability	↑	↓
Deaths	↑	↓
Hospital stays	↑	↓
Public perception of drug problem	↑	→

Under the first scenario (drug market A), DLE effort (that is, seizures and arrests) is stable but public harms are increasing (that is, increasing drug purity, availability, drug-related deaths and hospitalisations, and there is an increasing concern among the community about drugs). This suggests that DLE is not performing well and needs to take remedial action by redirecting appropriate resources. Under the second scenario (drug market B), DLE effort is increasing and public harms are decreasing, although community concern is constant. This suggests that DLE is performing well, although it may also suggest that DLE needs to review current resourcing priorities and re-deploy surplus capacity to other areas of greater need.

These hypothetical examples are simplistic and do not include the full range of suggested framework measures, although they do illustrate how the framework can be practically applied and how DLE data can be interpreted within a broader context to inform performance and also strategic decision-making. Indeed, in reality (and as demonstrated in the separate individual jurisdictional technical reports) not all indicator data move in an expected direction and some can be quite perverse for no discernable reason; however, what is important is the *overall* pattern. That is, if most of the indicator data point to a market change (or lack thereof), then it increases the reliability of inferences made about that data.

While it is sometimes tempting to view recent shifts in indicator data as a sign of imminent market change, it is important to understand that short-term fluctuations are often simply normal variations in the data and not necessarily cause for immediate concern. Most important is the long-run trend information, which is more meaningful and indicative of substantive market change. This is why it is necessary to monitor and compare data over the longer term, rather than focusing on movements between say one month and the next, or even one year and the next. To this end, the following presents an overarching summary of actual findings based on analysis of longer-term trends from the project's four field sites. As noted at each relevant entry in this report, the analysis is based on a range of indicator data that may be annual, quarterly, six-monthly or monthly aggregated, although generally reflects the ten year period 1998 to 2008.

- There are both similarities and differences between state and national-level illicit drug markets, reflecting global and local-level market influences.
- Broad trends relating to five Australian illicit drug markets are apparent and are as follows:

Cannabis – the cannabis market at national and local levels is well supplied and stable. Cannabis accounts for the great majority of all drug offences in each jurisdiction. In addition, because cannabis is largely domestically-produced and is the most widely used and accessible illicit drug, it is unlikely that supply of, and demand for, the drug will fall dramatically in the future. This is especially the case for hydroponically cultivated cannabis where, as already noted, there is high potential financial gain, coupled with a relatively low risk of detection, to growers. Moreover, the broad levels of use of this drug and its suggested increasing potency (particularly for hydroponic forms of the drug) make long-term containment of this market very important. This is especially the case at the state/territory level of DLE. Notwithstanding these findings, the indicator data suggests that DLE can have an impact on the market, particularly at very local levels of DLE. For example, and as outlined in the relevant technical fieldwork findings above, there appears to have been some local-level shocks to the cannabis markets in Victoria and South Australia at key points in the past several years, which reduced its availability for short periods.

Heroin – the heroin market at national and state levels remains reasonably stable, although with some signs of at least short-term increases in both supply and demand for the drug (most notably in Victoria). While the overall data are indicative of stability and containment of the Australian heroin market by DLE, sustaining these will require ongoing monitoring and DLE intervention, as well as adequate provision of jurisdictional prevention and treatment services. As highlighted elsewhere in this report, this is because data from overseas point to a recent and rapid expansion of opium production, particularly in Afghanistan, but also more recently in South East Asia. While the importation of heroin into Australia generally originates from South East Asia, changes in international production may see global trafficking routes shift towards Afghanistan and new transit points to Australia emerge. If increased supply of heroin into Australia does indeed occur, then consumption of the drug may also increase over the longer term.

Methamphetamine – although there are some variations in the data, national and jurisdictional indicator data generally point to an expansion of the methamphetamine market (and the illicit amphetamine market more generally) in Australia throughout the 2000s, but that it has now more or less stabilised. This is contrary to recent media commentry that suggests a booming Australian amphetamine market linked to conflict between feuding outlaw motorcycle groups (for example, Dempster 2009). As described elsewhere in this report, this stabilisation is probably the result of a combination of at least the following local factors including:

- aggressive pursuit of the operators of clandestine methamphetamine laboratories
- introduction in early 2006 of legislation to restrict over-the-counter sales of pharmaceuticals containing pseudoephedrine (a chemical precursor of ATS)
- active monitoring of pharmaceutical sales through Project STOP, whereby pharmacists are notified as to whether a customer is eligible to purchase pseudoephedrine-based pharmaceuticals and, where not, pass this information on to DLE.

The combined evidence suggests that national and state-level DLE has played a significant role in helping to restrict expansion of the local methamphetamine market and all of the flow-on effects to the broader community in terms of reduced public harms. However, as manufacturers and distributors find new ways of avoiding detection, it will remain important for DLE to continue to regularly monitor and intervene in market activity.

Cocaine – data on the cocaine market are less available than for the cannabis, heroin and amphetamine markets, although data that are available consistently indicate that use of cocaine in the general population and among regular illicit drug users is low. Despite this, there are indications that the overall Australian market underwent a period of growth in the early to mid-2000s and then essentially stabilised after that time. As such, Australian DLE agencies working at the border are probably minimising expansion of the cocaine within the country, although because the indicator data sample sizes are small (or lacking) in some instances it is difficult to say this with absolute certainty. The national situation appears to contrast with at least one local-level market. In Victoria there is clearly ongoing (and possibly increasing) supply of, and demand for, cocaine in that state. This suggests that DLE in that jurisdiction may need to focus further attention on minimising this market. Indicator data for both South Australia and Tasmania were too limited to make any similar inferences.

The apparent contradiction in the state of national and (Victorian) local-level cocaine markets (that is, the former in a period of stability and the latter in a period of possible growth) can be explained in a number of ways. For instance, it may simply be that the Victorian market is mirroring what has occurred at the national level but that there is a lag effect. It is also known that not all local markets move in the same way at the same time (Adams et al. 2008). As such, while some local markets may be in a period of downturn, it does not necessarily signify that other markets will do the same.

MDMA – MDMA-specific data are not necessarily as available/accessible as data relating to other drug types (such as cannabis, heroin, methamphetamines and even cocaine) as they are often combined with other amphetamine-based drugs data under the umbrella term 'ATS' (this is particularly the case for public health-related data), or the sample sizes are very small. However, what can be said is that:

- The global MDMA market has been relatively stable for several years (UNDOC 2008).
- Some of the largest seizures of MDMA in Australia have occurred in recent years, suggesting considerable ongoing demand for the drug.
- Among regular MDMA users, use and availability levels in 2007 were generally consistent with those over the past several years.
- The proportion of the general population reporting recent use of the drug rose steadily between 1995 and 2007. Indeed, MDMA was one of few illicit *or* licit drug types to undergo an increase in recent usage in the general population in that period.

The combined indicator data suggest a robust Australian market for MDMA. Some of the data suggest a period of relative stability (particularly at the border), although others a growing market (particularly in South Australia). These findings point to the need for more focused DLE effort to contain this market.

Monitoring and evaluating performance

An effective performance management system does a number of things. In particular, it:

- aligns agency activities and processes to agency goals
- facilitates a system-wide, long-term view of the agency
- focuses on results, rather than behaviours and activities
- produces meaningful and reliable measurements that form the basis for performance comparison (for instance, over time within and/or between different work units).

An effective performance management system should be able to help set, monitor and assess short-, medium- and long-term goals. Monitoring and evaluating achievement of these goals should occur at all organisational levels, from the individual through to agency-wide. Without strong performance review processes embedded at key organisational levels, performance measurement runs the risk of becoming detached from day-to-day operations and of being little use in helping inform and/or drive performance improvements.

The focus of fieldwork discussions in the four field locations was at the organisational level, rather than at local operational or individual levels. At this level at least, each of the DLE agencies is reasonably well positioned in terms of monitoring and assessing DLE impacts and feeding this information back into high-level strategic planning. For example, and as already outlined, while formal performance reporting continues to focus on the types of illicit drugs detected, detection weights and where drugs are detected, the field agencies (and typically the intelligence units within these agencies) also assess a range of other quantitative and qualitative information to form a picture of drug market characteristics. Typically, the sorts of information sources agencies use in these assessments are:

- IDDR data
- market intelligence
- drug-related health data, particularly illicit drug overdoses
- DUMA data
- IDRS data
- other published data and information.

While Victoria Police is in the process of formalising their use of these data, other jurisdictions could improve their monitoring and assessment by *formally* incorporating the above-listed data to more regularly and systematically inform the measures of drug market impacts suggested in this report. This would be advantageous, particularly as agencies are increasingly required to provide context around desired outcomes and report on impacts in real terms through (for example) portfolio budget statements and Council of Australian Government (COAG) reporting processes.

Communicating results and accountability structures

The central part of an effective performance management process is the performance review structure. Performance reviews are the formal mechanisms through which: activities and results are reflected upon; staff and work units (and the agency as a whole) are held to account; solutions are derived for problems; good practice is captured; and lessons from delivery fed into strategic planning (Home Office 2008).

Project fieldwork revealed that there are variations in jurisdictional performance review approaches, particularly in terms of their frequency and the level at which these processes are focused. In larger jurisdictions there are usually multiple review processes (for instance, at central agency, work unit and operational levels, as well as in regional offices), while in smaller jurisdictions there may only be one or two formal review processes operating. What is clear though is that, irrespective of the approach taken, a formal performance review meeting must take place that is led by a senior officer, that it includes a range of DLE personnel (from the executive through to operational staff) and that there is genuine input from all concerned and a frank discussion of performance issues. A performance review process that is structured and operates in this way helps to ensure that performance management is not a top-down exercise divorced from everyday operations. There is no standard for the frequency of these meetings – this is largely

determined by need and perceived risk. However, given that emphasis should be on achieving improvement in areas of performance identified as priorities, a review frequency of less than quarterly below unit level (and less than six-monthly below agency level) is unlikely to drive unit activity appropriately.

Where there are multiple performance review processes within an agency, these should link together coherently to ensure that the performance management framework serves every part of the agency, including both operational and support units within central agencies and regional offices. Review processes should also align in a way that does not result in duplication of effort or the establishment of contradictory actions (Home Office 2008). This is a particular challenge for large agencies with both central office and regional foci. As evidenced during fieldwork, feedback procedures are not necessarily as well defined, or at least do not function as well, between central and regional offices. Where this is the case, it suggests that an agency needs to standardise its monitoring and reporting processes to help improve information flow between central and regional offices. The model framework presented here forms a useful means through which this can be achieved for DLE.

Chapter six: Future research directions

Introduction

During the course of the Stage 2 project, it became evident it would be possible to further develop aspects of the model performance measurement framework to permit greater, more penetrating levels of analysis. This idea was floated with the Stage 2 Project Reference Group, who agreed that further analytical work would be useful, particularly if the work produced findings that provided DLE with practical insights and guidance. To this end, the AIC undertook a series of preliminary analyses to develop one framework indicator—the median[6] purity of illicit drugs by major drug type (excluding cannabis). This indicator was chosen principally because the underlying data were considered a useful proxy for overall conditions in a range of drug markets (in particular, high drug purity in a market is generally considered to reflect a market where there is plentiful supply relative to demand. In contrast, low drug purity is considered to reflect a market where there is large user demand relative to supply (and so drug dealers are forced to cut product to meet demand). While there are limitations to Australian drug purity data (see ACC 2008b for a description of these limitations), the data were considered sufficiently robust to obtain at least indicative insights in the absence of reliable information on the prices of drugs within different geographic markets).

A brief summary of key components of this work is provided below, together with selected illustrative examples (using Victorian drug market data). While a full discussion of the precise techniques used and an analysis and discussion of detailed findings is beyond the scope of this report, what is canvassed provides DLE with sufficient information to be of general interest and use, and that it demonstrates future analytical possibilities that may have the capacity to assist DLE in short- and long-term decision-making.

Overall illicit drug purity trends

An important problem in many time series based data series, such as those used in this modelling exercise, is volatility – that is, a line graph of the data series does not appear reasonably smooth to visual inspection, but rather shows a 'jagged edge' pattern. This situation can make it difficult to discern general directions and other patterns in the underlying data series, and can result in the reviewer confusing 'noise with signal'.

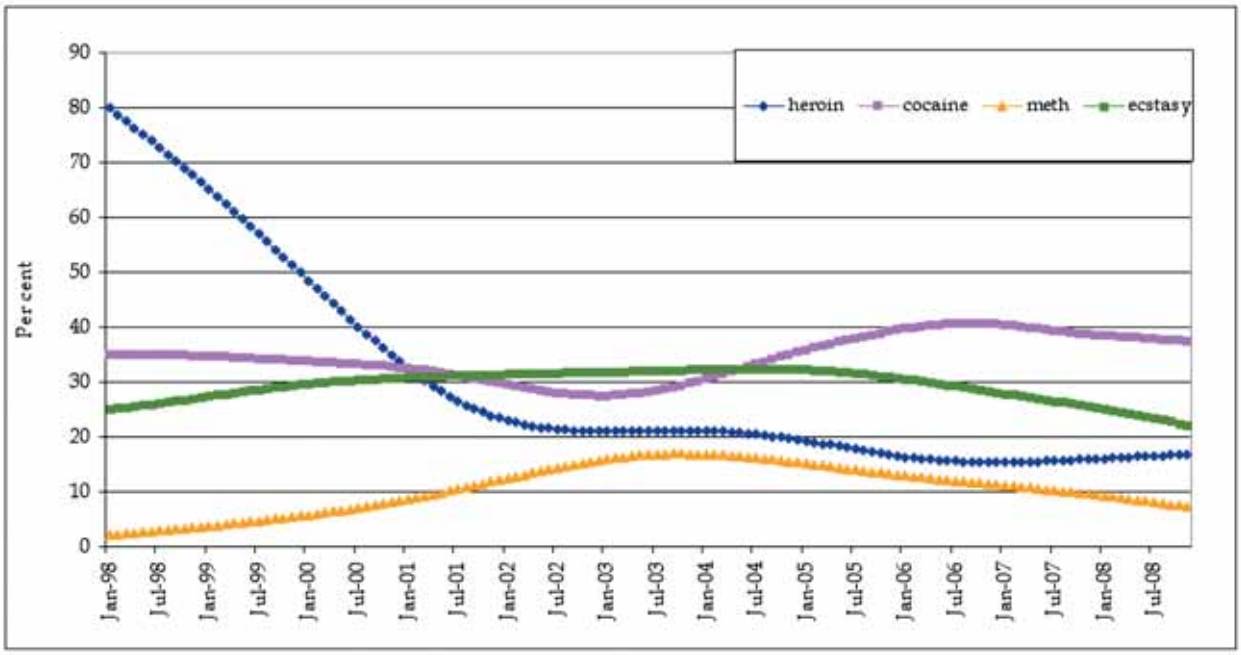
Statistical modelling offers a broad range of techniques for smoothing of time series data to enable the analyst to distinguish the underlying features of the data, with the choice of method reflecting the research question at hand. In the current study, the Hodrick-Prescott filter approach was preferred for its capacity to draw out longer-term underlying trends while also reporting them in a dynamic and non-linear (that is, curved line) pattern if appropriate.

Figure 6.1 represents the smoothed median purity for four different illicit drug types in Victoria, between January 1998 and November 2008. Purity data used in this analysis were based on analyses of Victoria Police-seized illicit drugs. For the purposes of this paper, they are considered a useful proxy of the Victorian retail drug markets. The following is evident from this plot:

[6] The mid-point of the range of observations: half of which are above, and half of which are below this point

- Median heroin purity dropped sharply following what is considered the peak period of heroin shortage in early 2000 (although the underlying trend suggests that it was also falling prior to this time). Between early 2002 and early 2005 purity stabilised at around 20 percent, before falling slightly again. The median purity of heroin in Victoria has remained reasonably steady since that time at around 17 percent.
- Median cocaine purity steadily increased in Victoria from around the beginning of 2003, before peaking in around mid-2006 at about 40 percent. Since that time the median purity of cocaine has dipped slightly to around 38 percent.
- Median methamphetamine purity in Victoria rose steadily throughout the late 1990s and early 2000s, before peaking at around 18 percent in late 2003/early 2004. Since that time, methamphetamine purity has fallen and in late 2008 median purity was about 8 percent.
- The median purity of MDMA in Victoria has followed a similar overall pattern to that of methamphetamine, although MDMA is consistently more pure than that drug. In late 2008 median purity was at just over 20 percent.

Figure 6.1 Smoothed purity of heroin, cocaine, methamphetamines and ecstasy (MDMA), Victoria, January 1998 to November 2008



Data source: Victoria Police Forensic Services Department

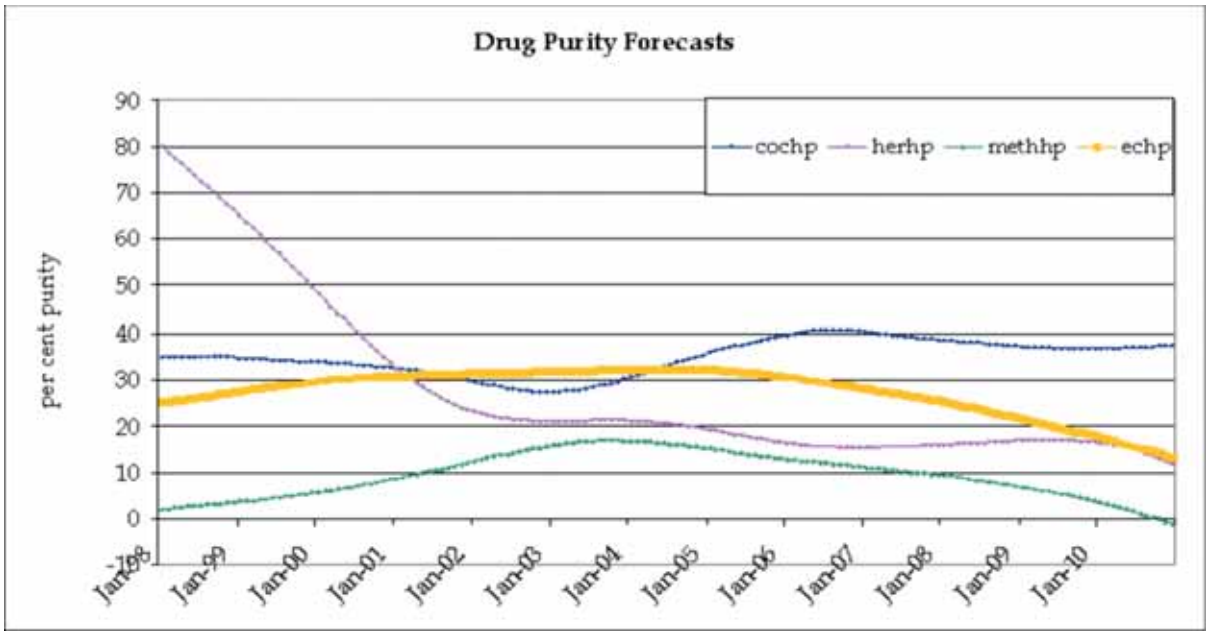
Forecasting

While decision- and policy-makers recognise the need to be informed about what has happened in the past, and generally welcome the opportunity to understand why those things happened (or did not), greatest priority is usually attached to using this information to gain more rigorous insights into what is likely to happen in the future – in short, using the information about the past for forecasting (either per se, or to produce better than otherwise forecasts). And, of course, decision- and policy-makers, being forward-focused as a general rule, can only influence future outcomes; they cannot change the past.

Rigorous forecasts can provide decision- and policy-makers with some guidance as to what is likely to happen in the future based on 'givens' or 'knowns', and allocate scarce financial and operational resources accordingly. However, in some circumstances, having some insight into potential futures enables decision- and policy-makers to influence, even change, those futures.

Figure 6.2 again represents the smoothed median purity for four different illicit drug types in Victoria, between January 1998 and November 2008, but this time with a forecast for the likely median purity of these drug types over the next two years. The forecast suggests continuing downturns in the purity of heroin, methamphetamines and MDMA. Based on the forecast, cocaine purity is expected to stabilise at around 38 percent.

Figure 6.2 Smoothed purity of heroin, cocaine, methamphetamines and ecstasy (MDMA), with two-year forecast, Victoria, January 1998 to November 2010



Data source: Victoria Police Forensic Services Department

Correlation

Correlation is one of the workhorse estimates of statistics and econometric modelling, and involves quantification of the coincidence of a relationship between the things of interest. While it is well known to statistical analysts, decision- and policy-makers should keep clearly in mind correlation is only about coincidence (two or more things tend to happen together), and must be distinguished from causality: just because two or more things are correlated does not necessarily mean one causes the other(s). The proper technique for modelling possible effects that one variable has on another, in direction and across time, is regression (see below).

Findings from the correlation analysis are provided below (Table (a)). These figures represent correlations between the cocaine, heroin, methamphetamine and MDMA drug purity data in the same period, and so do not represent relationships across time (that is, lagged relationships),

although it is possible to determine these.[7] The main finding is that there is a reasonably strong, negative correlation between methamphetamine and heroin (r = –0.56), which is highly statistically significant (p = 0.00) and suggestive of a robust, negative relationship between the two drug markets (that is, as the purity of one goes up, the other goes down). There is also a statistically significant correlation between MDMA and methamphetamine (r = 0.19; p = 0.03), although the correlation is less strong than for the other drug types just mentioned. There are no other statistically significant relationships.

Table (a) Correlations (and statistical significance) between four different Victorian illicit drug markets

		Cocaine	Heroin	Methamphetamine	MDMA
Cocaine	r =	1.00			
Heroin	r =	-0.07	1.00		
	p =	0.46			
Meth	r =	-0.08	-0.56	1.00	
	p =	0.36	0.00		
MDMA	r =	-0.13	-0.14	0.19	1.000
	p =	0.13	0.11	0.03	

Data source: Victoria Police Forensic Services Department

Regression models

A key priority for many decision- and policy-makers in using the outputs from statistical modelling is a clear understanding of the potential determining factors of the issue or problem of concern. In crime and crime justice analyses this usually means identifying and then quantifying the risk factors which are likely to influence the identified crime or criminal behaviour.

Regression modelling allows analysts and decision- and policy-makers to make rigorous estimates of these relationships, especially across time (that is, where an action or decision today has implications which are spread over a time or time periods into the future).

They also have the advantage of allowing analysts and decision- and policy-makers to undertake forecasts of likely future outcomes, develop scenarios of possible future situations under different assumptions and/or to evaluate operational or policy trade-offs which may be required to achieve some given, preferred outcome.

A regression analysis of the Victorian heroin, methamphetamine, cocaine and MDMA purity data found that there is a:

- statistically significant, positive relationship between heroin purity 'one month ago' and heroin purity 'this month' (p = 0.00). That is, heroin purity last month influences heroin purity this month. This is true for each of the three other drug types.

[7] Time series modelling of the type used in this study, by definition, involves the use of data collected across time. A desirable feature of time series data is its capacity to examine relationships between data across time, whether within an individual data series (known as auto-correlation) or between two or more data series (known as cross-correlation), the latter of which is often presented in graphical form known as cross-correlograms. Such information, whether in numerical or graphical form, allows the analyst, and the decision/policy maker to gain an insight not only into contemporaneous but also lagged (backward across time) and leading (forward across time) relationships.

- statistically significant, inverse relationship between methamphetamine purity and heroin purity (coefficient = –0.06; p = 0.00) in the same time period. The relationship appears to be unidirectional, with heroin purity influencing methamphetamine purity (and not the other way), suggesting the heroin market is the dominant market; as heroin purity rises, methamphetamine purity falls. Taken together, this would indicate the two markets are possibly substitute markets
- mixed statistically significant (or near to significant), inverse relationship between the cocaine and MDMA markets. Cocaine probably has more influence over MDMA (p = 0.07) than MDMA has on cocaine (p = 0.13).

Vector auto-regression models

Econometric modelling has developed a number of techniques for evaluating the relationships between variables – for example, between drug prices and armed robbery. These techniques generally fall into two main groups:

- structural models where the analyst designs and estimates one or more equations based on their assessment of the expected or likely relationships between the things of interest
- vector auto-regression (or VAR) which pursues the same general outcome (identifying relationships) but does so without imposing as many preconditions as the structural modelling approach.

An important difference between the two approaches is that structural models impose an assumed framework on the relationships of interest, while VAR assumes a somewhat looser 'everything is linked to everything else'. As such, VAR is a useful analytical technique for gauging what happens within and between drug markets when there is an impulse or 'shock' to one of those markets; for example, the nature and extent of the flow-on effect (in terms of changed purity levels) to other drug markets if heroin purity was to increase by a certain amount.

There were two main findings from the VAR analysis of the Victorian drug purity data:

- Perhaps unsurprisingly, the biggest and longest-lasting impacts to a drug market are where the shock occurs within that same market. This is particularly the case for the Victorian heroin market, where the model suggests that if there was an increase in one percentage point in heroin purity, this would lead to further increases in heroin purity over time. For each of the other three drug types the model suggests an initial increase in purity levels in response to a shock, but that purity stabilises thereafter.
- Illicit drug markets are reasonably robust and generally adjust to a shock after two to three months only. One could speculate that this is because suppliers either (a) stockpile their drugs so that they can re-supply the market with relative ease, and/or (b) are able to replace their supplies reasonably quickly through established supply networks.

Difference between wholesale and retail drug purity

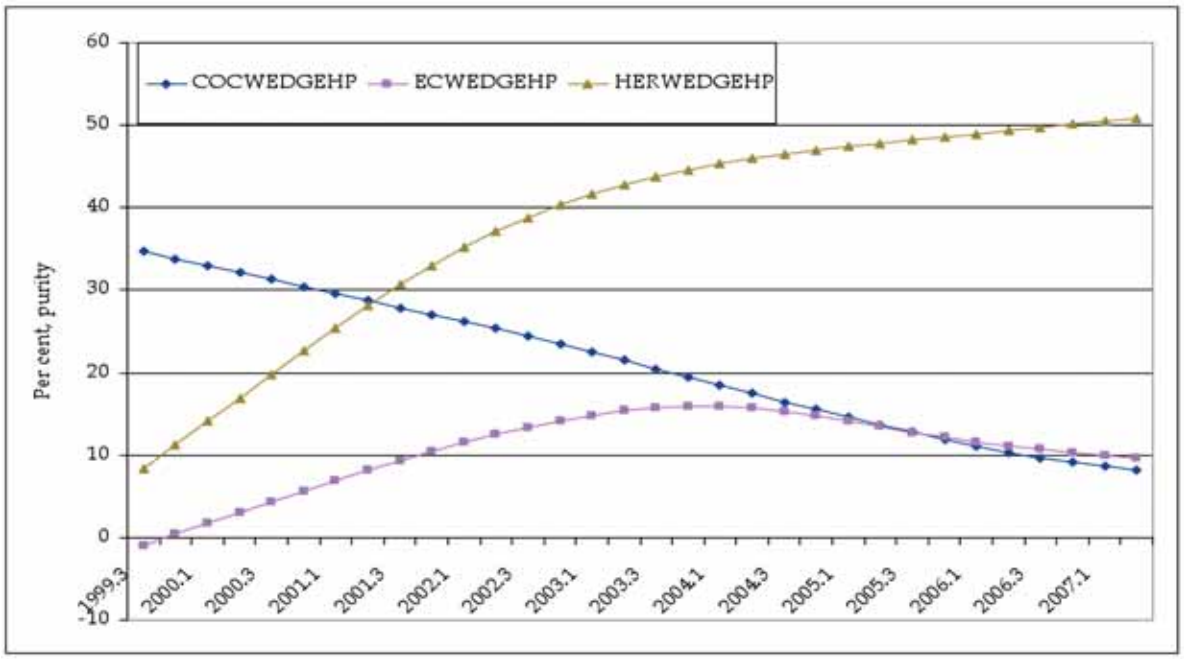
As noted above, the amount a dealer cuts a drug for street-level supply is useful information as it can indicate the overall condition of that market. The theory goes that the more a dealer cuts/adulterates a given drug type, the larger the demand for that drug (and *vice versa*). A useful analytical technique for exploring this idea is through examination of the difference (or wedge) in wholesale and retail drug purity levels. Where there is a large positive wedge, supply of a drug is weaker relative to demand for the drug. Similarly, where there is a small positive wedge, supply is stronger than demand.

For the purposes of analysis here, wholesale purity is considered to be the purity of Customs/AFP seized illicit drugs, while retail purity is the purity of drugs seized by state DLE.

Figure 6.3 is a plot of the smoothed wedges for heroin, cocaine and MDMA purity. There were insufficient data to generate a wedge for methamphetamines. The main patterns are as follows:

- In late 1999 the difference between wholesale and retail heroin purity was just under 10 percent, while in mid-2007 the difference had increased to over 50 percent. This suggests that demand for heroin was increasing (relative to supply) in this period because dealers were increasing the amount of adulterants in the drug to meet user demand. However, the trajectory also suggests that the supply/demand relationship is stabilising.
- For cocaine, the figures suggest that demand has steadily fallen (relative to supply) over the period under observation. The difference between wholesale and retail purity was around 35 percent in late 1999, while in mid-2007 the difference had decreased to below 10 percent.
- The data suggest that demand for MDMA grew (relative to supply) between late 1999 and the mid-2000s, but then more or less stabilised between early 2006 and mid-2007. The wedge between wholesale and retail purity was around 10 percent in April–June 2007.

Figure 6.3 Smoothed purity wedges for heroin (HERWEDGEHP), cocaine (COCWEDGEHP), and ecstasy/MDMA (ECWEDGEHP), Victoria, October–December 1999 to April–June 2007



Modelling market interrelationships

Those engaged in law enforcement have long known there are relationships between crime types and crime markets, and it is the same in modern times with illicit drugs. The demand, the supply, the price, and the purity (or otherwise) of many illicit drugs are linked to each other across drug type and across geographic markets. That is, they do not necessarily operate in isolation, but are linked to each other by common supply chains. Drugs market strategists would recognise that the heroin market in Queensland, for example, may well be linked to the methamphetamine market in New South Wales.

'DRUGSMOD', currently under development within the AIC, is an analytical model intended to quantify these structural relationships within drug-type and between geographic drug markets. By way of hypothetical example, if the supply of methamphetamines increases by one percent in Victoria this month, what would it mean for the supply of heroin in Victoria this month and for the remainder of the year? Moreover, what would it mean for the supply of heroin and methamphetamines (and indeed other drug types) in New South Wales, Queensland, Western Australia or any other jurisdiction? To be of real, practical use to DLE in short- and longer-term strategic planning, a priority for further development of DRUGSMOD will be inclusion of monthly purity data for each of the major illicit drug types for each jurisdiction.

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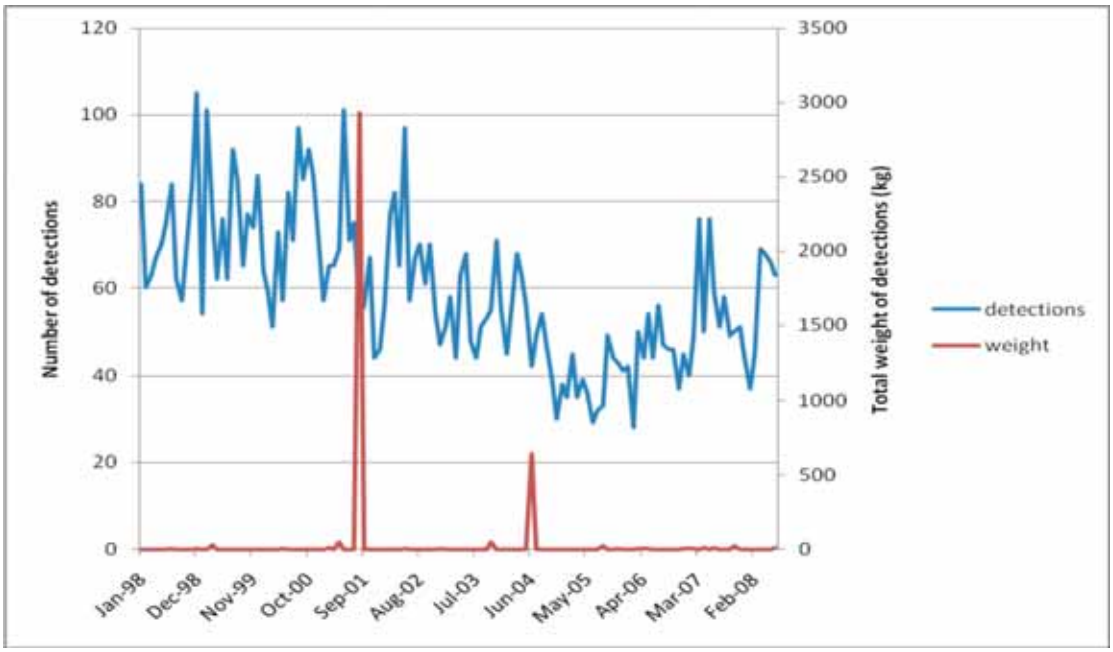
Willis K, Homel P & Gray K (2006). *Developing and implementing a performance measurement framework for drug law enforcement in Australia*. Monograph series no. 18. Adelaide: National Drug Law Enforcement Research Fund.

Appendix 1: Australian data

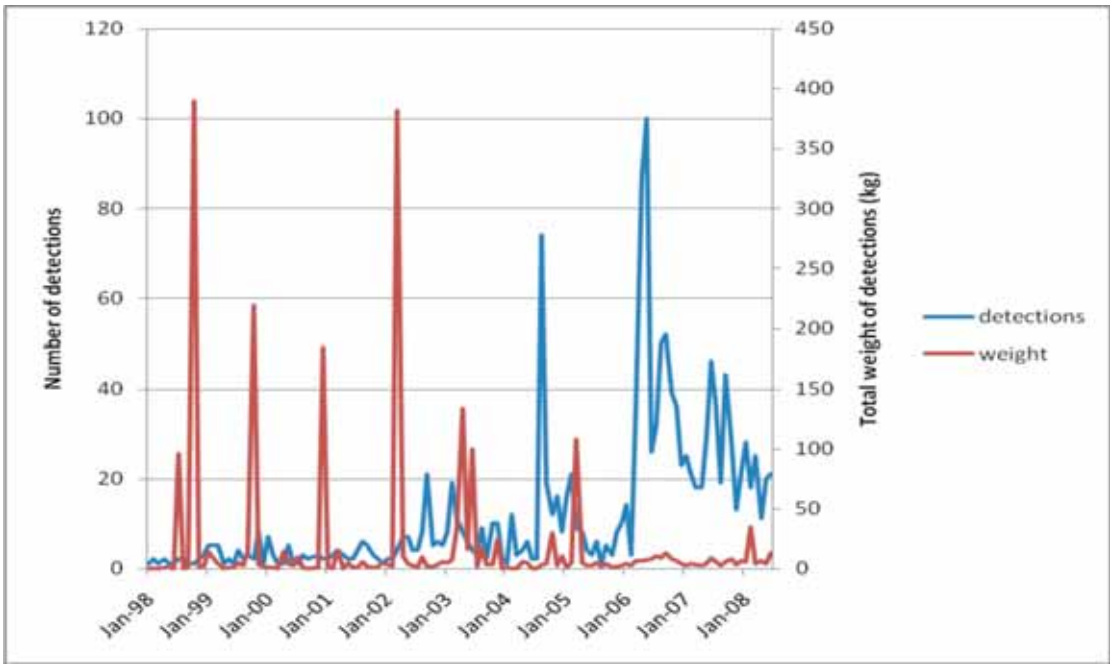
Data figures

Figure 1.2 Total number and weight (kg) of cannabis border detections, January 1998 to June 2008



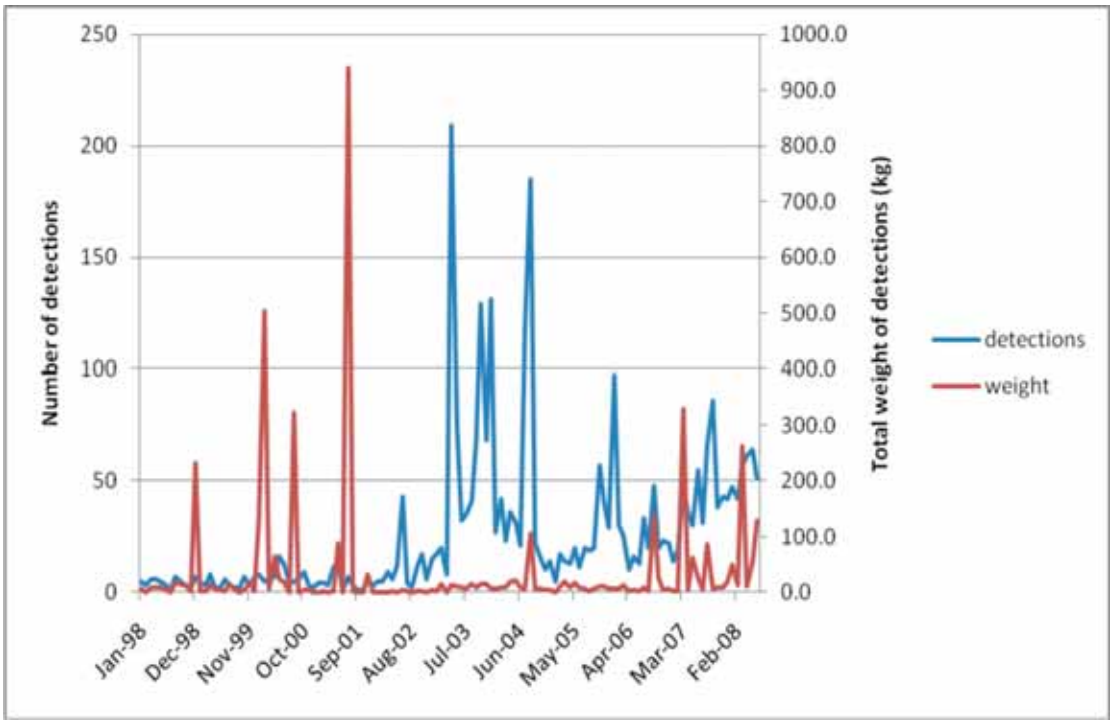
Source: Australian Customs Service data files

Figure 1.3 Total number and weight (kg) of heroin border detections, January 1998 to June 2008



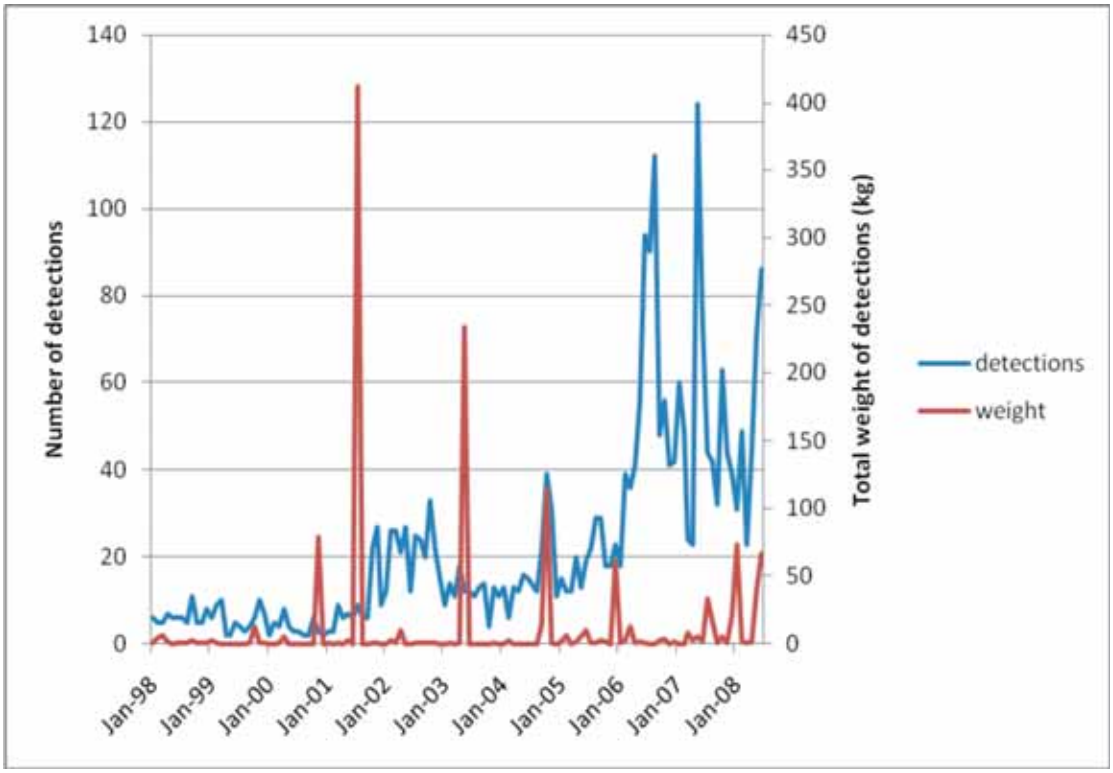
Source: Australian Customs Service data files

Figure 1.4 Total number and weight (kg) of cocaine border detections, January 1998 to June 2008



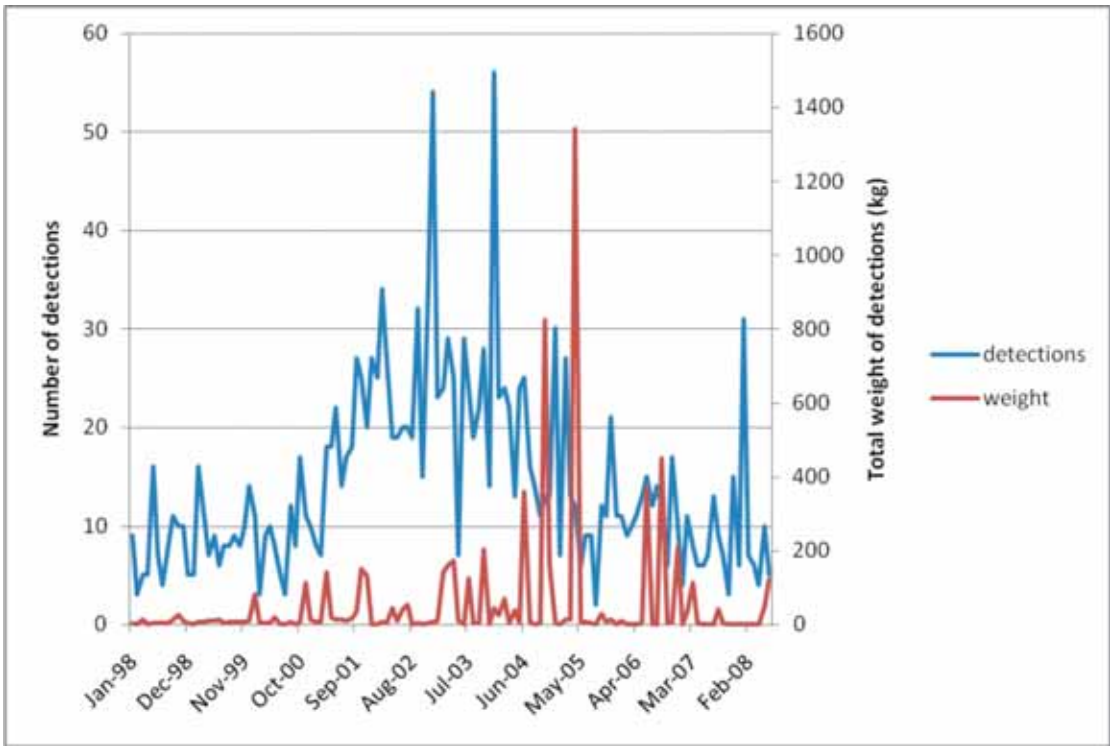
Source: Australian Customs Service data files

Figure 1.5 Total number and weight (kg) of ATS border detections, January 1998 to June 2008



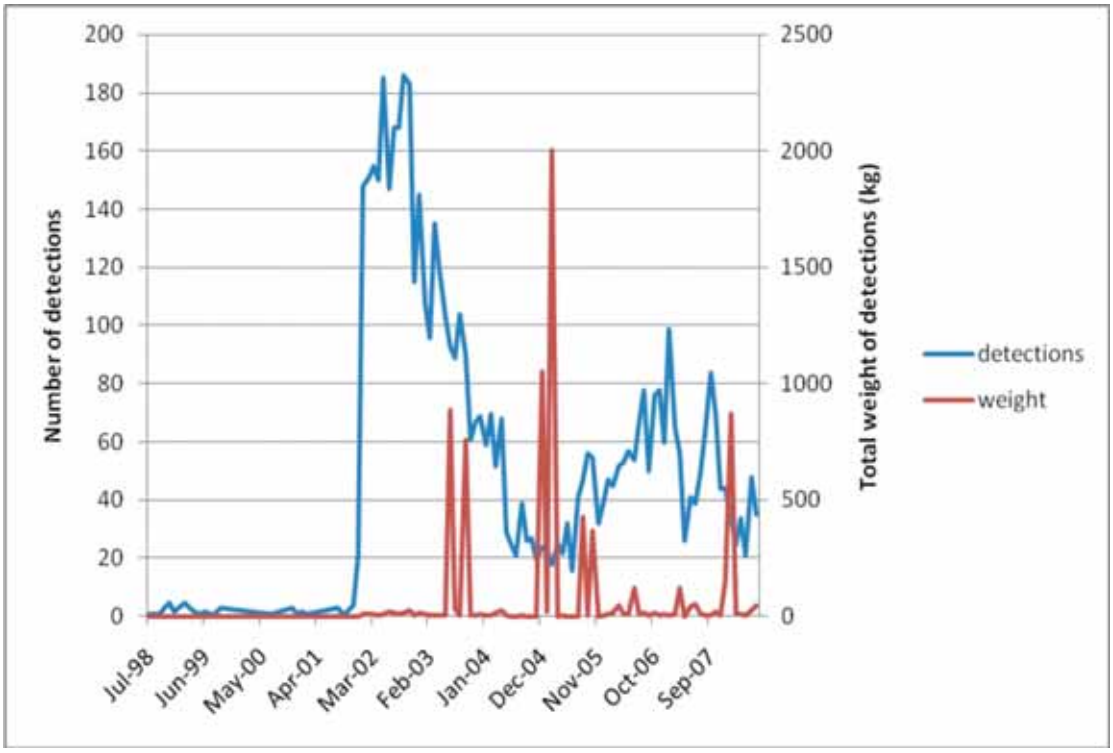
Source: Australian Customs Service data files

Figure 1.6 Total number and weight (kg) of MDMA border detections, January 1998 to June 2008



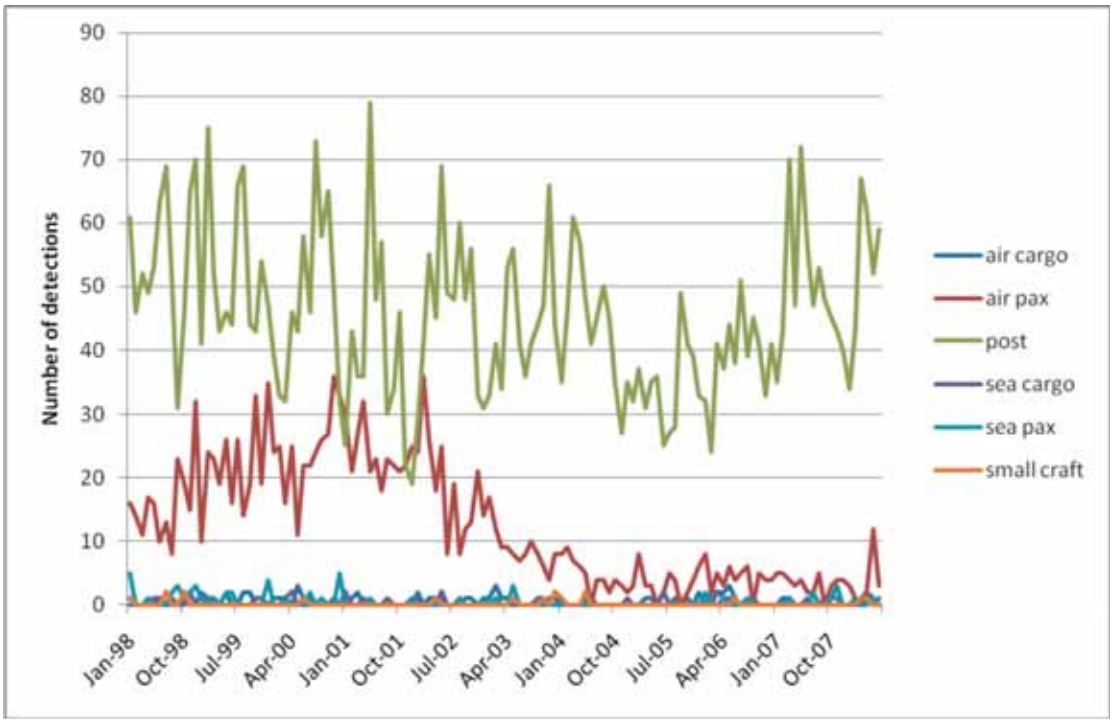
Source: Australian Customs Service data files

Figure 1.7 Total number and weight (kg) of chemical precursor border detections, January 1998 to June 2008



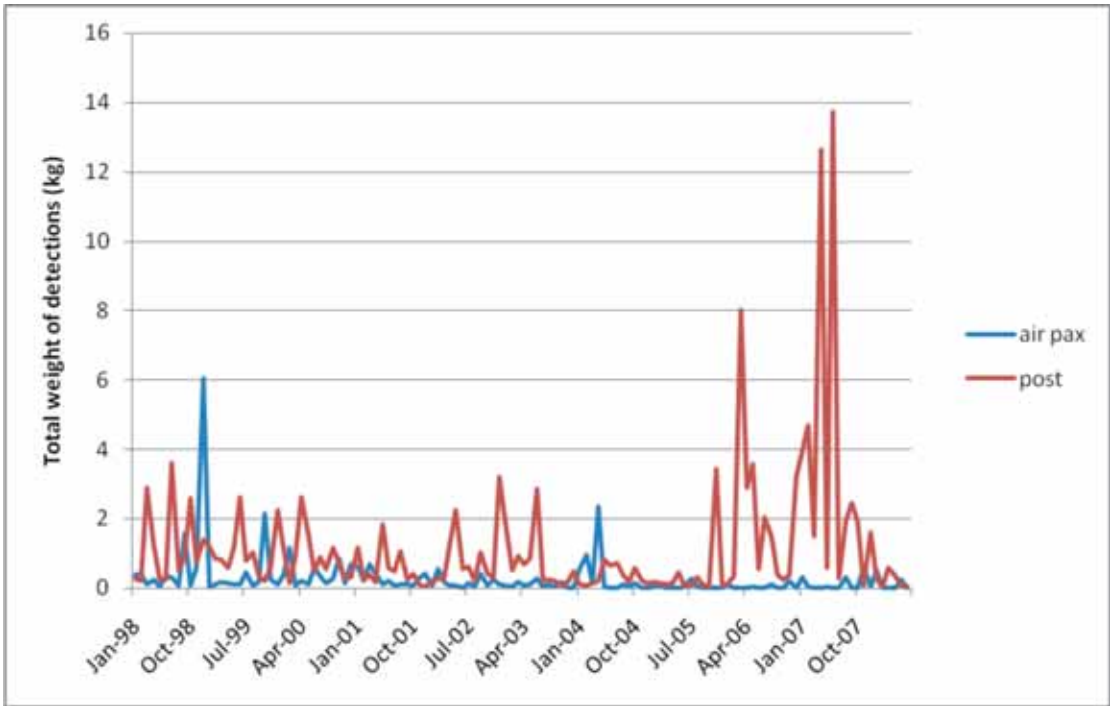
Source: Australian Customs Service data files

Figure 1.8 Total number of cannabis border detections seized via different means of entry, January 1998 to June 2008



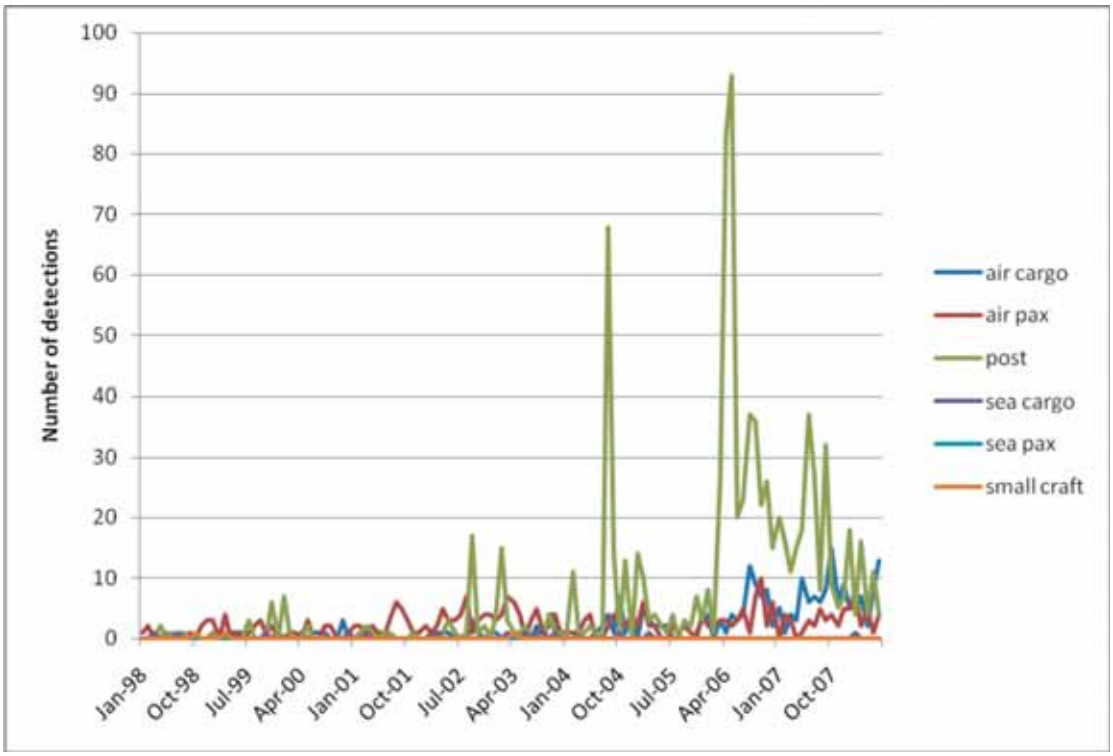
Source: Australian Customs Service data files

Figure 1.9 Total weight (kg) of cannabis border detections seized via air passengers/crew and postal services, January 1998 to June 2008



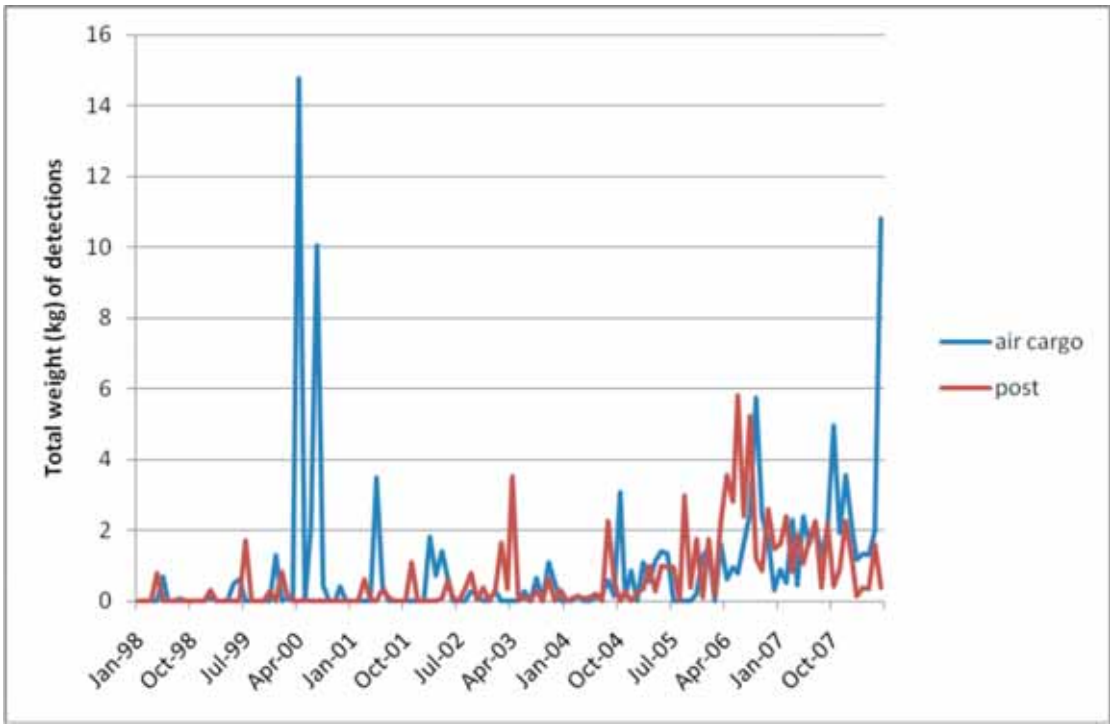
Source: Australian Customs Service data files

Figure 1.10 Total number of heroin border detections seized via different means of entry, January 1998 to June 2008



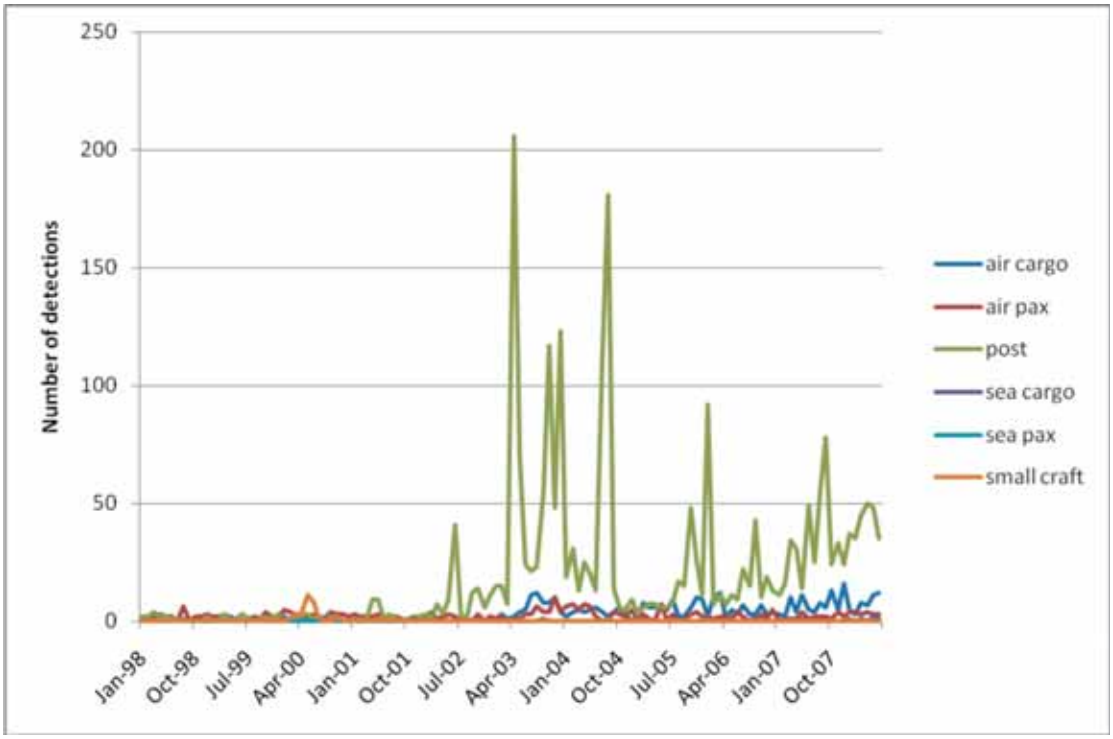
Source: Australian Customs Service data files

Figure 1.11 Total weight (kg) of heroin border detections seized via post and air cargo, January 1998 to June 2008



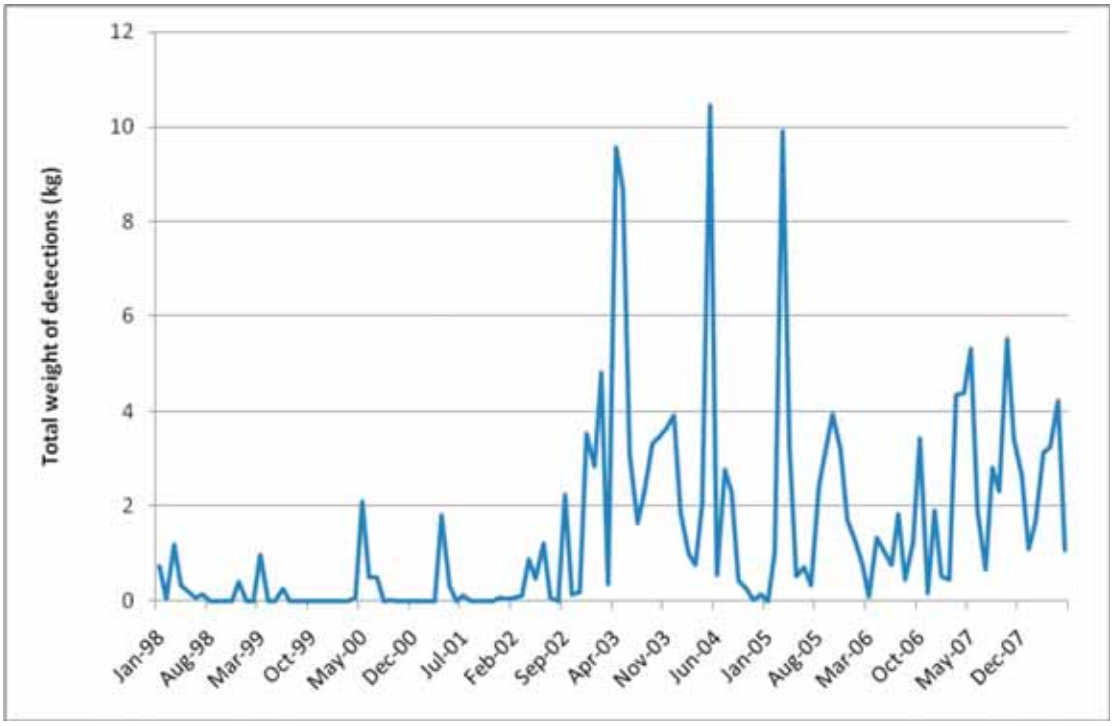
Source: Australian Customs Service data files

Figure 1.12 Total number of cocaine border detections seized via different means of entry, January 1998 to June 2008



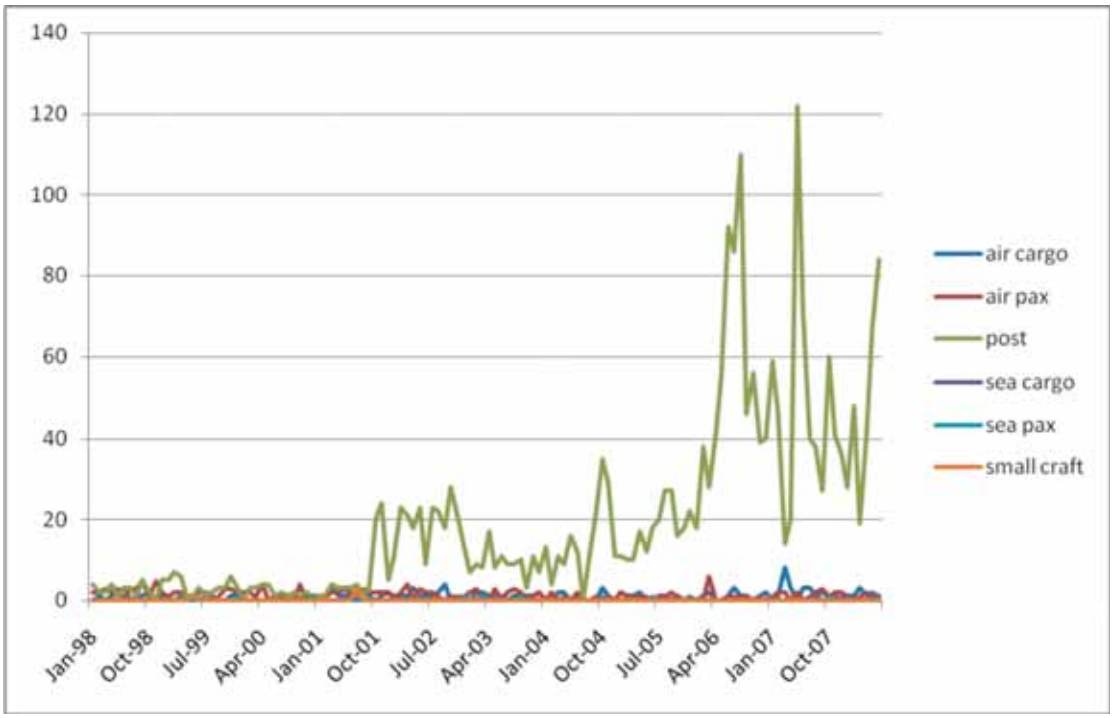
Source: Australian Customs Service data files

Figure 1.13 Total weight (kg) of cocaine border detections seized via the post, January 1998 to June 2008



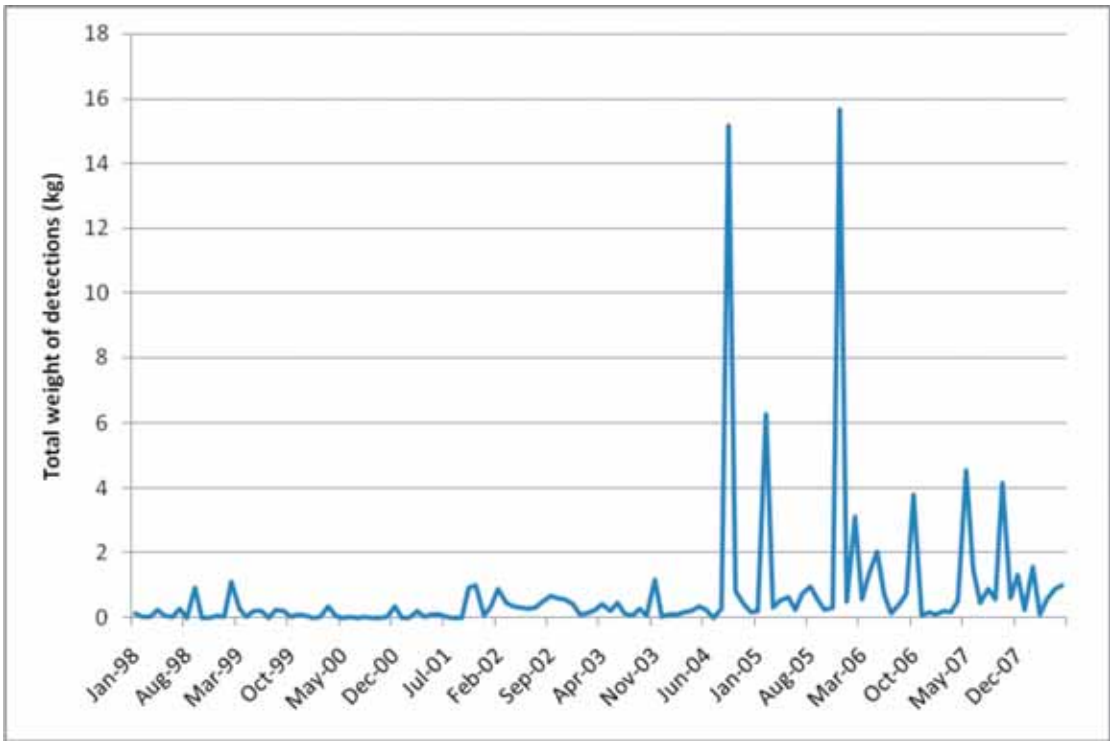
Source: Australian Customs Service data files

Figure 1.14 Total number of ATS border detections seized via different means of entry, January 1998 to June 2008



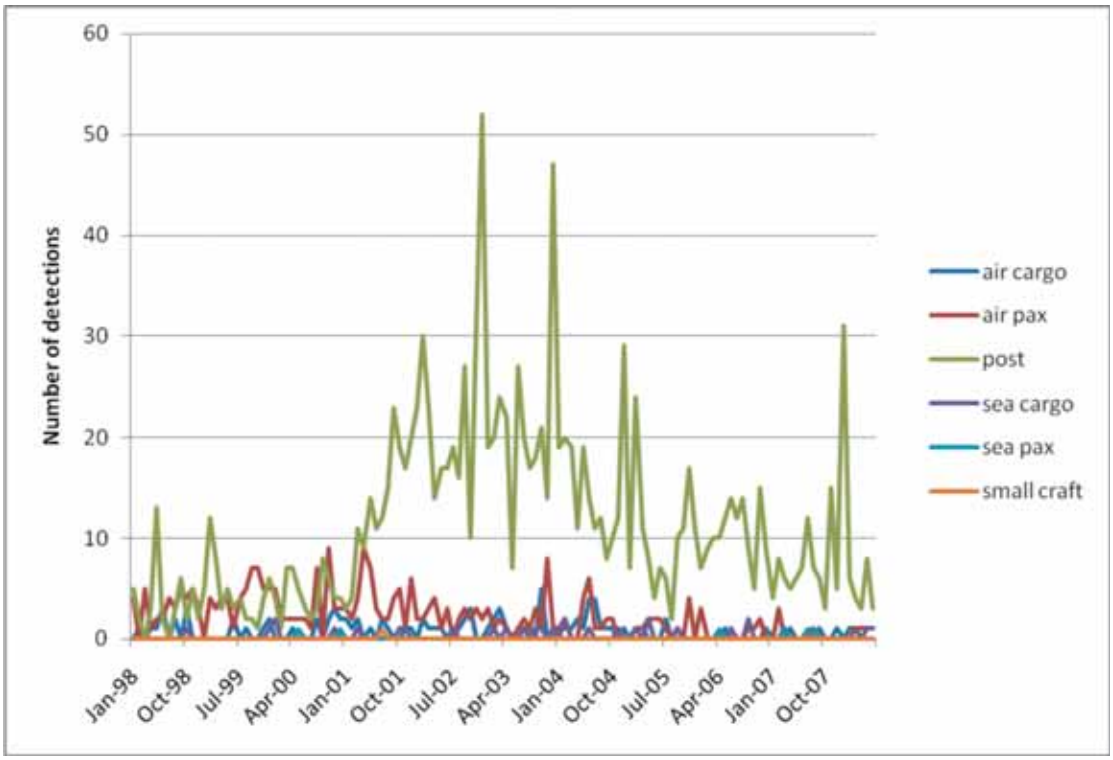
Source: Australian Customs Service data files

Figure 1.15 Total weight (kg) of ATS border detections seized via the post, January 1998 to June 2008



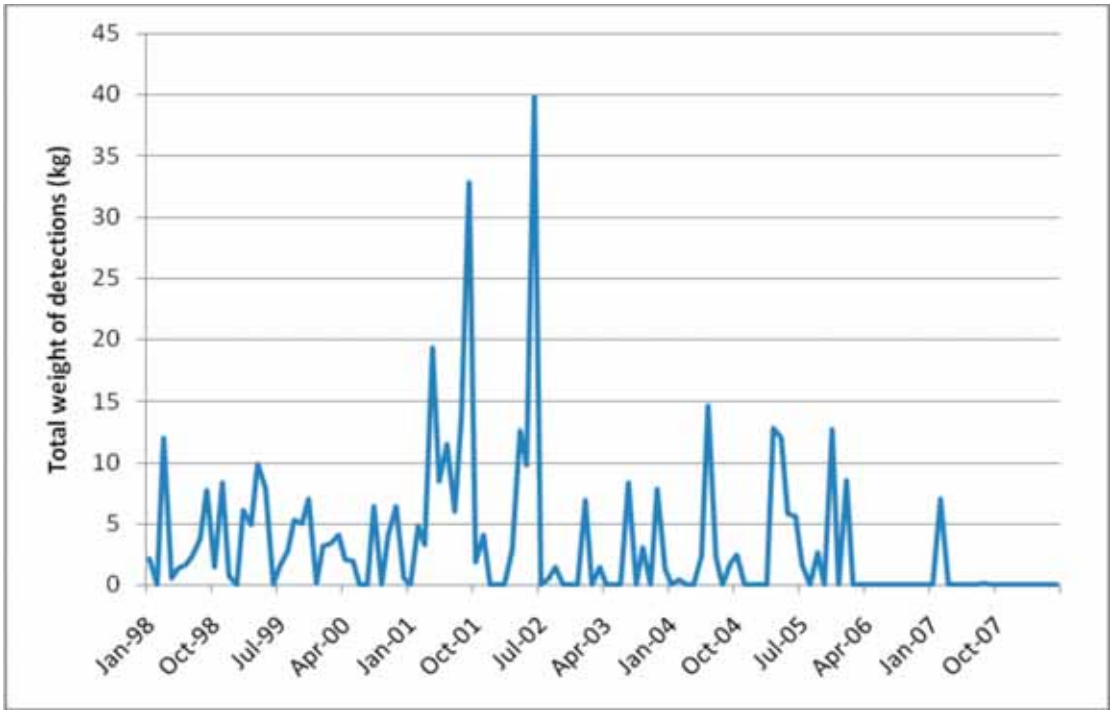
Source: Australian Customs Service data files

Figure 1.16 Total number of MDMA border detections seized via different means of entry, January 1998 to June 2008



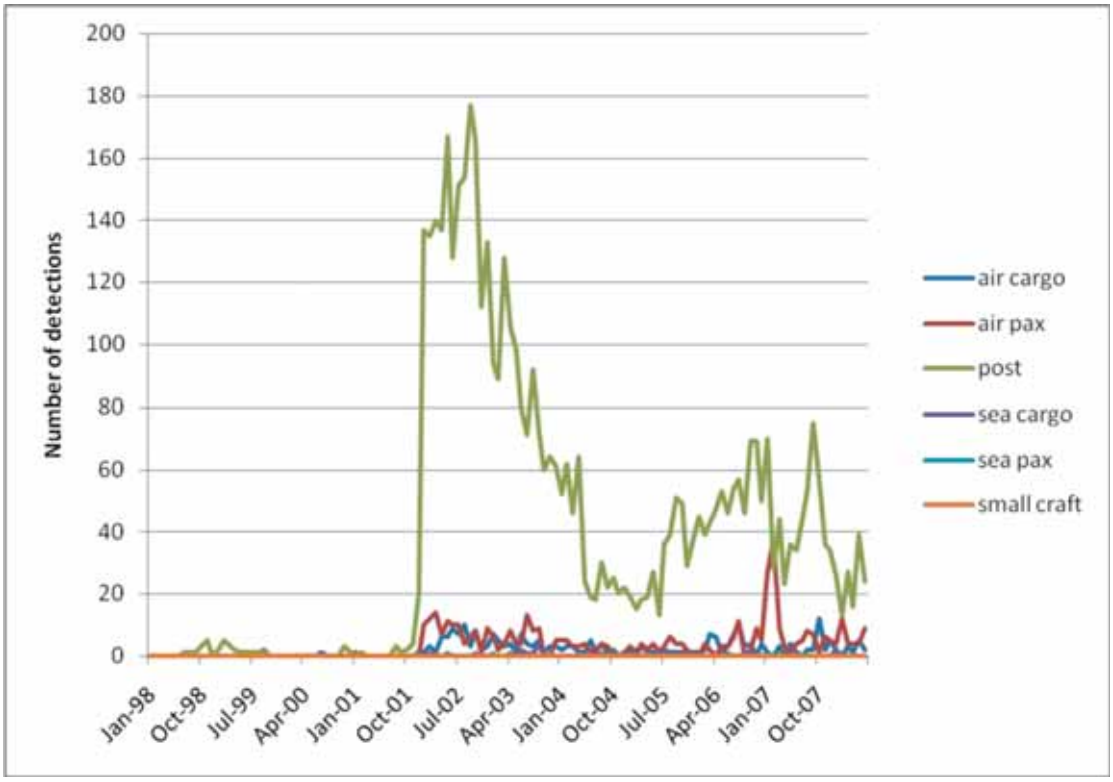
Source: Australian Customs Service data files

Figure 1.17 Total weight (kg) of MDMA border detections seized from air passengers/crew, January 1998 to June 2008



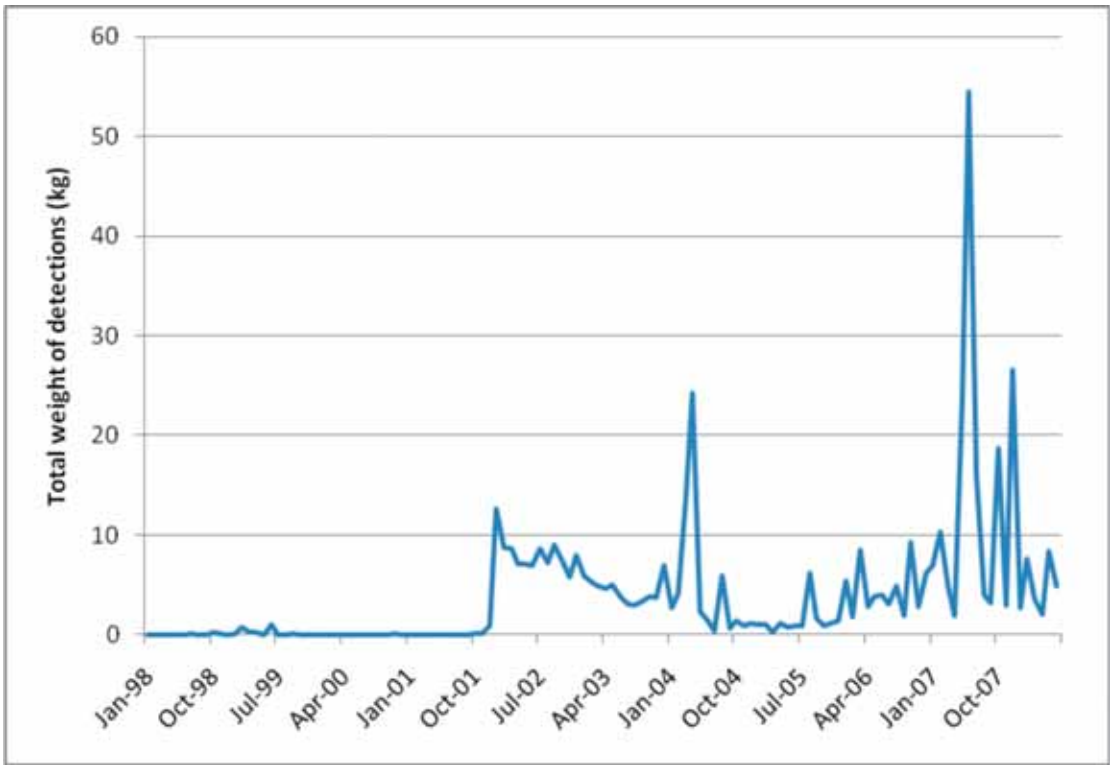
Source: Australian Customs Service data files

Figure 1.18 Total number of chemical precursor border detections seized via different means of entry, January 1998 to June 2008



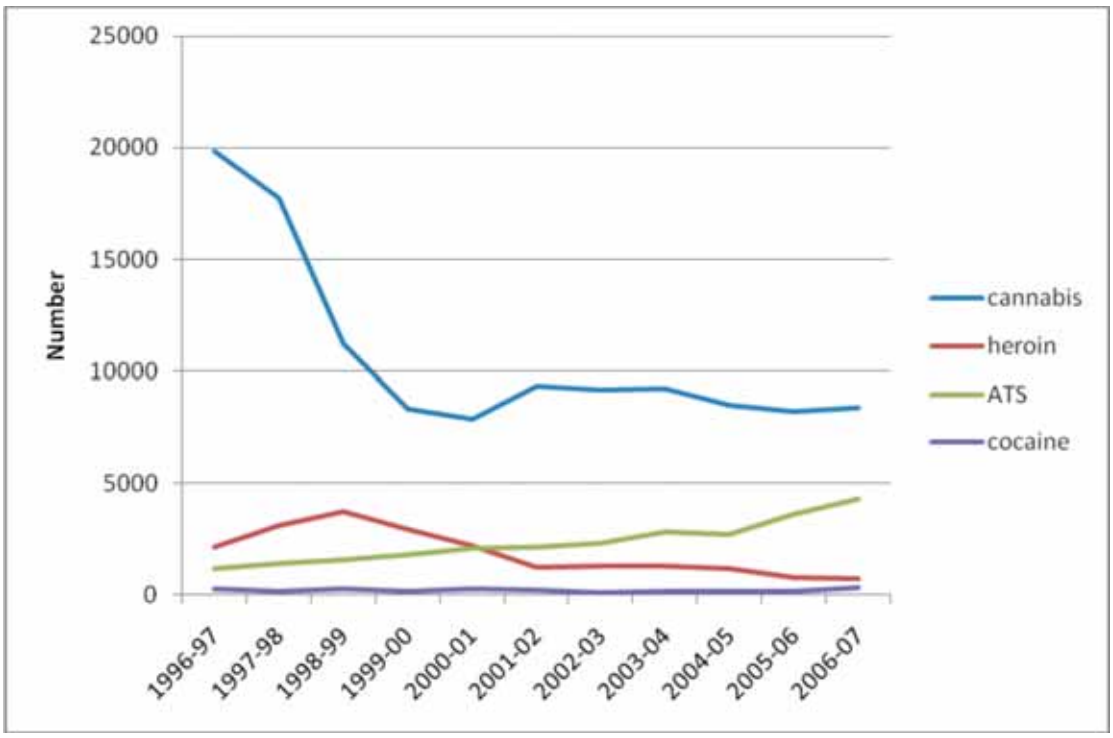
Source: Australian Customs Service data files

Figure 1.19 Total weight (kg) of chemical precursor border detections seized from the post, January 1998 to June 2008



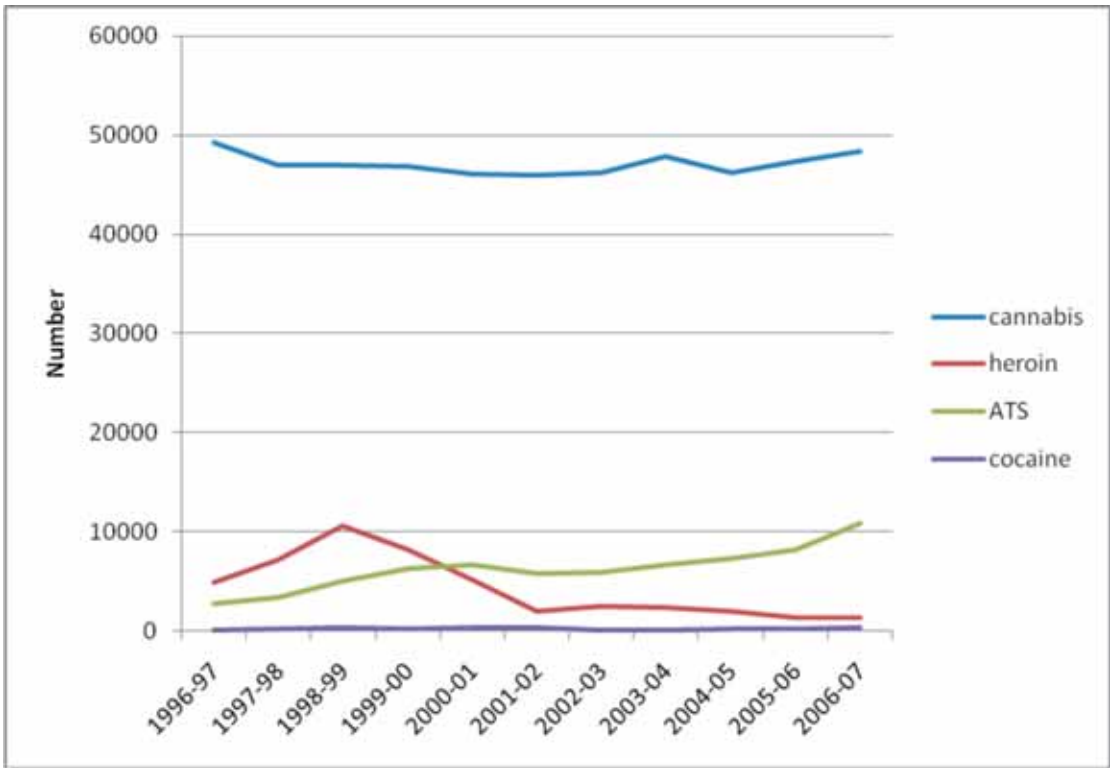
Source: Australian Customs Service data files

Figure 1.20 Total number of traffic/supply (provider) arrests in Australia by drug type, 1996–97 to 2006–07



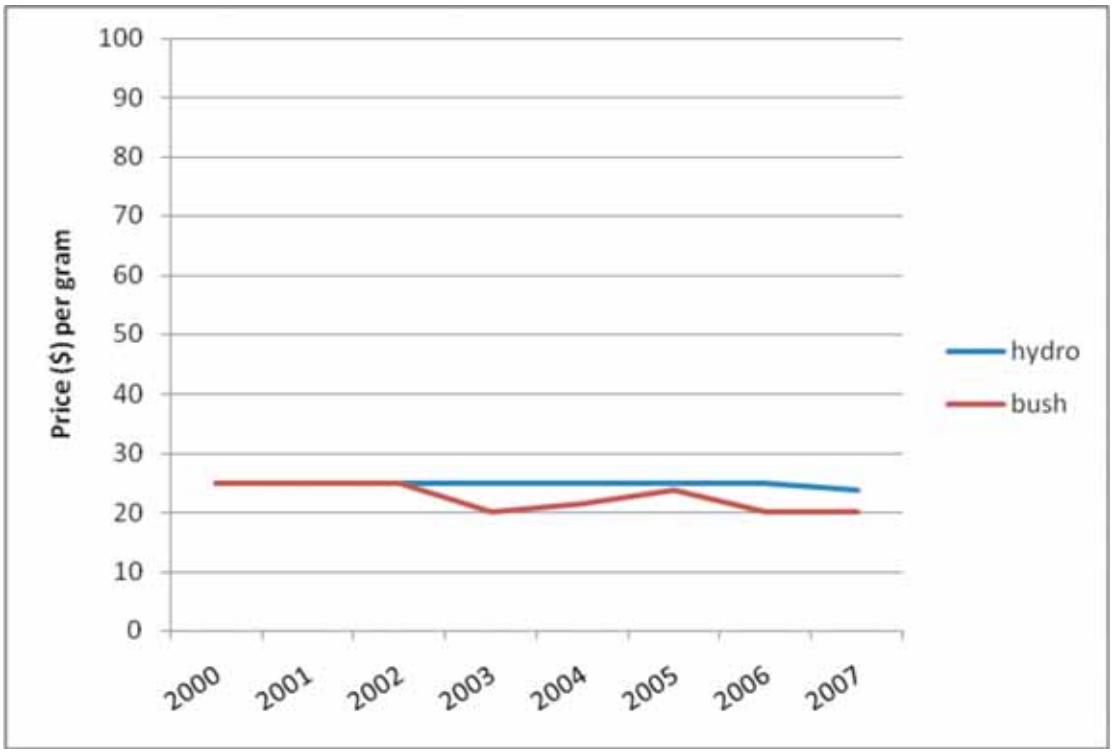
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 1.21 Total number of possession/use (consumer) arrests in Australia by drug type, 1996–97 to 2006–07



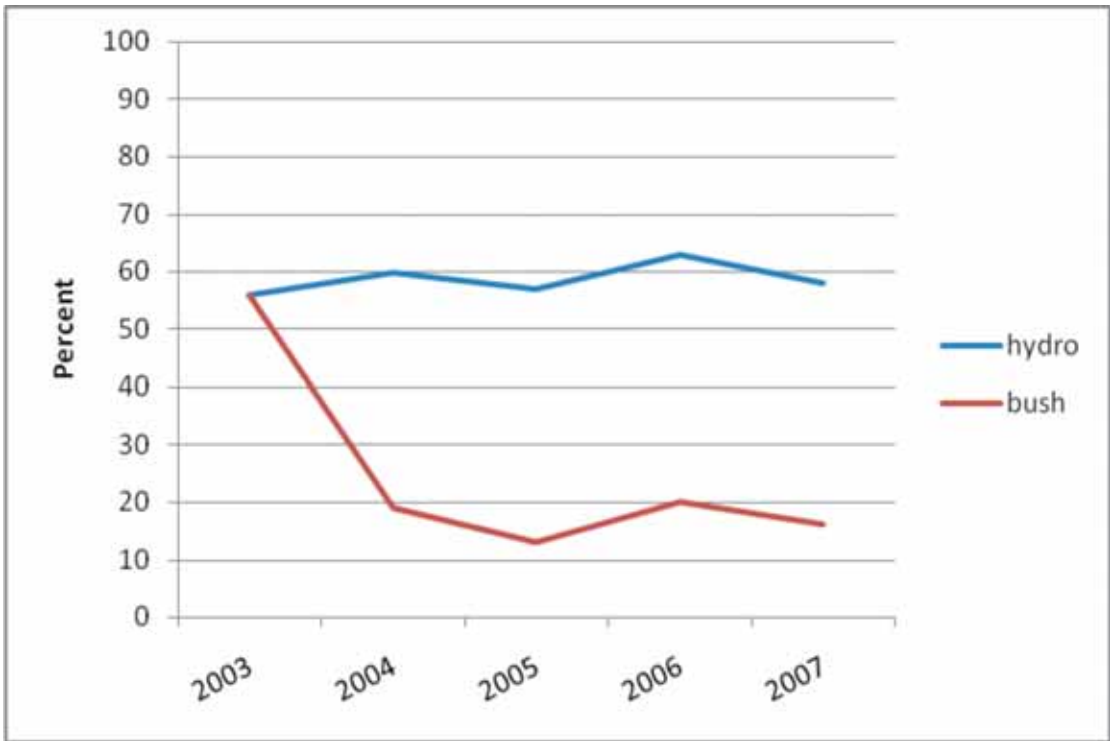
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 1.22 Median price paid for 1 gram of hydroponic and bush cannabis, 2000–2007



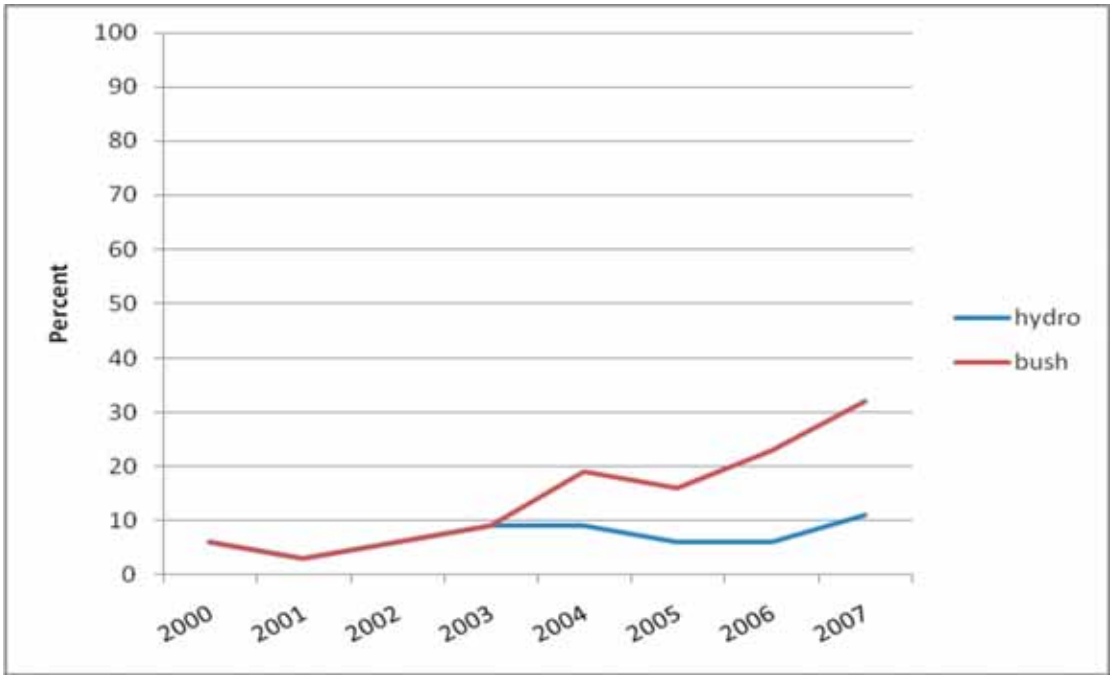
Source: Illicit Drug Reporting System (IDRS)

Figure 1.23 Proportion of IDRS respondents who perceived the potency of hydroponic and bush cannabis to be 'high', 2003–2007



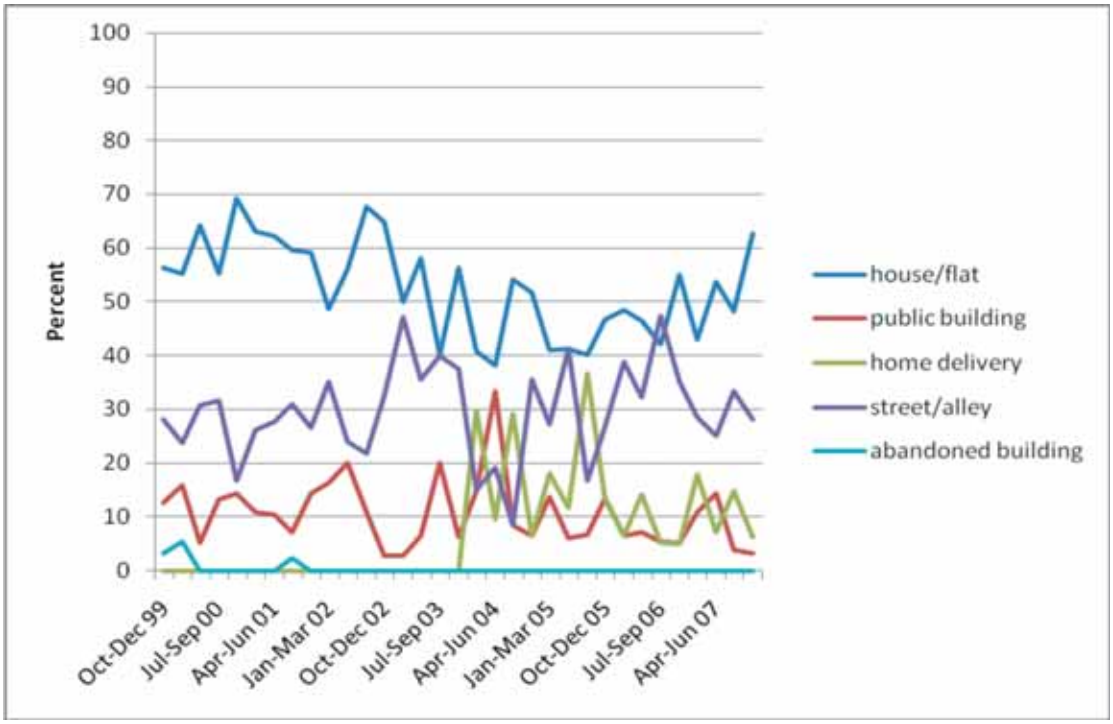
Source: Illicit Drug Reporting System (IDRS)

Figure 1.24 Proportion of IDRS respondents who perceived the availability of hydroponic and bush cannabis to be 'difficult/very difficult', 2000–2007



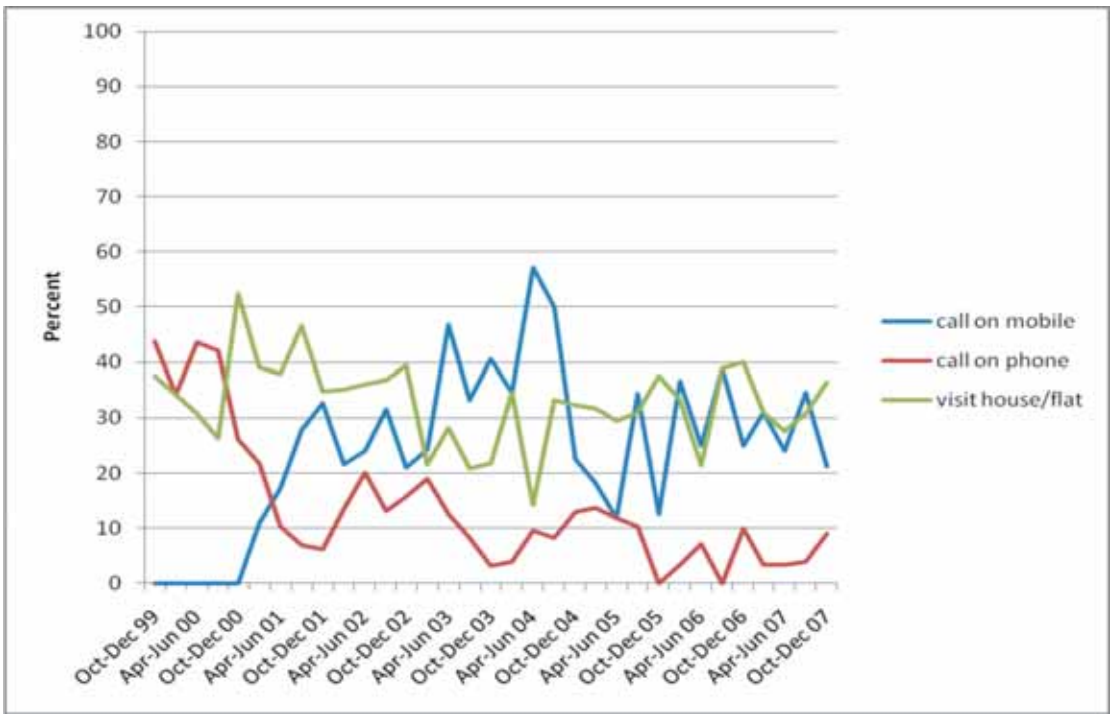
Note: the distinction between the availability of hydroponic and bush forms of cannabis is only made from 2003 onwards
Source: Illicit Drug Reporting System (IDRS)

Figure 1.25 Proportion of DUMA respondents (Parramatta site only) who sourced their cannabis the last time from a house/flat, public building, home delivery, street/alley or abandoned building, 1999–2007



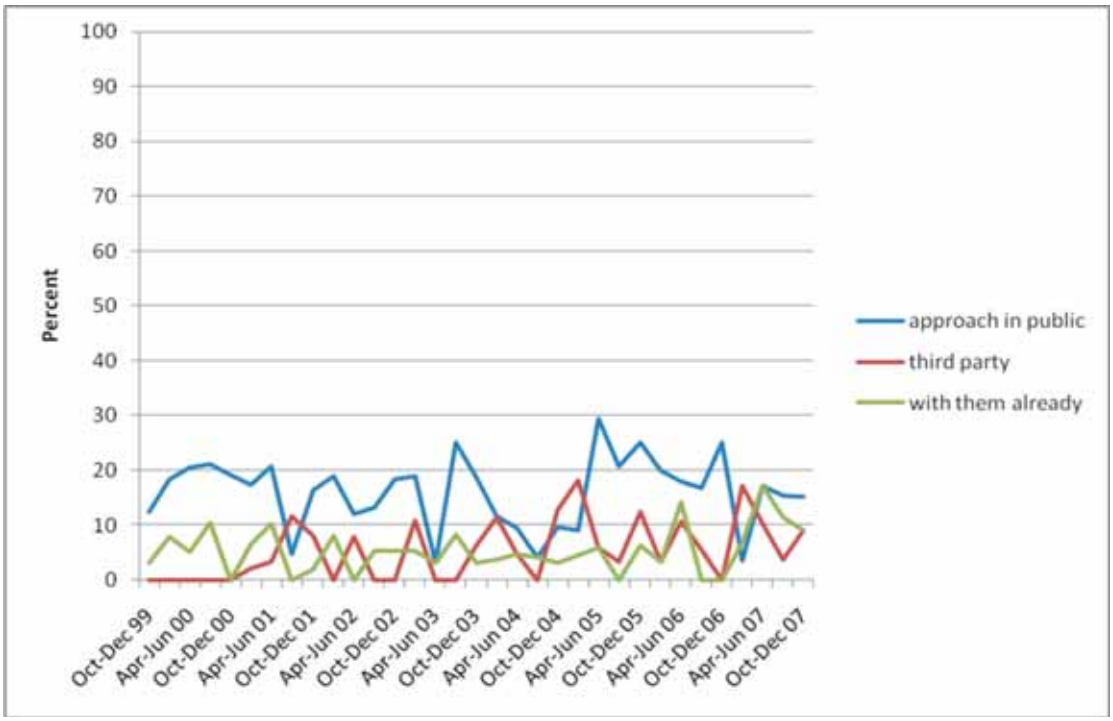
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.26a Proportion of DUMA respondents (Parramatta site only) who contacted their cannabis supplier the last time by calling on a mobile telephone, calling on a telephone and visiting a house/flat, 1999–2007



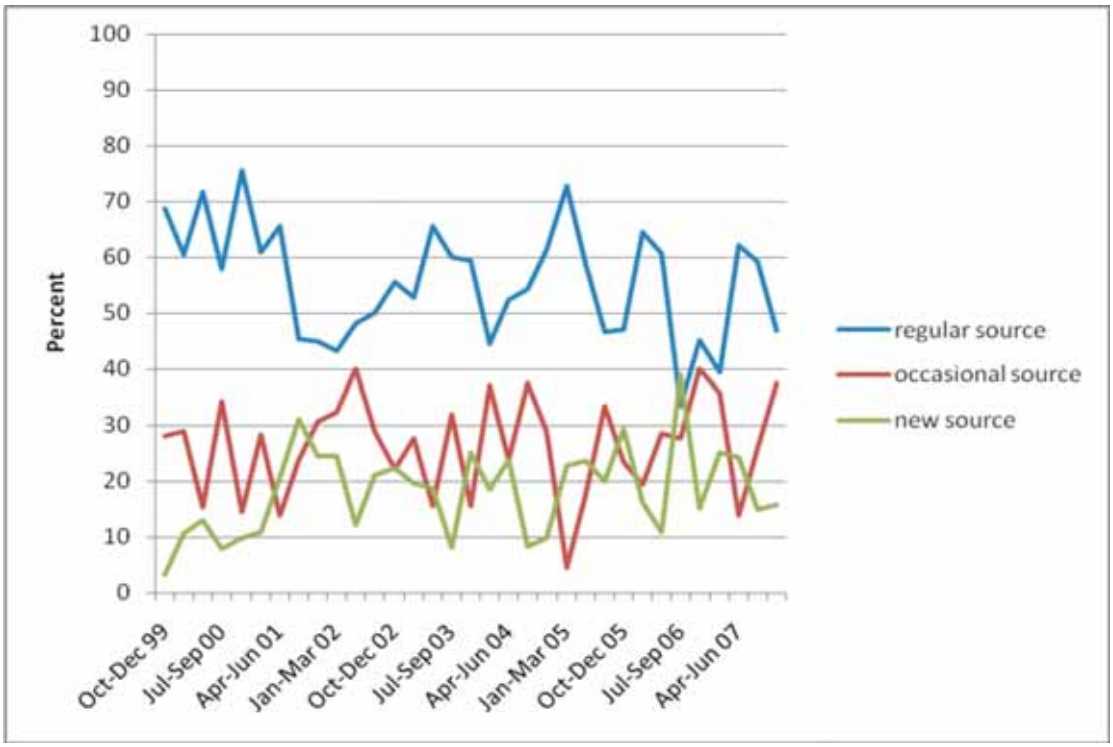
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.26b Proportion of DUMA respondents (Parramatta site only) who contacted their cannabis supplier the last time by approaching them in public, through a third party and being with them already, 1999–2007



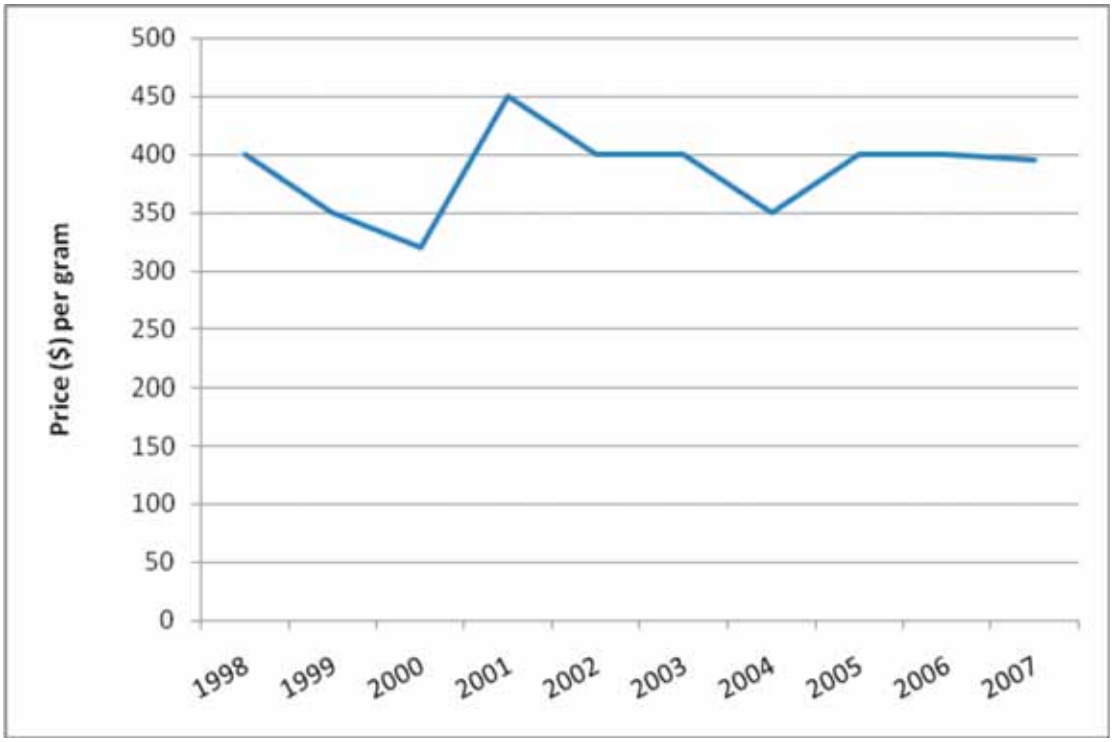
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.27 Proportion of DUMA respondents (Parramatta site only) who sourced their cannabis the last time from a regular source, occasional source or new source, 1999–2007



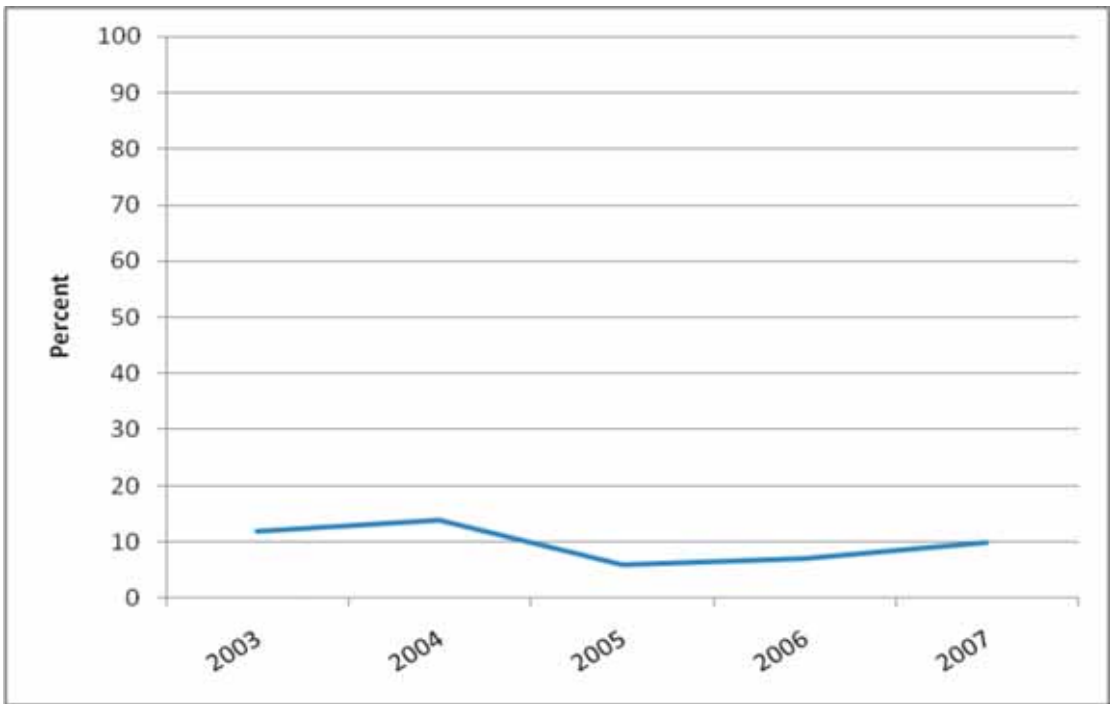
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.28 Median price paid by IDRS respondents for 1 gram of heroin, 1998–2007



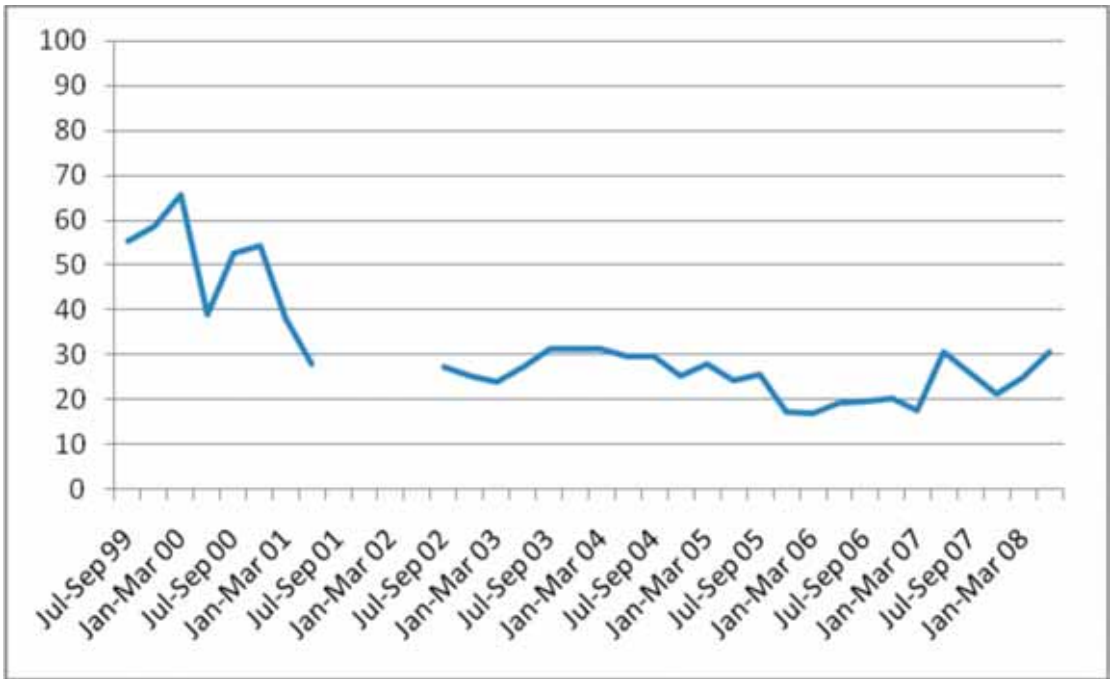
Source: Illicit Drug Reporting System (IDRS)

Figure 1.29 Proportion of IDRS respondents who perceived the purity of heroin to be 'high', 2003–2007



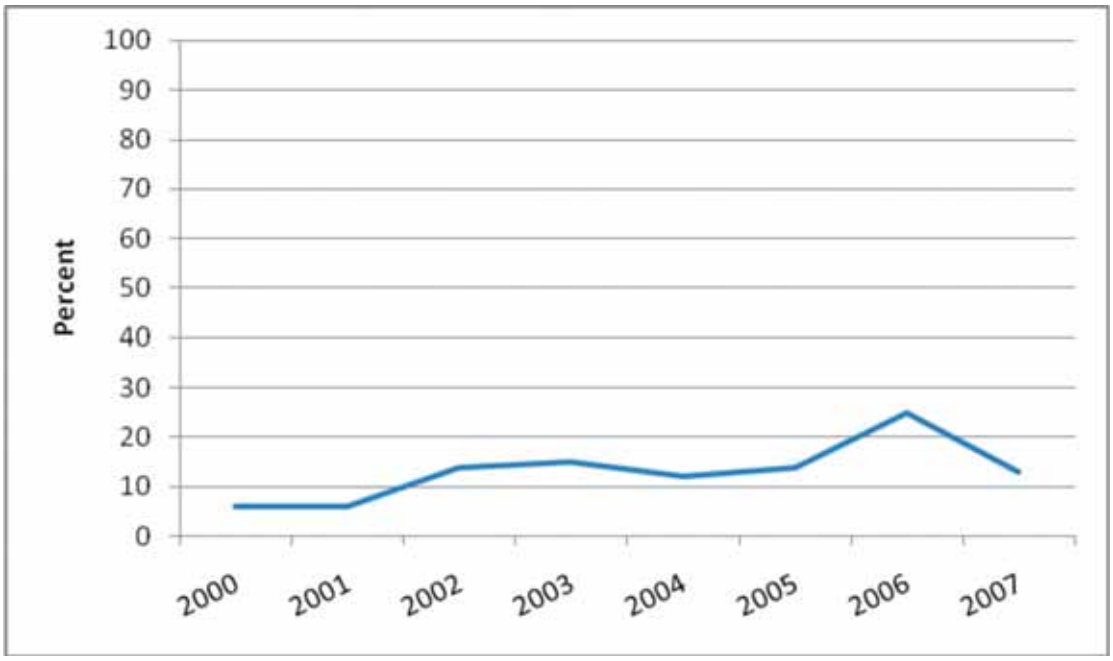
Source: Illicit Drug Reporting System (IDRS)

Figure 1.30 Median purity of heroin seized and tested by NSW Police, July–September 1999 to April–June 2008



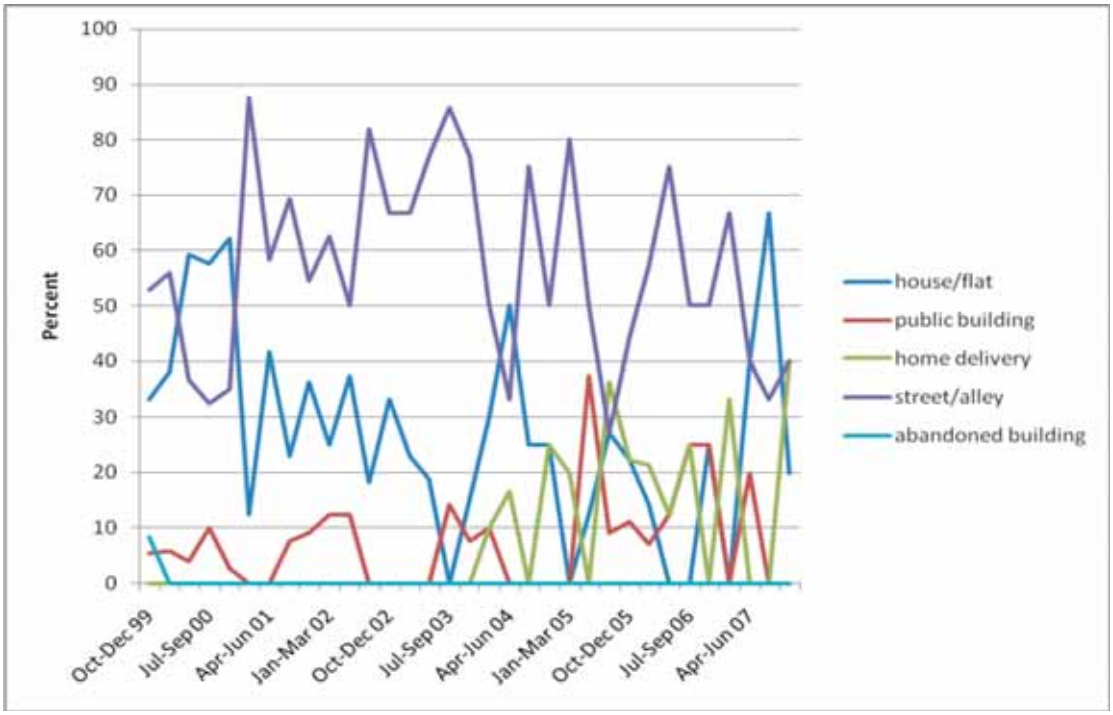
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 1.31 Proportion of IDRS respondents who perceived the availability of heroin to be 'difficult/very difficult', 2000–2007



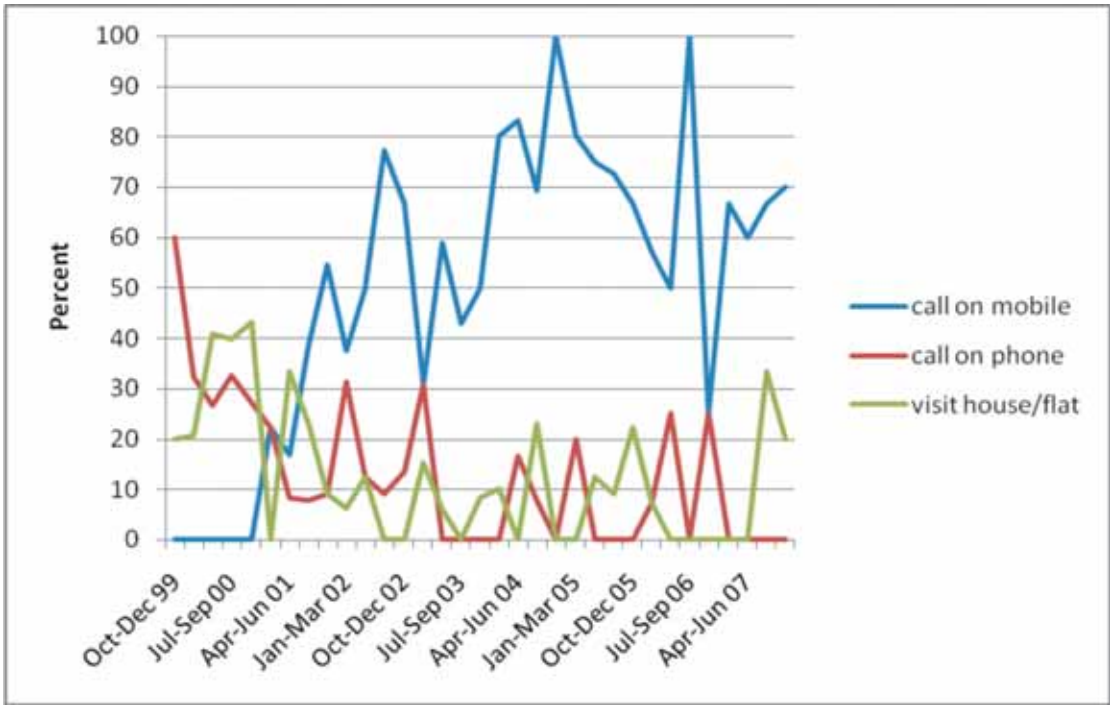
Source: Illicit Drug Reporting System (IDRS)

Figure 1.32 Proportion of DUMA respondents (Parramatta site only) who sourced their heroin the last time from a house/flat, public building, home delivery, street/alley or abandoned building, 1999–2007



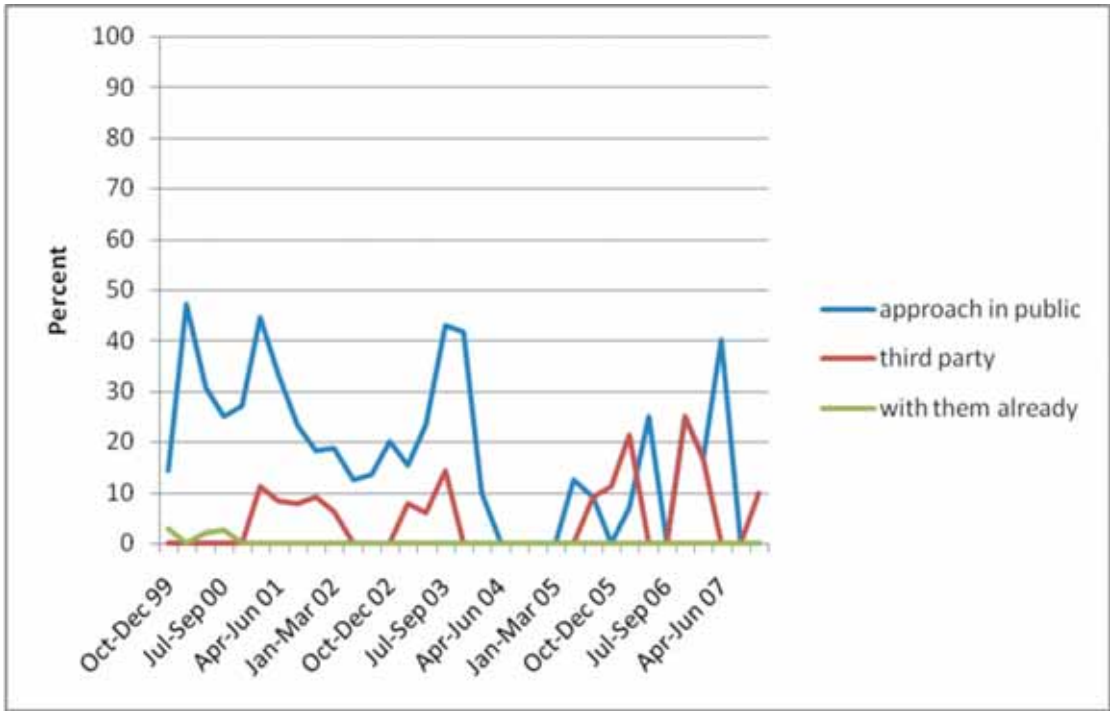
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.33a Proportion of DUMA respondents (Parramatta site only) who contacted their heroin supplier the last time by calling on a mobile telephone, calling on a telephone and visiting a house/flat, 1999–2007



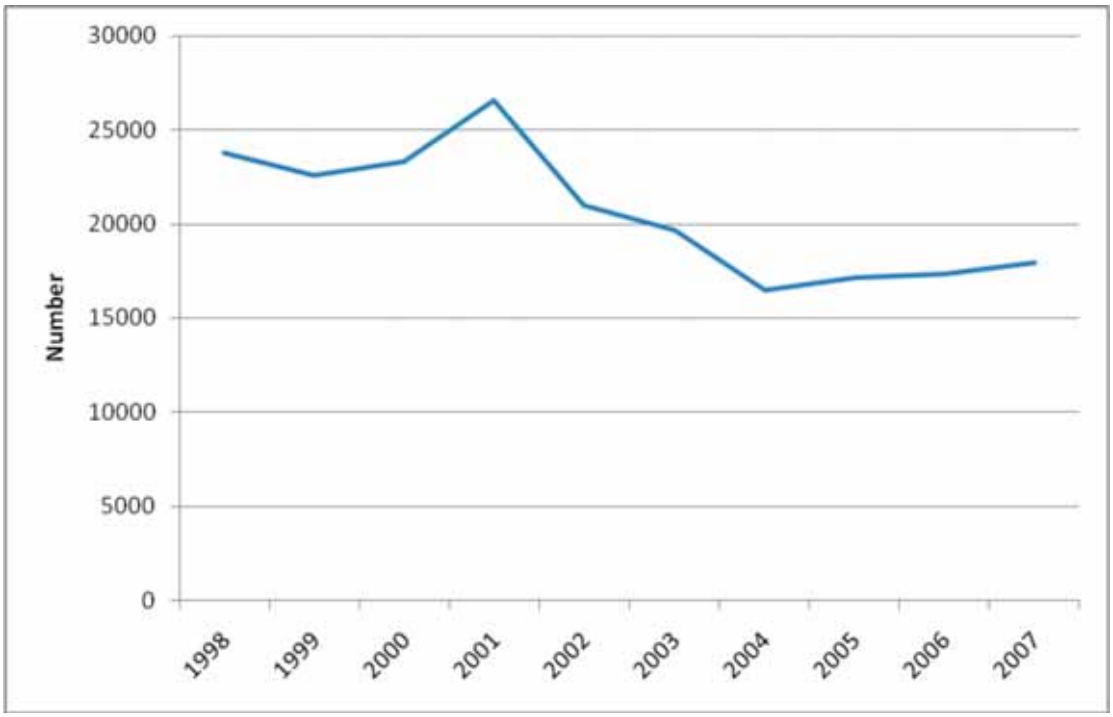
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.33b Proportion of DUMA respondents (Parramatta site only) who contacted their heroin supplier the last time by approaching them in public, through a third party and being with them already, 1999–2007



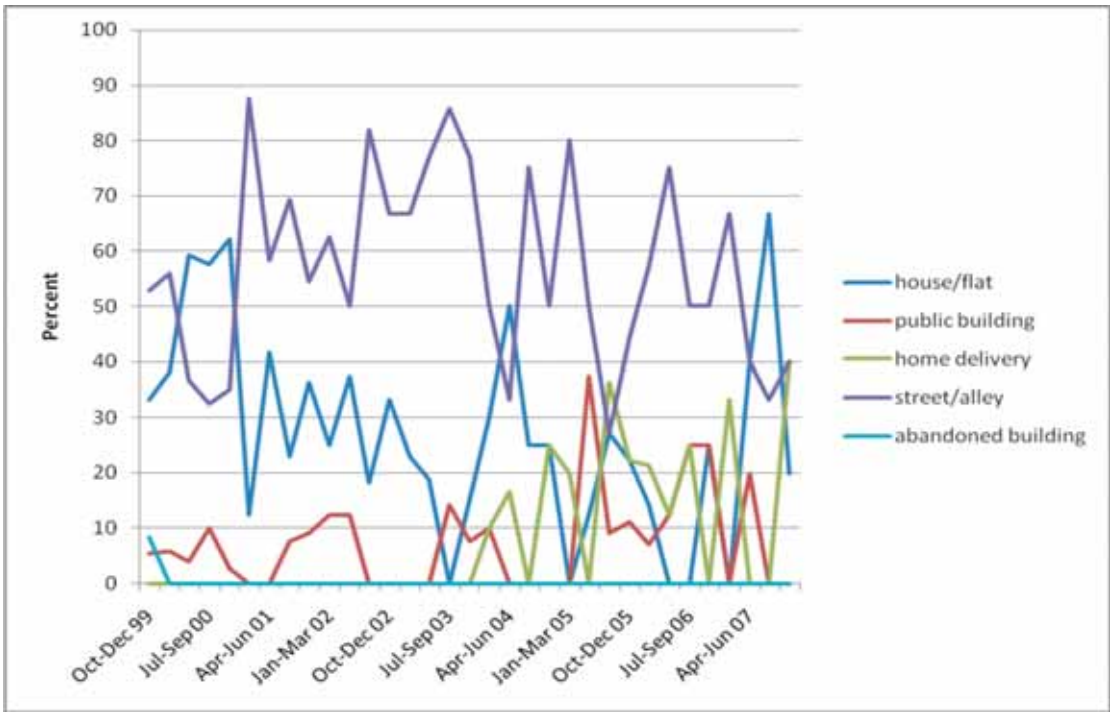
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.34 Proportion of DUMA respondents (Parramatta site only) who sourced their heroin the last time from a regular source, occasional source or new source, 1999–2007



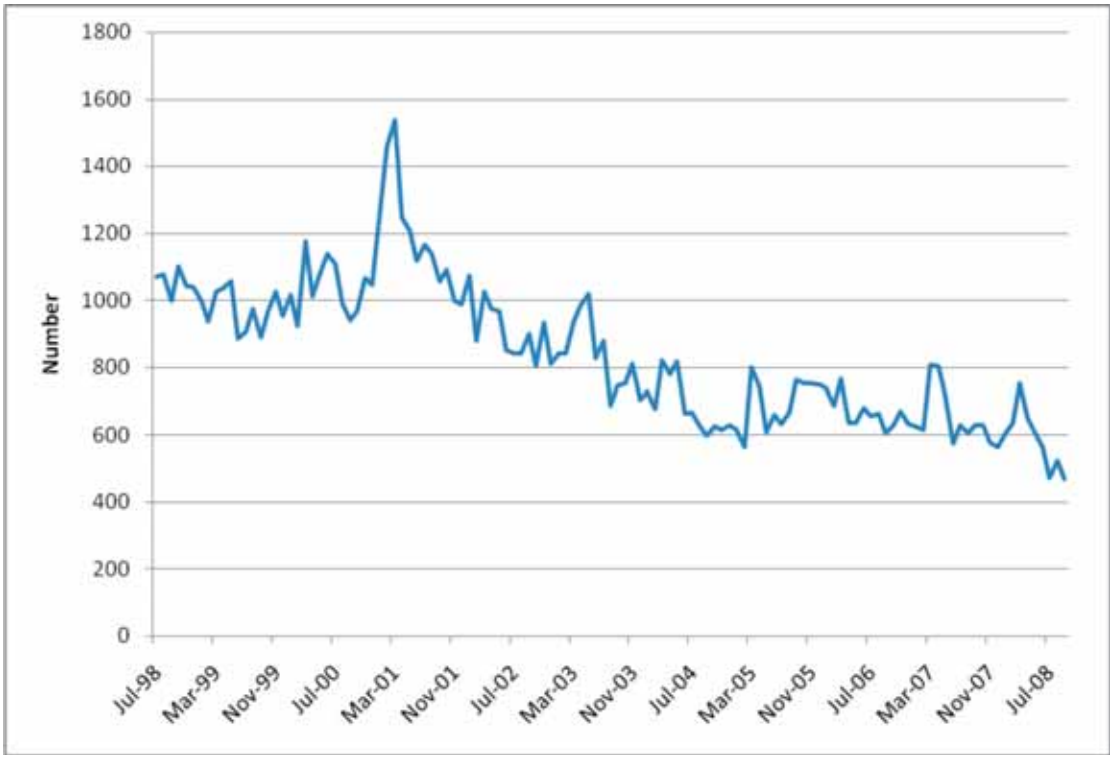
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.35 Number of armed and unarmed robberies in Australia, 1998–2007



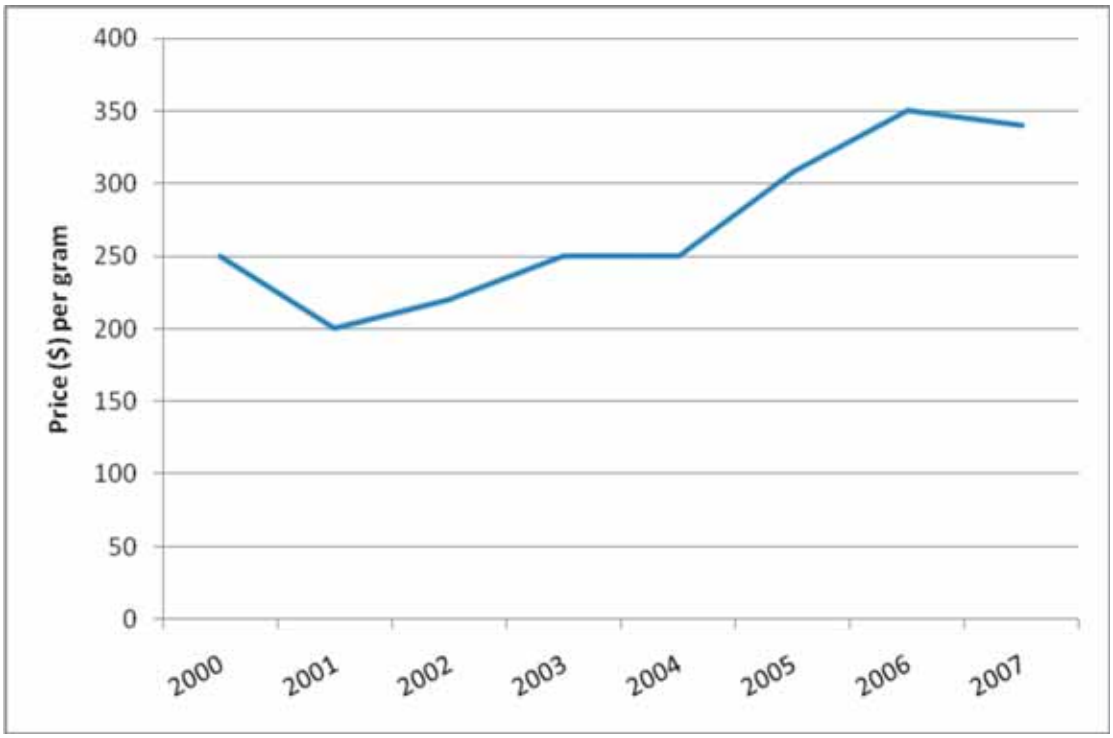
Source: ABS Recorded Crime – Victims

Figure 1.36 Number of armed and unarmed robberies in New South Wales, July 1998 to September 2008



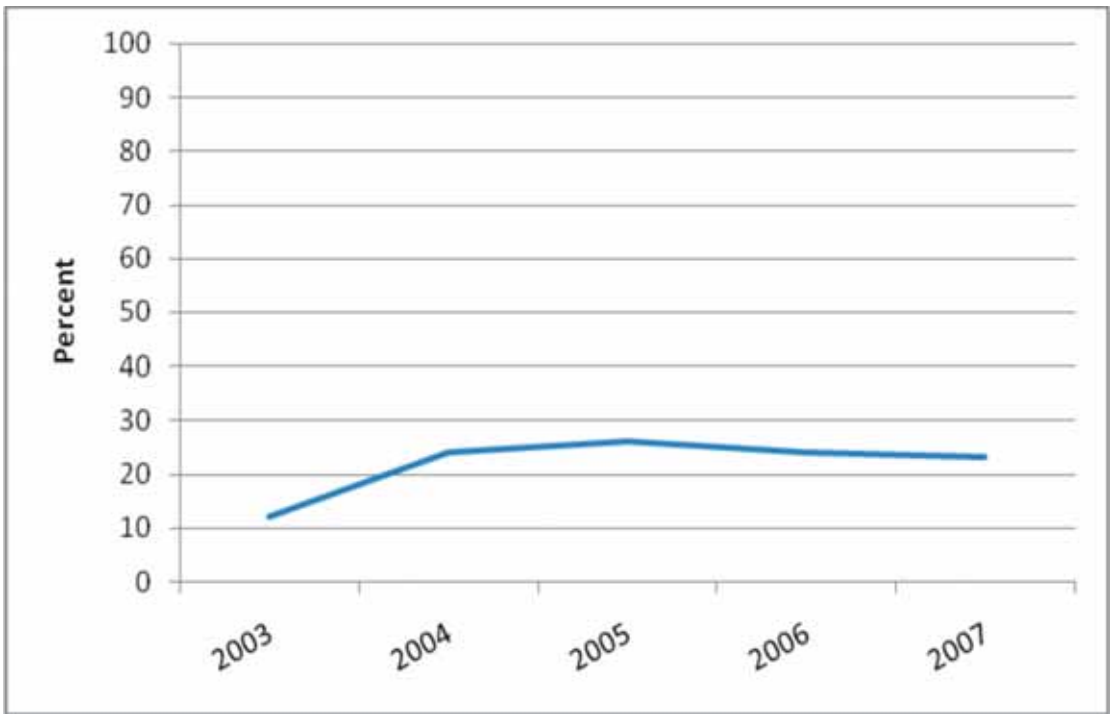
Source: BOCSAR Crime Trends Tool – http://bocd.lawlink.nsw.gov.au/bocd/cmd/crimetrends/DateInput

Figure 1.37 Median price paid by IDRS respondents for 1 gram of cocaine, 2000-2007



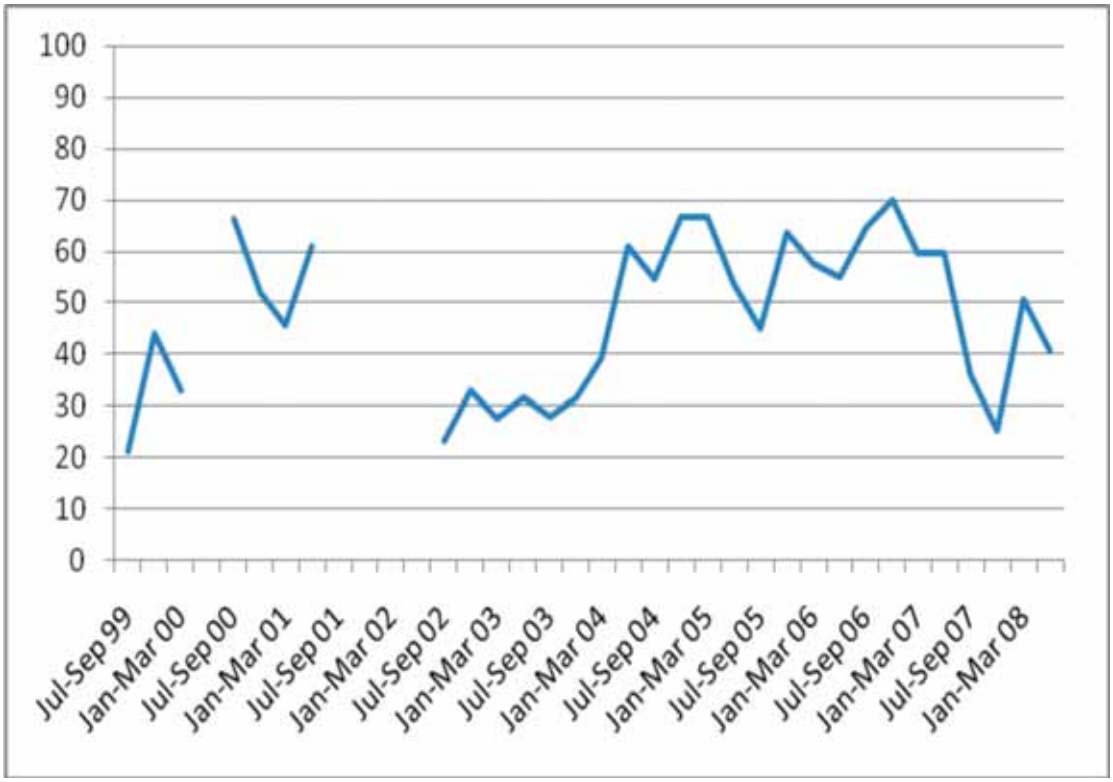
Source: Illicit Drug Reporting System (IDRS)

Figure 1.38 Proportion of IDRS respondents who perceived the purity of cocaine to be 'high', 2003–2007



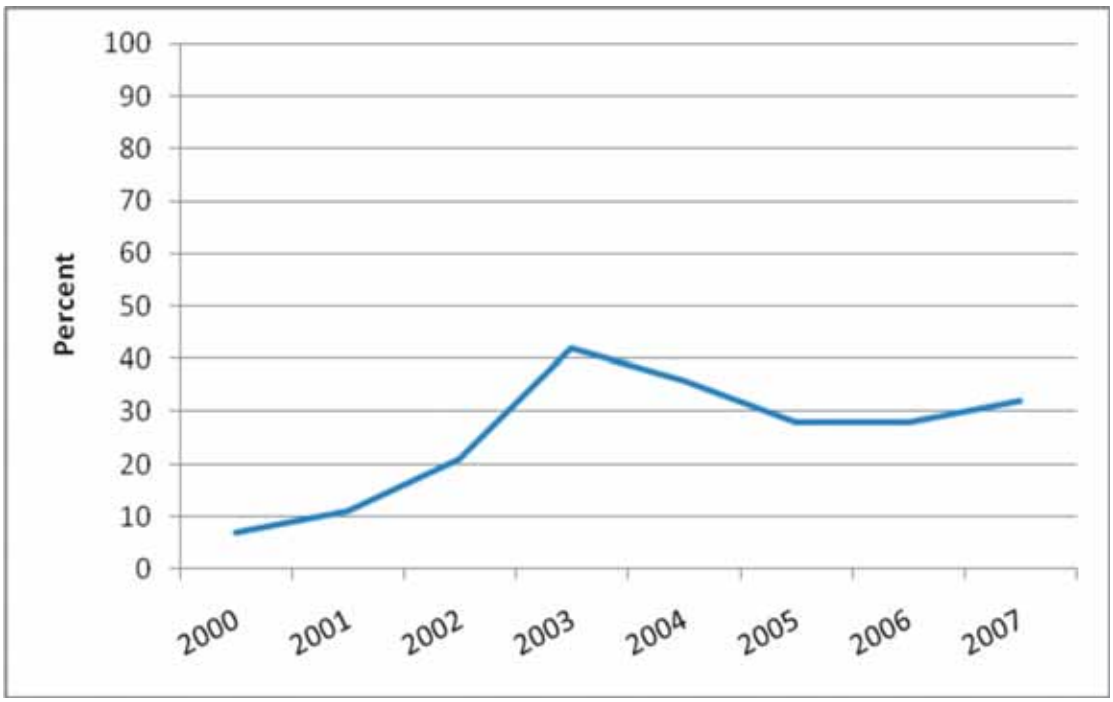
Source: Illicit Drug Reporting System (IDRS)

Figure 1.39 Median purity of cocaine seized and tested by NSW Police, July–September 1999 to April–June 2008



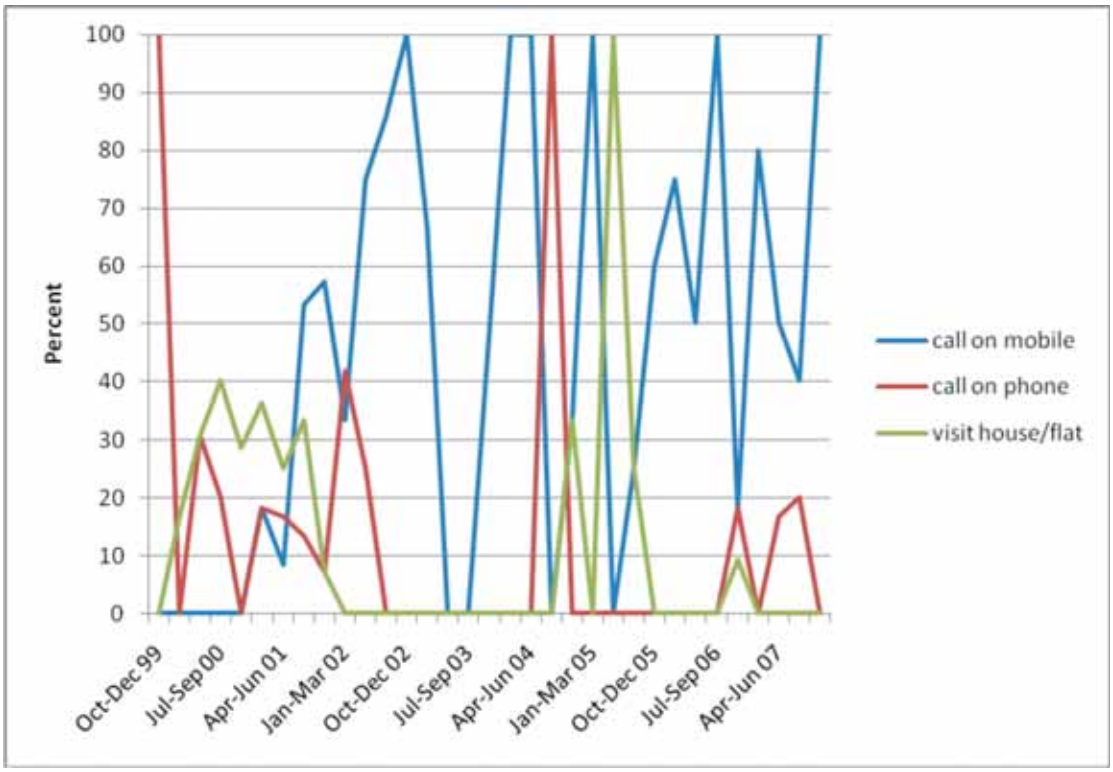
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 1.40 Proportion of IDRS respondents who perceived the availability of cocaine to be 'difficult/very difficult', 2000–2007



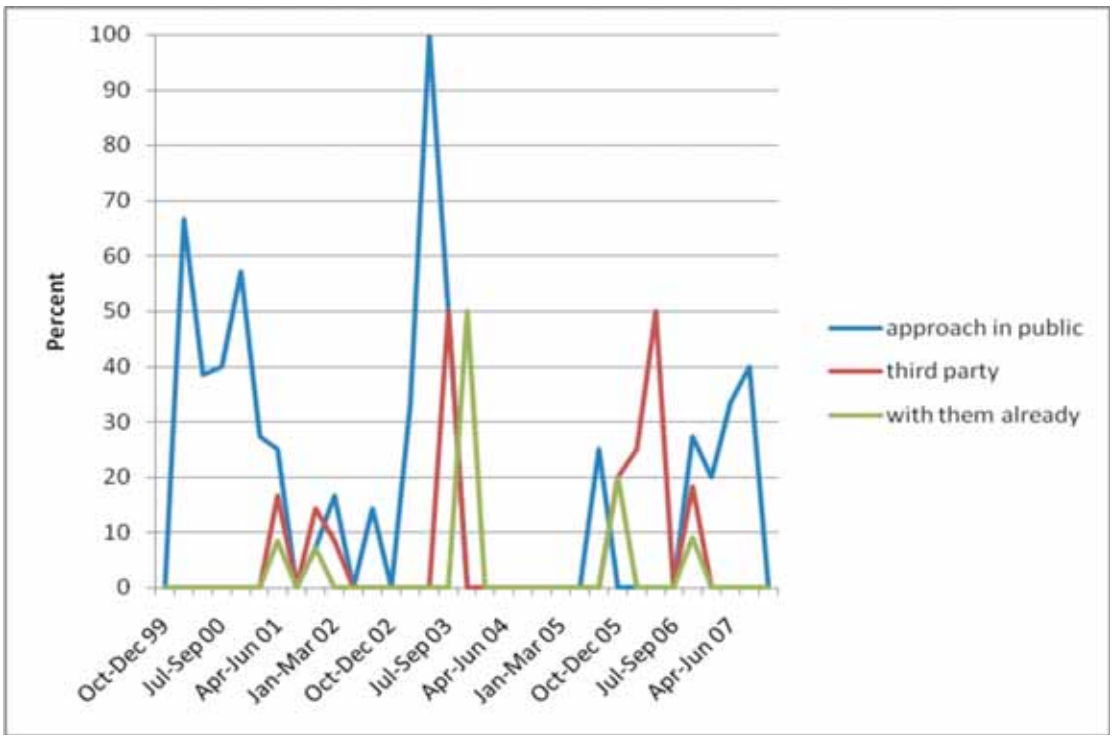
Source: Illicit Drug Reporting System (IDRS)

Figure 1.41a Proportion of DUMA respondents (Parramatta site only) who contacted their cocaine supplier the last time by calling on a mobile telephone, calling on a telephone and visiting a house/flat, 1999–2007



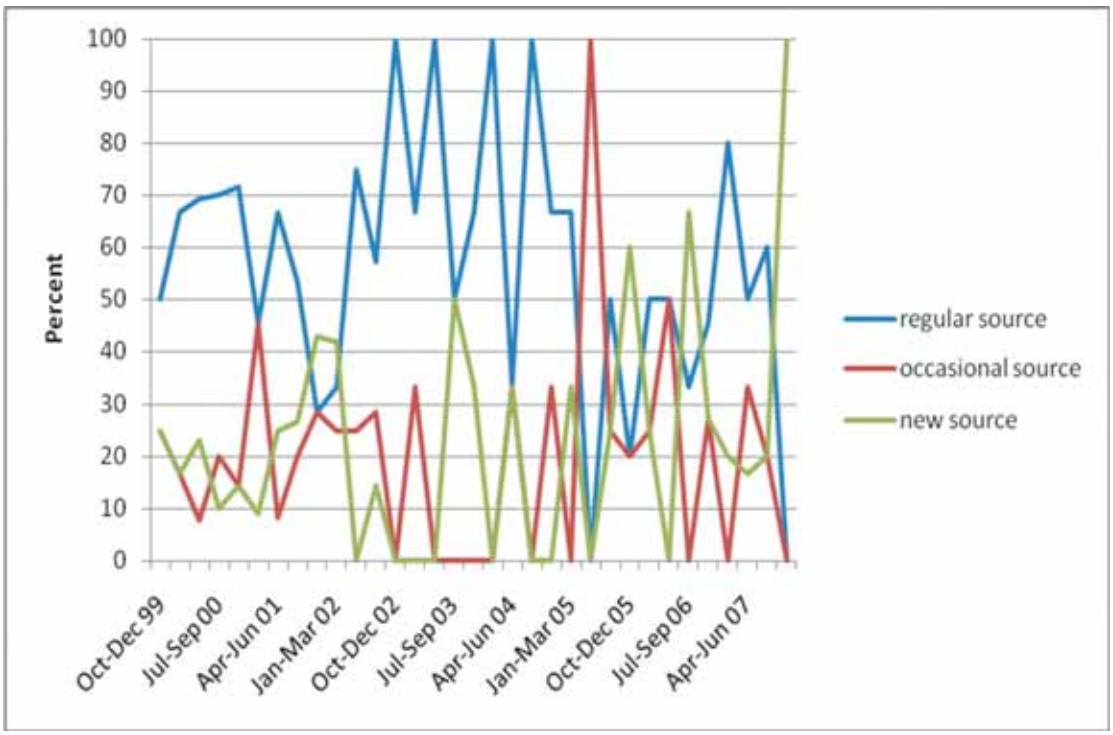
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.41b Proportion of DUMA respondents (Parramatta site only) who contacted their cocaine supplier the last time by approaching them in public, through a third party and being with them already, 1999–2007



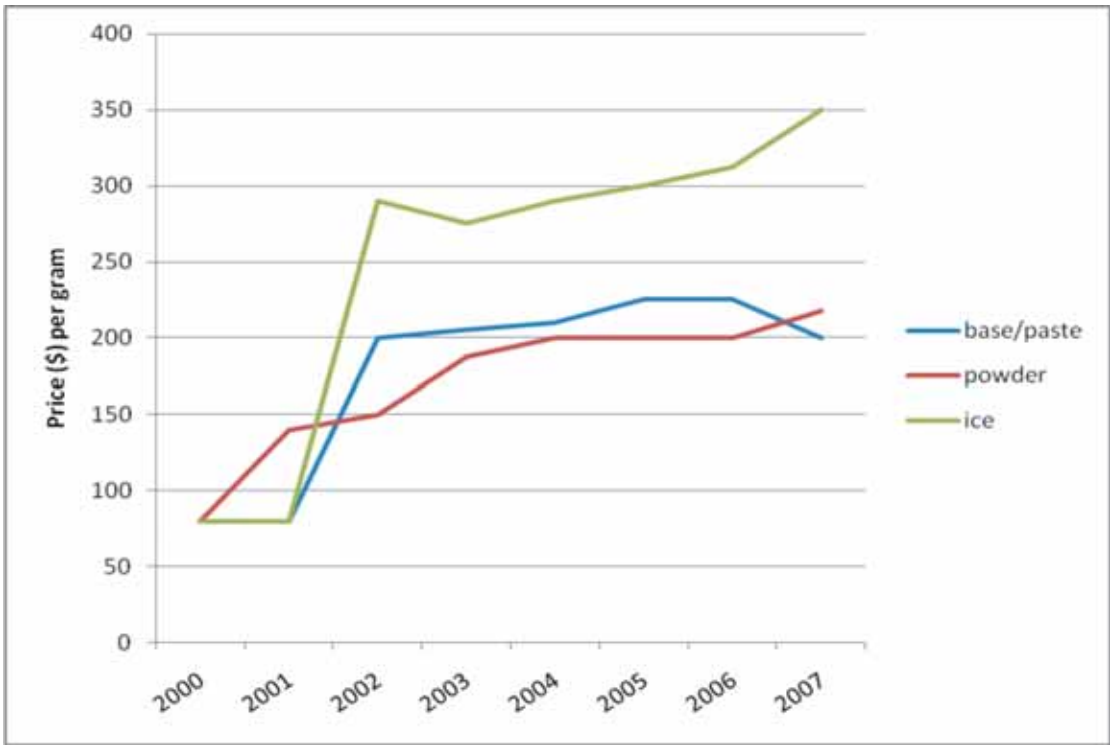
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.42 Proportion of DUMA respondents (Parramatta site only) who sourced their cocaine the last time from a regular source, occasional source or new source, 1999–2007



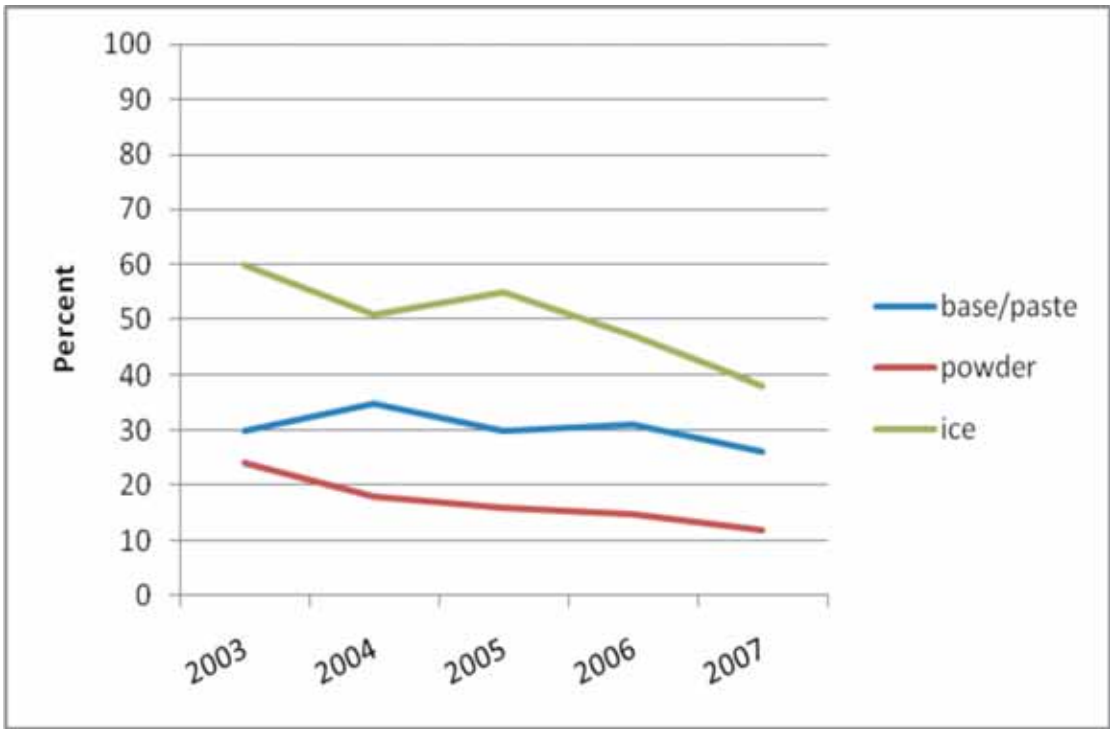
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.43 Median price paid by IDRS respondents for 1 gram of methamphetamines (base/paste, powder and 'ice'), 2000–2007



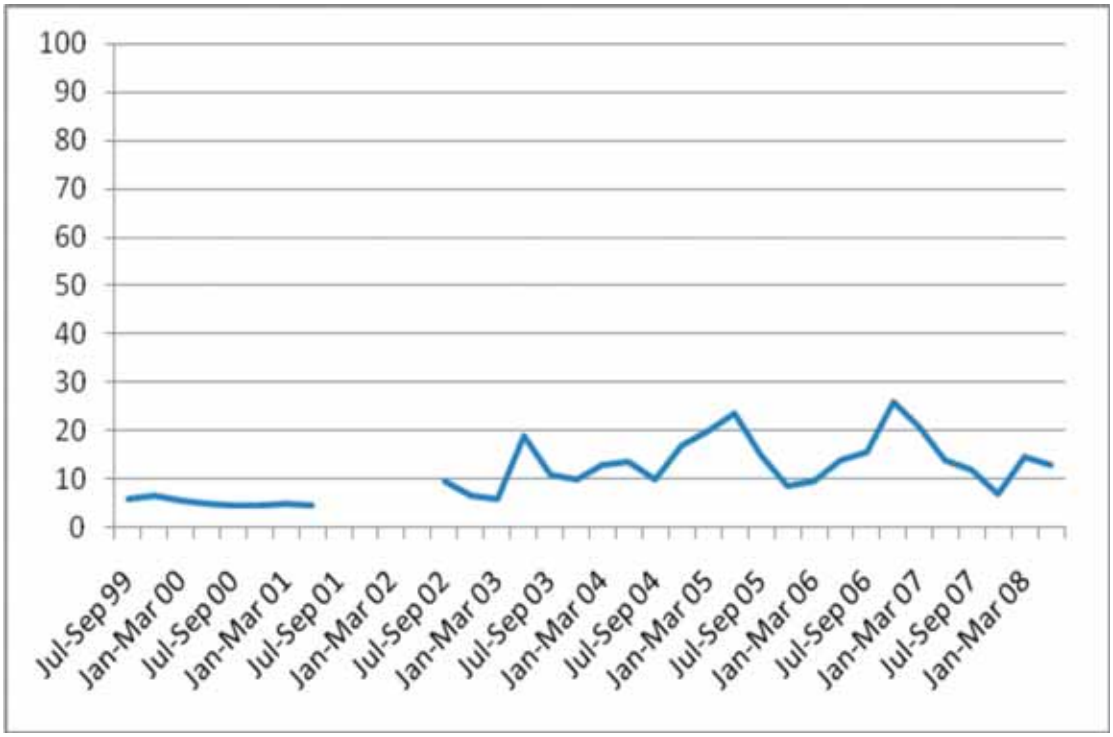
Note: In 2000 there is no distinction in the data between the three drug forms. In 2001 base/paste and ice are combined.
Source: Illicit Drug Reporting System (IDRS)

Figure 1.44 Proportion of IDRS respondents who perceived the purity of methamphetamines (base/paste, powder and 'ice') to be 'high', 2003–2007



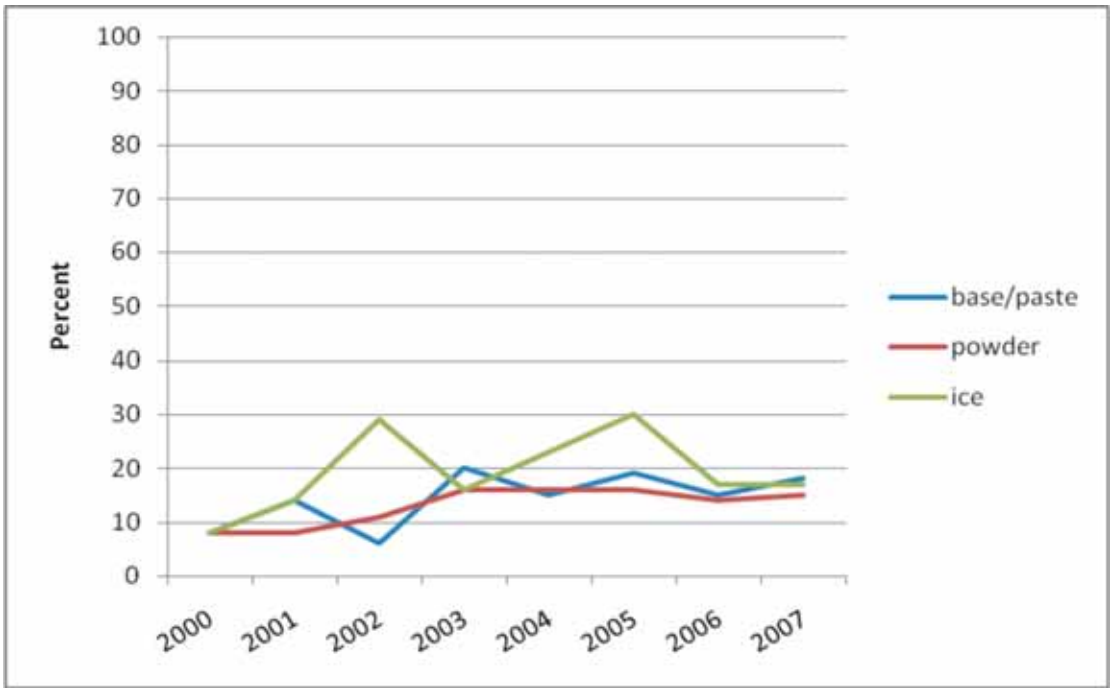
Source: Illicit Drug Reporting System (IDRS)

Figure 1.45 Median purity of methamphetamines seized and tested by NSW Police, 1999–2008



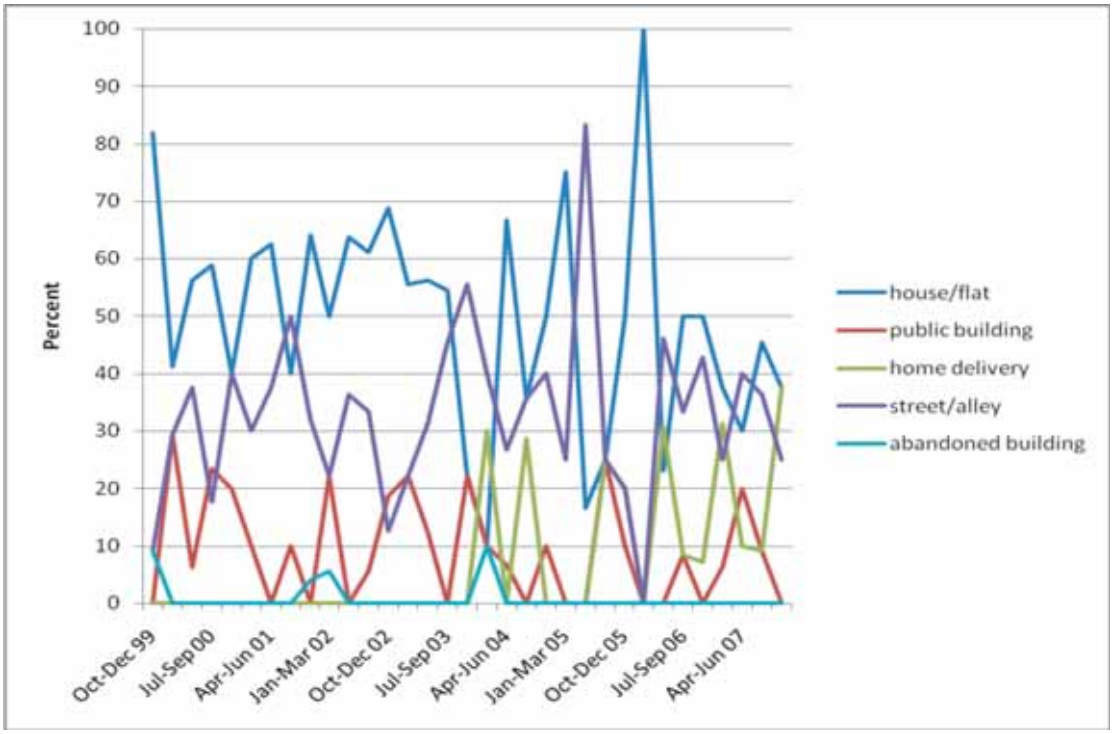
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 1.46 Proportion of IDRS respondents who perceived the availability of methamphetamines (base/paste, powder and 'ice') to be 'difficult/very difficult', 2000–2007



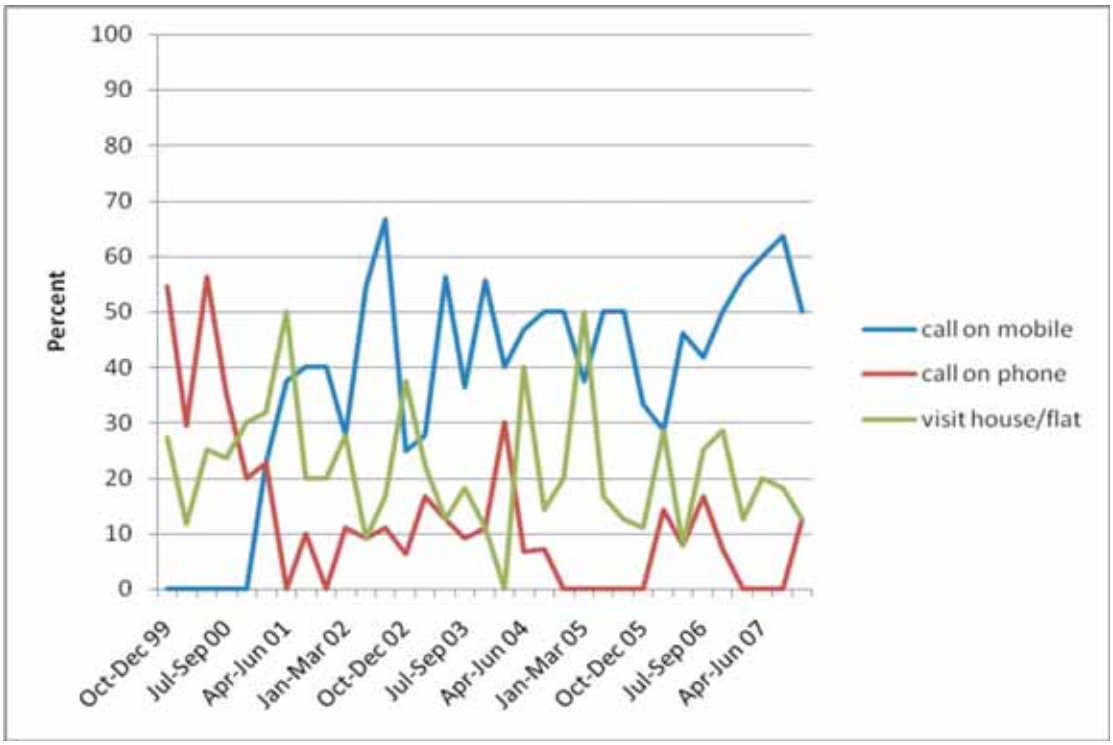
Note: In 2000 there is no distinction in the data between the three drug forms. In 2001 base/paste and ice are combined.
Source: Illicit Drug Reporting System (IDRS)

Figure 1.47 Proportion of DUMA respondents (Parramatta site only) who sourced their ATS the last time from a house/flat, public building, home delivery, street/alley or abandoned building, 1999–2007



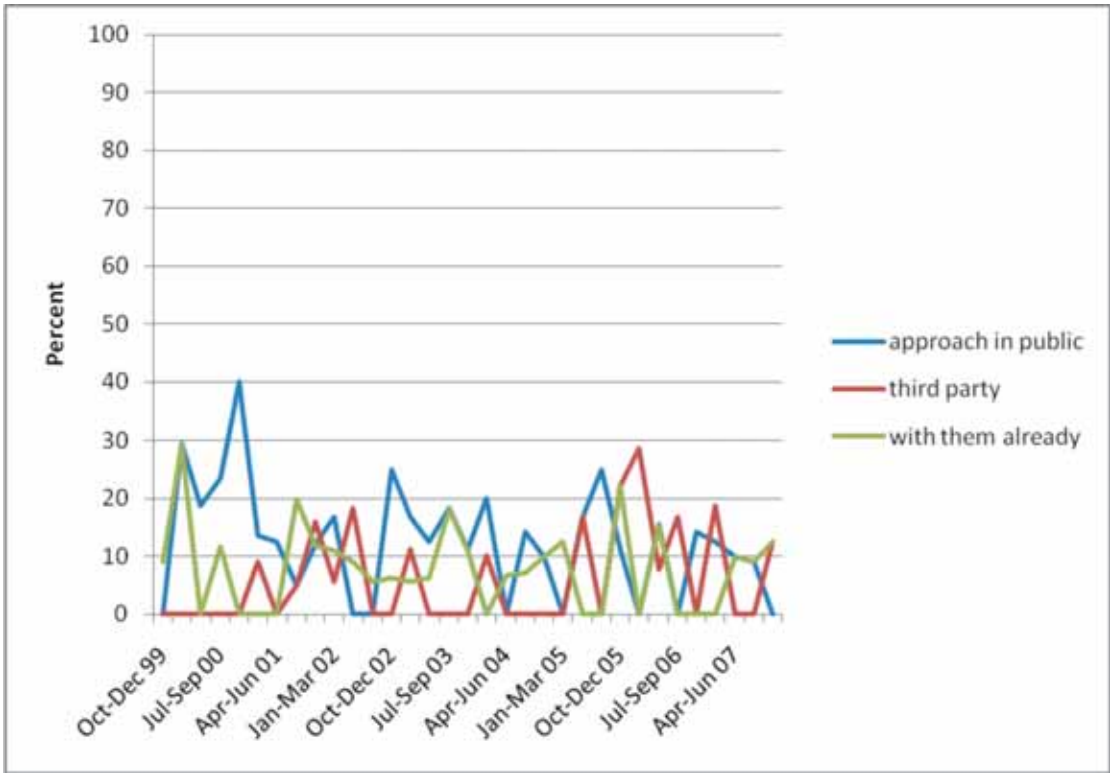
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.48a Proportion of DUMA respondents (Parramatta site only) who contacted their ATS supplier the last time by calling on a mobile telephone, calling on a telephone and visiting a house/flat, 1999–2007



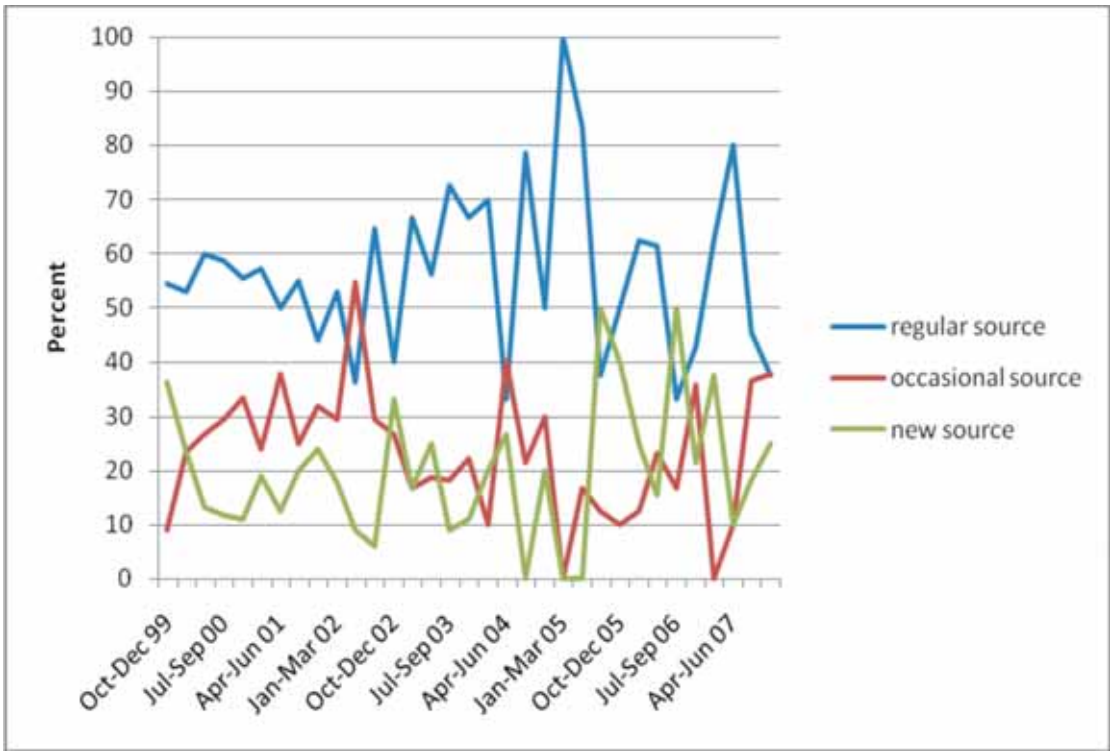
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.48b Proportion of DUMA respondents (Parramatta site only) who contacted their ATS supplier the last time by approaching them in public, through a third party and being with them already, 1999–2007



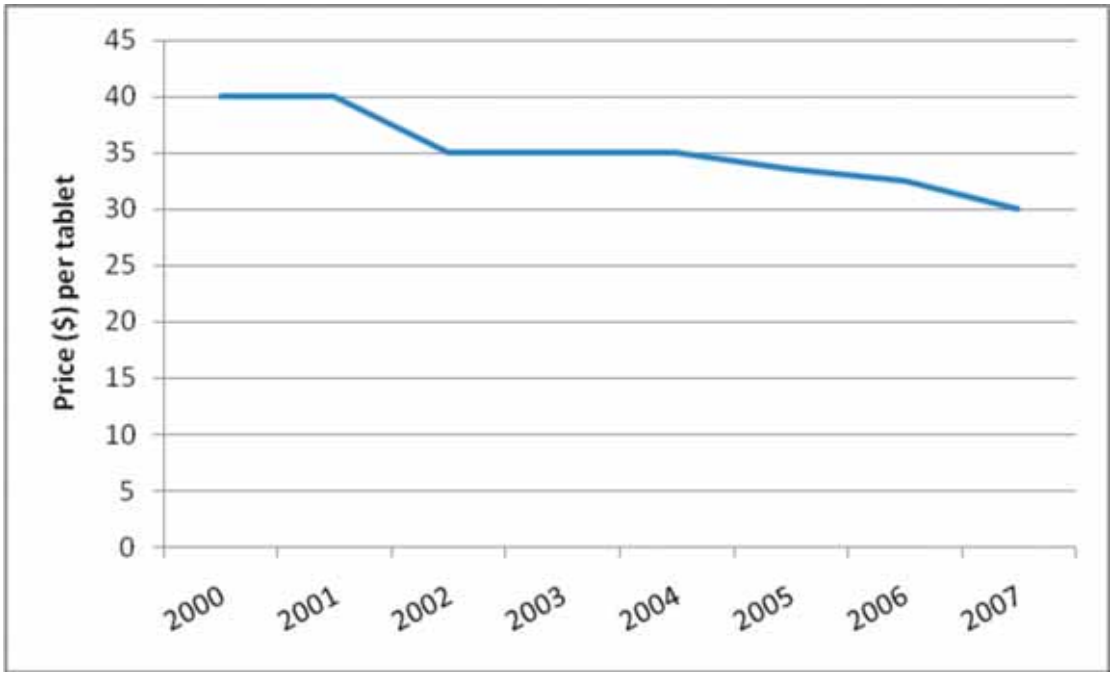
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.49 Proportion of DUMA respondents (Parramatta site only) who sourced their ATS the last time from a regular source, occasional source or new source, 1999–2007



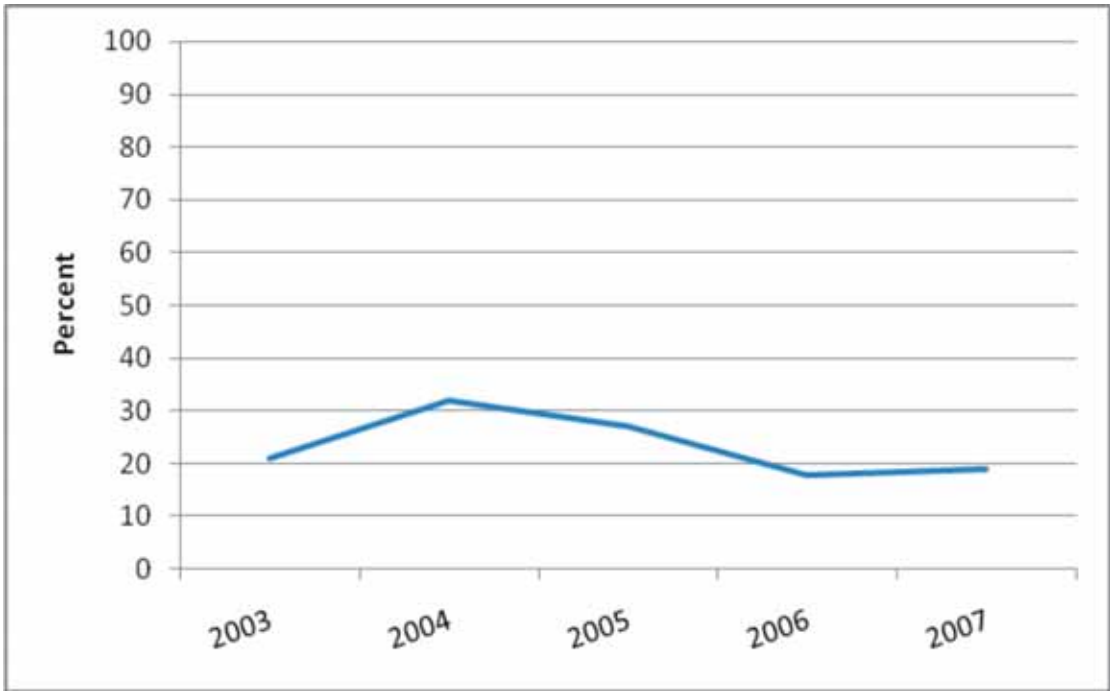
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.50 Median price paid by regular MDMA users for 1 tablet of MDMA, 2000–2007



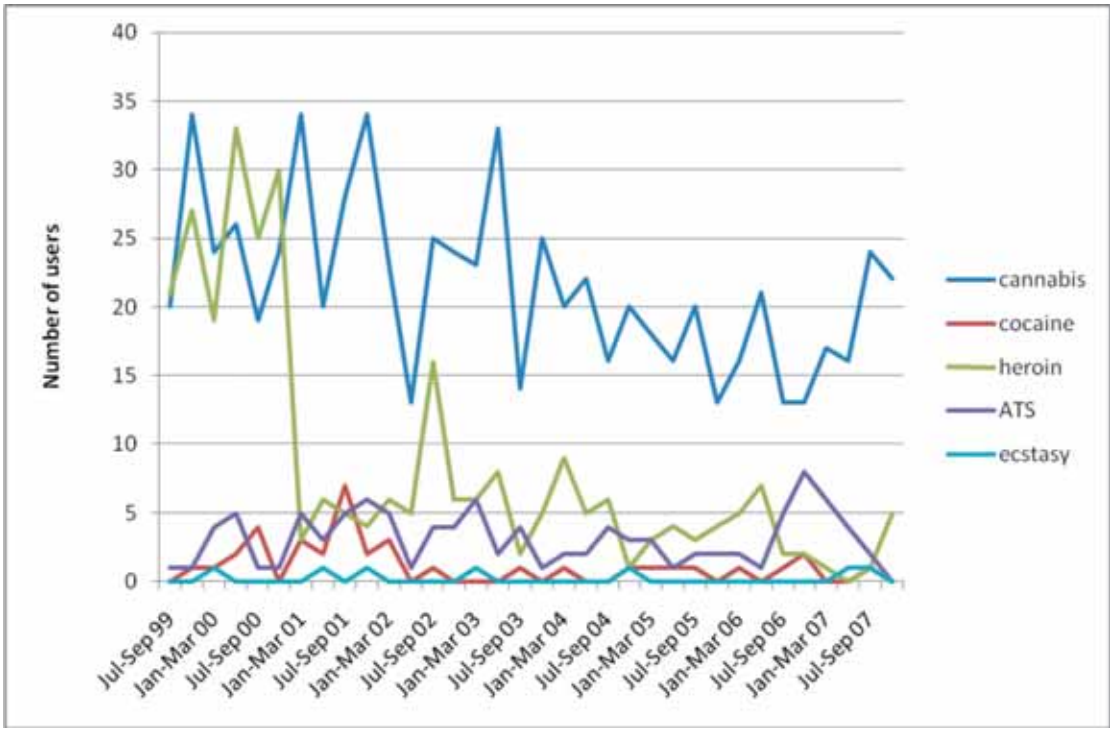
Note: Between 2000 and 2002 median price figures from New South Wales, South Australia and Queensland available only. 2003–2007 data reflect the median price of MDMA in all jurisdictions.
Source: Ecstasy and Related Drug Reporting System (EDRS)

Figure 1.51 Proportion of IDRS respondents who perceived the purity of MDMA to be 'high', 2000–2007



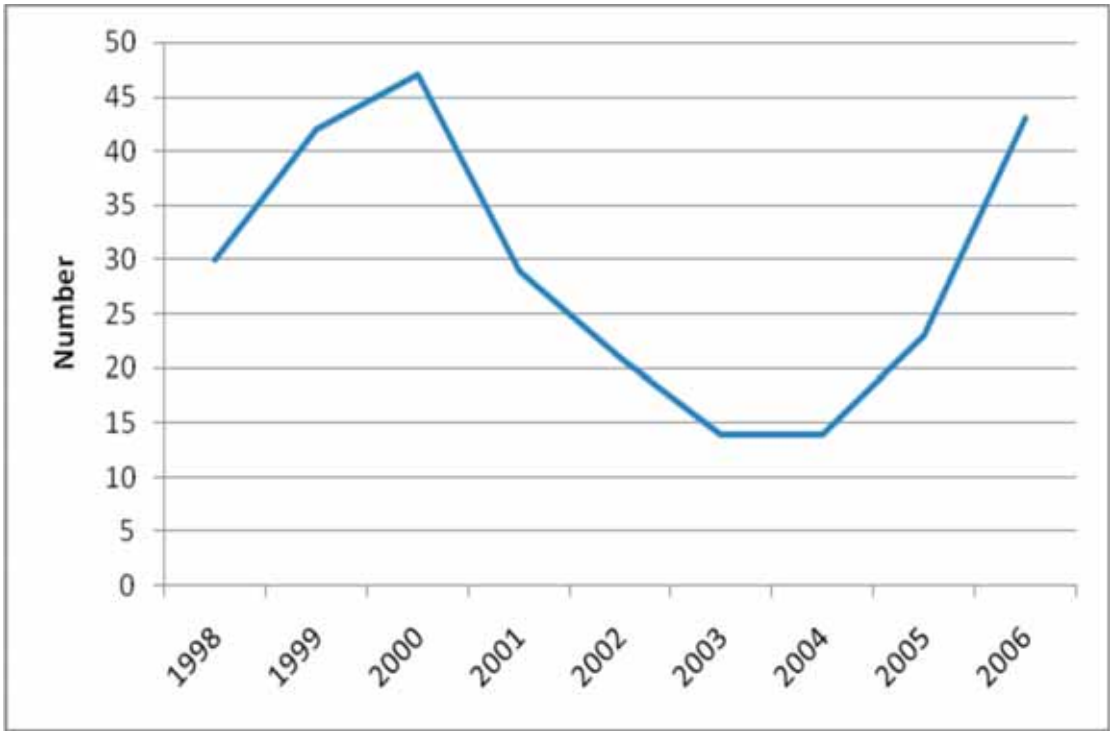
Source: Ecstasy and Related Drug Reporting System (EDRS)

Figure 1.52 Number of DUMA respondents (Parramatta site only) who are regular drug users (use at least one drug type more than three times a week), 1999–2007



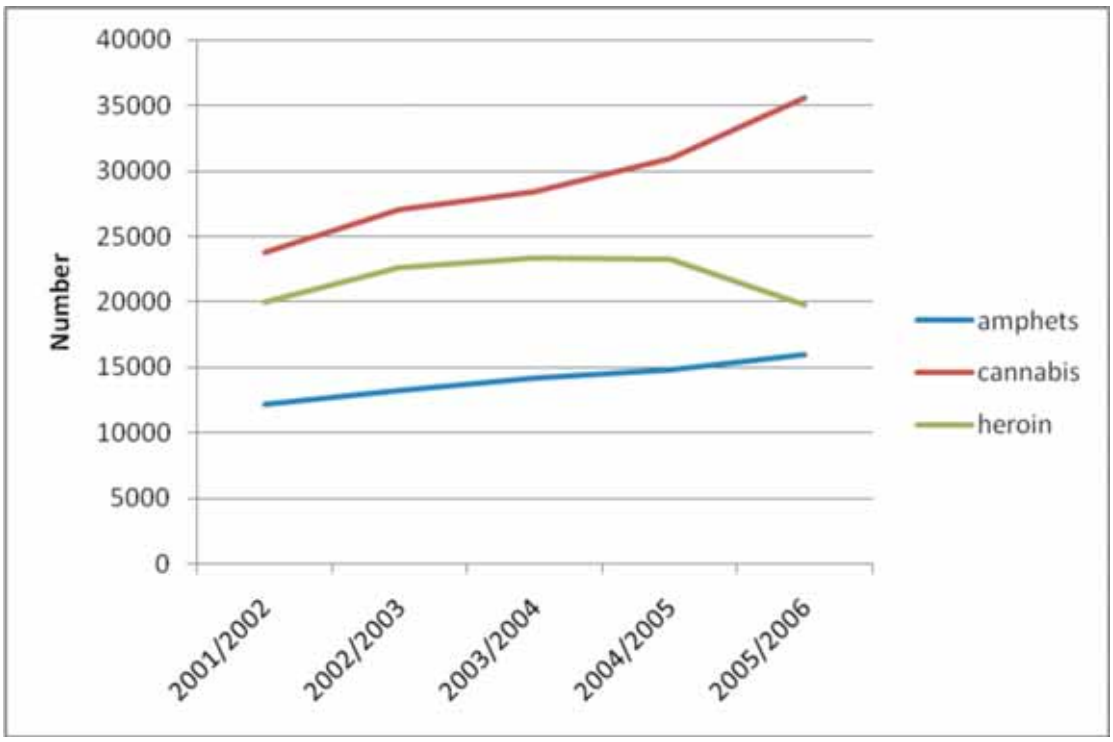
Source: Drug Use Monitoring in Australia (DUMA) data files

Figure 1.53 Number of accidental deaths where cannabis contributed to those deaths, 1998–2006



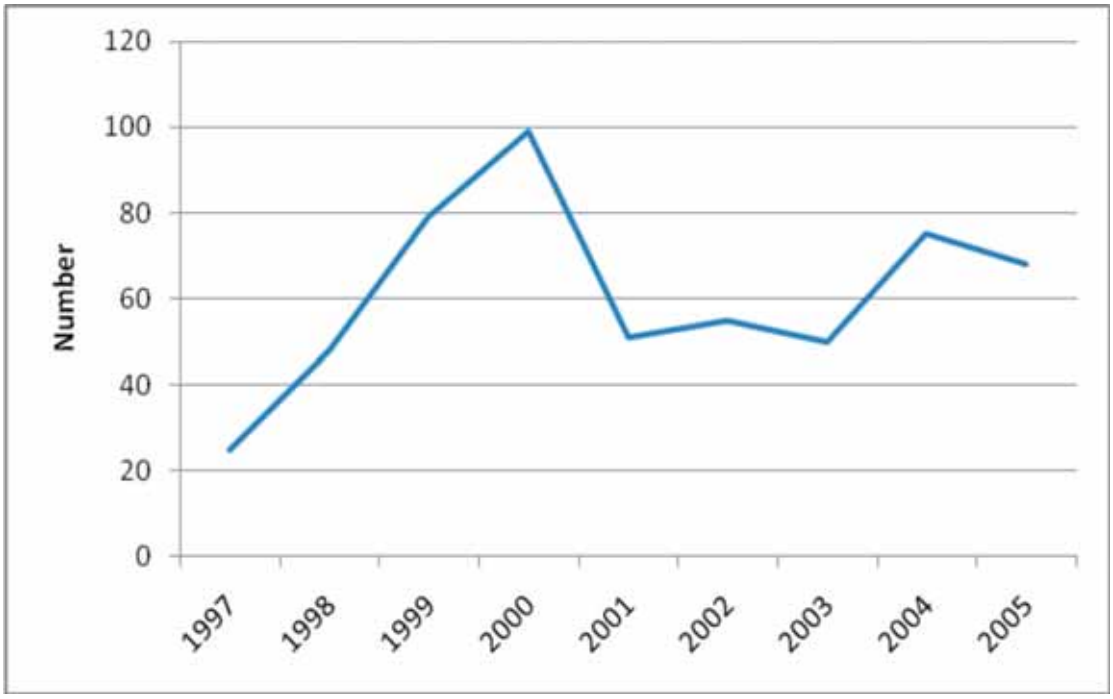
Source: AIHW GRIM data files

Figure 1.54 Number of closed episodes of treatment for cannabis, amphetamines and heroin, 2001–2002 to 2005–2006



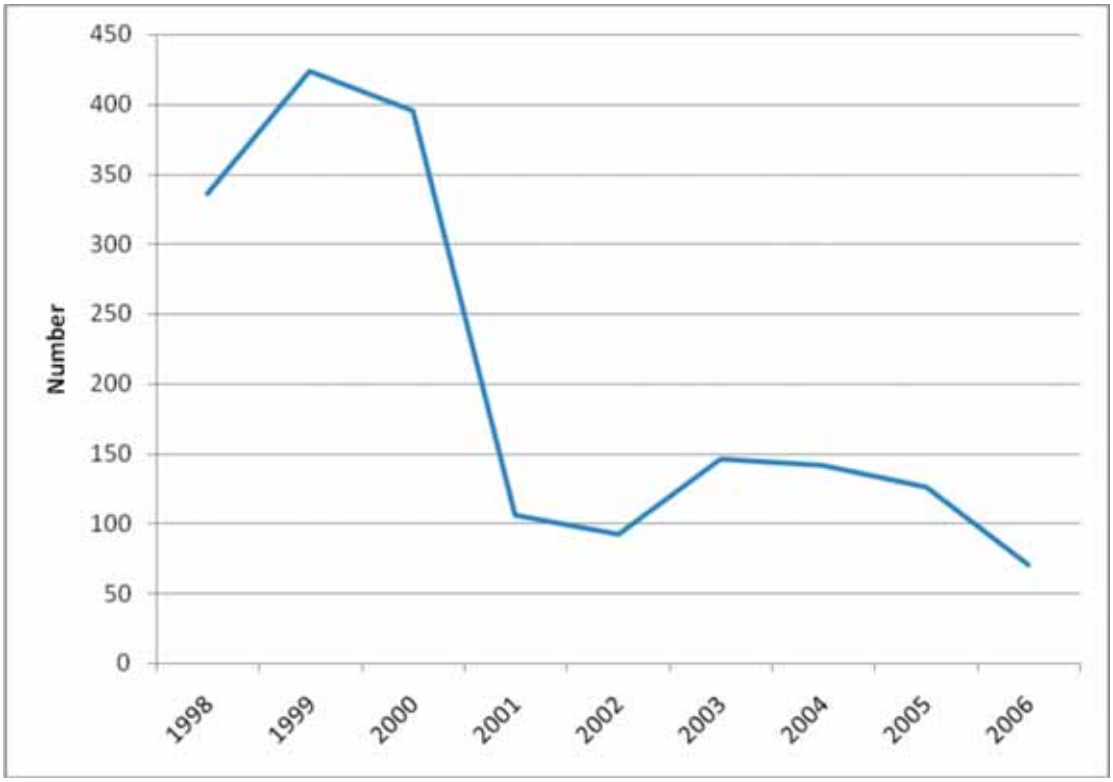
Source: AIHW National Minimum Dataset Alcohol and Other Drug Treatment online data cubes

Figure 1.55 Number of accidental deaths where methamphetamines contributed to those deaths, 1997–2005



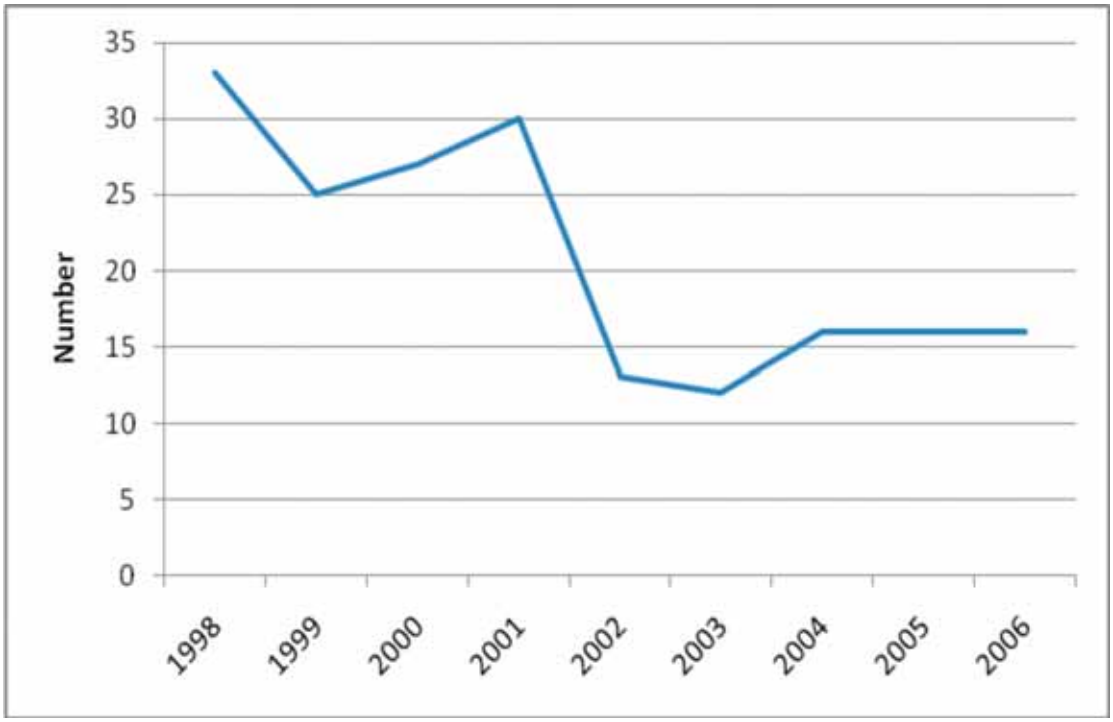
Source: AIHW GRIM data files

Figure 1.56 Number of accidental deaths where heroin contributed to those deaths, 1998–2006



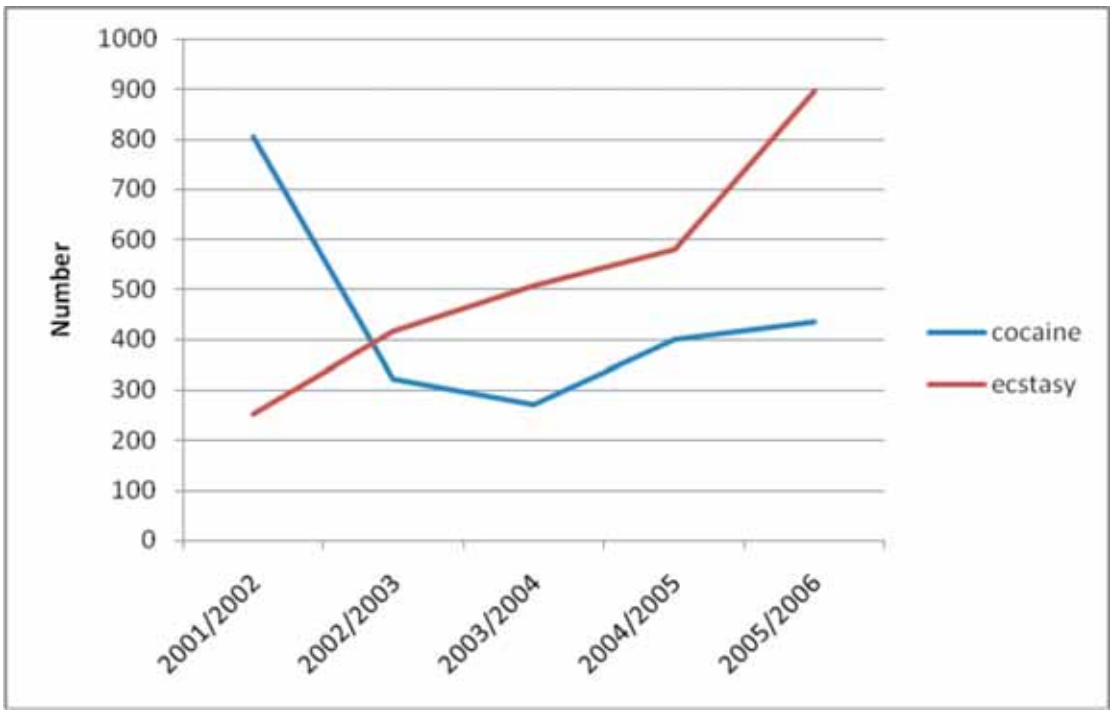
Source: AIHW GRIM data files

Figure 1.57 Number of accidental deaths where cocaine contributed to those deaths, 1998–2006



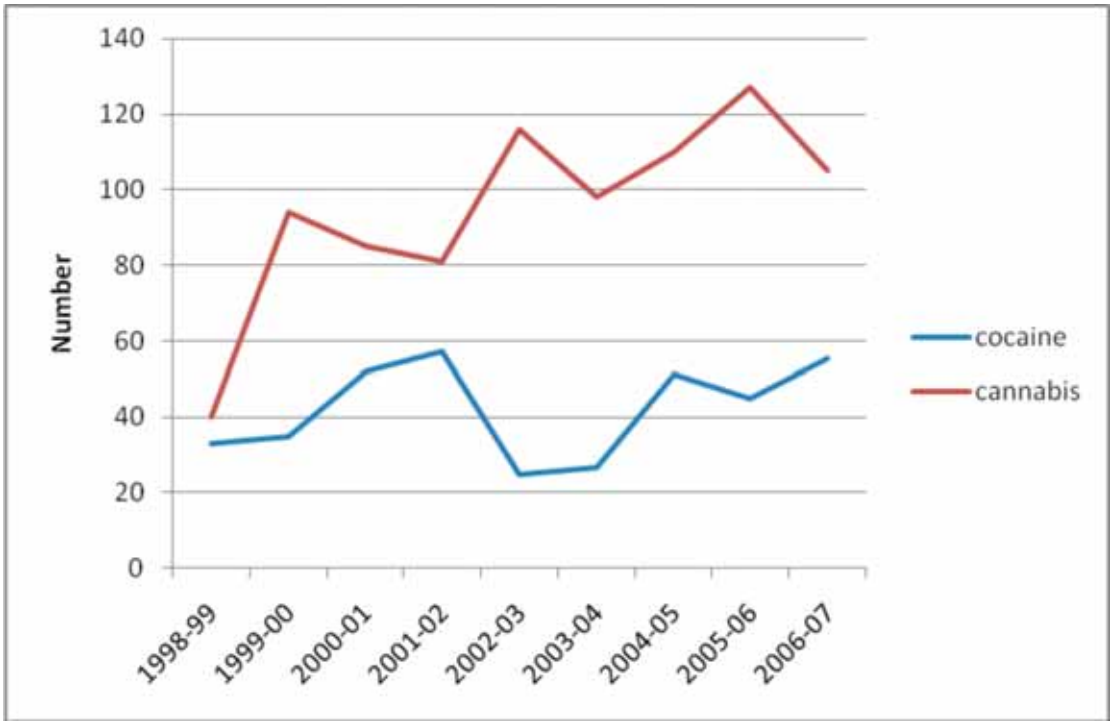
Source: AIHW GRIM data files

Figure 1.58 Number of closed episodes of treatment for cocaine and ecstasy (MDMA), 2001–2002 to 2005–2006



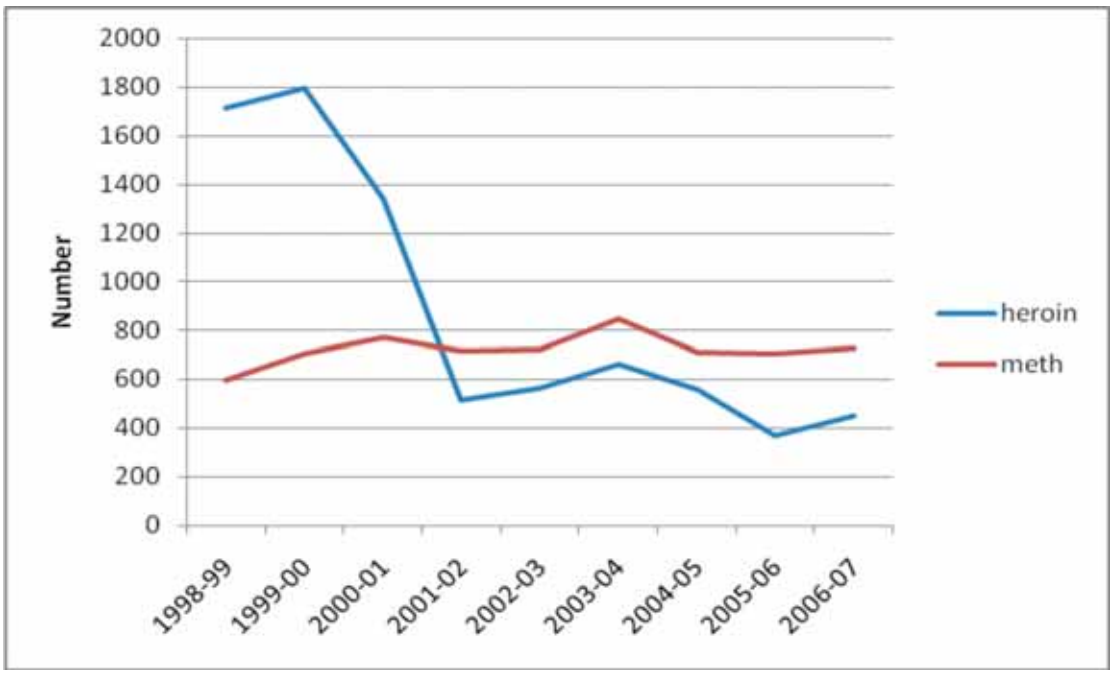
Source: AIHW National Minimum Dataset Alcohol and Other Drug Treatment online data cubes

Figure 1.59 Number of cannabis and cocaine-related hospital separations (principal diagnosis), 1998-1999 to 2006-2007



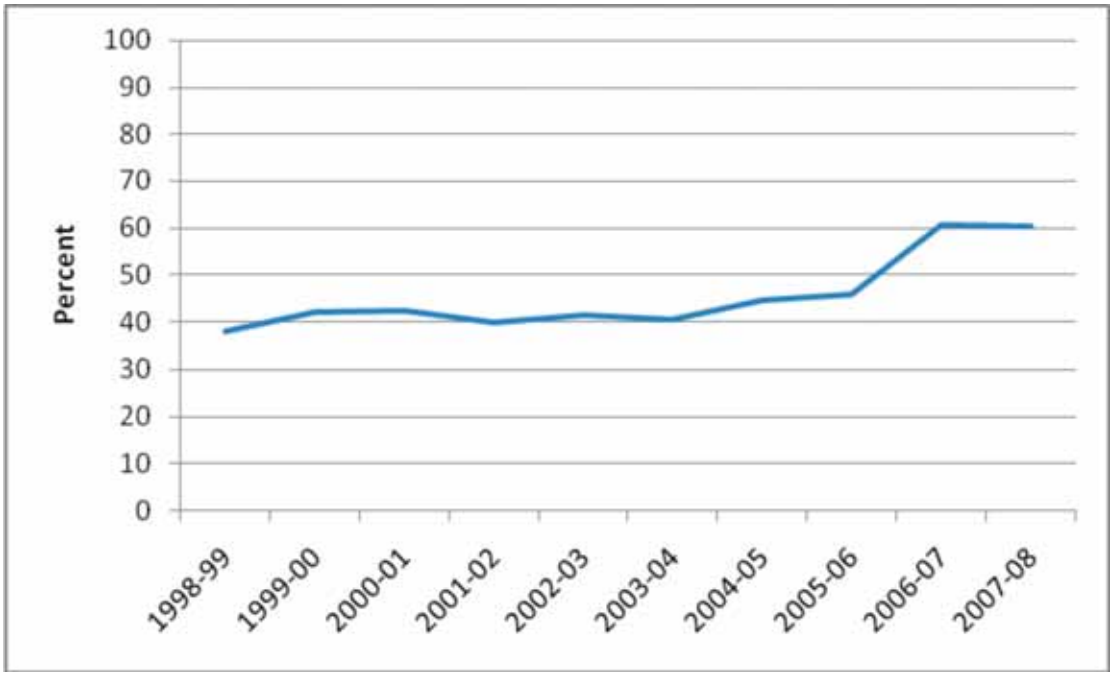
Source: AIHW National Hospital online data cubes

Figure 1.60 Number of heroin and methamphetamine-related hospital separations (principal diagnosis), 1998-1999 to 2006-2007



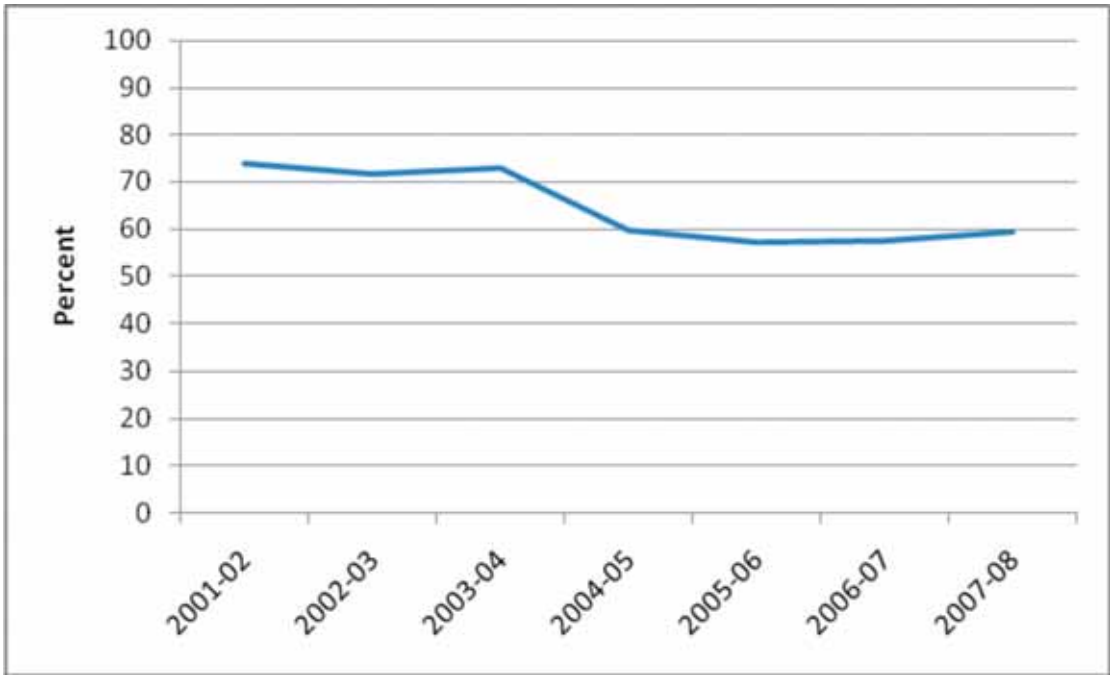
Source: AIHW National Hospital online data cubes

Figure 1.61 Proportion of people who feel safe/very safe walking/jogging locally after dark, 1998-99 to 2007-08



Source: Productivity Commission 2000-2009

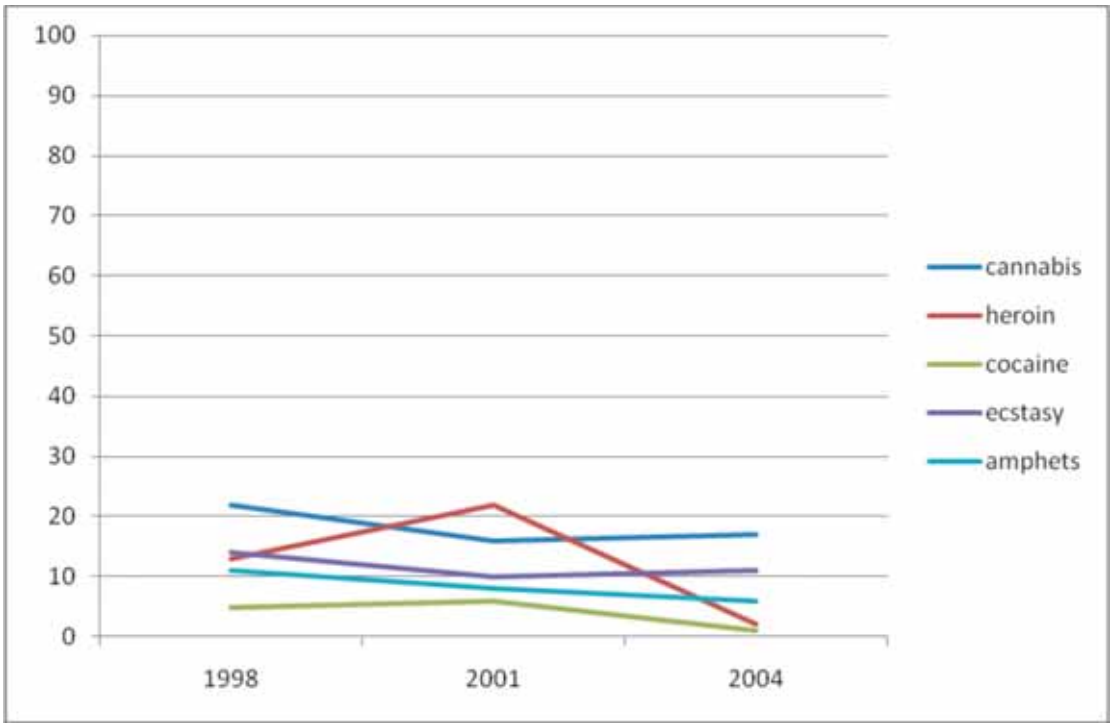
Figure 1.62 Proportion of people who think that illegal drugs are a major problem/somewhat of a problem in their neighbourhood, 2001-02 to 2007-08



Note: data on neighbourhood perceptions of illegal drugs are not reported prior to 2001-02

Source: Productivity Commission 2000-2009

Figure 1.63 Proportion of people surveyed in the NDSHS who usually used illicit drugs in public places, 1998 to 2004



Source: NDSHS data files

Appendix 2: Indicator data used by Drug Investigation Services, Tasmania Police

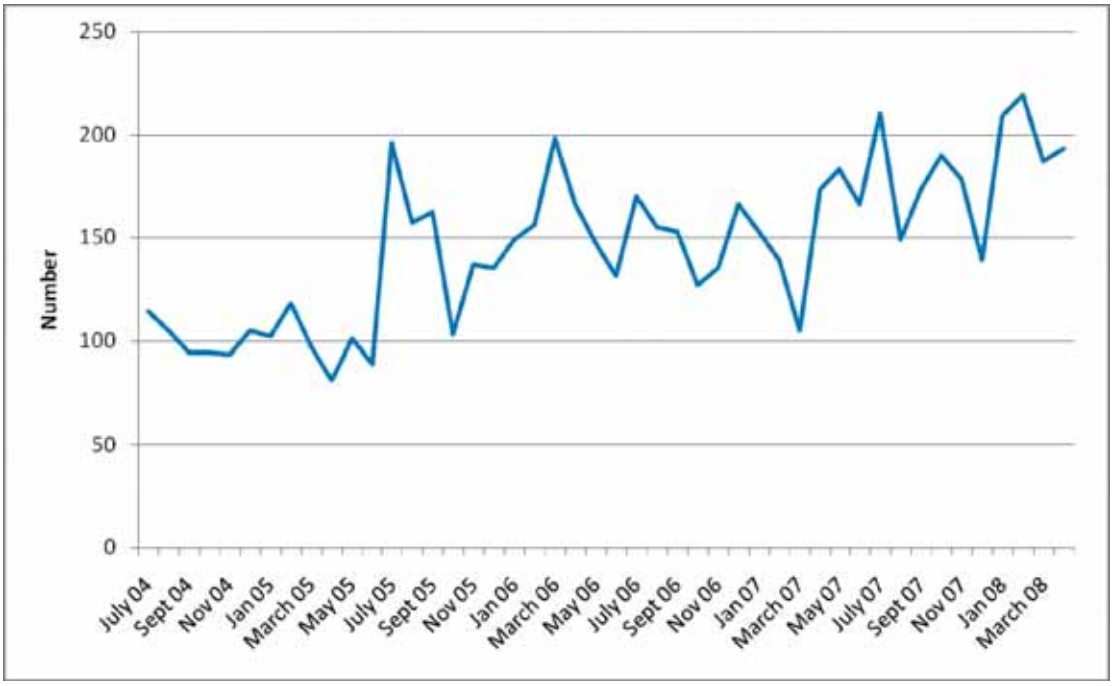
Indicator	Explanatory note
Serious drug offender charged	Reflects persons charged whether arrest/ summons by DIS personnel or DIS secondments [excludes drug diversion]. Serious drug offences are only those of trafficking or sell. Serious drug charges can be indictable or lower court. A person is only to be counted in one category – either a serious or other drug offender.
Other drug offenders charged	Reflects persons charged with any drug offence [excludes trafficking or sell] whether arrest, summons, conference or formal caution by DIS personnel or DIS secondments [excludes drug diversions]. A person is only to be counted in one category – either a serious or other drug offender.
Drug offender categories	Reflects the category of drug offender based upon drug type. Categories include: cannabis plants, cannabis/derivative; amphetamine/ dexamphetamine; ecstasy/MDMA; narcotics/ derivatives; other.
Search returns	Reflects search returns recorded on the IDM system submitted by DIS personnel or DIS secondments.
Information reports	Reflects information reports recorded on the IDM system submitted by DIS personnel or DIS secondments.
Information reports: allocated for investigation	Reflects information reports allocated through IDM to DIS personnel or DIS secondments for investigation/attention.
Warrants executed	Reflects 'drug' warrants executed by DIS personnel or DIS secondments.
Industry visits	Reflects visits by DIS personnel to doctors' surgeries, medical centres, chemists, poppy industry premises or other relevant industry premises.
Drug seizures: cannabis plants	Reflects *Cannabis sativa*/Indian hemp plants seized by DIS personnel or DIS secondments. It is not intended to include seizures of growing equipment.

Indicator	Explanatory note
Drug seizures: cannabis	Reflects cannabis or any cannabis derivatives seized by DIS personnel or DIS secondments. It is not intended to include seizures of smoking devices.
Drug seizures: amphetamines/ dexamphetamines	Reflects seizures of amphetamines/ dexamphetamines by DIS personnel or DIS secondments.
Drug seizures: ecstasy/MDMA	Reflects seizures of ecstasy/MDMA by DIS personnel or DIS secondments
Drug seizures: narcotic	Reflects seizures of any narcotic (or derivatives) by DIS personnel or DIS secondments.

Appendix 3: Tasmanian data

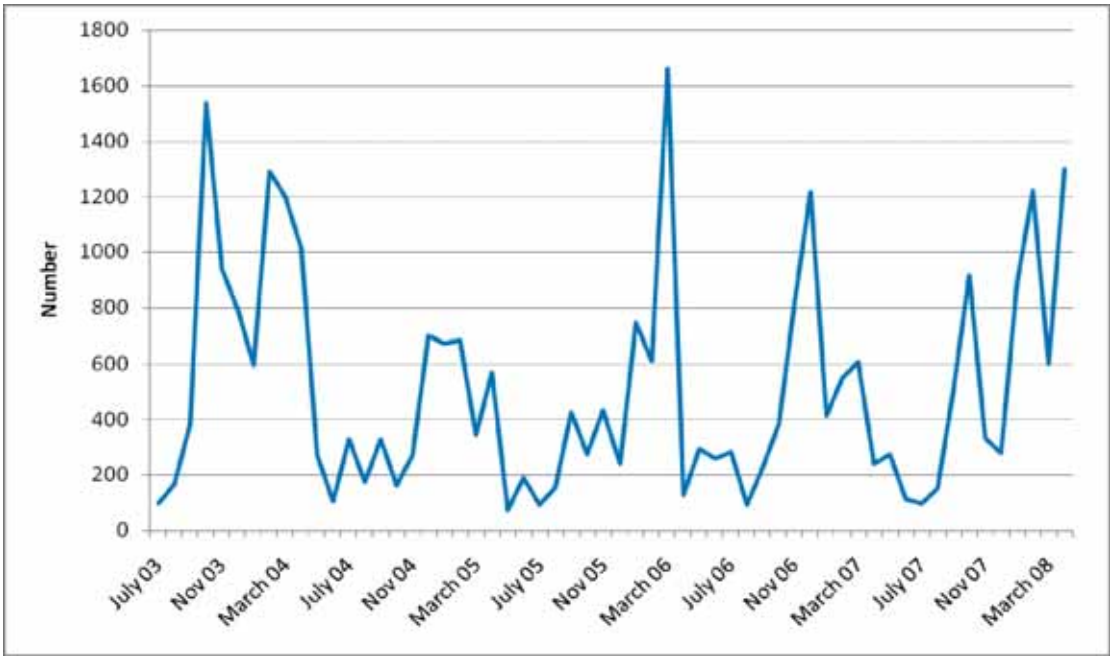
Data figures

Figure 2.2 Total number of district drug detections in Tasmania, July 2004 to April 2008



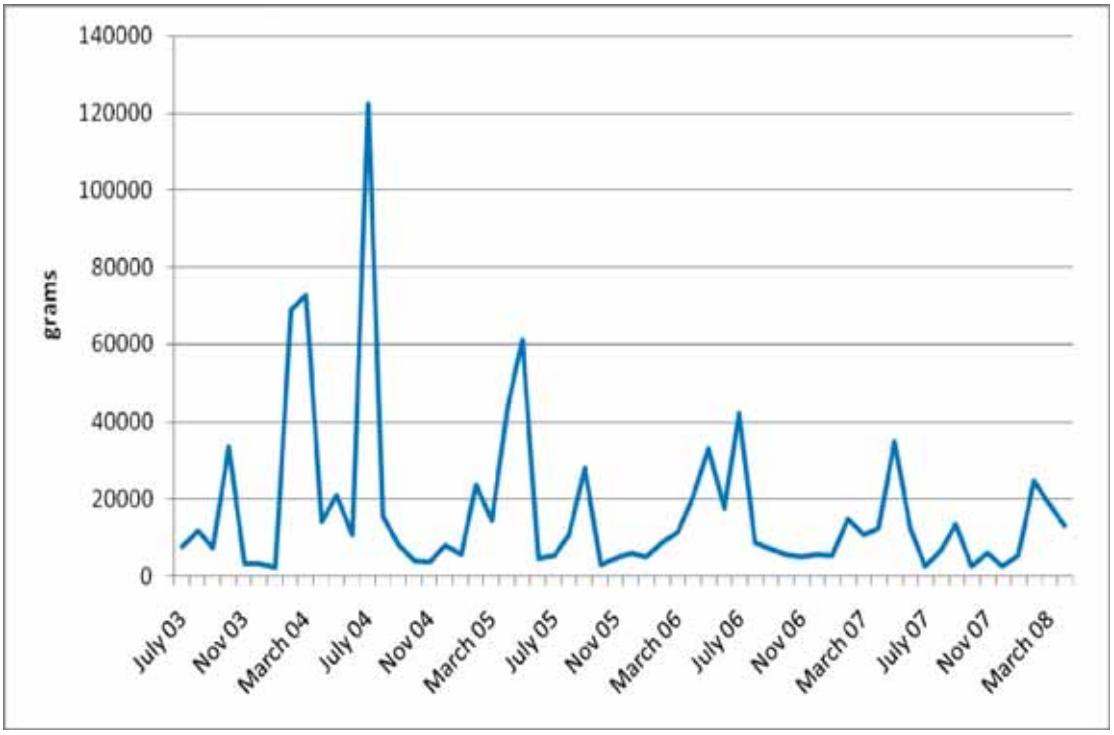
Source: Tasmania Police data files

Figure 2.3 Number of cannabis plants seized in Tasmania, July 2003 to April 2008



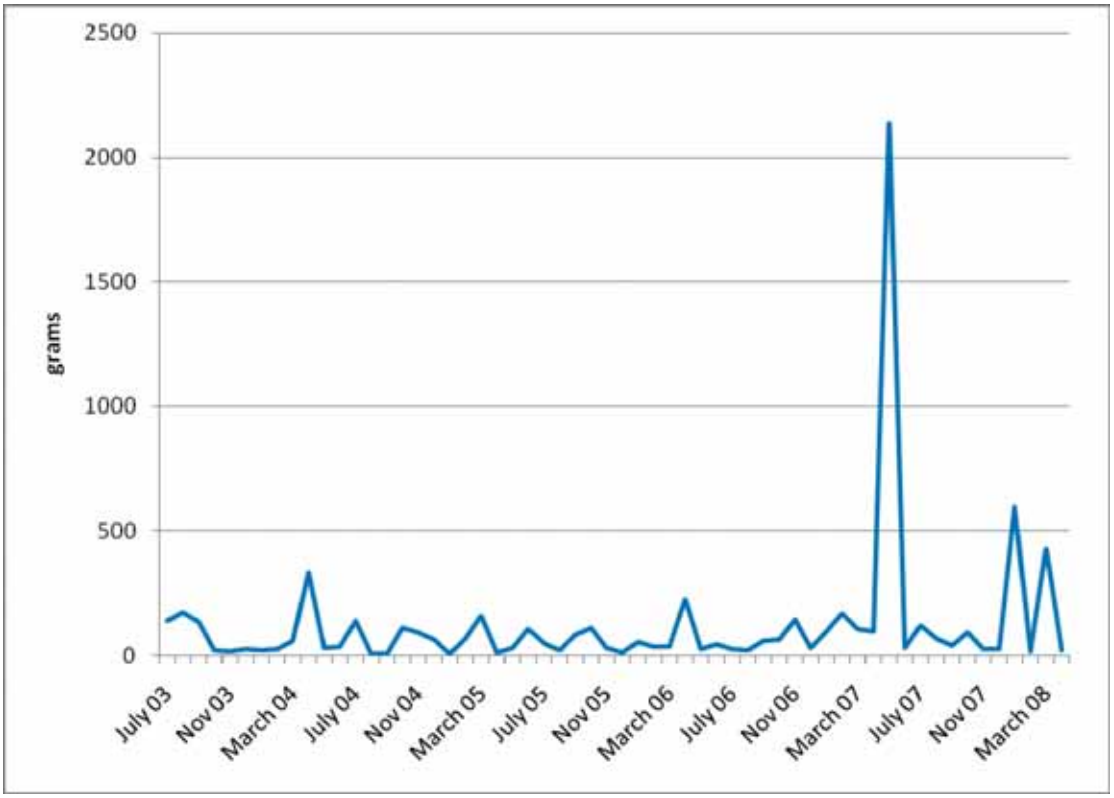
Source: Tasmania Police data files

Figure 2.4 Total weight (grams) of cannabis plants seized in Tasmania, July 2003 to April 2008



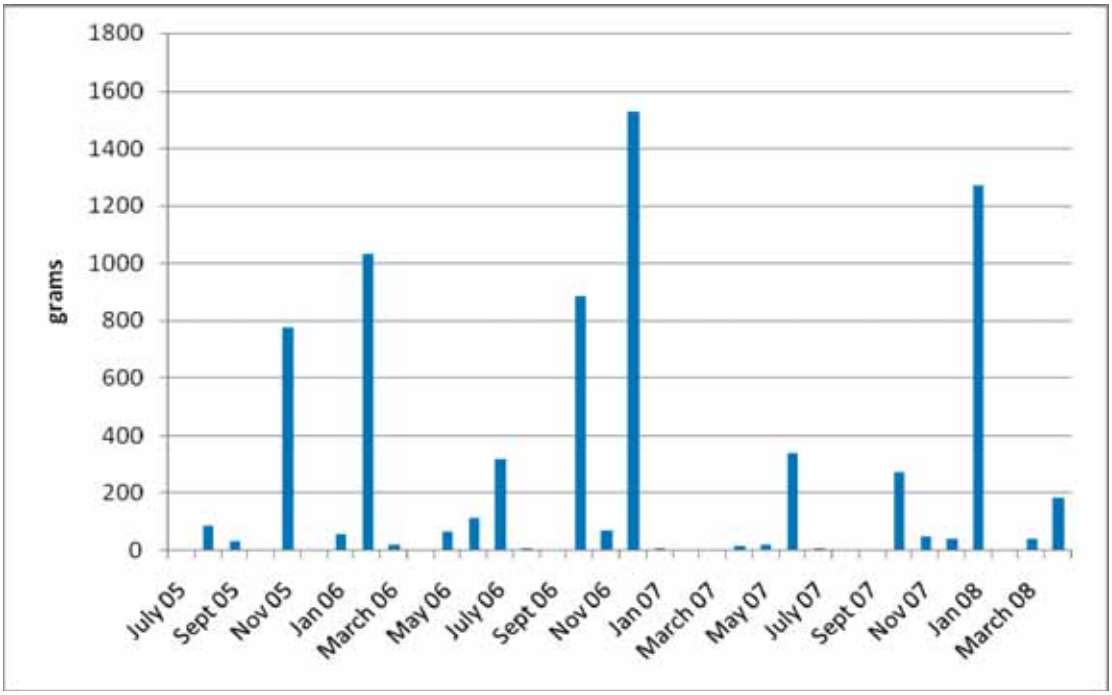
Source: Tasmania Police data files

Figure 2.5 Total weight (grams) of ATS seized in Tasmania, July 2003 to April 2008



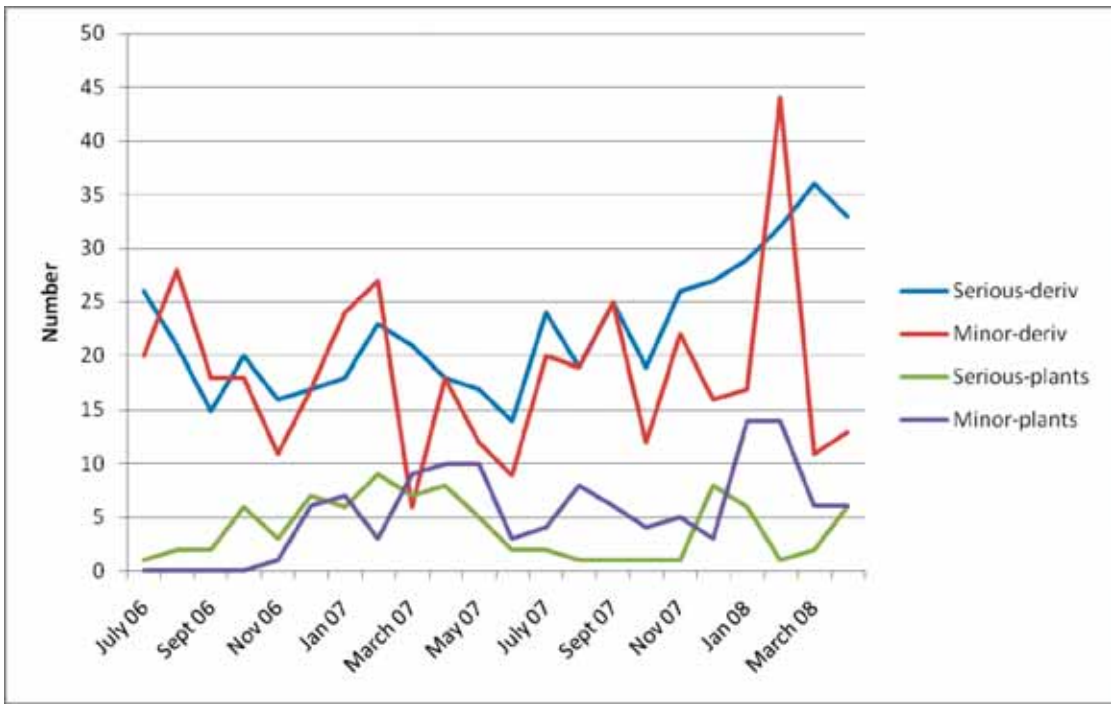
Source: Tasmania Police data files

Figure 2.6 Total weight (grams) of MDMA seized in Tasmania, July 2005 to April 2008



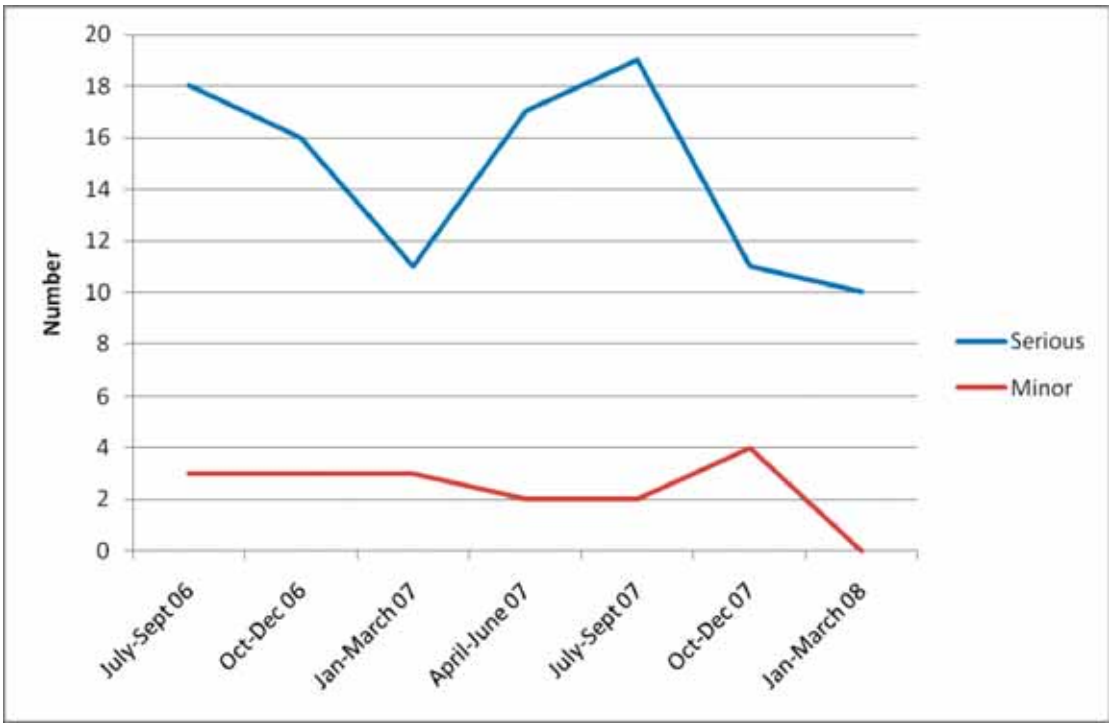
Source: Tasmania Police data files

Figure 2.7 Total number of serious and minor offenders charged in Tasmania for supply and use/ possess (respectively) cannabis derivatives and plants, July 2006 to April 2008



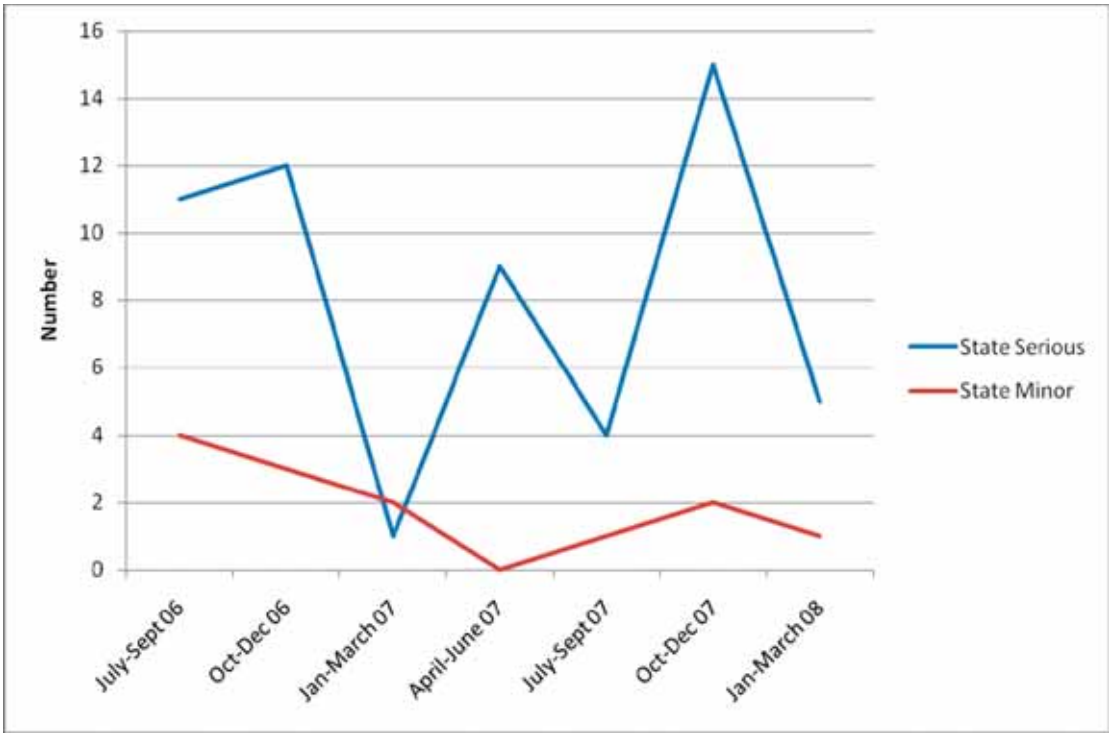
Source: Tasmania Police data files

Figure 2.8 Total number of serious and minor offenders charged in the state for supply and use/ possess (respectively) ATS, July 2006 to March 2008



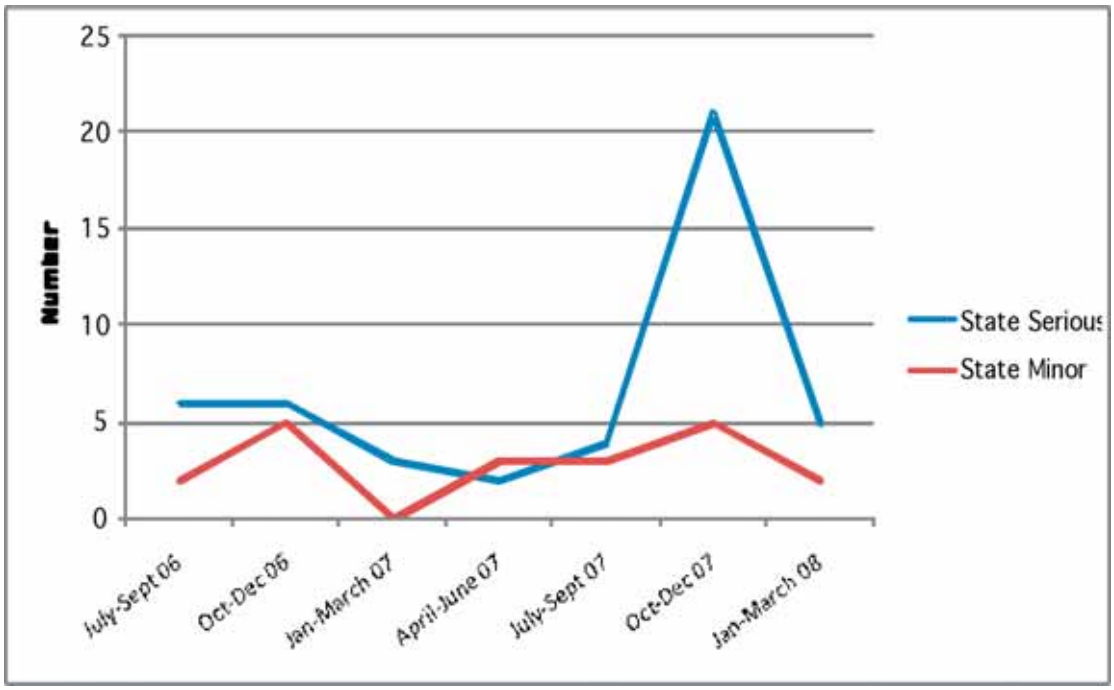
Source: Tasmania Police data files

Figure 2.9 Total number of serious and minor offenders charged in the state for supply and use/ possess (respectively) MDMA, July 2006 to March 2008



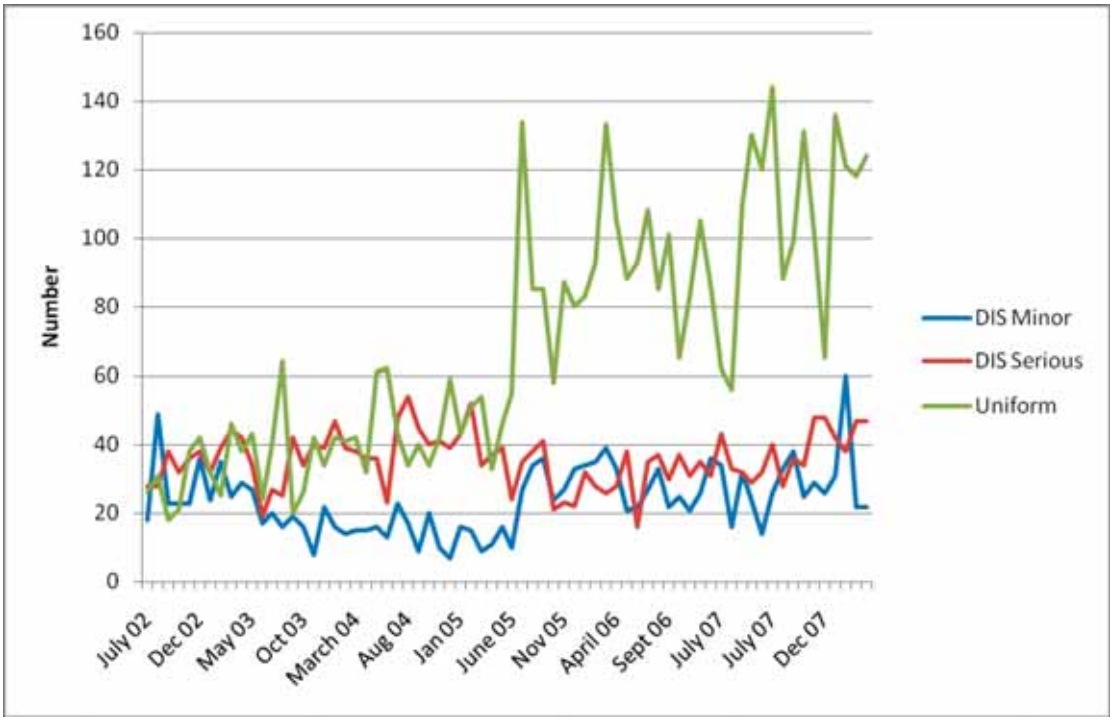
Source: Tasmania Police data files

Figure 2.10 Total number of serious and minor offenders charged in the state for supply and use/ possess (respectively) narcotics, July 2006 to March 2008



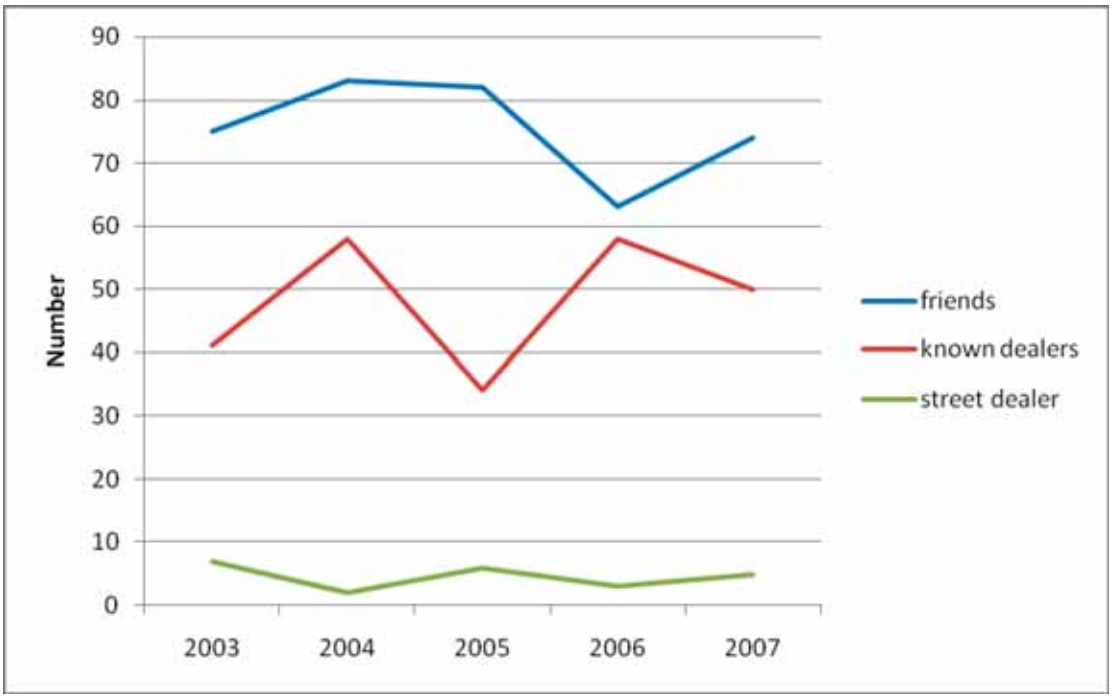
Source: Tasmania Police data files

Figure 2.11 Total number of offenders charged in the state by the Drug Investigation Service and by uniformed officers for drug offences, July 2002 to April 2008



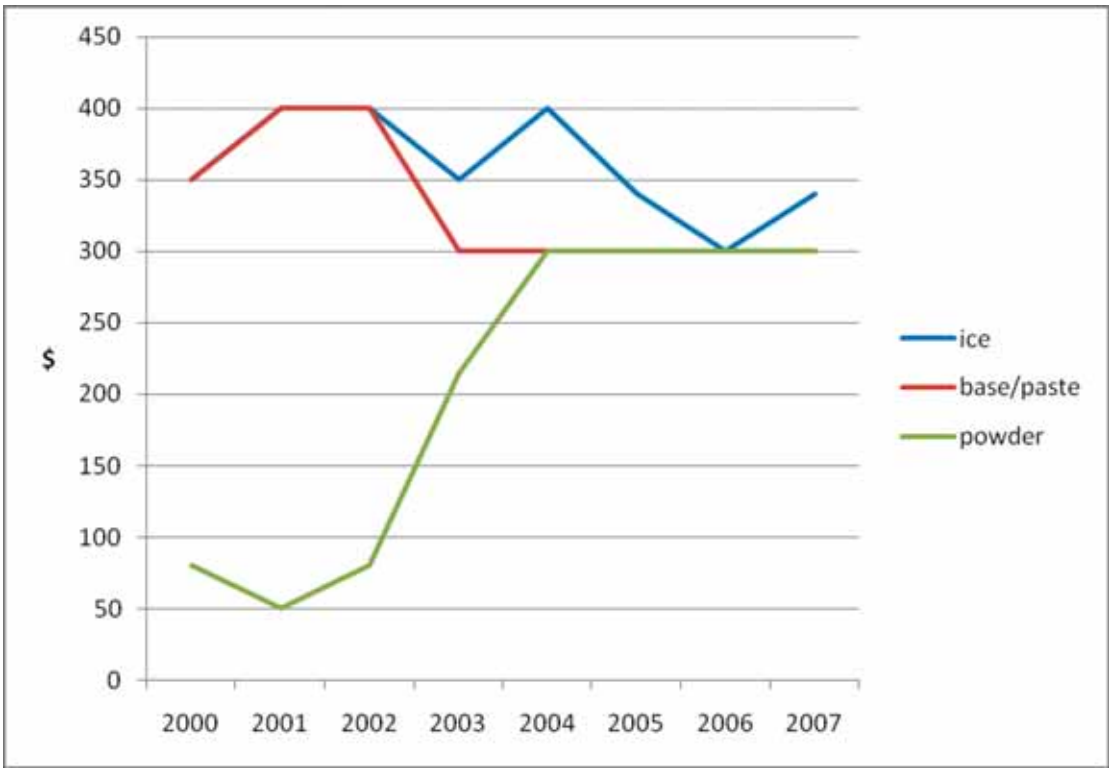
Source: Tasmania Police data files

Figure 2.12 Number of Tasmanian IDU who self-reported usual person they purchased cannabis from in last six months, 2003 to 2007



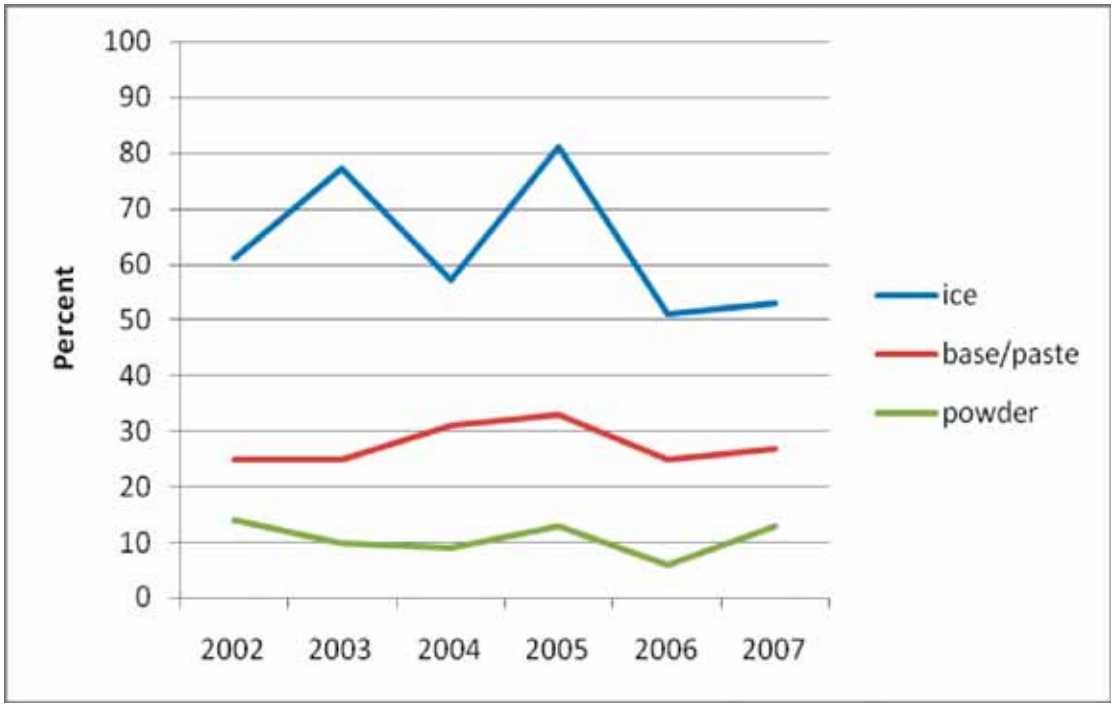
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.13 Self-reported methamphetamine prices in Tasmania, 2000 to 2007



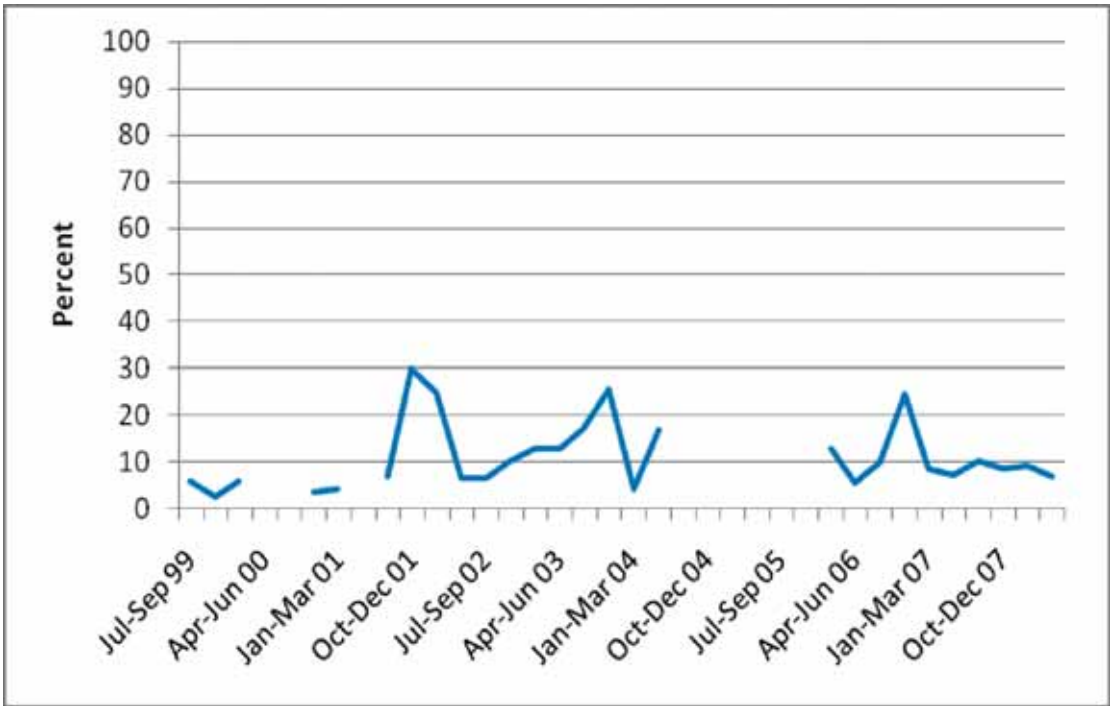
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.14 Self-reported methamphetamine purity as 'high' in Tasmania, 2000 to 2007



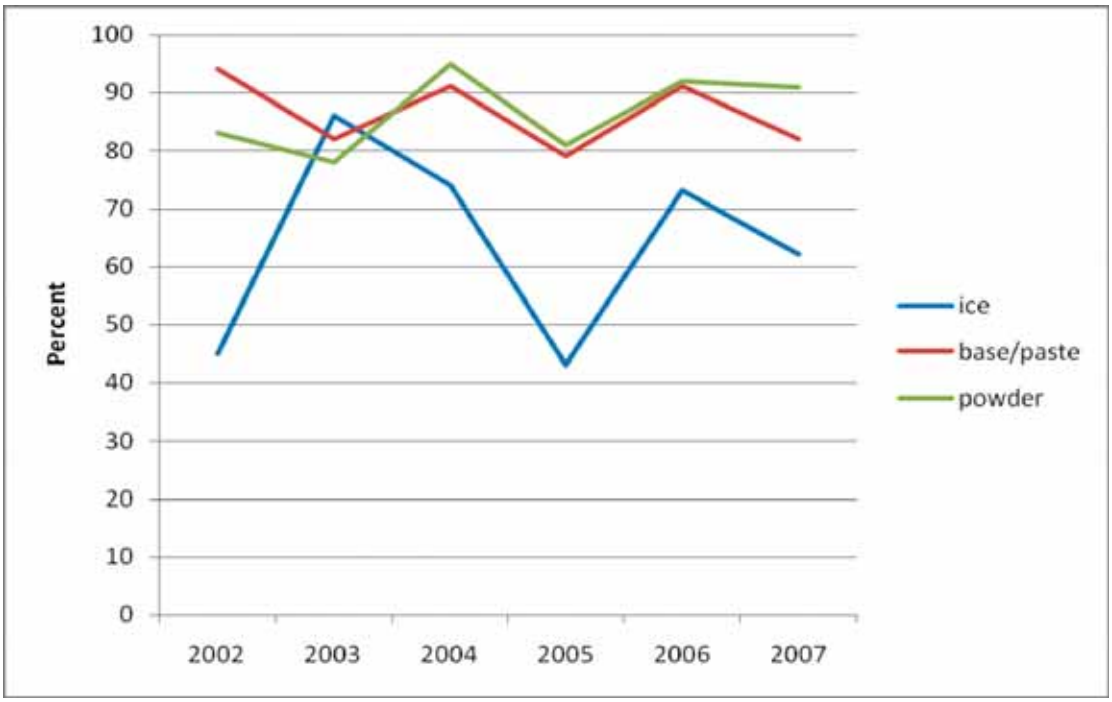
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.15 Median purity of methamphetamine seizures in Tasmania (laboratory tested), July 1999 to June 2008



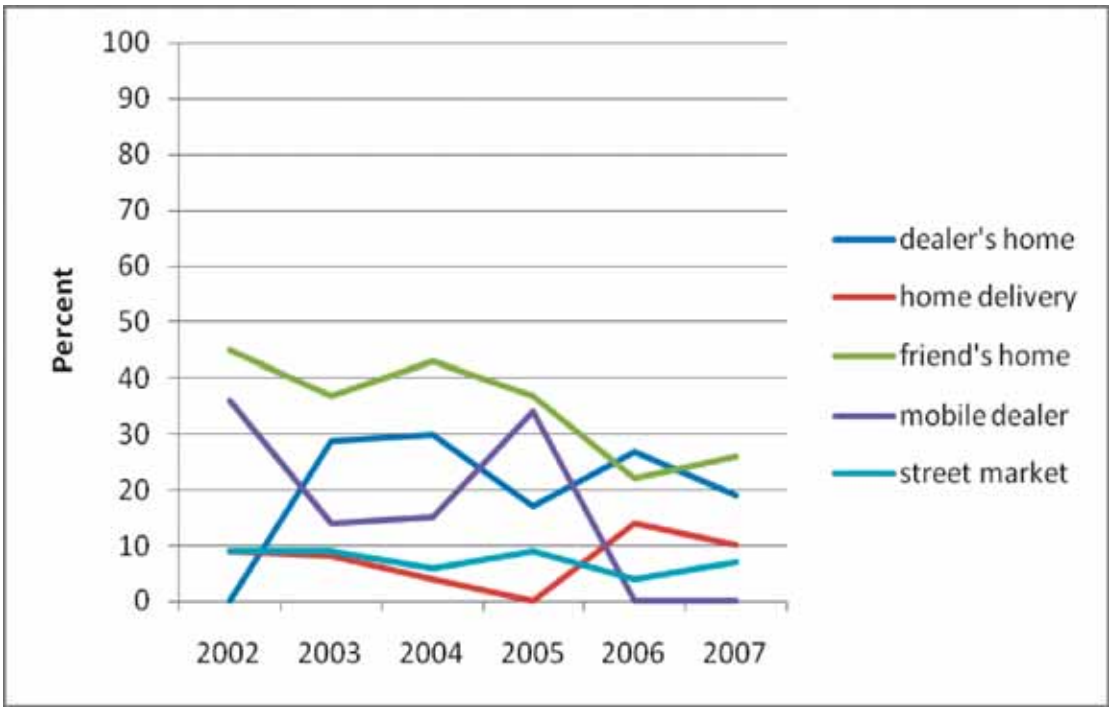
Source: ABCI Australian Illicit Drug Report 2000-01; ACC Australian Illicit Drug Report 2001-02; ACC Illicit Drug Data Reports 2002-03-2006-07.

Figure 2.16 Self-reported availability of methamphetamines (very easy/easy) in Tasmania, 2002 to 2007



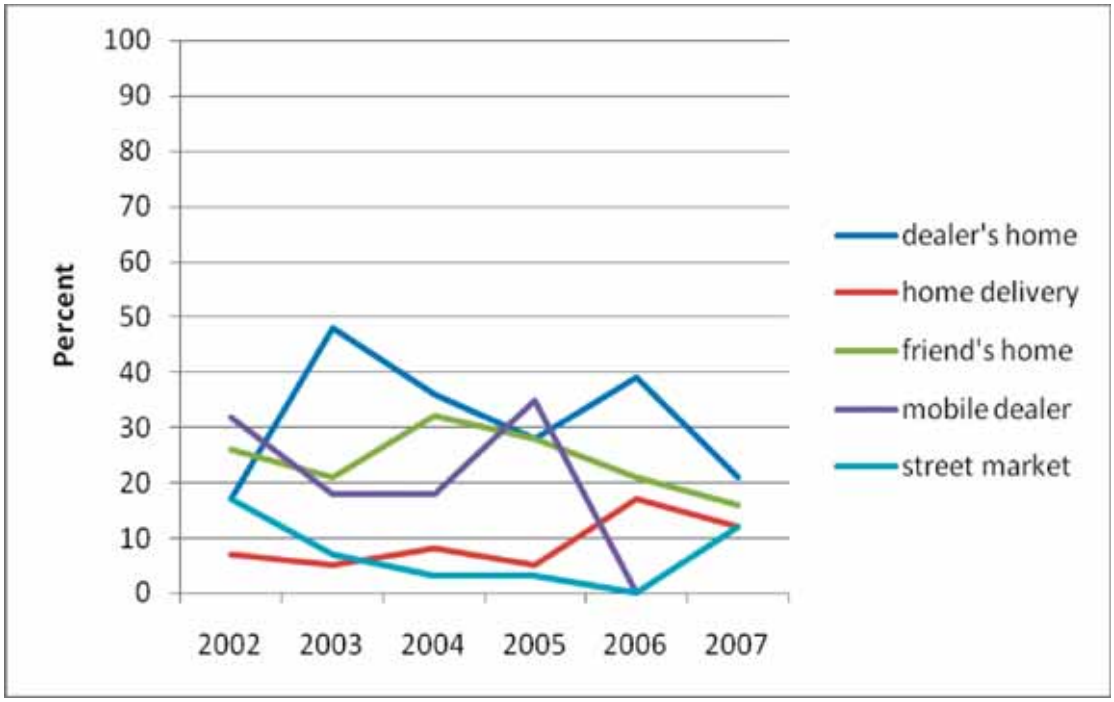
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.17 Self-reported location of purchase of 'ice' in Tasmania, 2002 to 2007



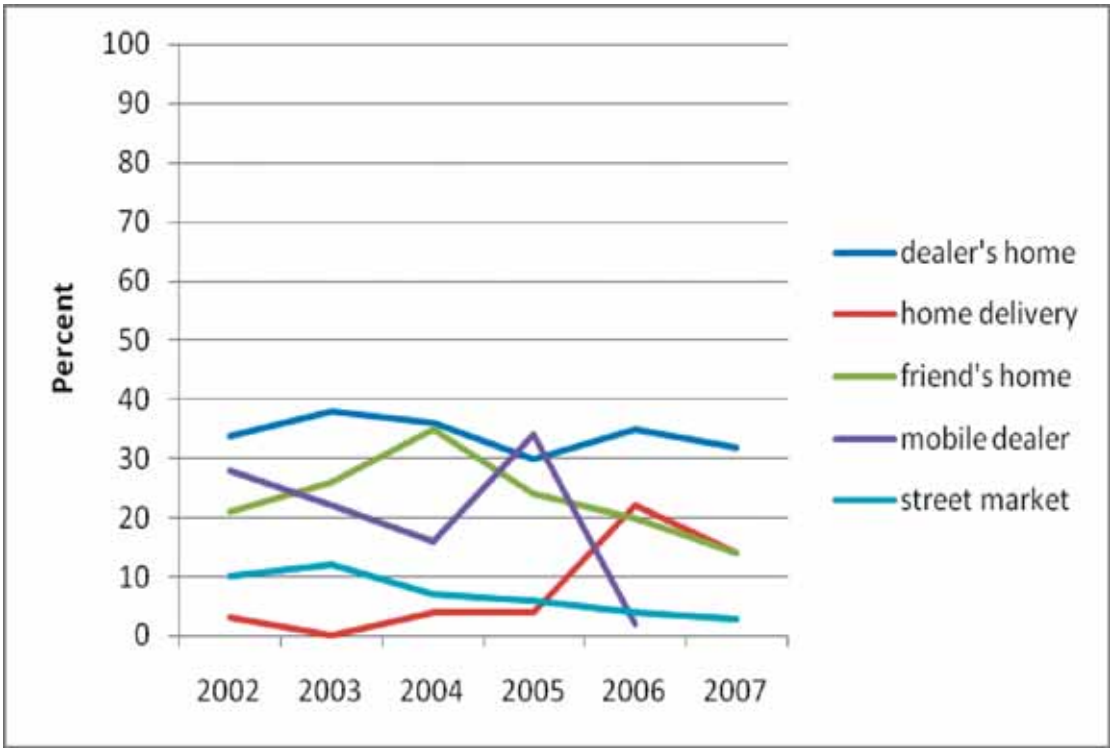
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.18 Self-reported location of purchase of 'base/paste' in Tasmania, 2002 to 2007



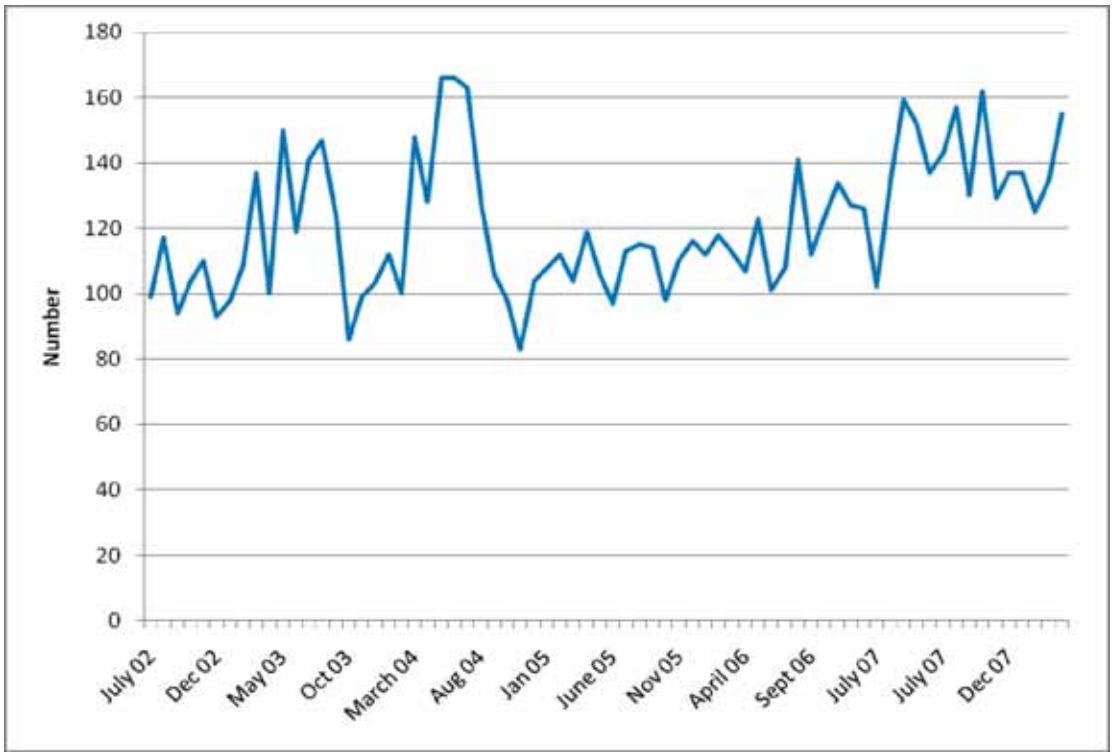
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.19 Self-reported location of purchase of 'powder' in Tasmania, 2002 to 2007



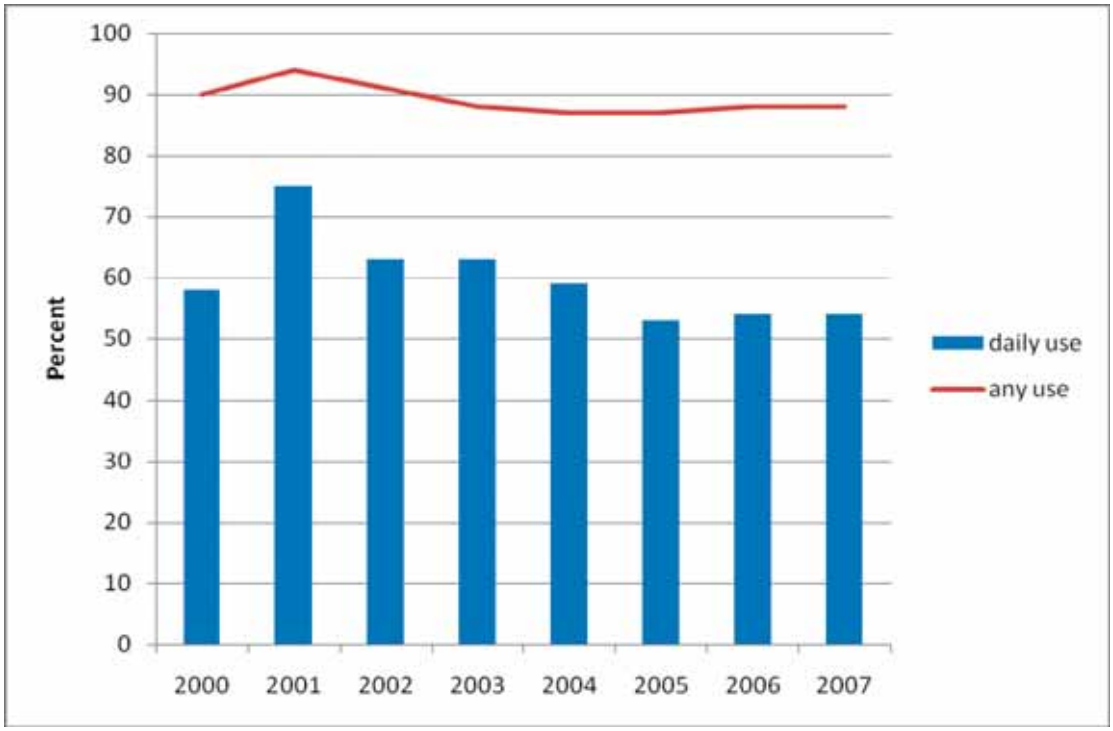
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.20 Total number of monthly drug diversions in Tasmania, July 2002 to April 2008



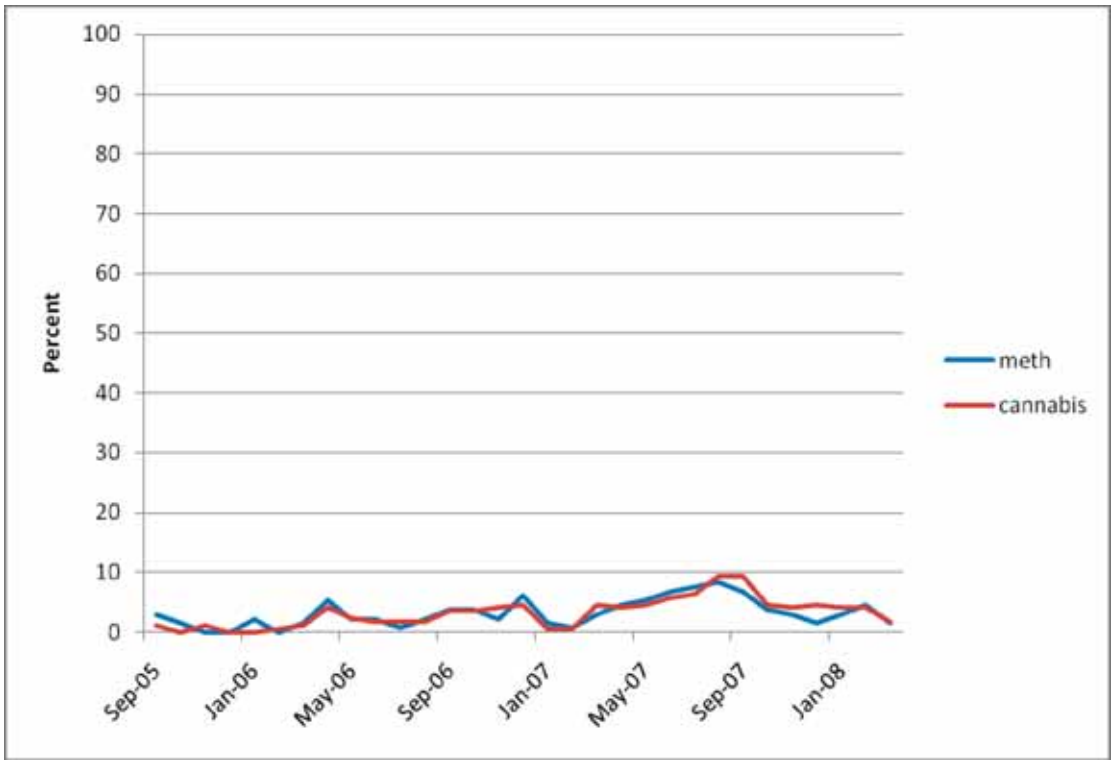
Source: Tasmania Police data files

Figure 2.21 Self-reported daily use and any use of cannabis in Tasmania, 2000 to 2007



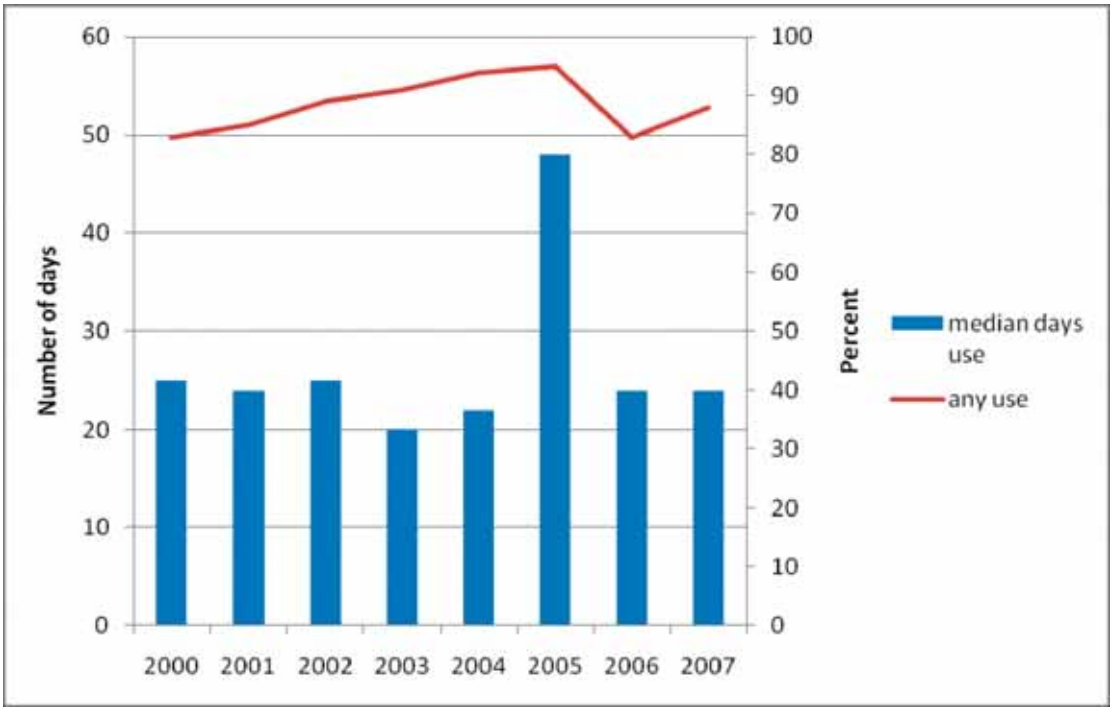
Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.22 Proportion of random roadside positive drug tests (blood test confirmed) for cannabis and methamphetamines in Tasmania, September 2005 to March 2008



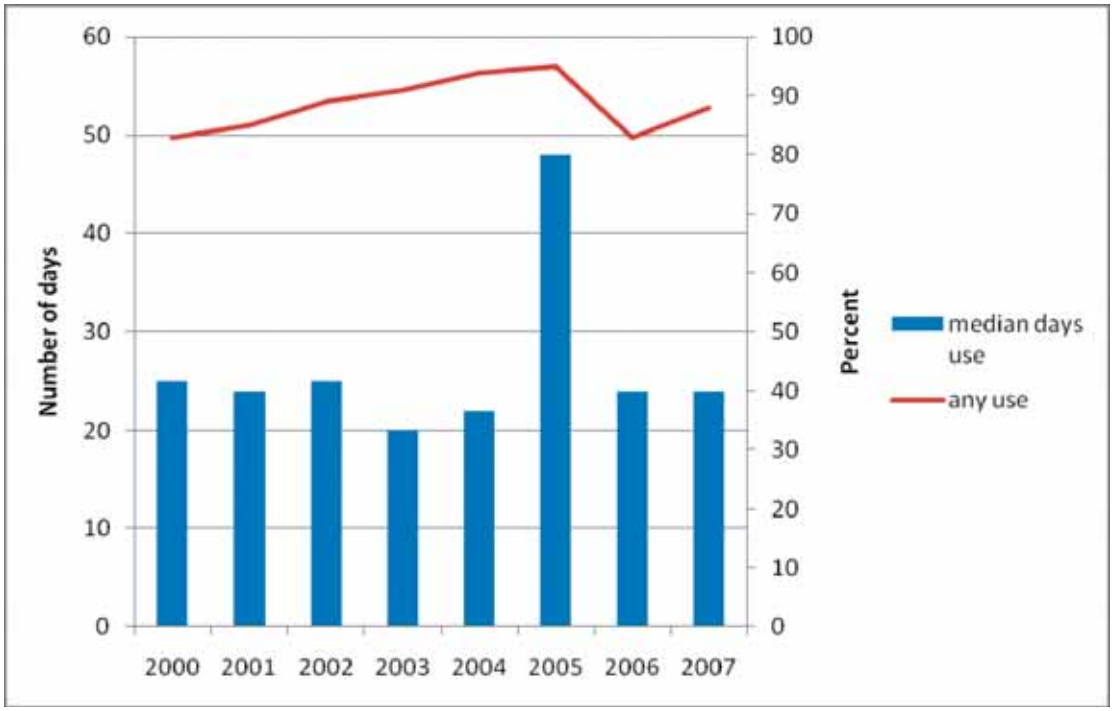
Source: Tasmania Police data files

Figure 2.23 Self-reported median days use and any use of methamphetamines in Tasmania, 2000 to 2007



Source: Illicit Drug Reporting System annual reports (Tasmania) 2004-2008

Figure 2.24 Proportion of Tasmanian public that thinks drugs are a problem in their state and in their local area, 2002-03 to 2006-07



Source: Tasmania Police – National Survey of Community Satisfaction with Policing

Appendix 4: Indicator data used by South Australia Police

Drug type	Offence categories
All drugs	possess/use/consume
	sell/trade amount unspecified
	produce/manufacture
	import/export or possess for import/export drugs n.e.c. – trafficable quantity
	traffic in commercial quantity
	traffic in
	traffic in large commercial quantity
	manufacture commercial quantity
	manufacture
	supply/administer to another person
Cannabis	cultivate a commercial quantity of cannabis
	cultivate cannabis for sale
	cultivate plants other than cannabis for sale
	sell/possess for sale large commercial quantity
	sell/possess for sale commercial quantity
	sell/possess for sale cannabis plants
	cultivate more than the prescribed number of cannabis plants
	cultivate not more than the prescribed number of cannabis plants
	cultivate a cannabis plant for supply/administration to another person
	cultivate a controlled plant other than cannabis
	other controlled offences involving children or school zones
	possess a controlled drug for sale to a child or in a school zone
	cultivate a large commercial quantity of cannabis plants for sale
	sell/trade cannabis (all forms) amount unspecified
	possess and/or use cannabis (all forms)
	sell/trade cannabis (all forms) amount unspecified
	produce or manufacture cannabis (all forms) amount unspecified
	produce or manufacture cannabis for own use
	traffic in a large commercial quantity of cannabis
	traffic in a commercial quantity of cannabis
	traffic in cannabis – other
	manufacture a commercial quantity of cannabis for sale
	manufacture cannabis for sale – other
	cultivate a commercial quantity of cannabis plants for sale

Cannabis *continued*	cultivate cannabis plants for sale – other
	sell/possess for sale a large commercial quantity of cannabis plants
	sell/possess for sale a commercial quantity of cannabis plants
	sell/possess for sale cannabis plants – other
	cultivate more than the prescribed number of cannabis plants
	cultivate not more than the prescribed number of cannabis plants
	cultivate a cannabis plant for supply/administration to another person
	cultivate a controlled plant other than cannabis
	possess/consume cannabis
	supply/administer cannabis to another person
	other controlled drug offences involving children or school zones
	manufacture cannabis
Amphetamines	possess and/or use amphetamines
	sell/trade amphetamines amount unspecified
	produce or manufacture amphetamines amount unspecified
	traffic in a large commercial quantity of amphetamines
	traffic in a commercial quantity of amphetamines
	traffic in amphetamines – other
	manufacture a commercial quantity of amphetamines for sale
	manufacture amphetamines for sale – other
	possess/consume amphetamines
	supply/administer amphetamines to another person
	possess a controlled drug for sale to a child or in a school zone
	manufacture amphetamines
Cocaine	possess and/or use cocaine and its derivatives
	sell/trade cocaine amount unspecified
	traffic in a large commercial quantity of cocaine and derivatives
	traffic in a commercial quantity of cocaine and derivatives
	traffic in cocaine and derivatives – other
	possess/consume cocaine and derivatives
Heroin	possess and/or use heroin
	sell/trade heroin amount unspecified
	produce or manufacture heroin amount unspecified
	traffic in a commercial quantity of heroin
	traffic in heroin – other
	import/export or possess for import/export heroin >= trafficable quantity
	possess/consume heroin
	supply/administer heroin to another person

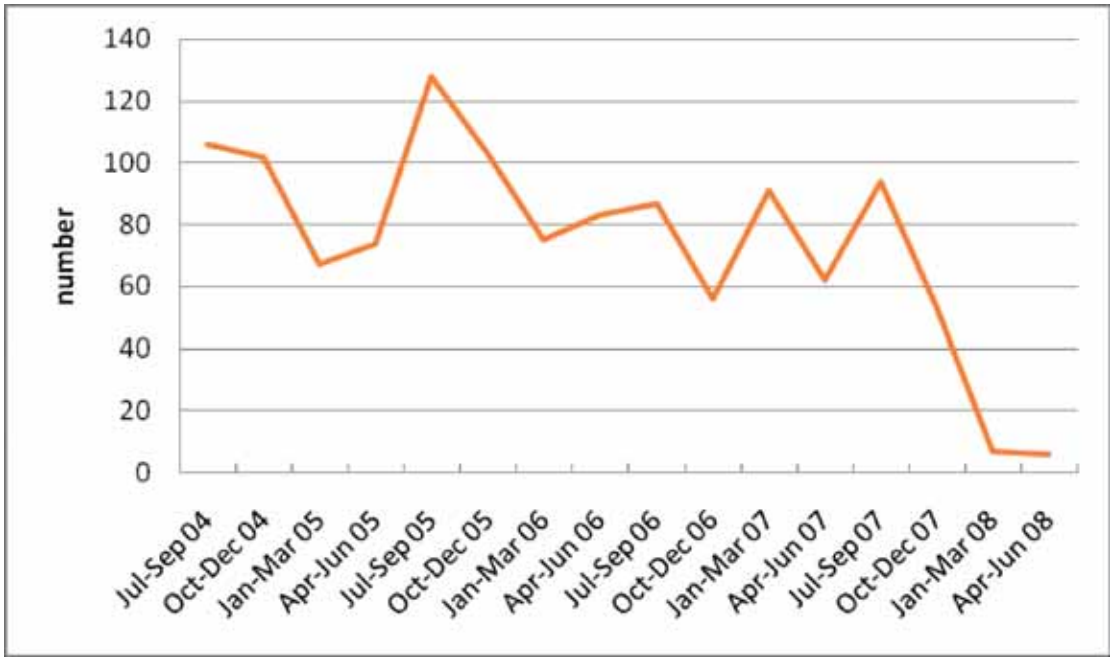
Appendix 5: South Australian data

Data figures

Figure 3.2 Number of people charged with offences relating to cultivating, manufacturing or producing cannabis July–September 2004 to April–June 2008

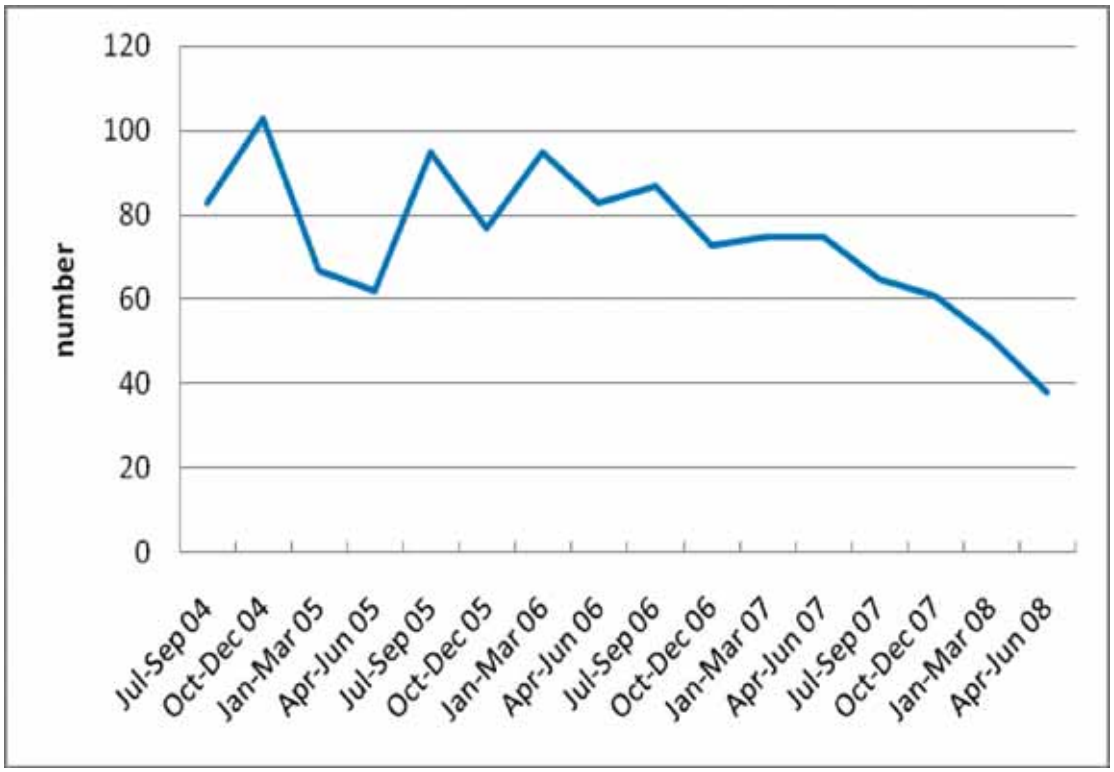
Source: SAPOL data files 2004–2008

Figure 3.3 Number of people charged with offences relating to selling or trading cannabis July–September 2004 to April–June 2008



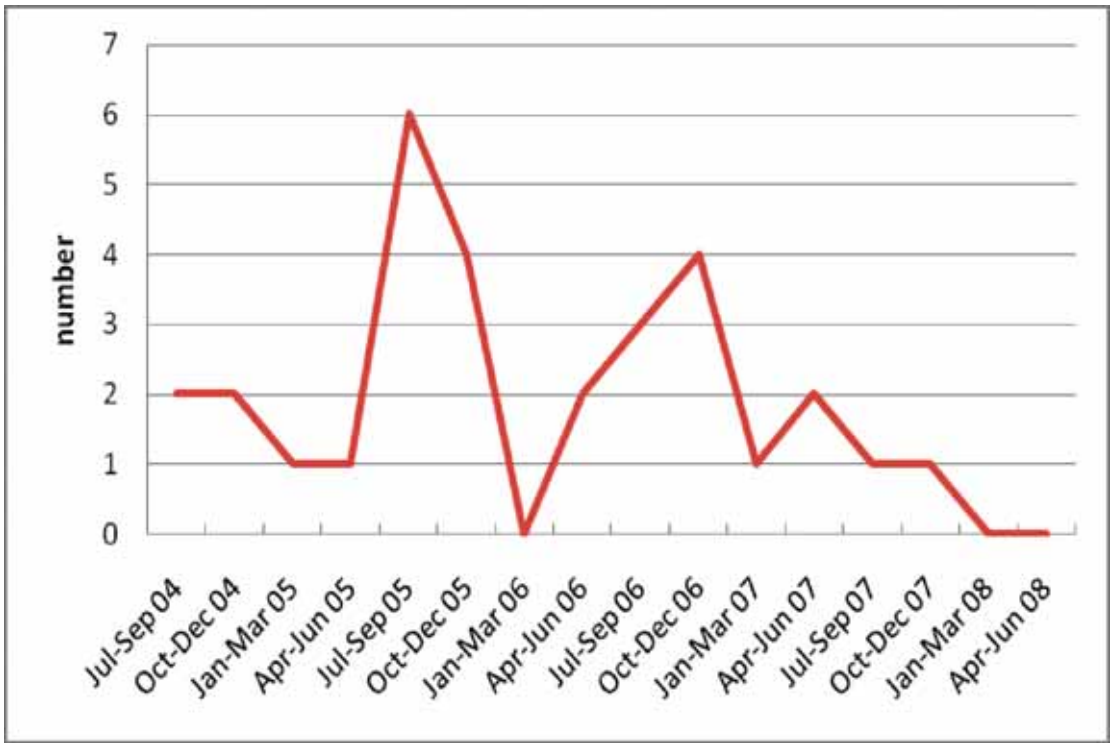
Source: SAPOL data files 2004–2008

Figure 3.4 Number of people charged with offences relating to possessing/using cannabis July–September 2004 to April–June 2008



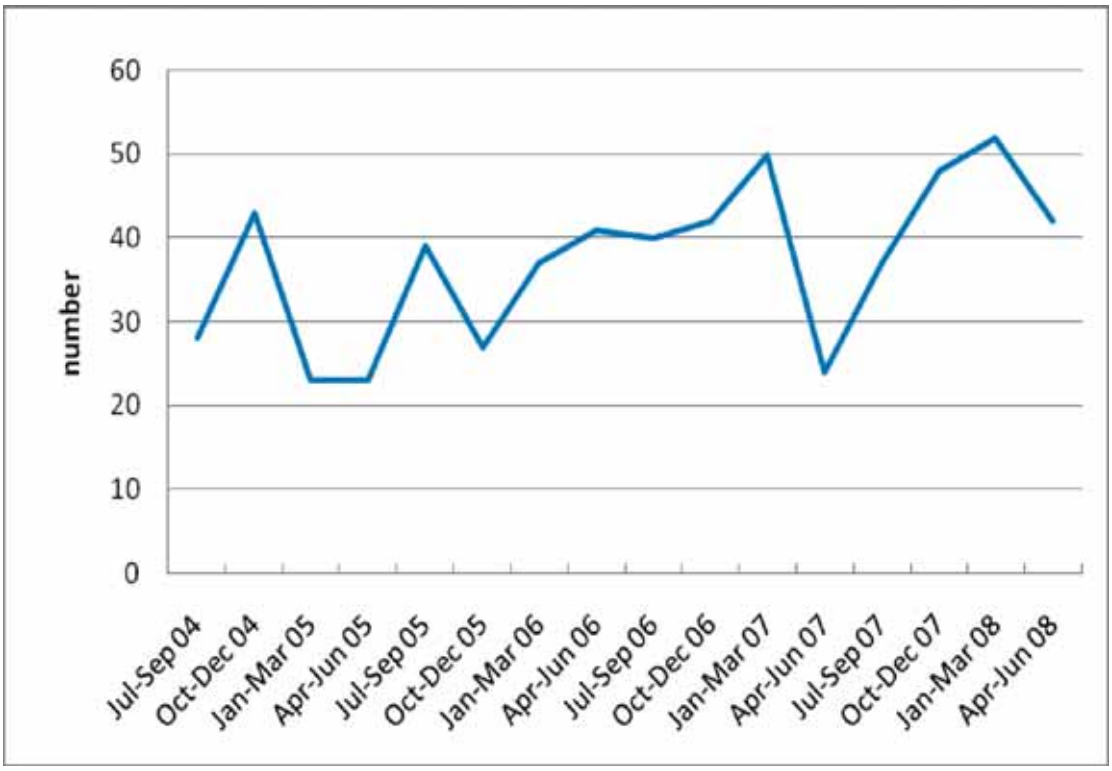
Source: SAPOL data files 2004–2008

Figure 3.5 Number of people charged with offences relating to possessing/using cocaine July–September 2004 to April–June 2008



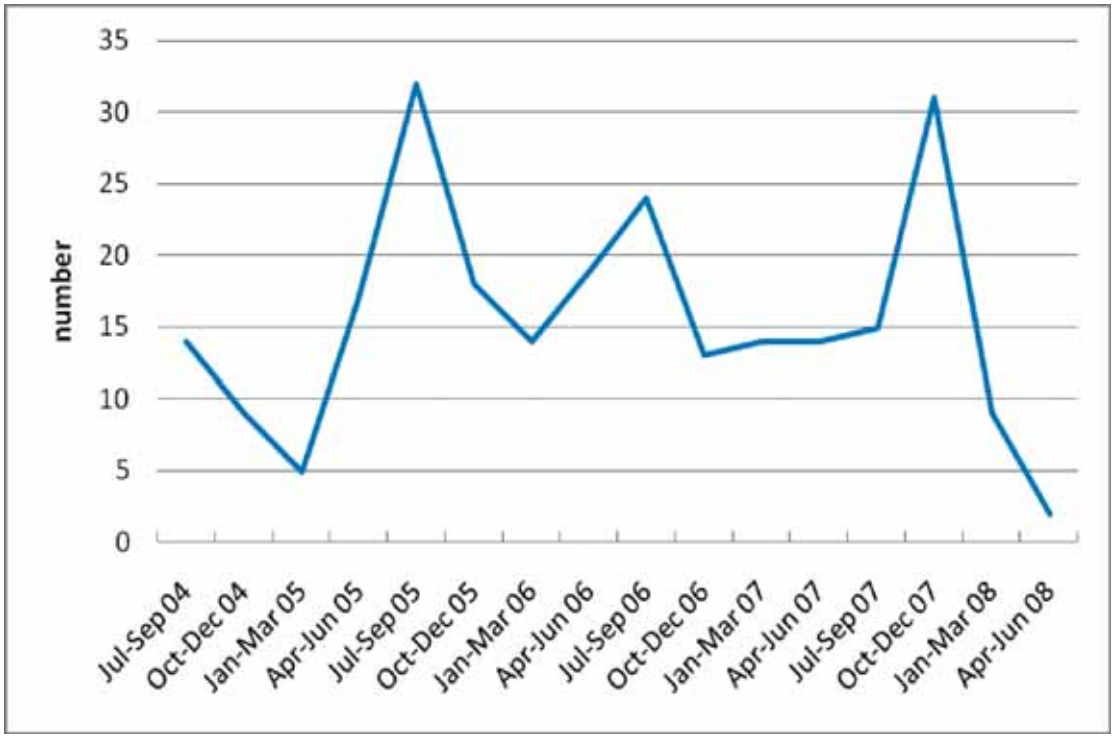
Source: SAPOL data files 2004–2008

Figure 3.6 Number of people charged with offences relating to possessing/using amphetamines July–September 2004 to April–June 2008



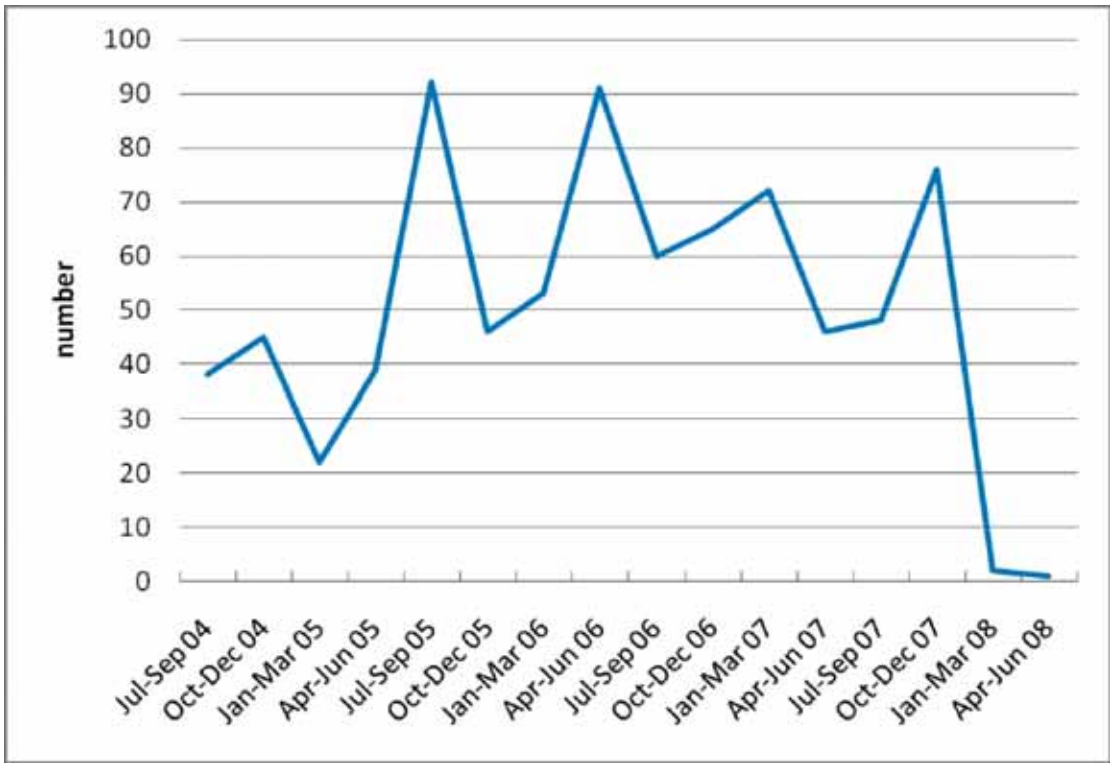
Source: SAPOL data files 2004–2008

Figure 3.7 Number of people charged with offences relating to producing/manufacturing amphetamines July–September 2004 to April–June 2008



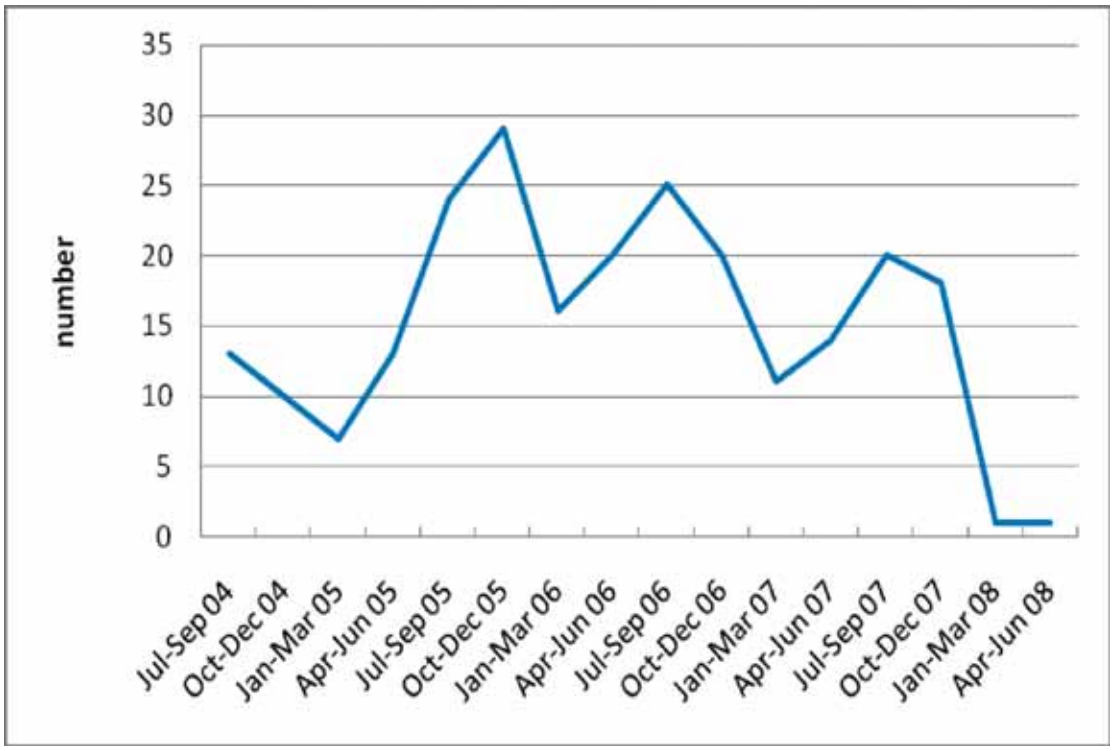
Source: SAPOL data files 2004–2008

Figure 3.8 Number of people charged with offences relating to selling/trading amphetamines July–September 2004 to April–June 2008



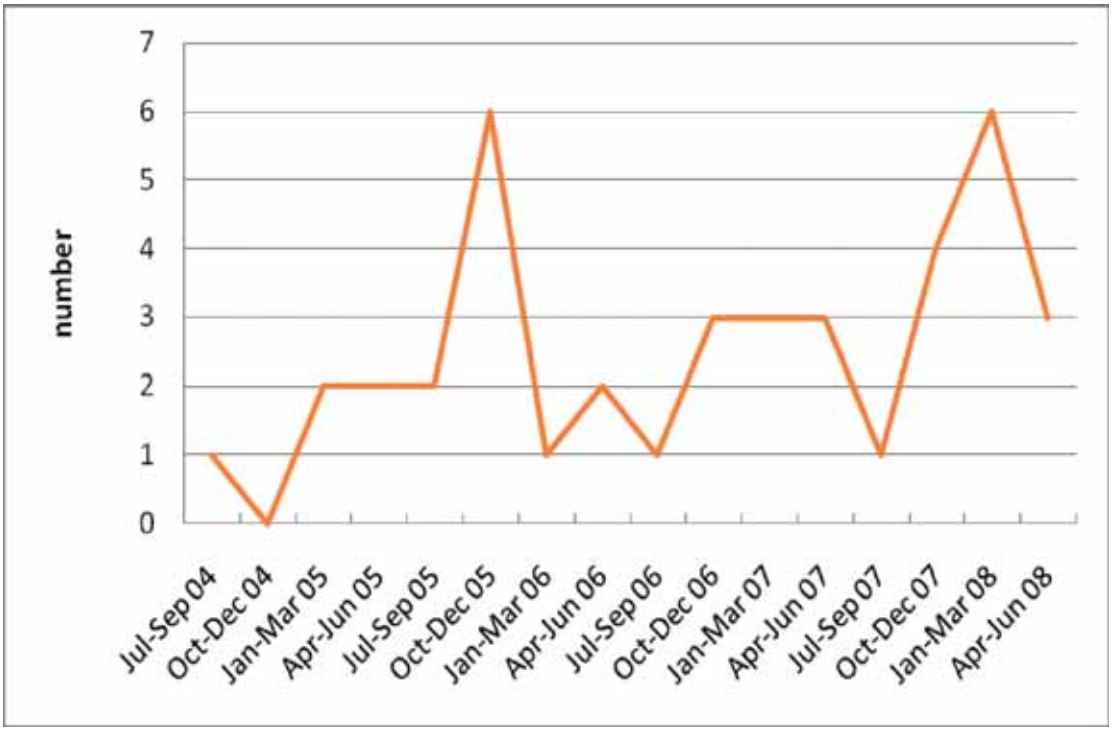
Source: SAPOL data files 2004–2008

Figure 3.9 Number of people charged with offences relating to selling/trading MDMA July–September 2004 to April–June 2008



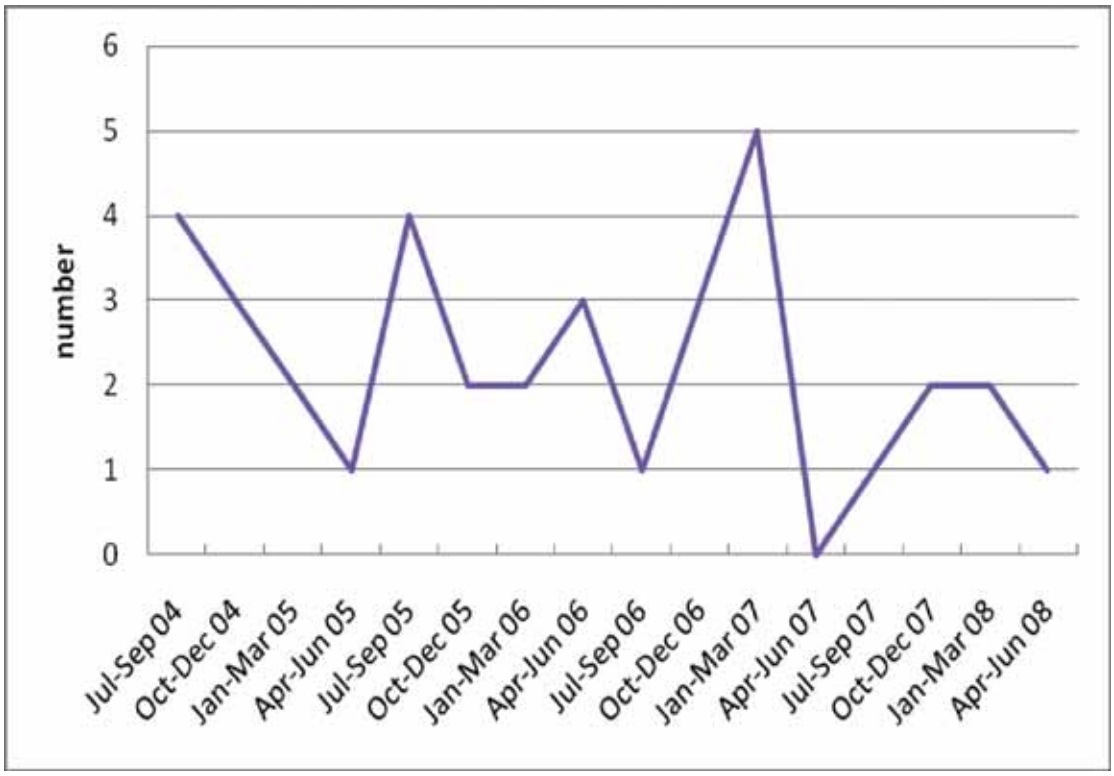
Source: SAPOL data files 2004–2008

Figure 3.10 Number of people charged with offences relating to possessing/using MDMA July–September 2004 to April–June 2008



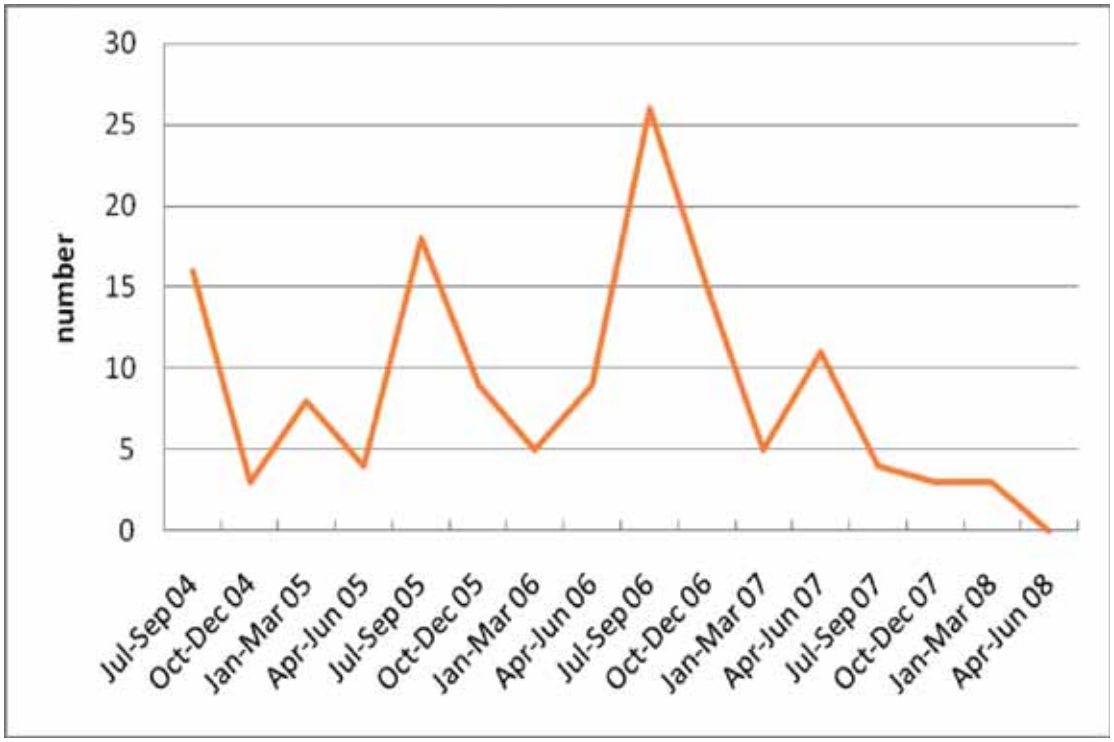
Source: SAPOL data files 2004–2008

Figure 3.11 Number of people charged with offences relating to possessing/using heroin July–September 2004 to April–June 2008



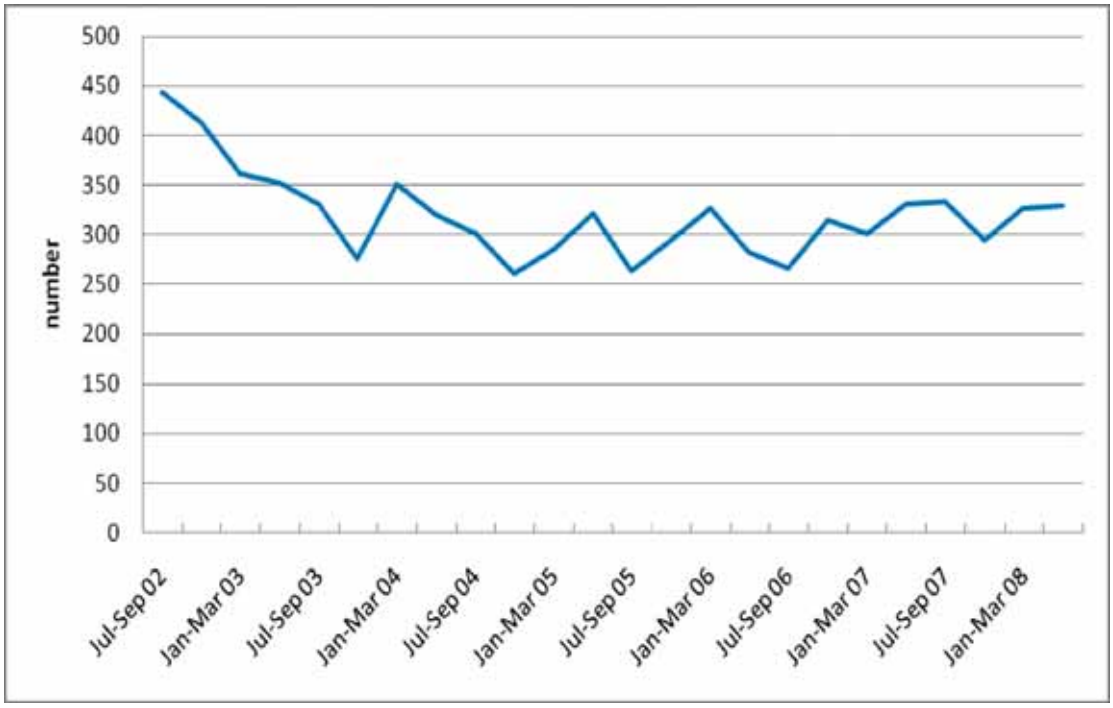
Source: SAPOL data files 2004–2008

Figure 3.12 Number of people charged with offences relating to selling/trading heroin July–September 2004 to April–June 2008



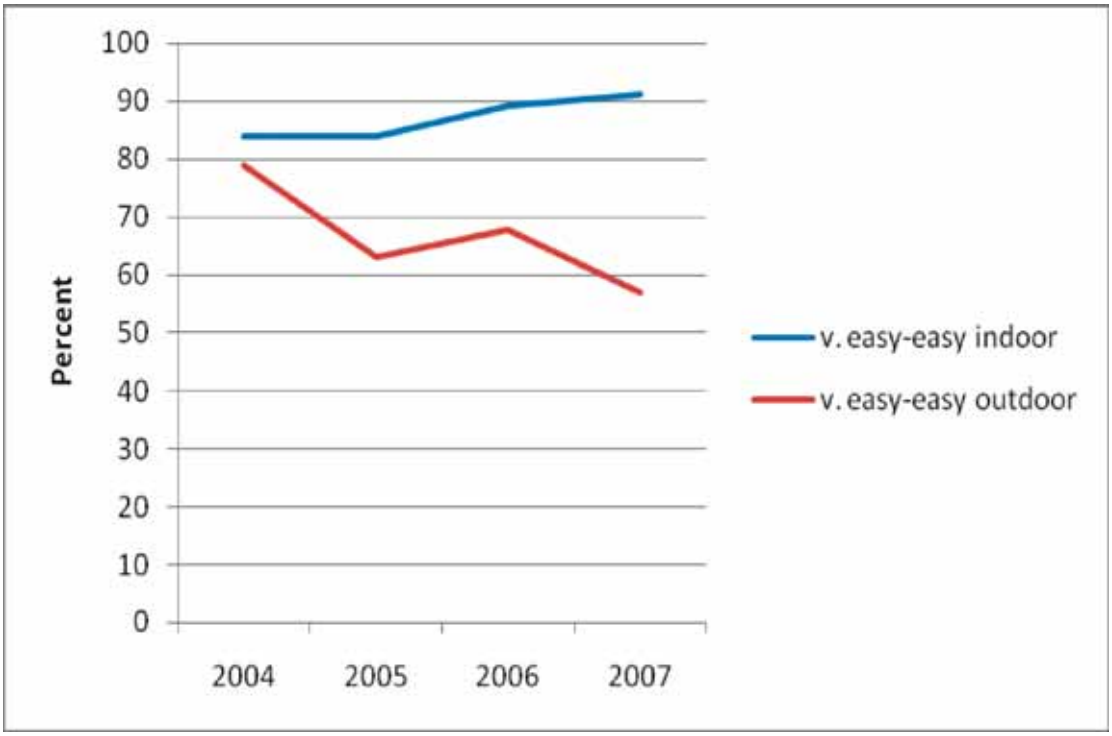
Source: SAPOL data files 2004–2008

Figure 3.13 Number of people charged with offences relating to armed and unarmed robbery July–September 2002 to April–June 2008



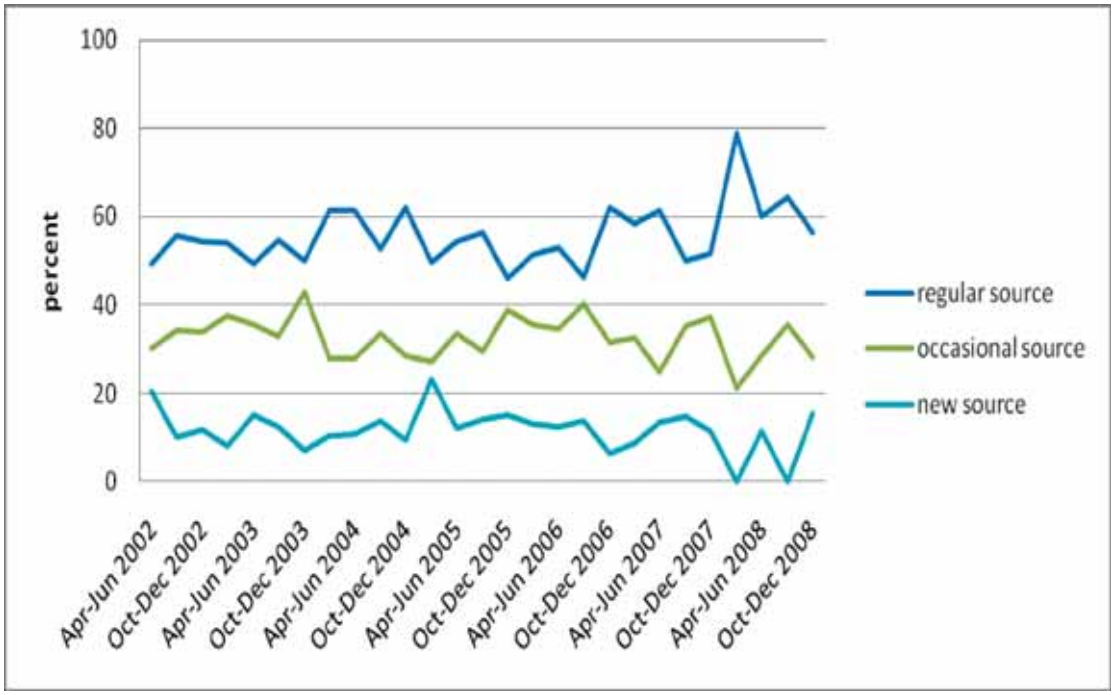
Source: SAPOL data files 2002–2008

Figure 3.14 Proportion of South Australian users who reported that cannabis was very easy/easy to obtain, 2004 to 2007



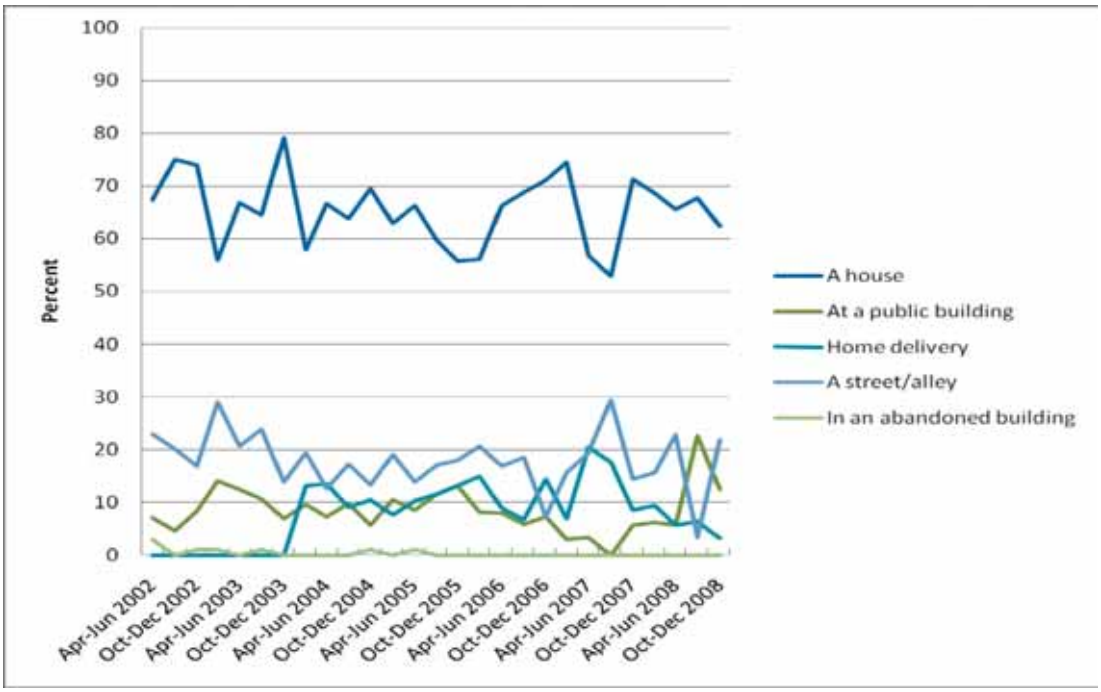
Note: Between 1998 and 2003, availability of cannabis was recorded as a whole, and not divided into indoor and outdoor.
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.15 Proportion of SA DUMA respondents who obtained their cannabis the last time from a regular, occasional or new source, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

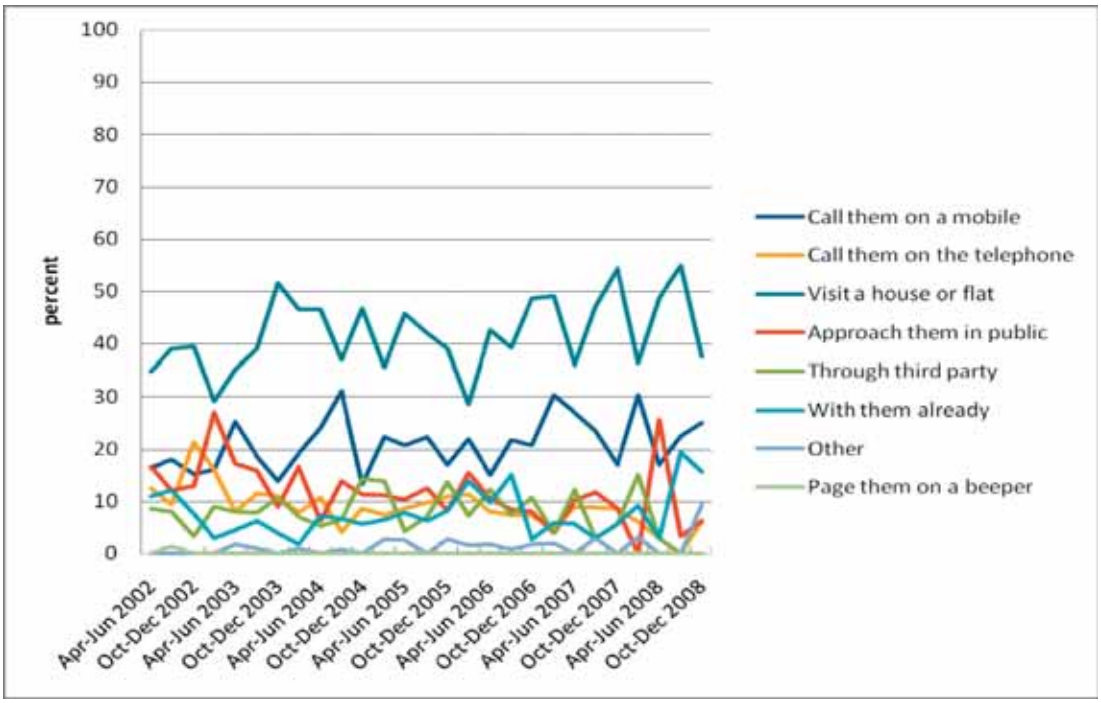
Figure 3.16 Proportion of SA DUMA respondents who sourced their cannabis the last time from a house/flat, public building, via home delivery or in the street/alley, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

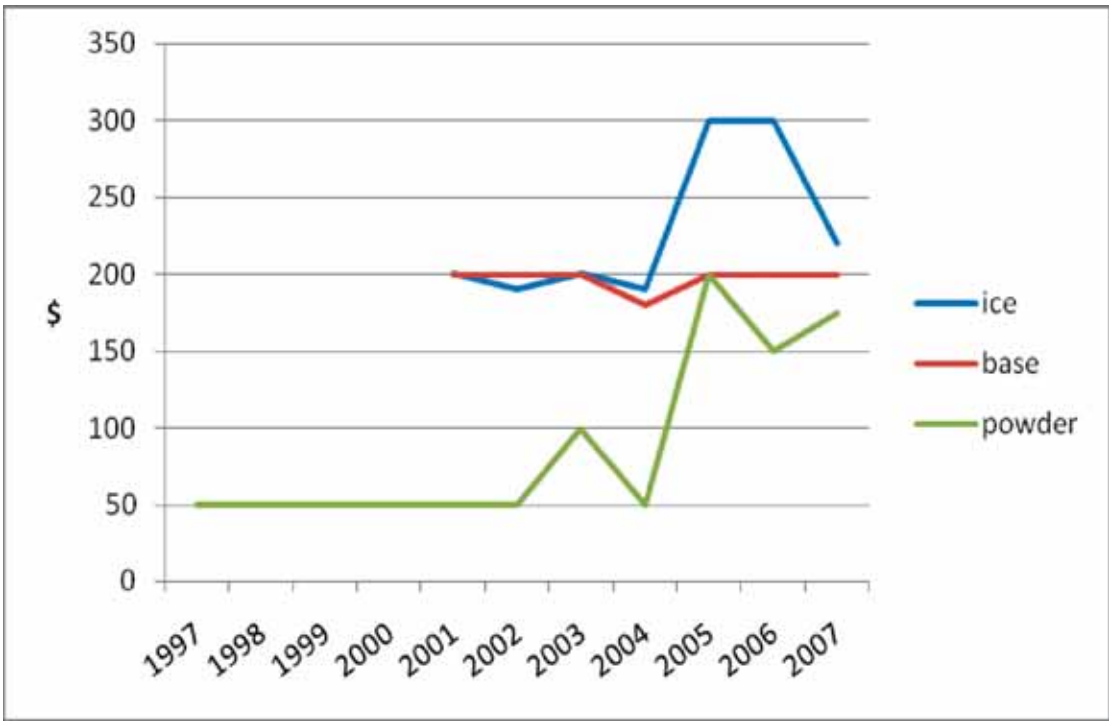
Figure 3.17 Proportion of SA DUMA respondents who contacted their cannabis supplier the last time: with a mobile phone; via telephone; visiting a house/flat; approaching them in public; via a third party; or because they were already with them, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

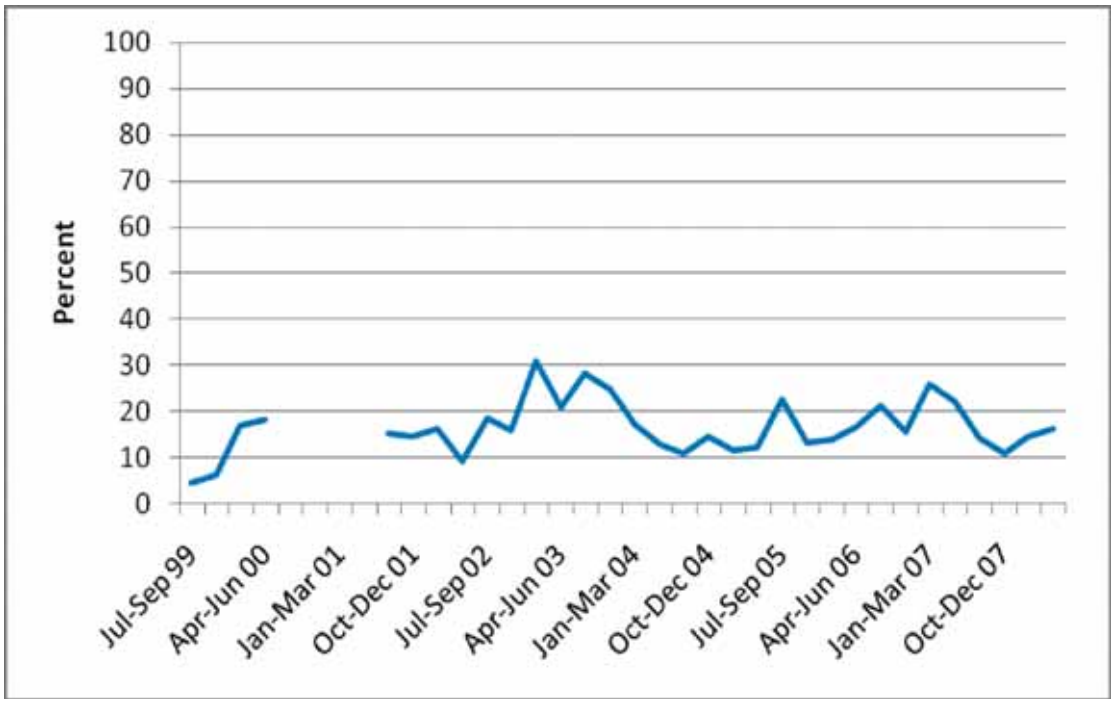
Figure 3.18 Self–reported median methamphetamine street price (per gram) in South Australia, 1997 to 2007



Note: Between 1997 and 2001 prices for the three forms of the drug are combined

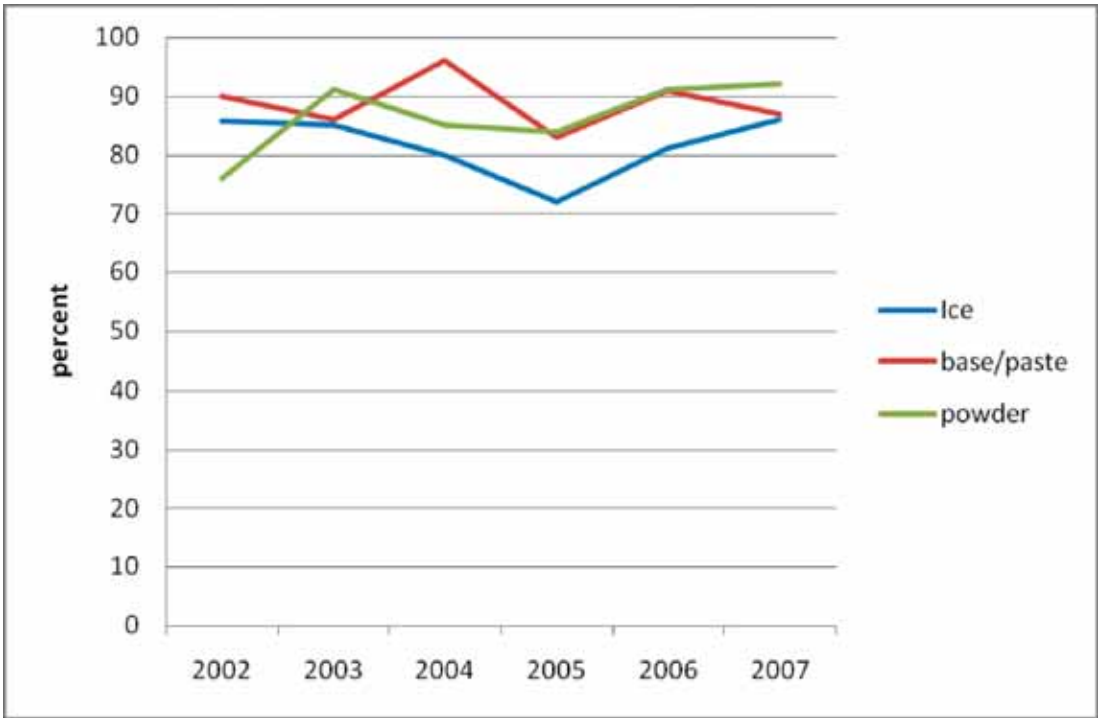
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.19 Median purity of methamphetamines seizures in South Australia, July–September 1999 to April–June 2008



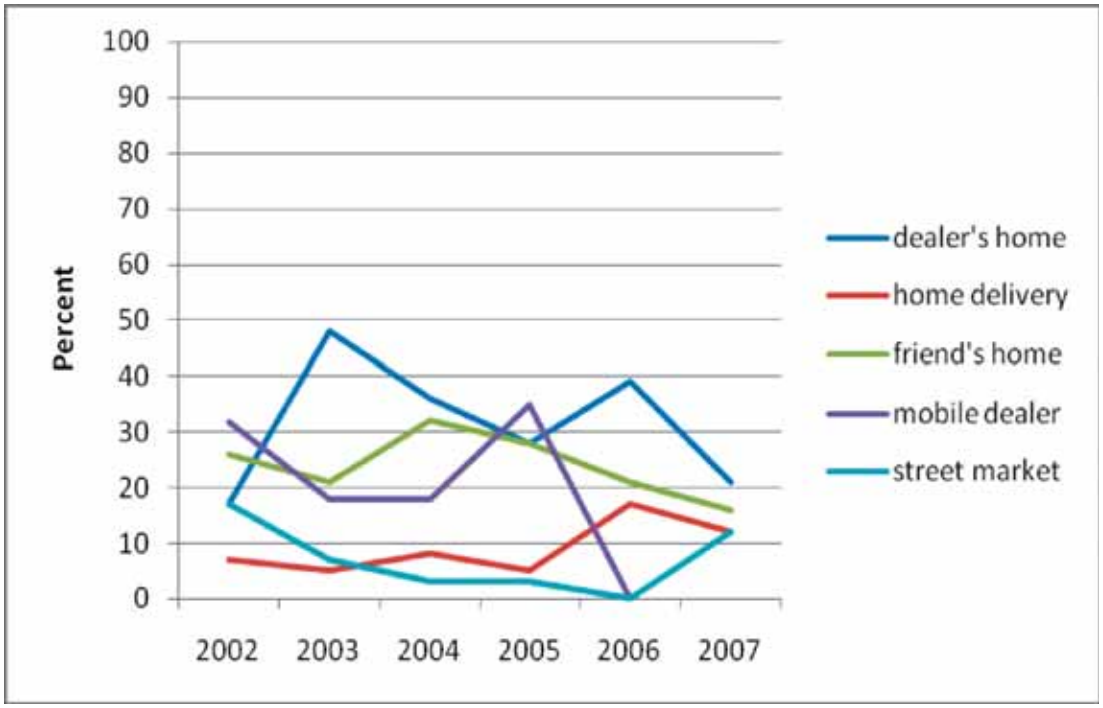
Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 3.20 Proportion of South Australian users who reported that methamphetamines were 'very easy/easy' to obtain, 2002 to 2007



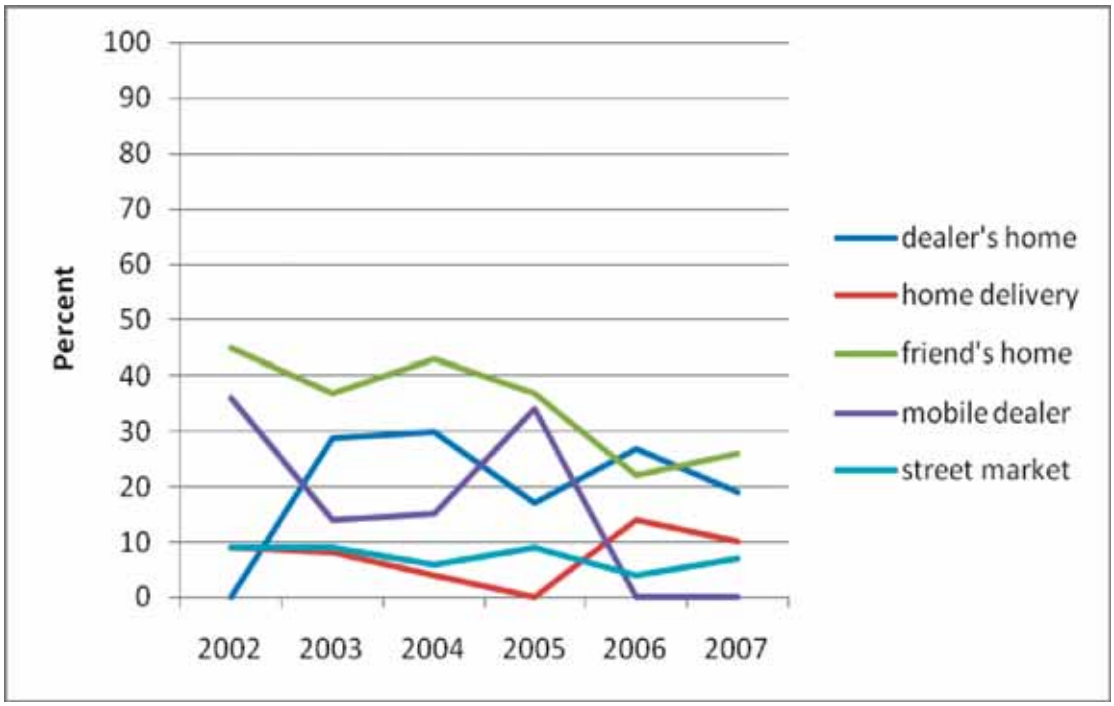
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.21 Proportion of SA IDRS respondents who purchased methamphetamines (base/paste) from a dealer's home, through home delivery, a friend's home, a mobile dealer or off the street, April–June 2002 to October–December 2007



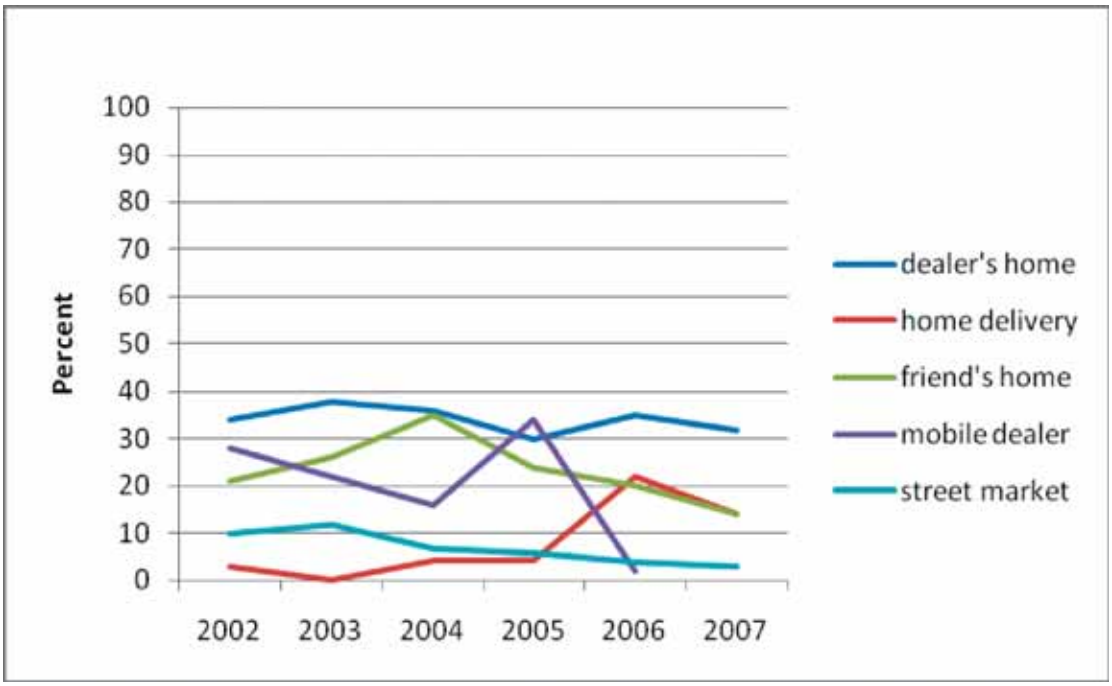
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.22 Proportion of SA IDRS respondents who purchased methamphetamines (ice) from a dealer's home, through home delivery, a friend's home, a mobile dealer or off the street, April–June 2002 to October–December 2007



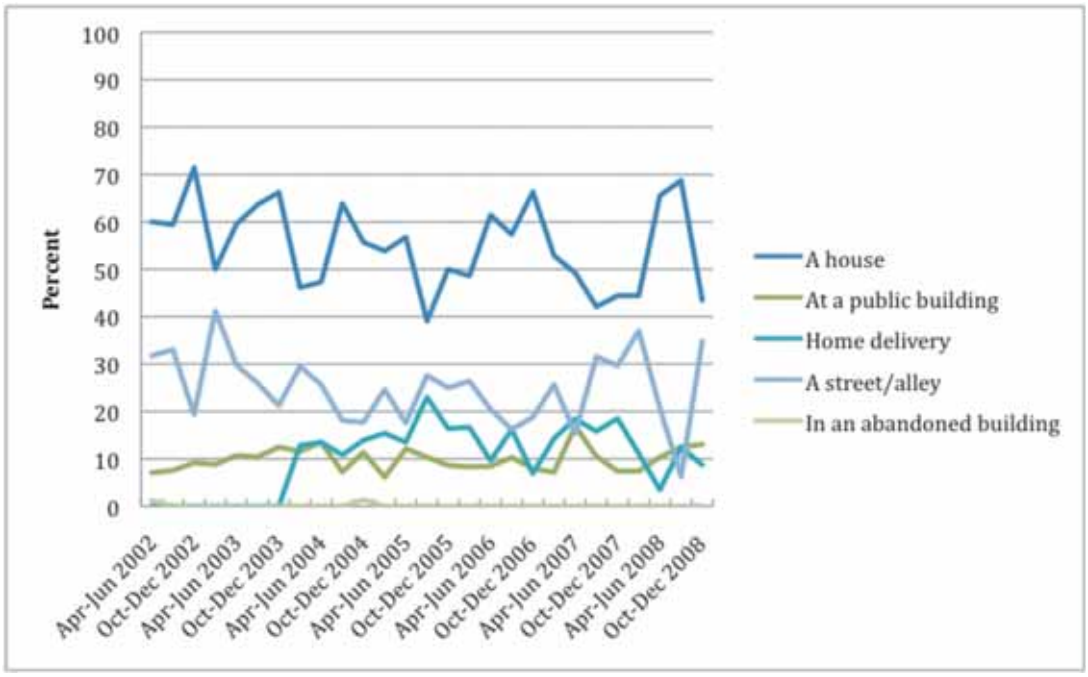
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.23 Proportion of SA IDRS respondents who purchased methamphetamines (powder) from a dealer's home, through home delivery, a friend's home, a mobile dealer or off the street, April–June 2002 to October–December 2007



Source: Illicit Drug Reporting System annual reports (South Australia)

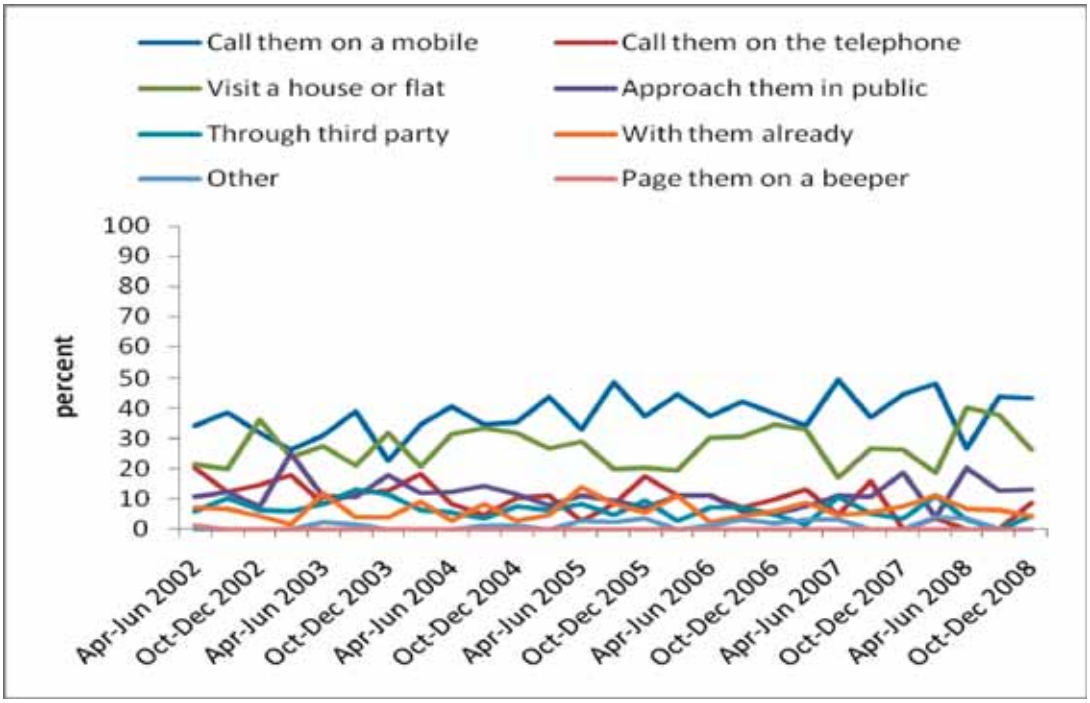
Figure 3.24 Proportion of SA DUMA respondents who sourced their amphetamines (speed) the last time from a house/flat, public building, via home delivery, in the street/alley or from an abandoned building, April-June 2002 to October-December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007. .

Source: Australian Institute of Criminology, DUMA collection 2002-2008 [computer file]

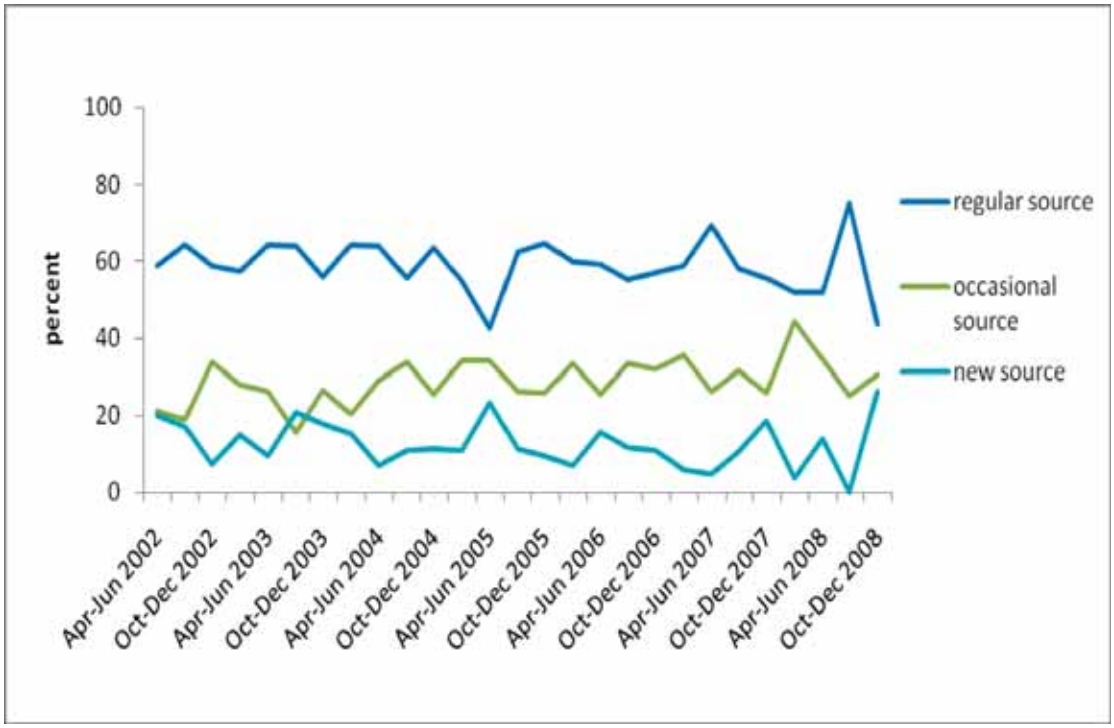
Figure 3.25 Proportion of SA DUMA respondents who contacted their amphetamines (speed) supplier the last time: with a mobile phone; via telephone; visiting a house/flat; approaching them in public; via a third party; or because they were already with them, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file

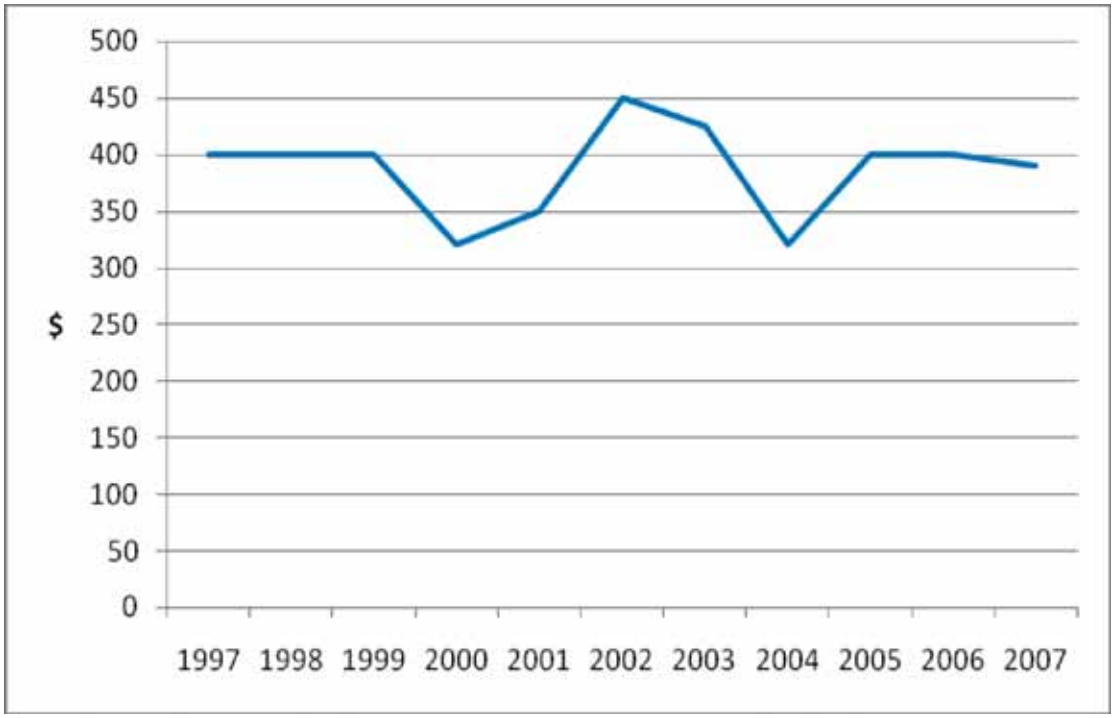
Figure 3.26 Proportion of SA DUMA respondents who obtained amphetamines (speed) the last time from a regular, occasional or new source, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

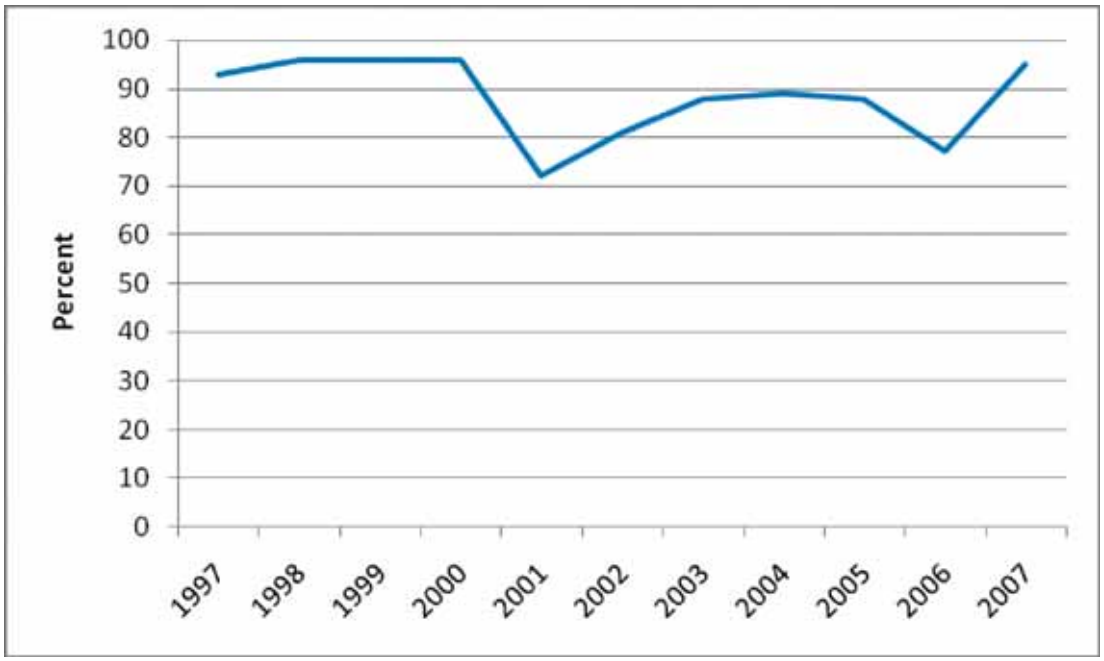
Figure 3.27 Self-reported heroin price (per gram) in South Australia, 1997 to 2007



Note: Data used for 2001 and 2002 reflect modal price paid per gram. All other data used reflect median price paid per gram.

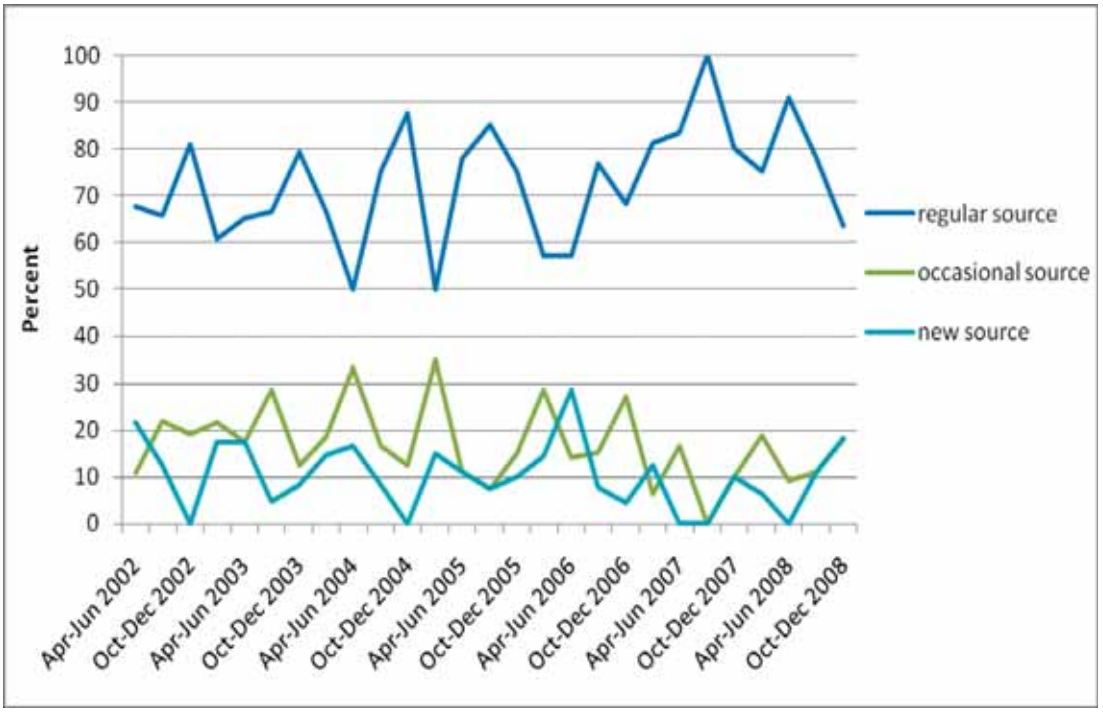
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.28 Proportion of South Australian users who reported that heroin was very easy/easy to obtain, 2002 to 2007



Source: Illicit Drug Reporting System annual reports (South Australia)

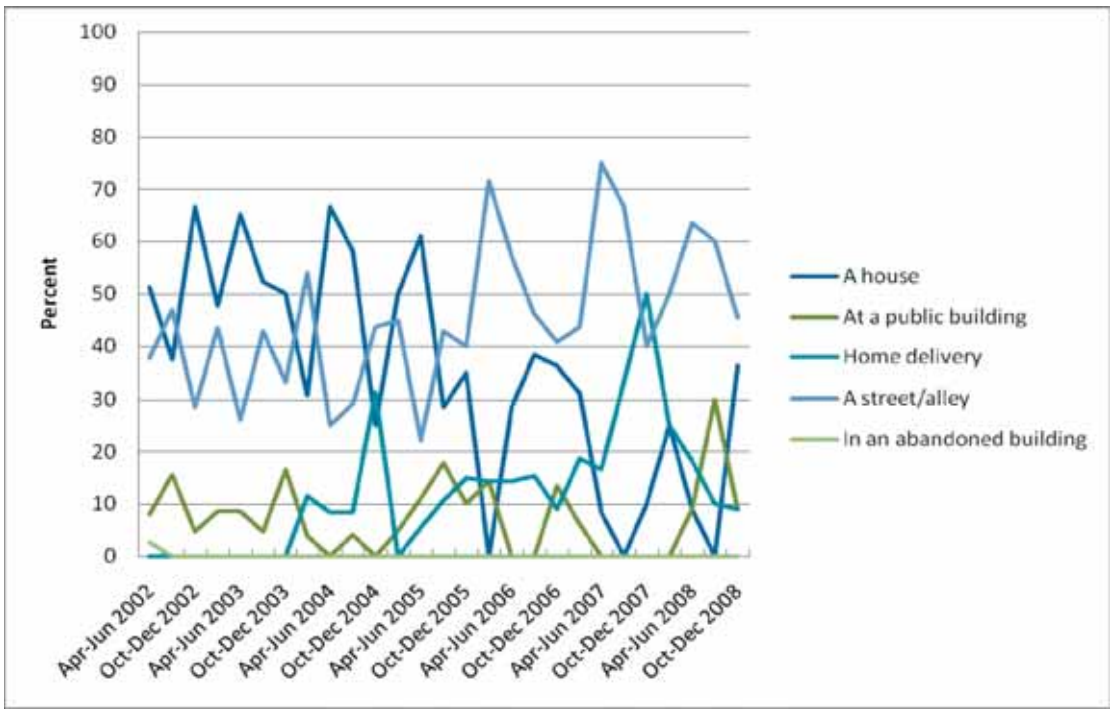
Figure 3.29 Proportion of SA DUMA respondents who obtained their heroin the last time from a regular, occasional or new source, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

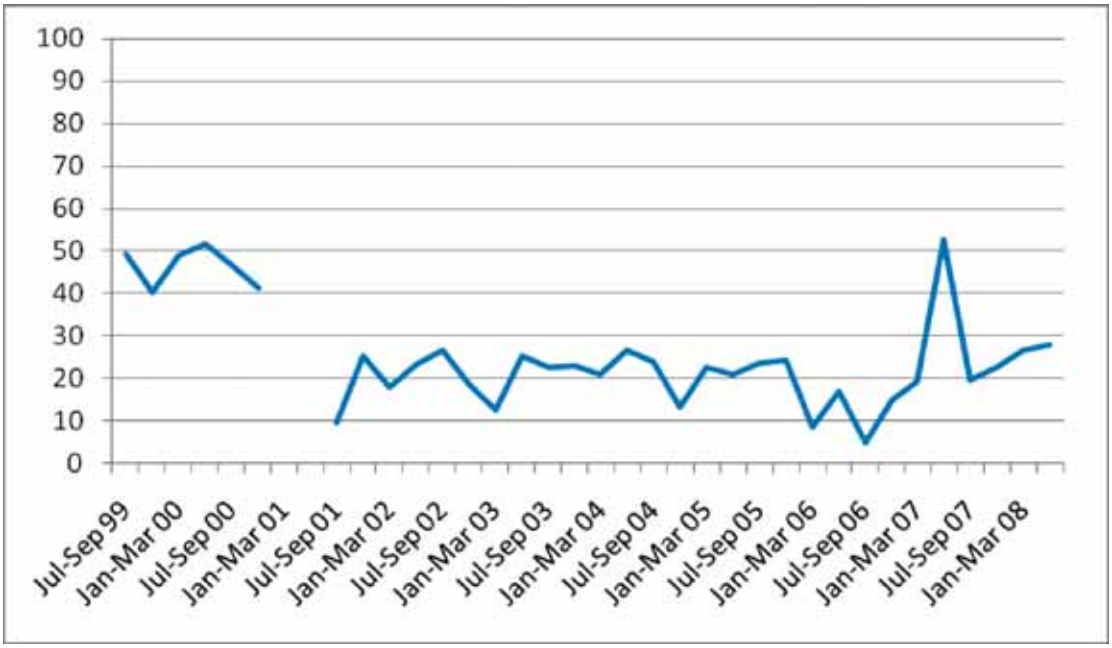
Figure 3.30 Proportion of SA DUMA respondents who sourced their heroin the last time from a house/flat, public building, via home delivery or in the street/alley, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007.

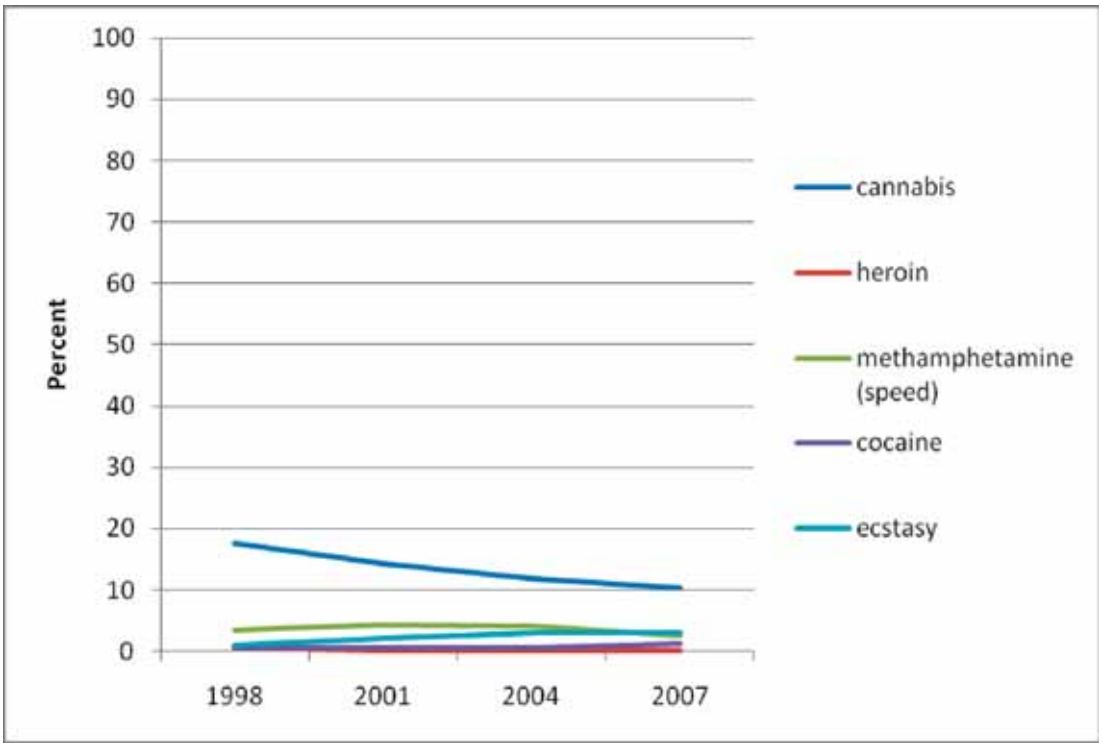
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.31 Median purity of heroin seizures in South Australia, July–September 1999 to April–June 2008



Source: Australian Crime Commission's Illicit Drug Data Reports

Figure 3.32 Proportion of people who used illicit drugs in the past month by drug type 1998, 2001, 2004 and 2007



Source: National Drug Strategy Household Survey (AIHW)

Figure 3.33 Proportion of SA DUMA respondents who reported use of cannabis in the last 30 days, April–June 2002 to October–December 2008

Note: DUMA was not conducted at the Elizabeth site from June 2007

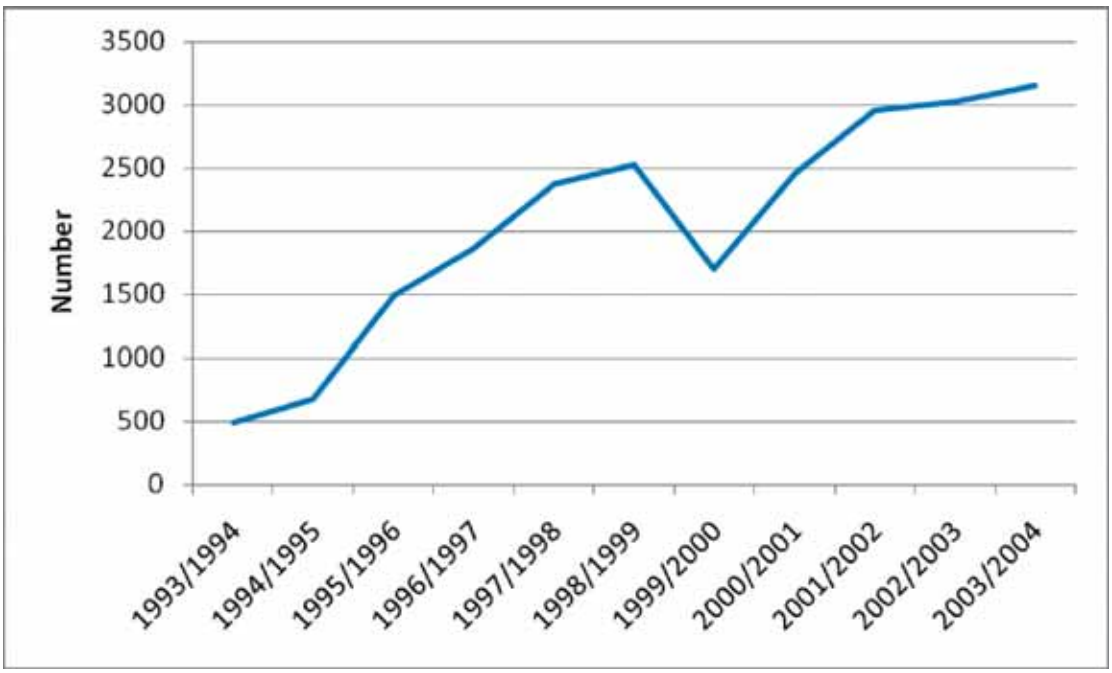
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.34 Proportion of SA DUMA respondents who reported regular use of cannabis in the last 30 days, April–June 2002 to October–December 2008

Note: DUMA was not conducted at the Elizabeth site from June 2007. Regular use calculated by counting the number of respondents who used the drug 12 or more times in a month.

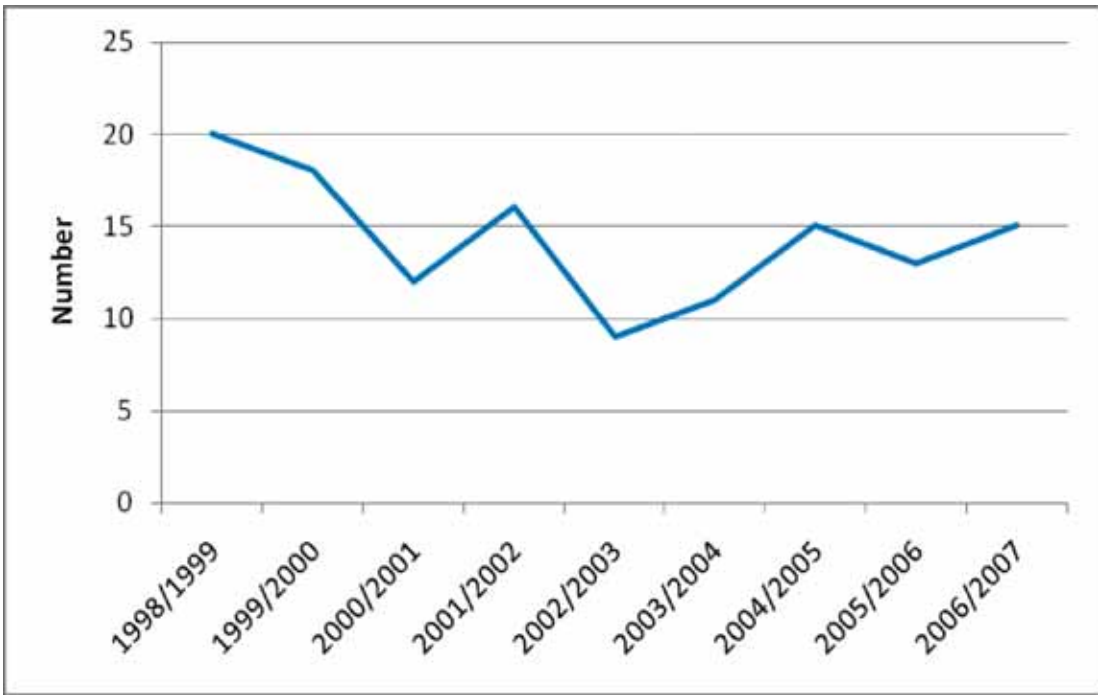
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.35 Number of cannabis-related public hospital admissions in South Australia, 1993/94 to 2003/04



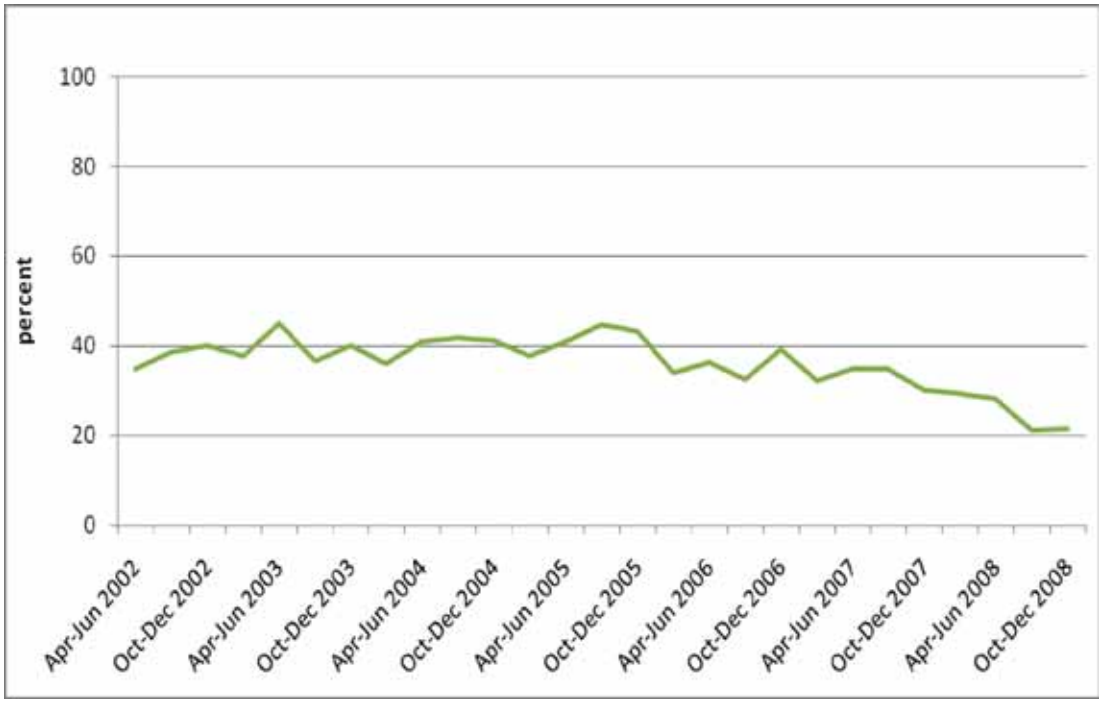
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.36 Number of cannabis-related attendances to the hospital emergency department in South Australia, 1998/99 to 2006/07



Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.37 Proportion of SA DUMA respondents who reported use of speed in the last 30 days, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the Elizabeth site from June 2007

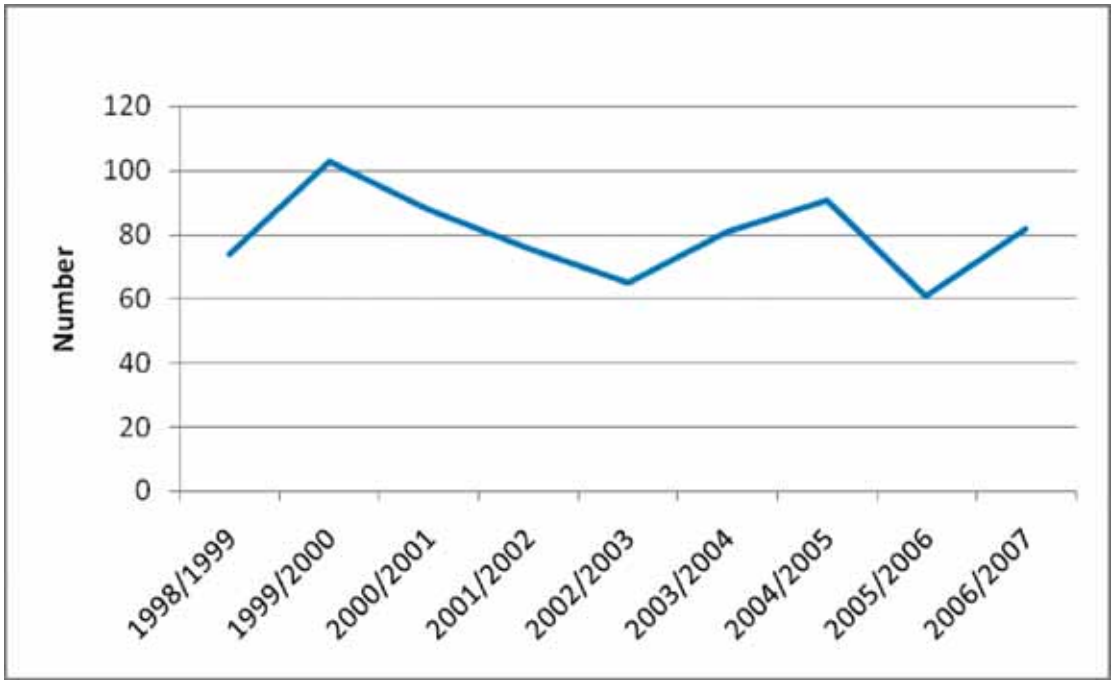
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.38 Proportion of SA DUMA respondents who reported regular use of speed in the last 30 days, April–June 2002 to October–December 2008

Note: DUMA was not conducted at the Elizabeth site from June 2007. Regular use calculated by counting the number of respondents who used the drug 12 or more times in a month.

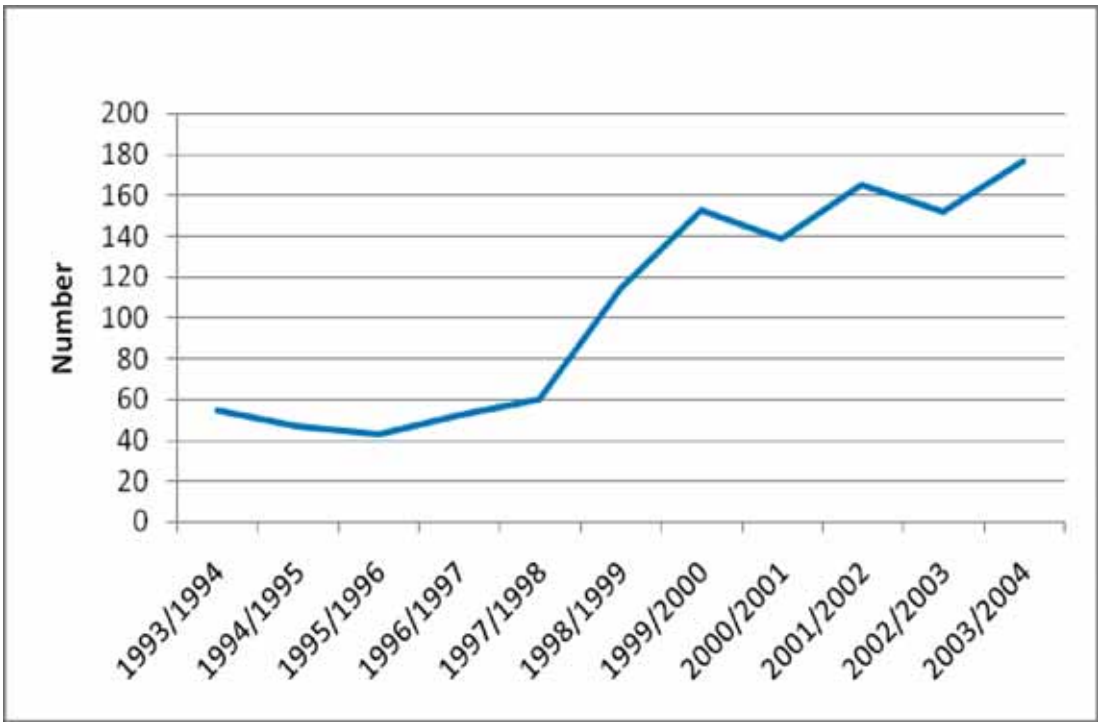
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.39 Number of methamphetamines-related attendances to the hospital emergency department in South Australia, 1998/99 to 2006/07



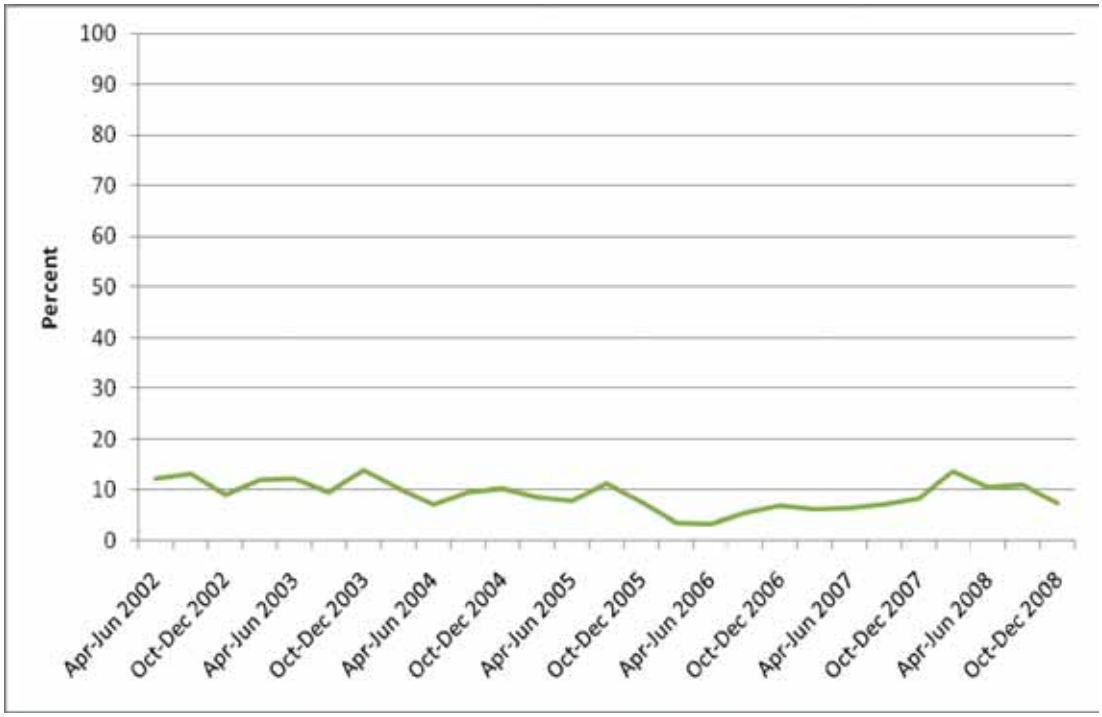
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.40 Number of methamphetamines-related public hospital admissions in South Australia, 1993/94 to 2003/04



Source: Illicit Drug Reporting System annual reports (South Australia)

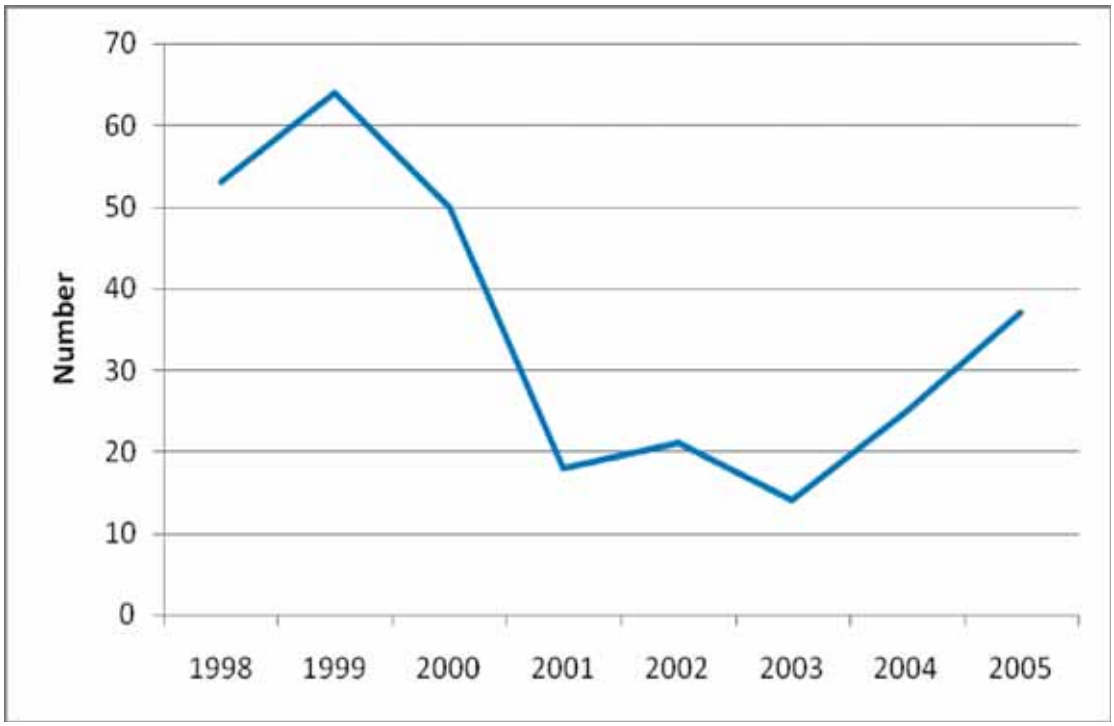
Figure 3.41 Proportion of SA DUMA respondents who reported heroin use in the last 30 days, April–June 2002 to October–December 2008



Note: DUMA was not conducted at the SA site between January 2006 and July 2006

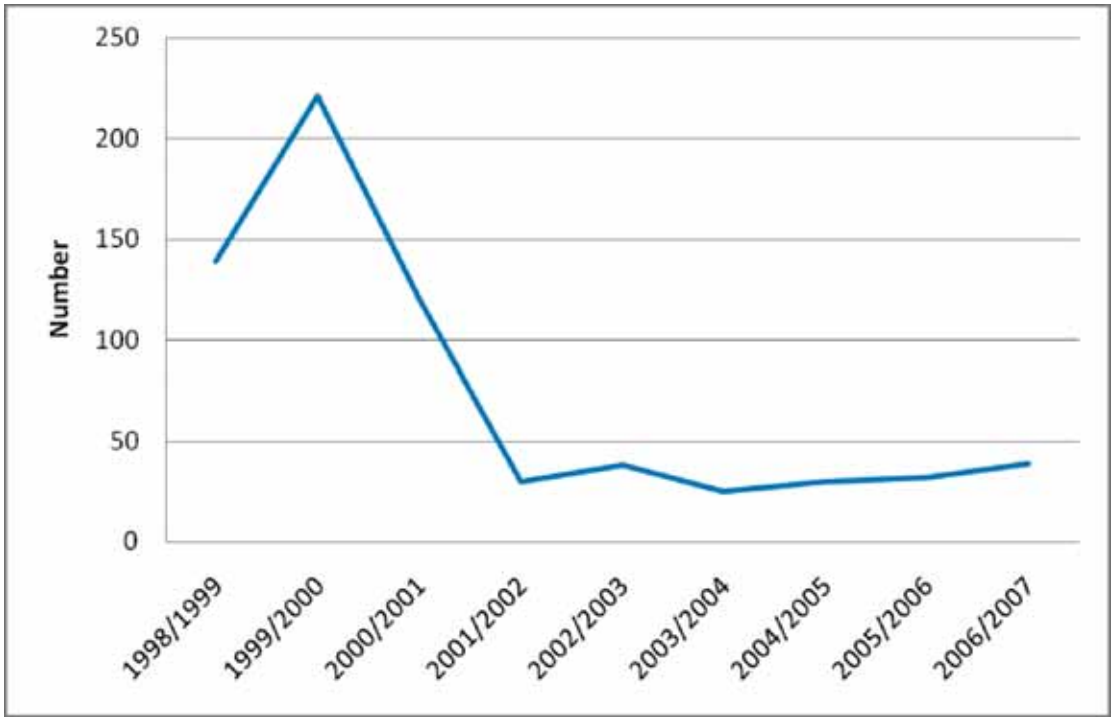
Source: Australian Institute of Criminology, DUMA collection 2002–2008 [computer file]

Figure 3.42 Number of accidental opioid deaths between 15 and 55 years in South Australia 2001 to 2005



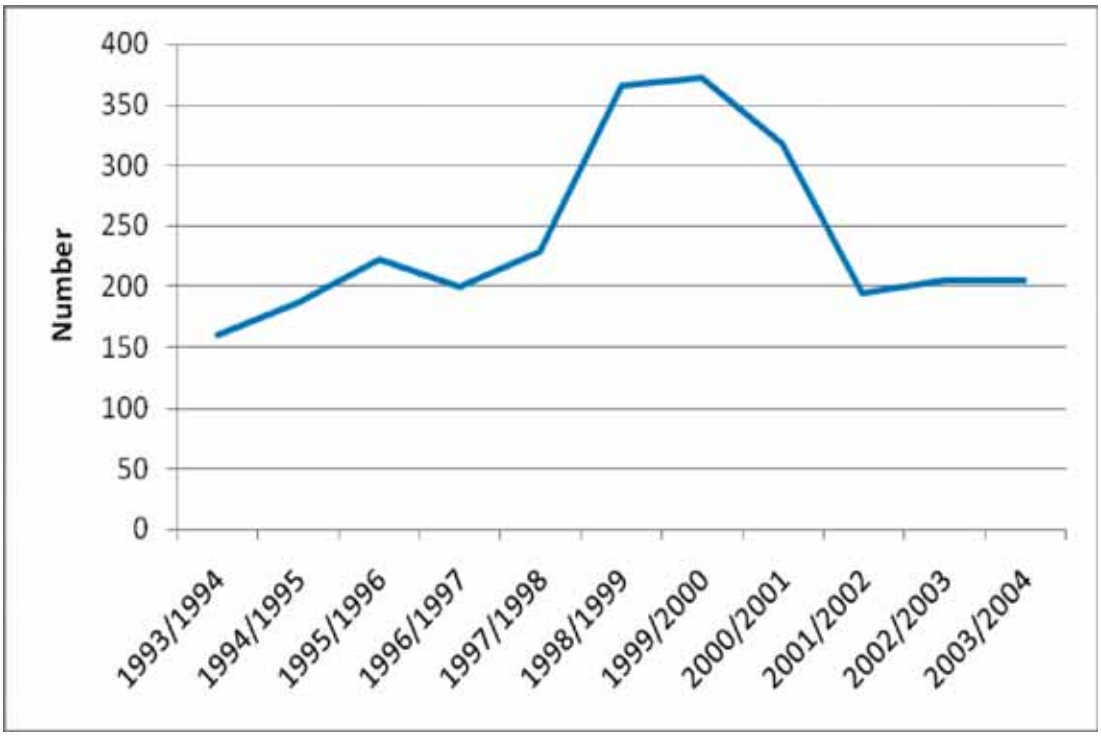
Source: Degenhardt L & Roxbourgh A 2007. Accidental drug induced deaths due to opioids in Australia, 2005. Sydney: NDARC

Figure 3.43 Number of heroin-related attendances to the hospital emergency department in South Australia, 1998/99 to 2006/07



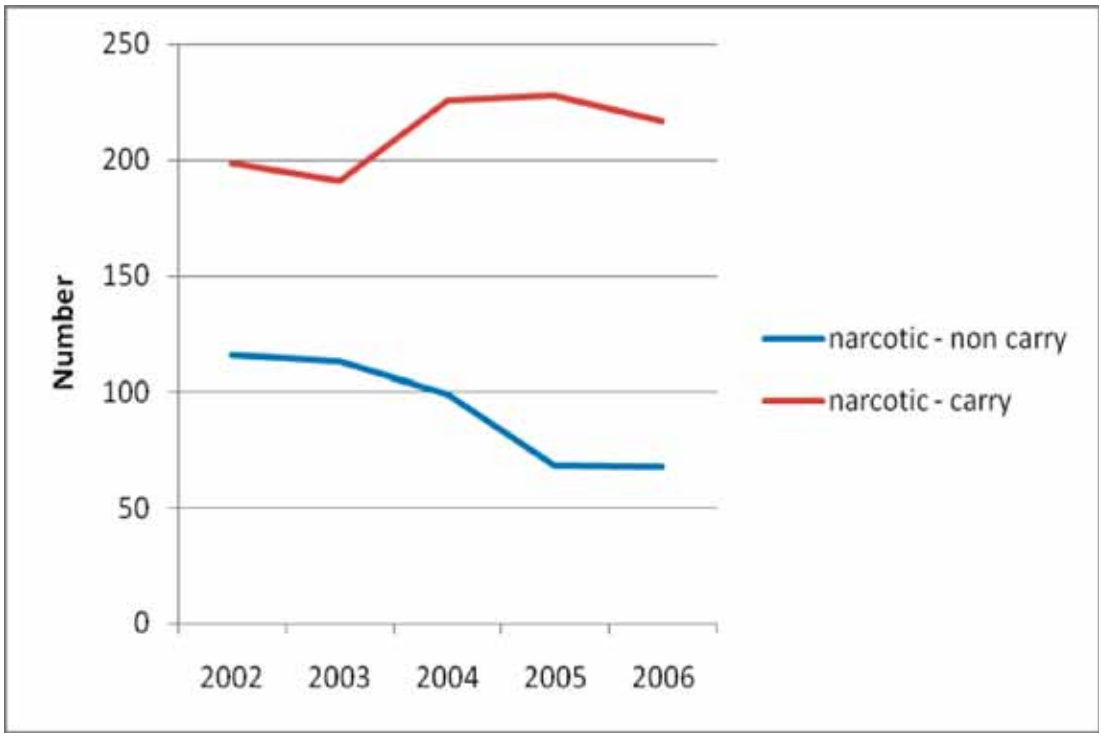
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.44 Number of heroin-related public hospital admissions in South Australia, 1993/94 to 2003/04



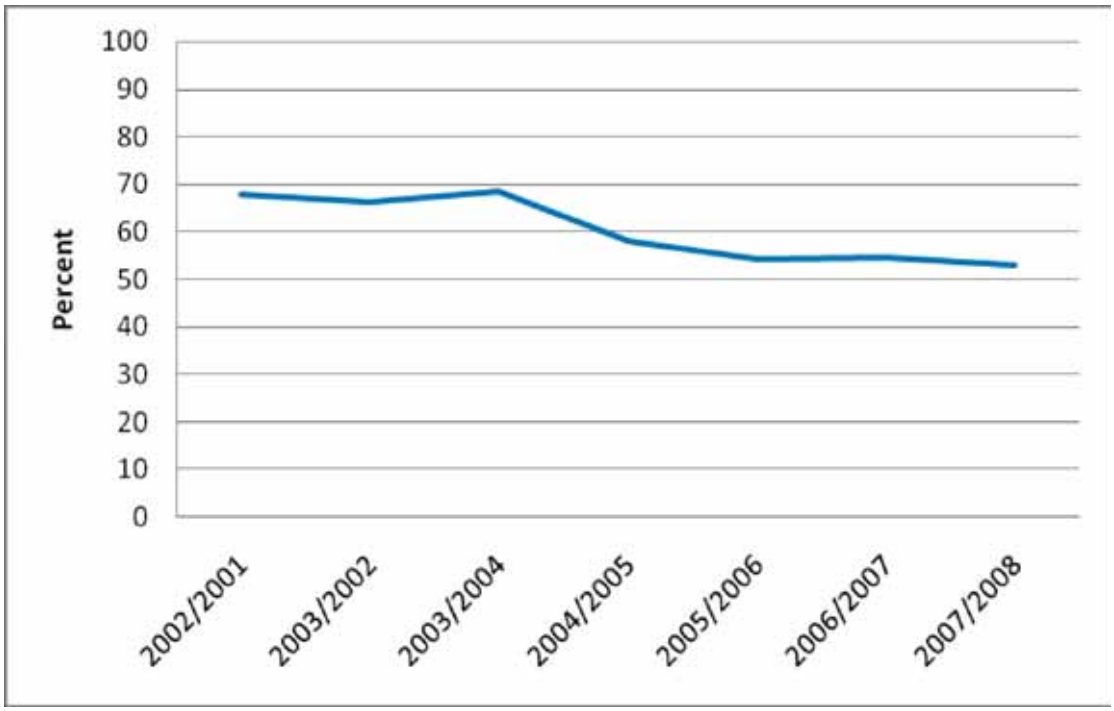
Source: Illicit Drug Reporting System annual reports (South Australia)

Figure 3.45 Number of ambulance attendances for carry and non-carry narcotic related callouts 2002 to 2006



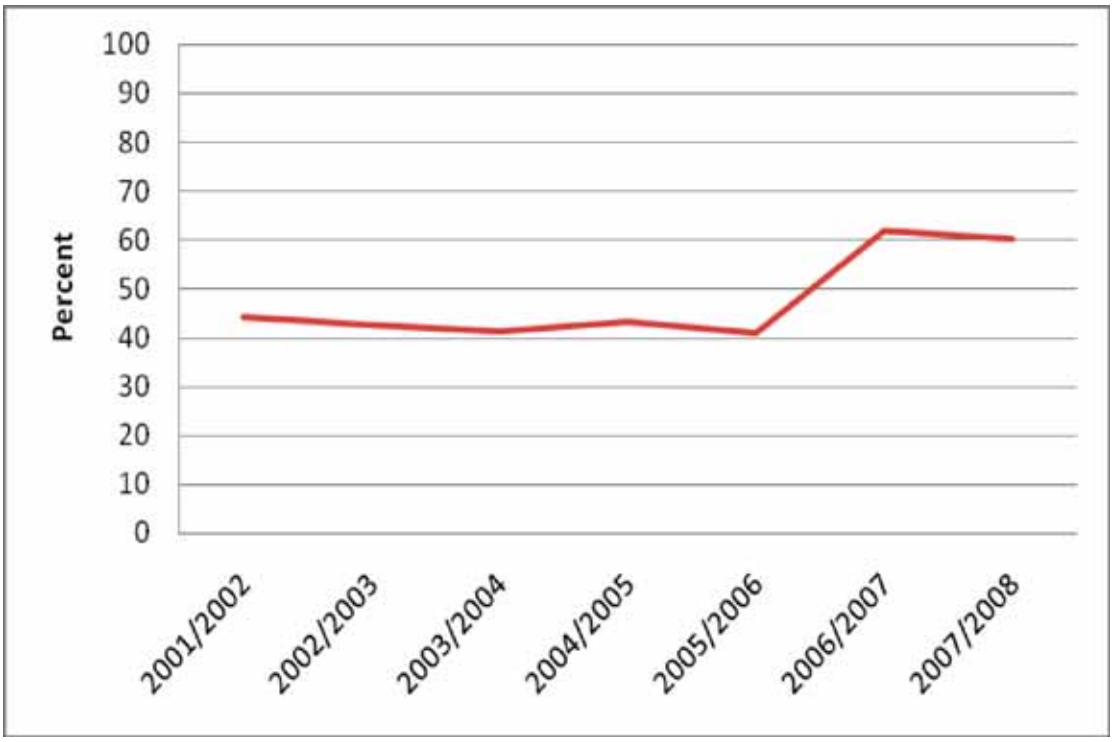
Source: South Australian Ambulance Service

Figure 3.46 Proportion of South Australians who think that illegal drugs are a major problem/ somewhat of a problem in their neighbourhood, 2001–02 to 2007–08



Source: Productivity Commission 2000–2009

Figure 3.47 Proportion of South Australians who feel safe walking/jogging in public after dark in their neighbourhood, 2001–02 to 2007–08

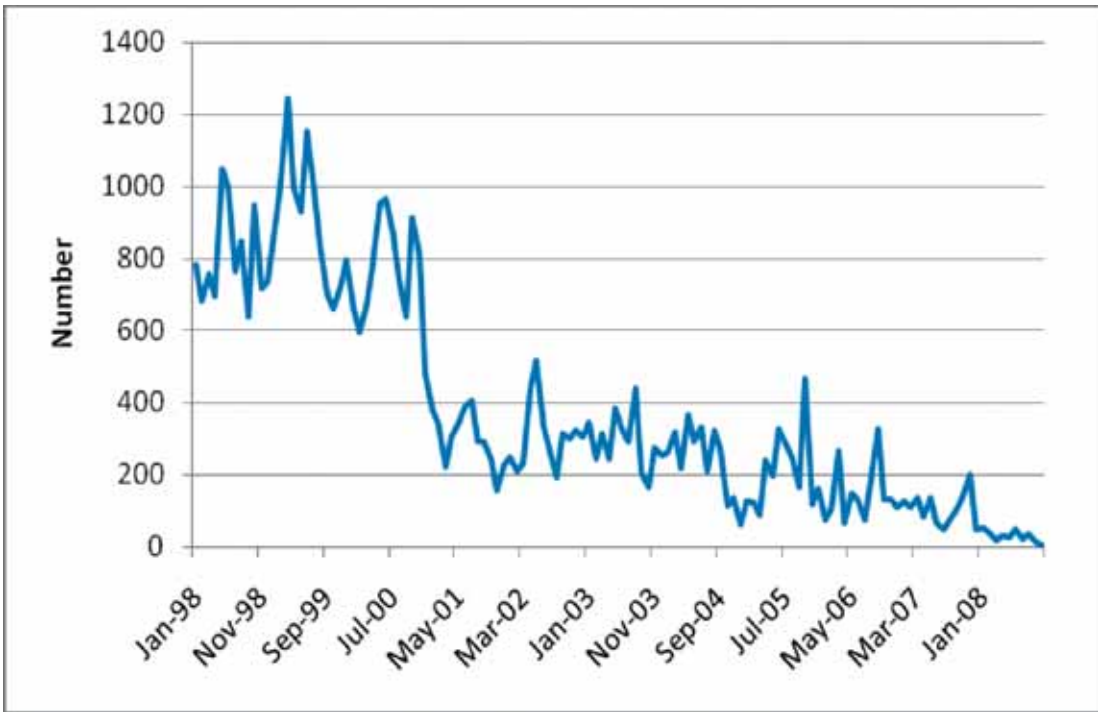


Source: Productivity Commission 2000–2009

Appendix 6: Victorian data

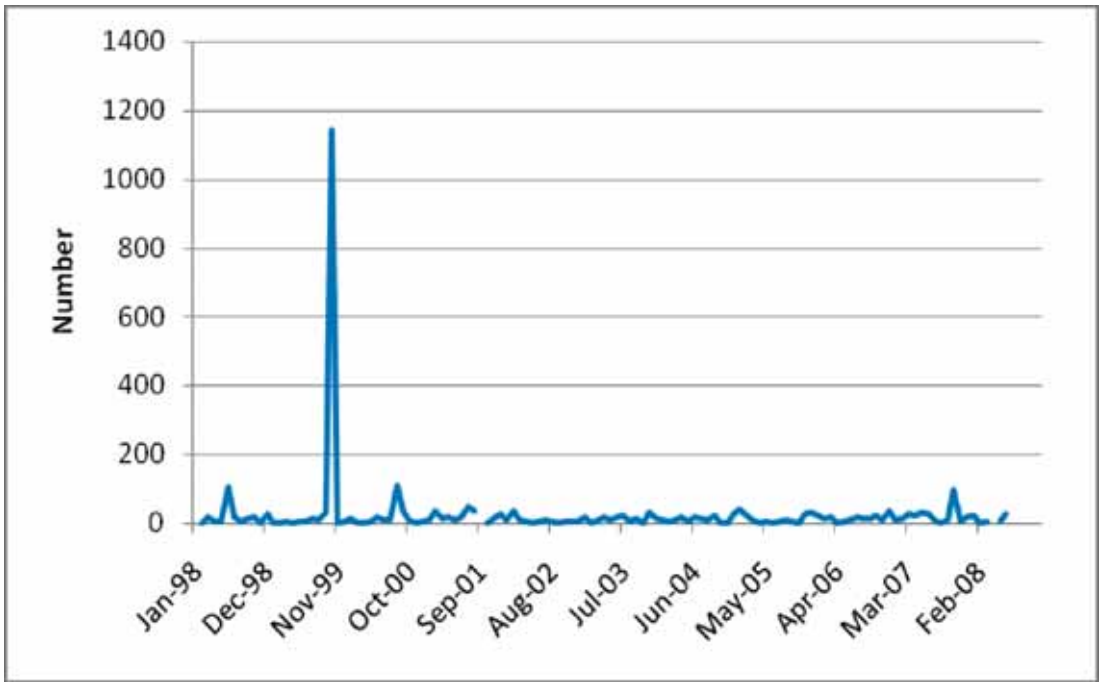
Data figures

Figure 4.2 Total number of heroin seizures, January 1998 to October 2008



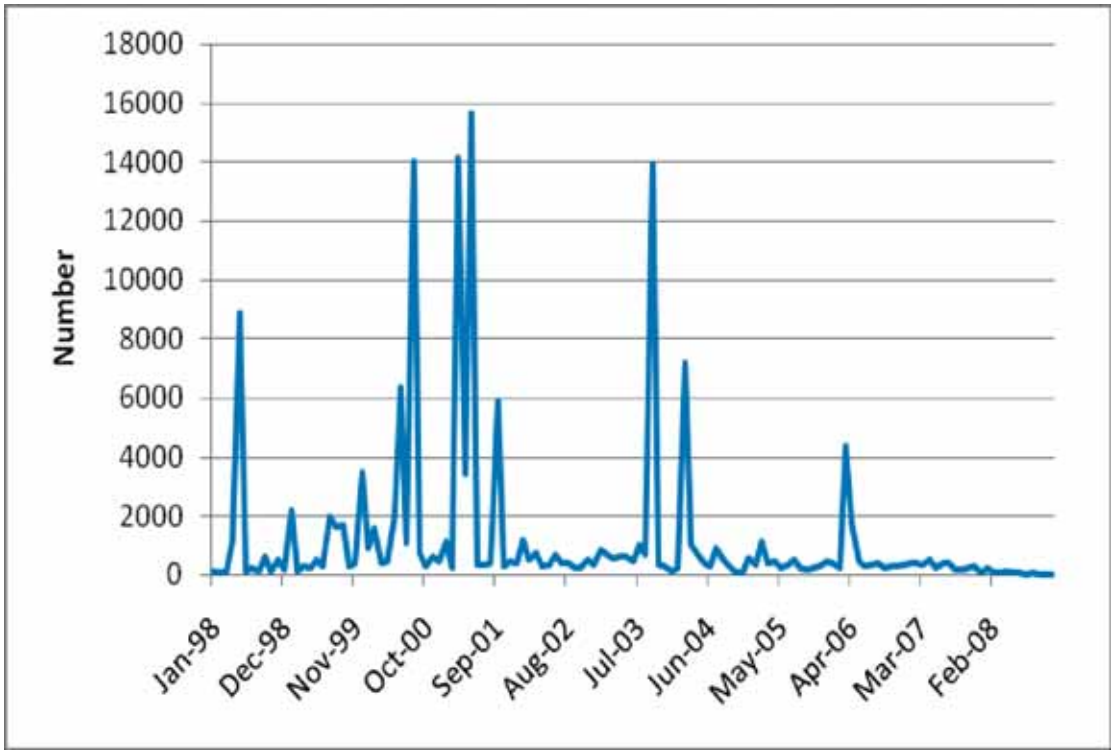
Source: Victoria Police Forensic Services Department

Figure 4.3 Total number of cocaine seizures, January 1998 to November 2008



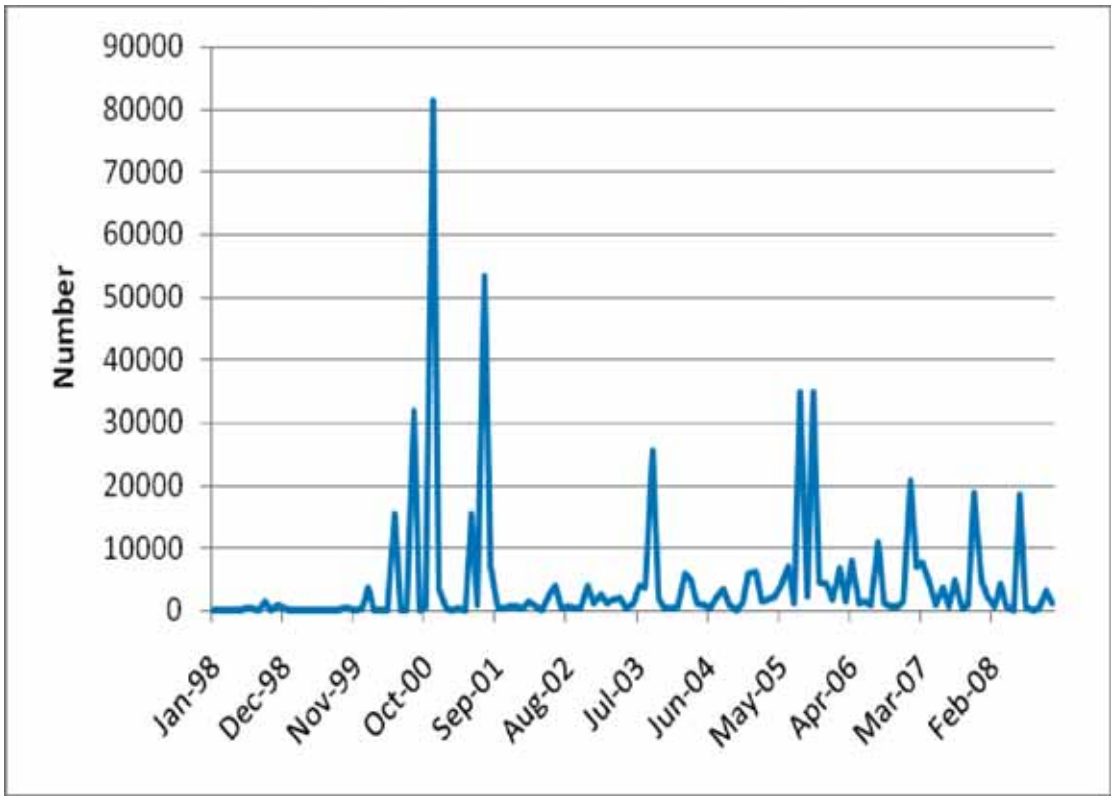
Source: Victoria Police Forensic Services Department

Figure 4.4 Total number of amphetamine seizures, January 1998 to November 2008



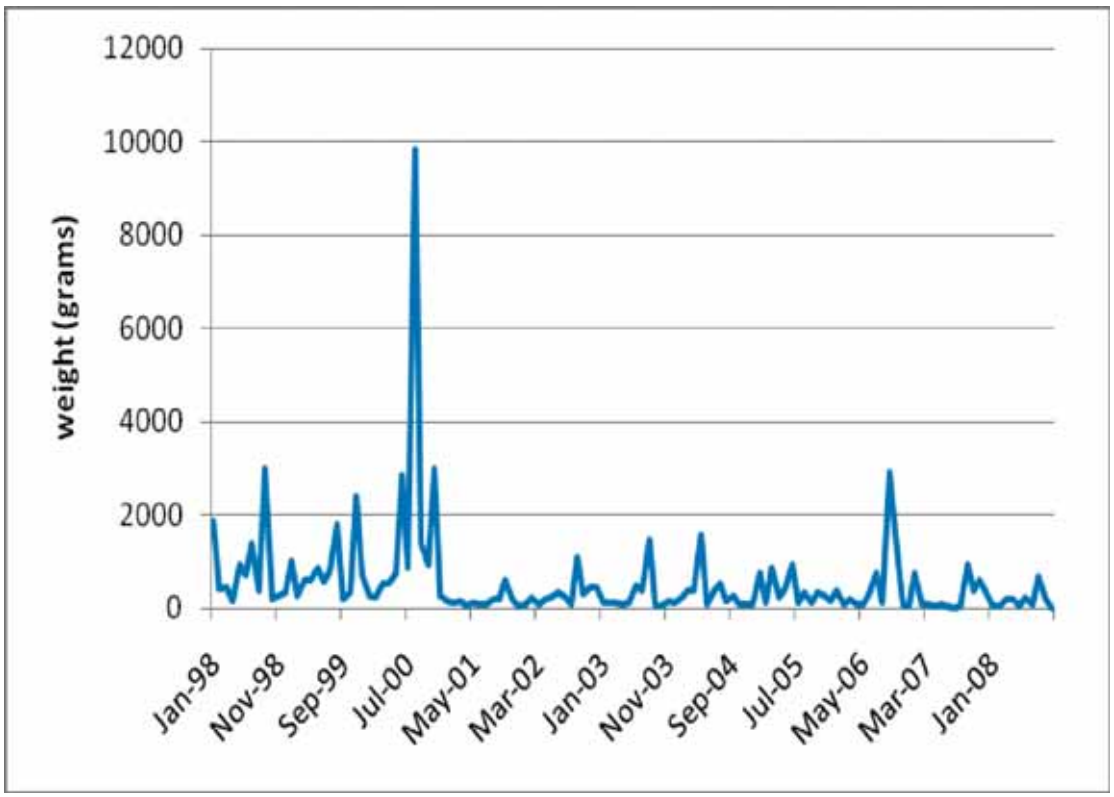
Source: Victoria Police Forensic Services Department

Figure 4.5 Total number of MDMA seizures, January 1998 to November 2008



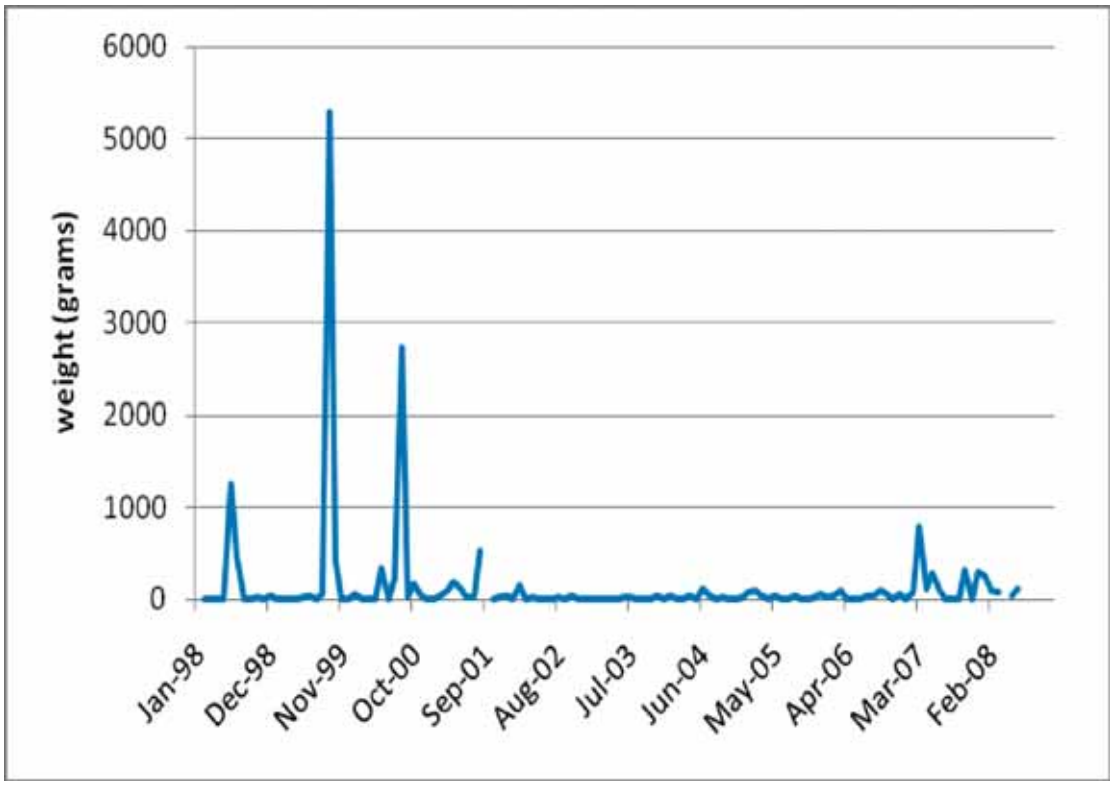
Source: Victoria Police Forensic Services Department

Figure 4.6 Total weight of heroin seizures, January 1998 to October 2008



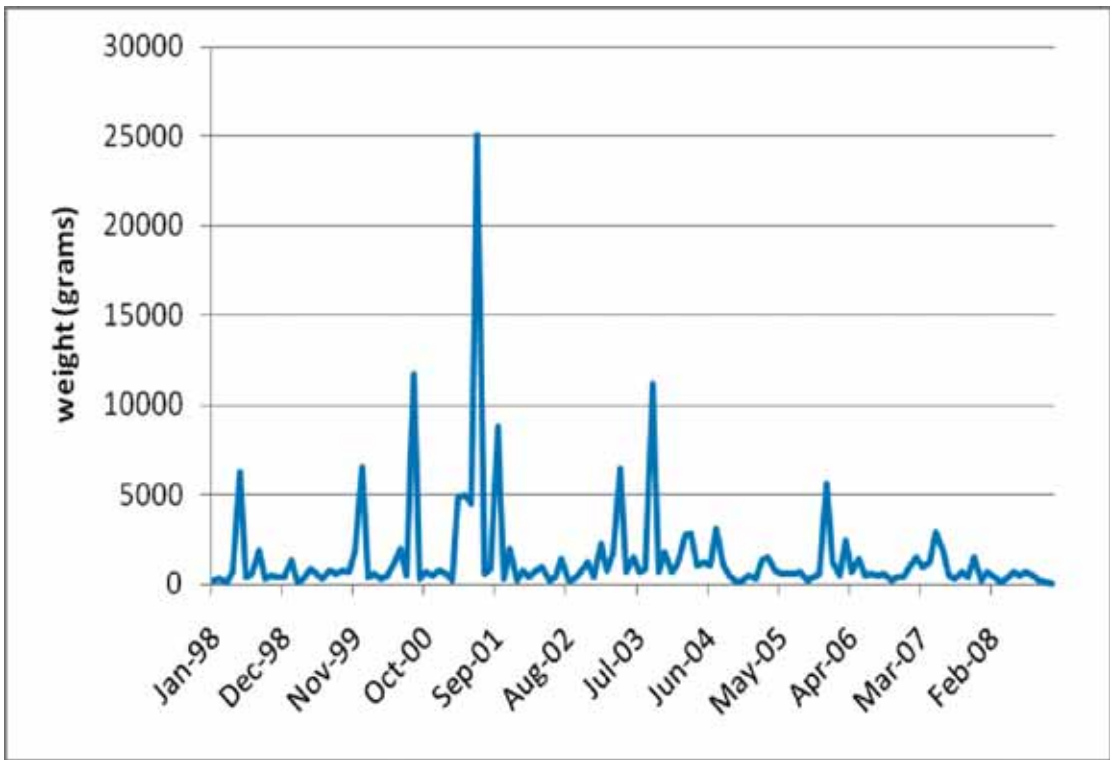
Source: Victoria Police Forensic Services Department

Figure 4.7 Total weight of cocaine seizures, January 1998 to November 2008



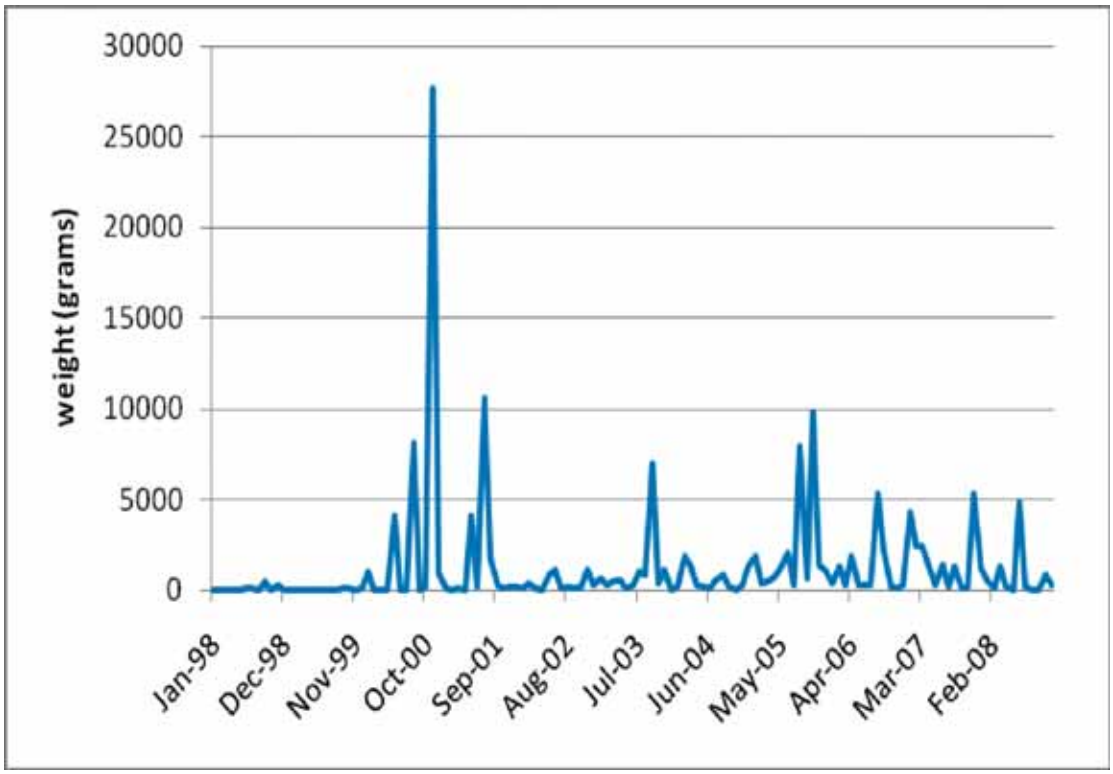
Source: Victoria Police Forensic Services Department

Figure 4.8 Total weight of amphetamine seizures, January 1998 to November 2008



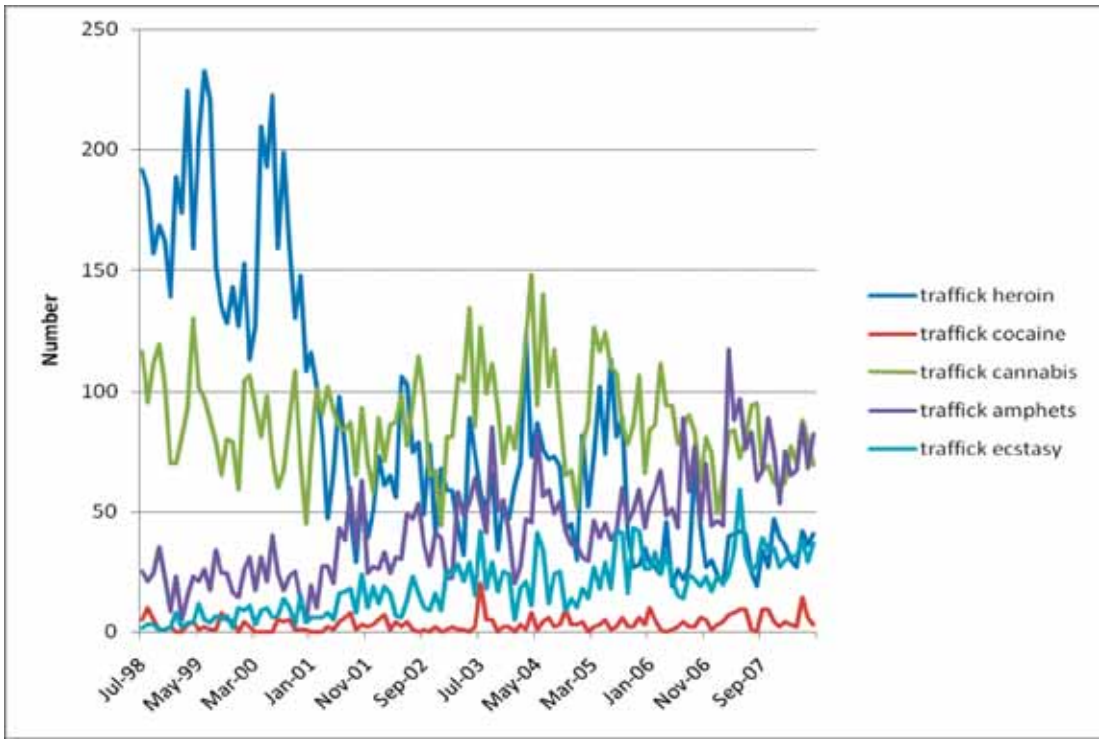
Source: Victoria Police Forensic Services Department

Figure 4.9 Total weight of MDMA seizures, January 1998 to November 2008



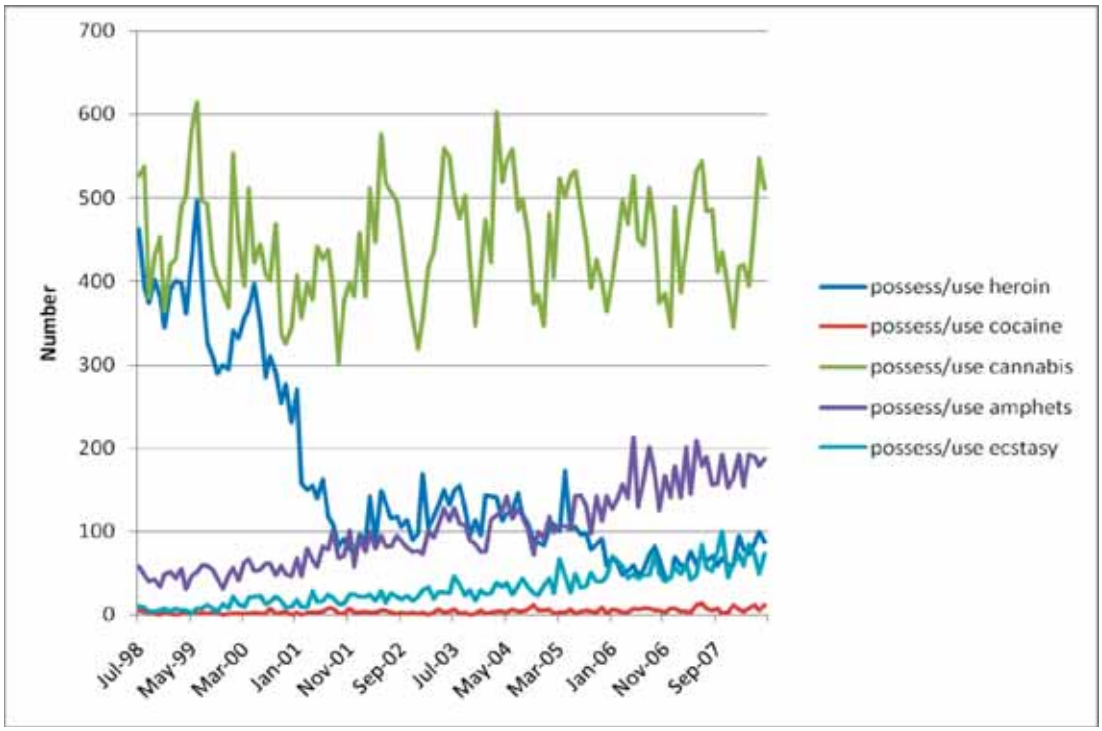
Source: Victoria Police Forensic Services Department

Figure 4.10 Number of people processed for drug trafficking offences, January 1998 to June 2008



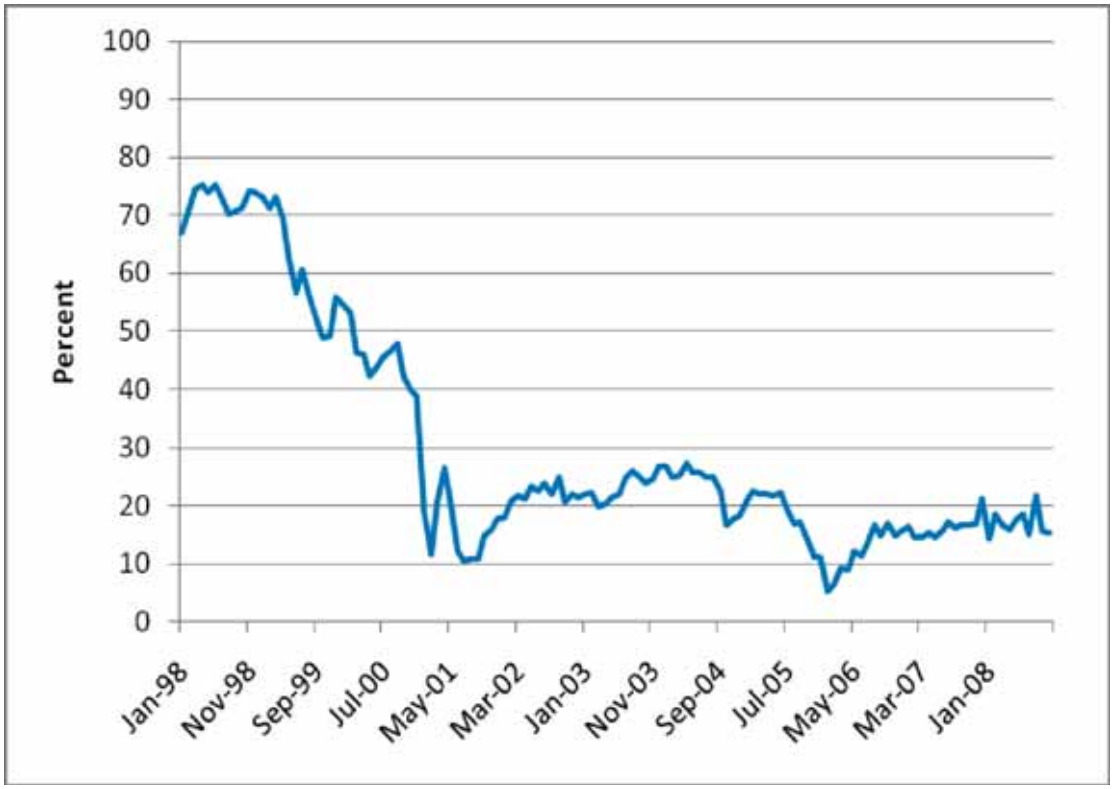
Source: Corporate Statistics, Victoria Police

Figure 4.11 Number of people processed for possess/use drug offences, January 1998 to June 2008



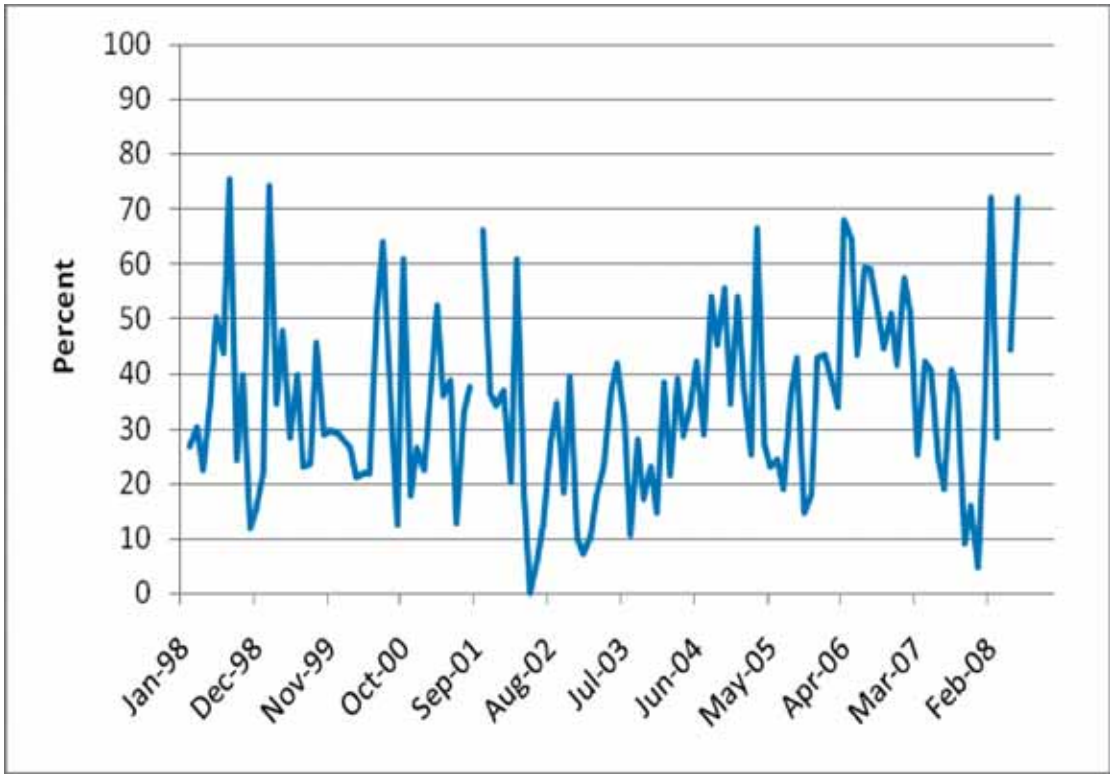
Note: Cannabis offences also include possess/use hashish; amphetamine offences also include possess/use methamphetamines. Traffick offences include traffick in commercial and large commercial quantities.
Source: Corporate Statistics, Victoria Police

Figure 4.12 Median purity (percent) of heroin seizures, January 1998 to October 2008



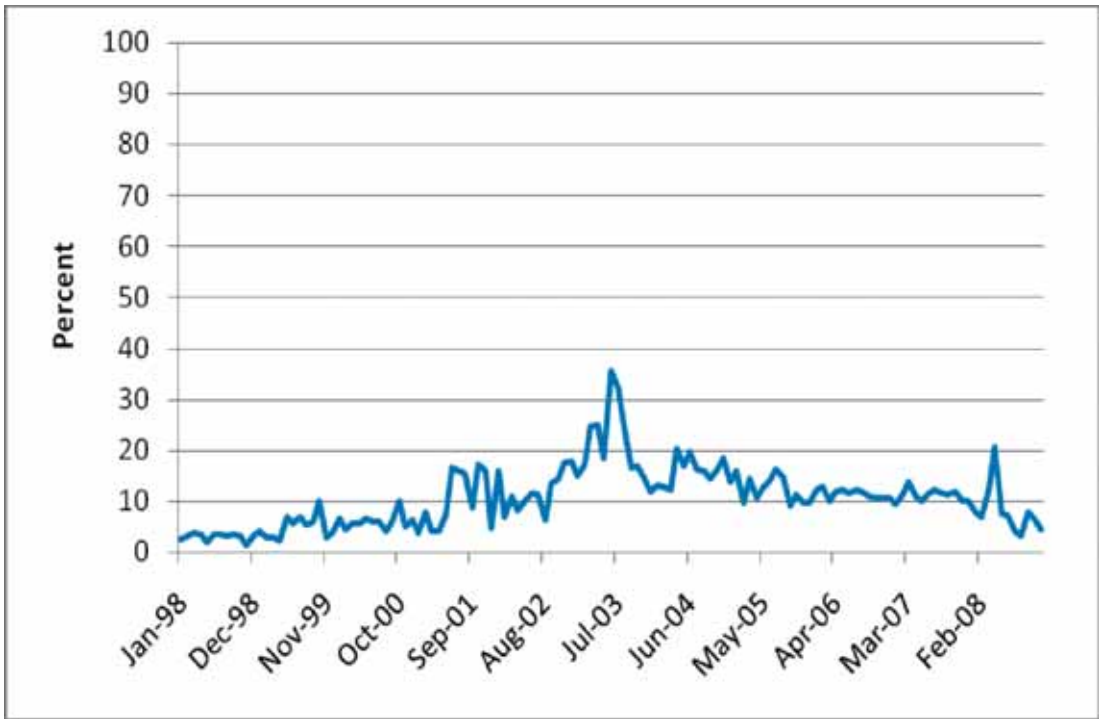
Source: Victoria Police Forensic Services Department

Figure 4.13 Median purity (percent) of cocaine seizures, January 1998 to November 2008



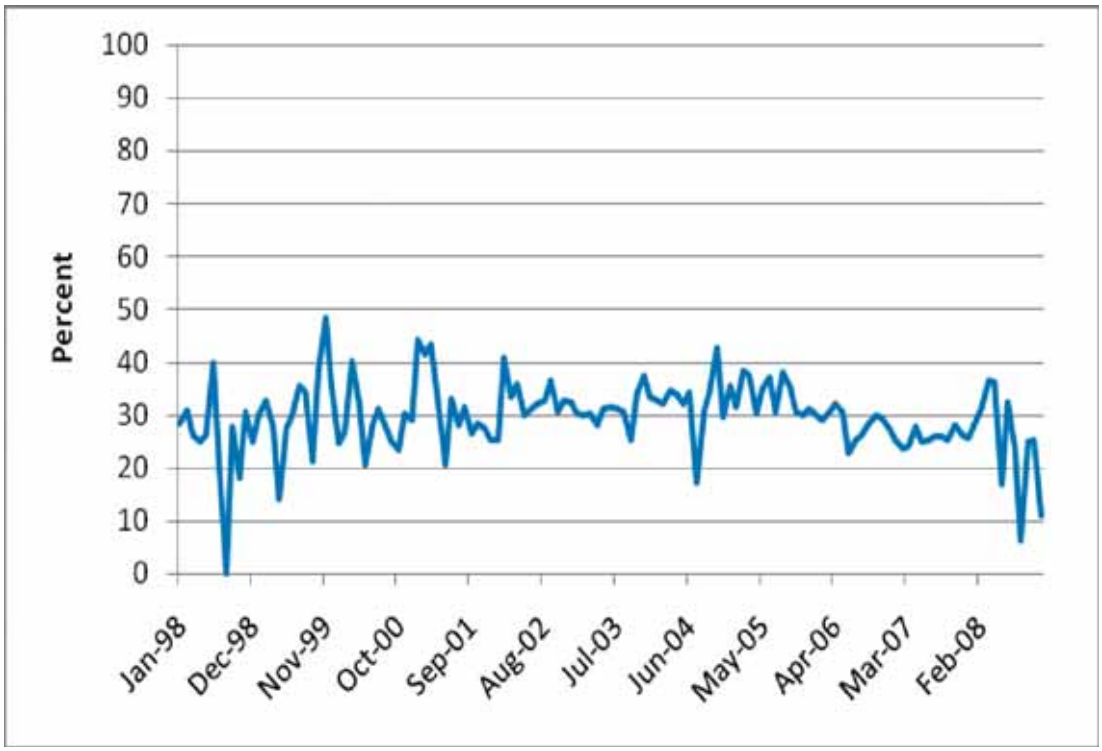
Source: Victoria Police Forensic Services Department

Figure 4.14 Median purity (percent) of amphetamine seizures, January 1998 to November 2008



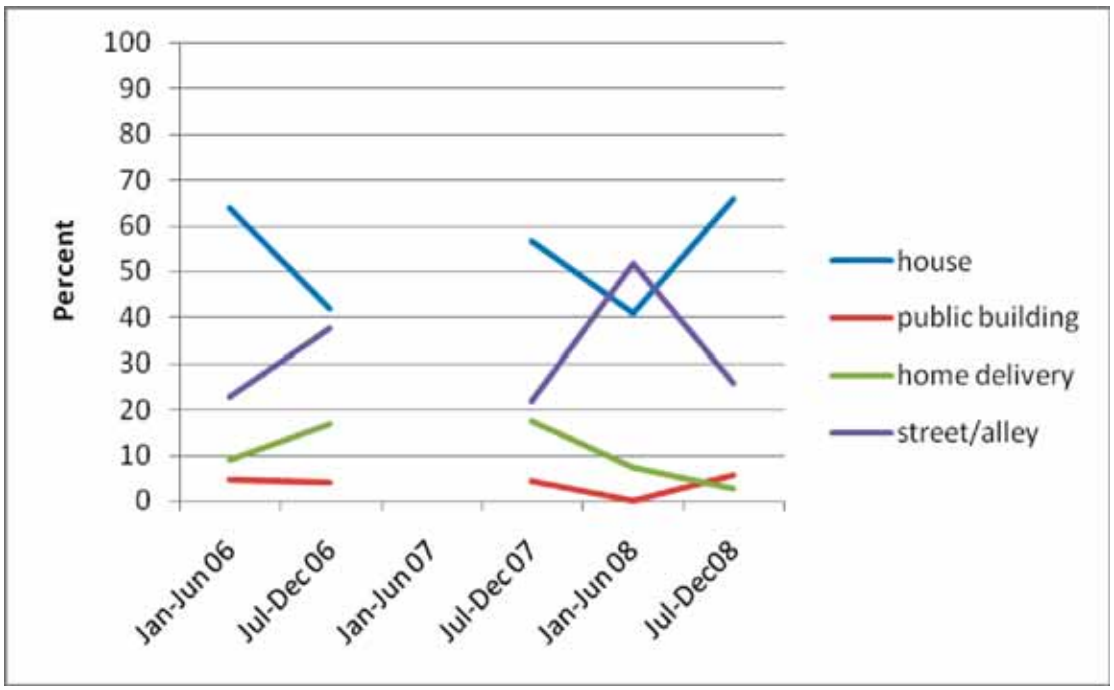
Source: Victoria Police Forensic Services Department

Figure 4.15 Median purity (percent) of MDMA seizures, January 1998 to November 2008



Source: Victoria Police Forensic Services Department

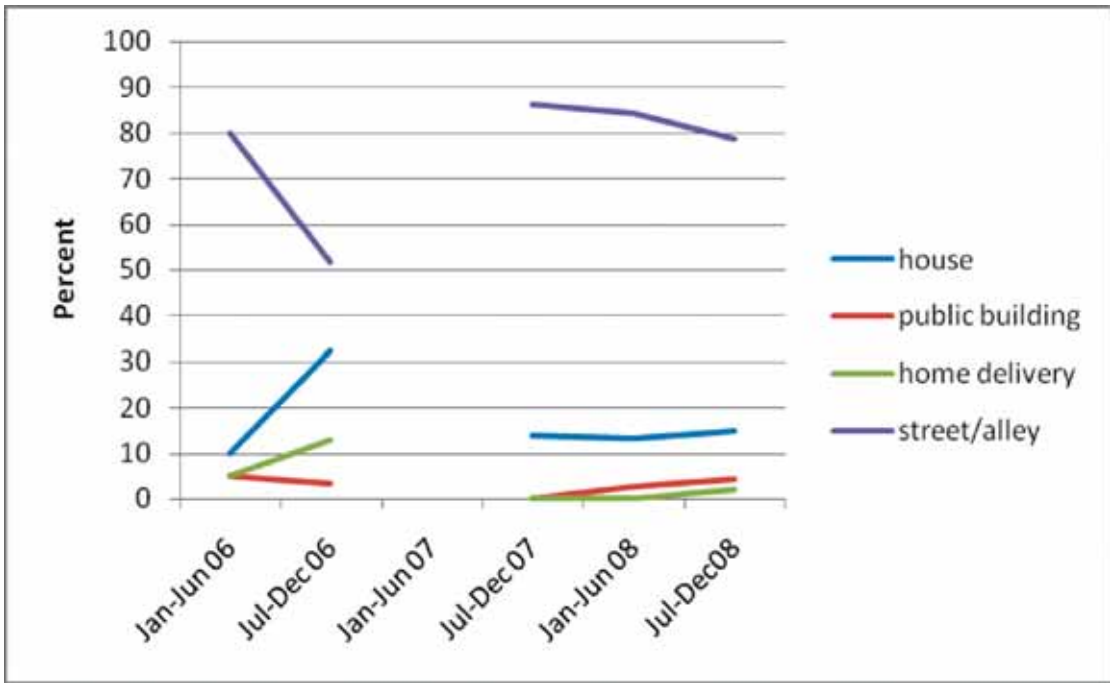
Figure 4.16 Proportion of Footscray DUMA respondents who sourced their cannabis the last time from a house/flat, public building, via home delivery or in the street/alley, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

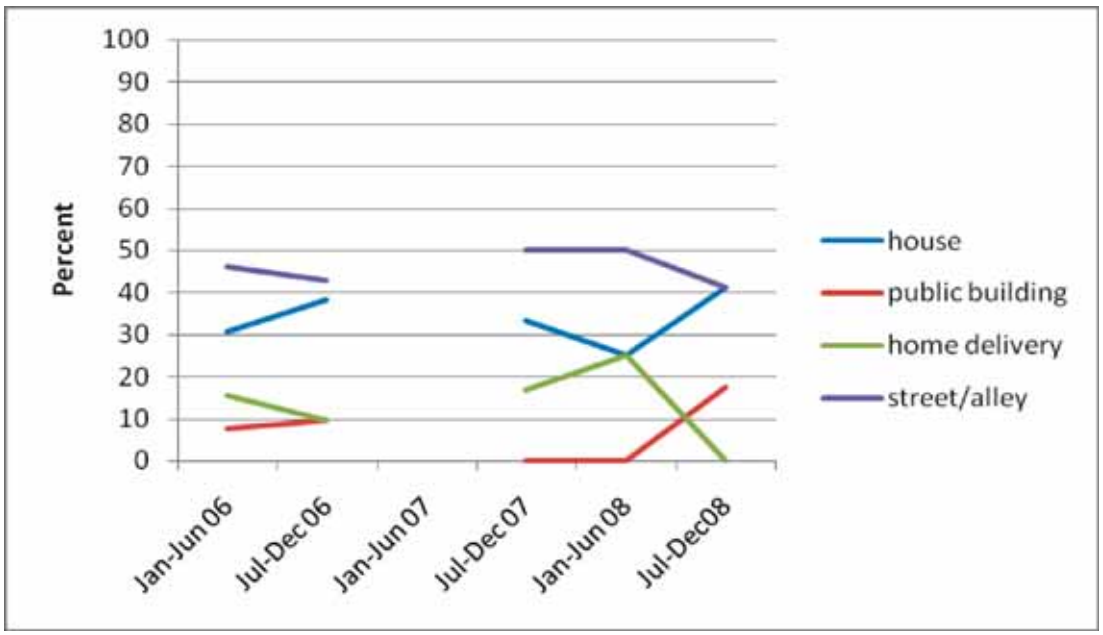
Figure 4.17 Proportion of Footscray DUMA respondents who sourced their heroin the last time from a house/flat, public building, via home delivery or in the street/alley, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

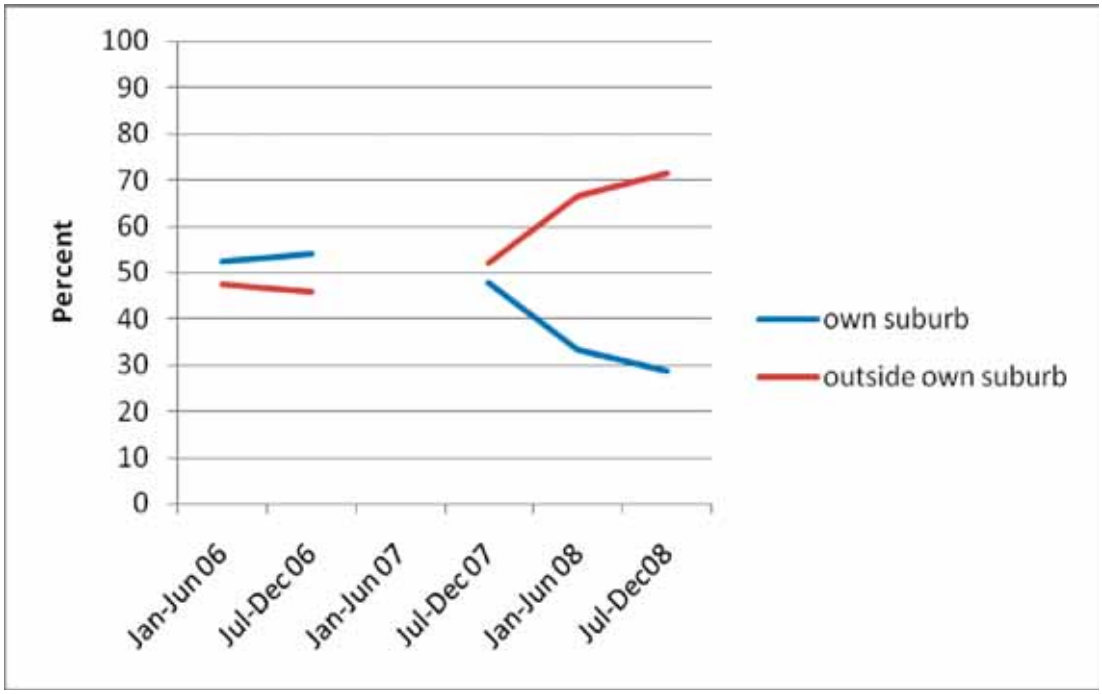
Figure 4.18 Proportion of Footscray DUMA respondents who sourced their amphetamines (speed) the last time from a house/flat, public building, via home delivery or in the street/alley, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

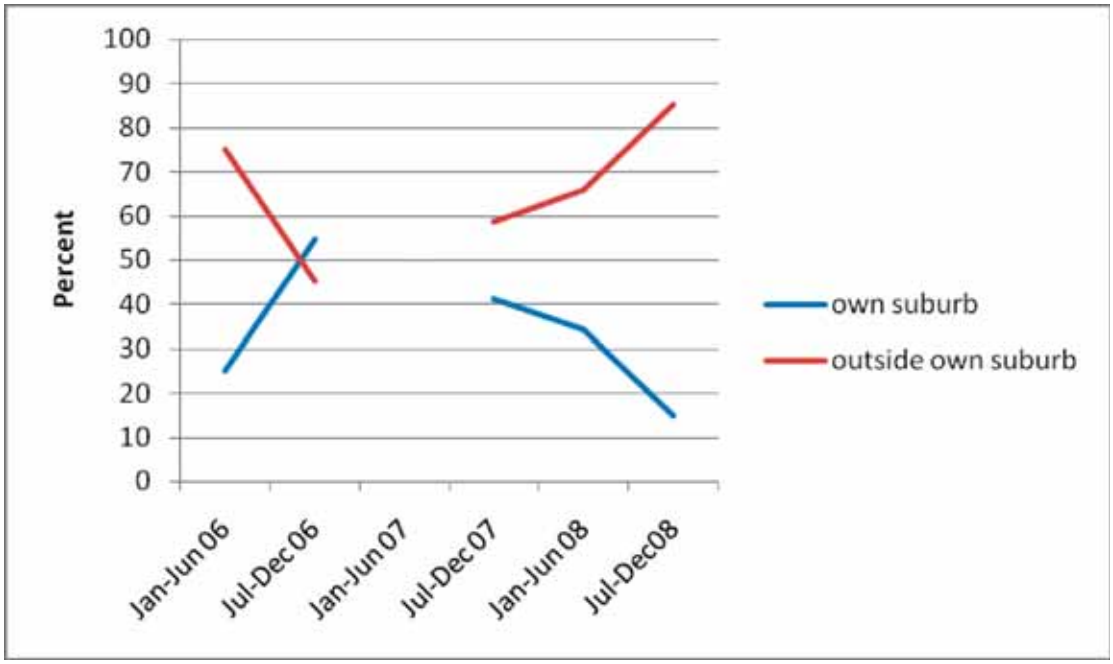
Figure 4.19 Proportion of Footscray DUMA respondents who obtained their cannabis the last time from inside or outside their own suburb, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

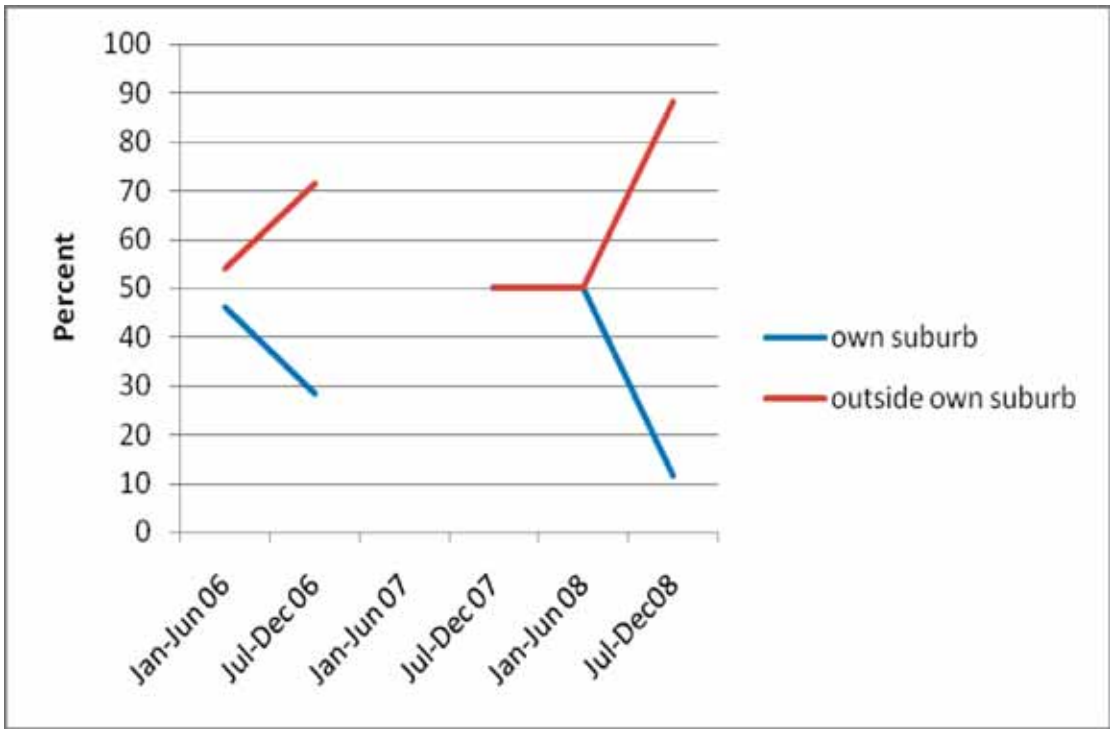
Figure 4.20 Proportion of Footscray DUMA respondents who obtained their heroin the last time from inside or outside their own suburb, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

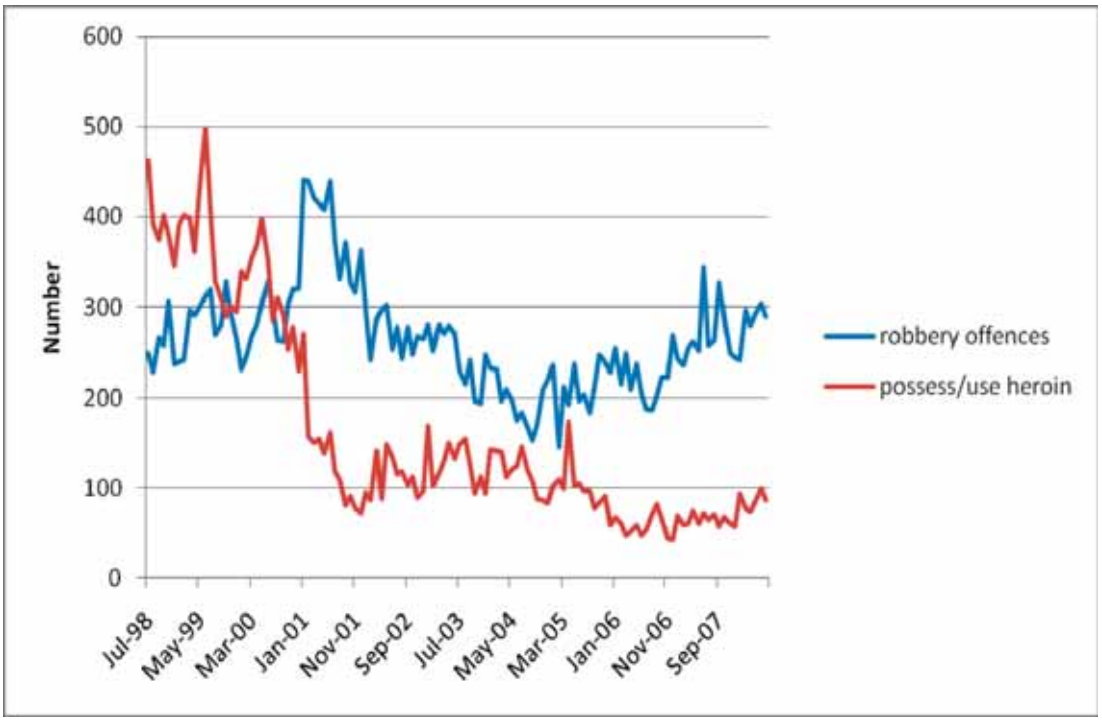
Figure 4.21 Proportion of Footscray DUMA respondents who obtained their amphetamines the last time from inside or outside their own suburb, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

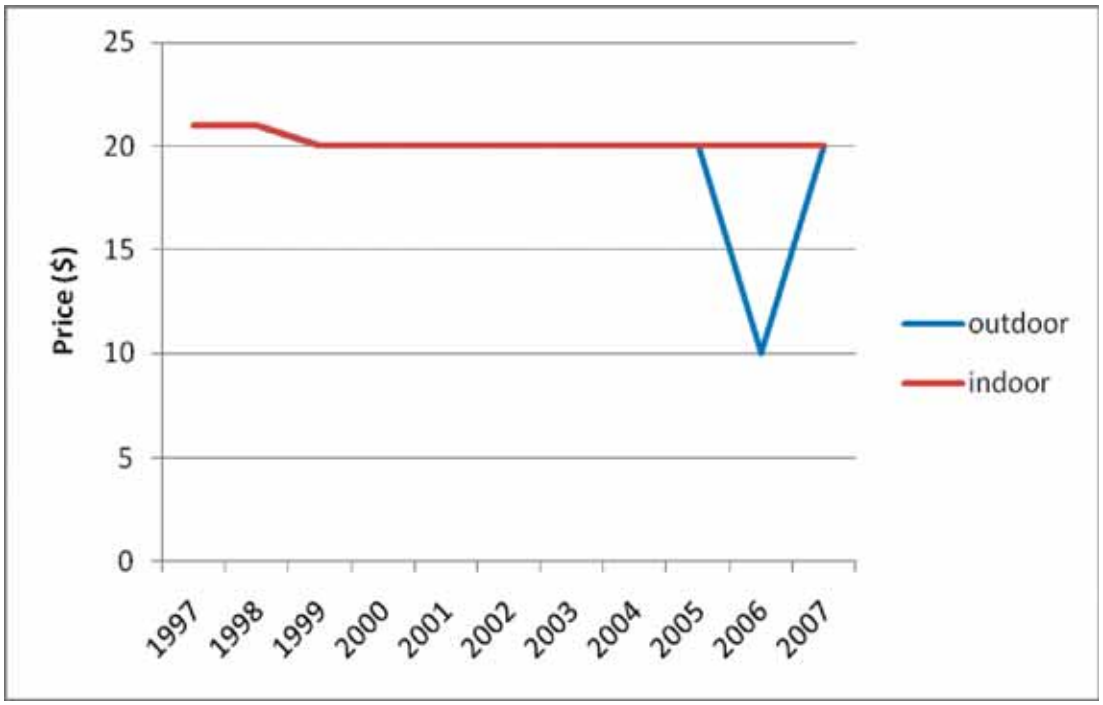
Source: AIC DUMA datafiles

Figure 4.22 Number of people processed for armed/unarmed robbery and heroin use/possess offences in Victoria July 1998 to June 2008



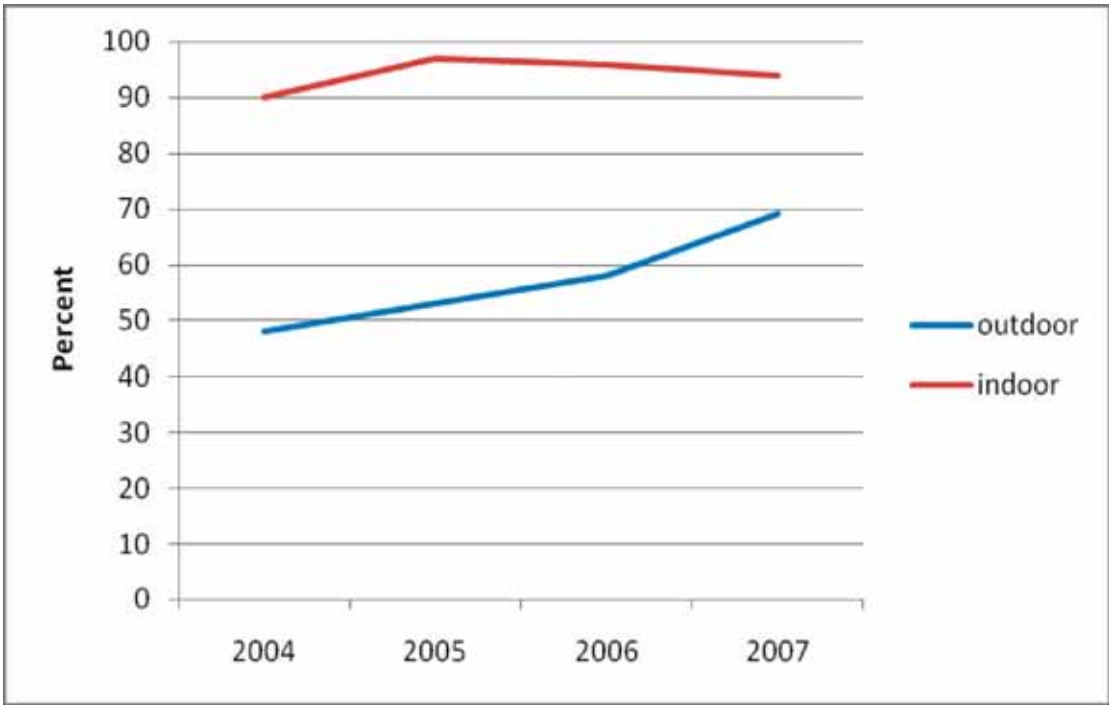
Source: Corporate Statistics, Victoria Police

Figure 4.23 Self-reported cannabis prices (per gram) in Victoria, 1997 to 2007



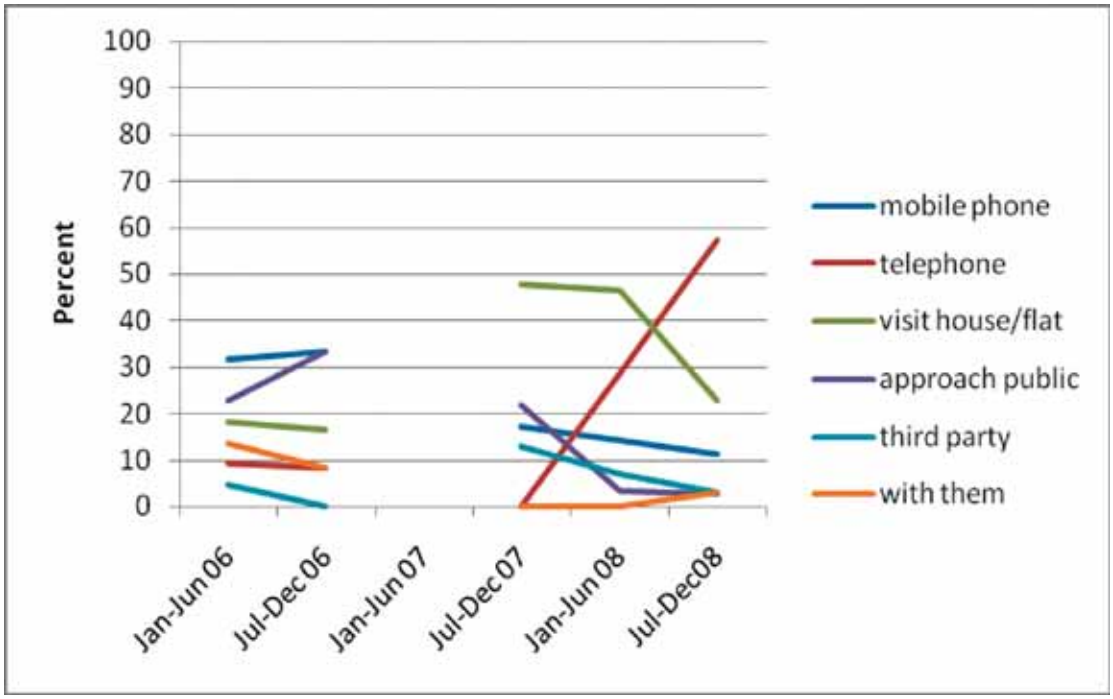
Note: Price of outdoor/indoor cannabis combined between 1997 and 2002. 1997–2002 data reflect modal price paid/gram, while 2002–2007 data reflect median price paid/gram.
Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

Figure 4.24 Proportion of Victorian users who reported that cannabis was very easy/easy to obtain, 2004 to 2007



Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

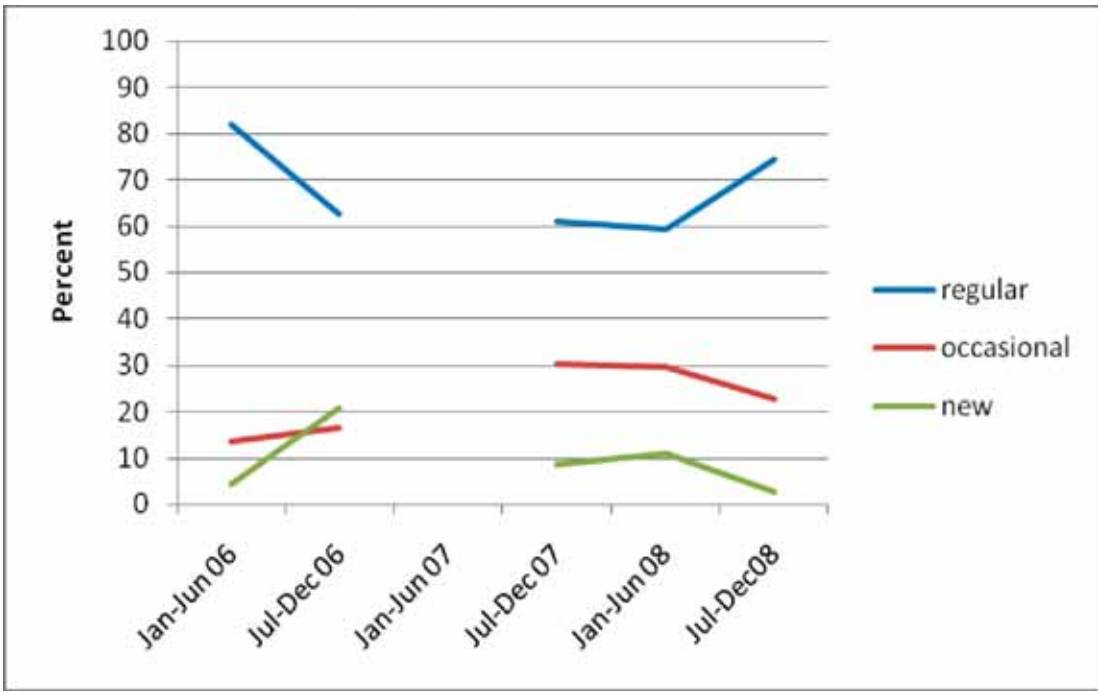
Figure 4.25 Proportion of Footscray DUMA respondents who contacted their cannabis supplier the last time: with a mobile phone; via telephone; visiting a house/flat; approaching them in public; via a third party; or because they were already with them, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

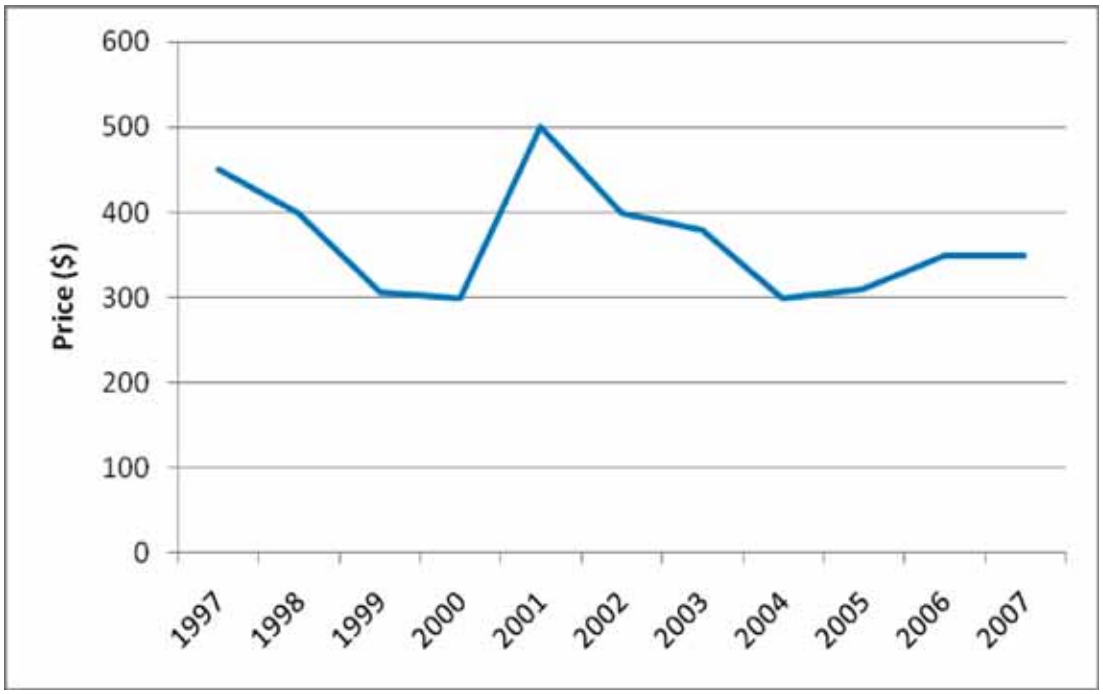
Figure 4.26 Proportion of Footscray DUMA respondents who obtained their cannabis the last time from a regular, occasional or new source, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

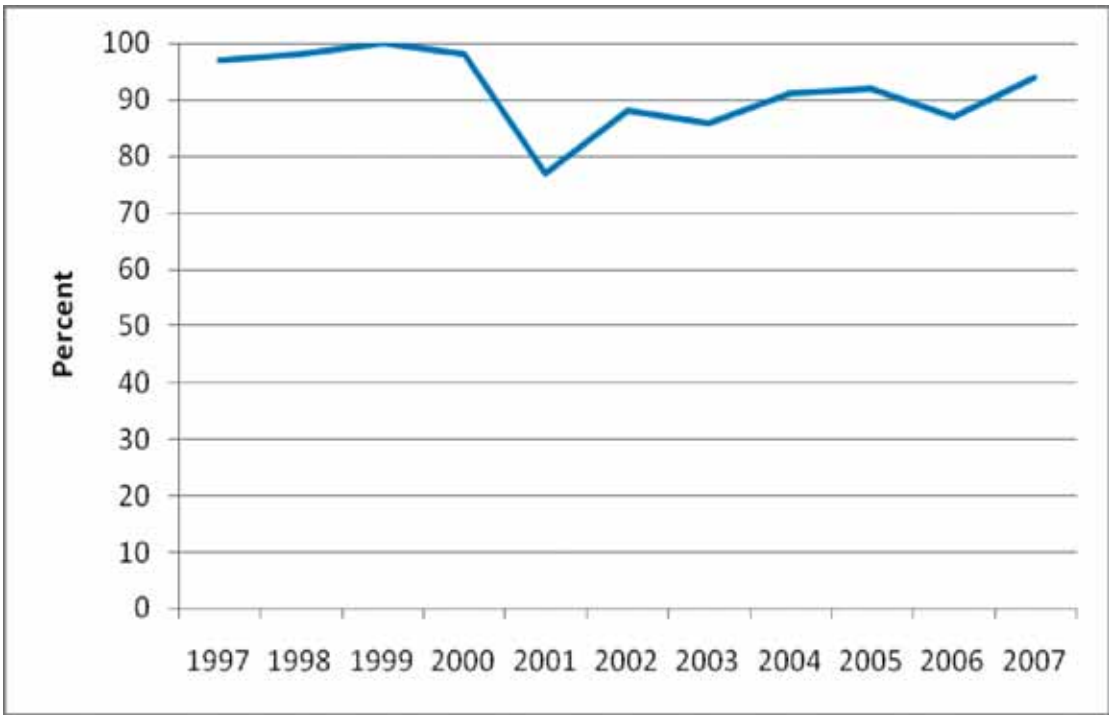
Figure 4.27 Self-reported heroin price (per gram) in Victoria, 1997 to 2007



Note: Data used for 2001 and 2002 reflect modal price paid per gram. All other data used reflect median price paid per gram.

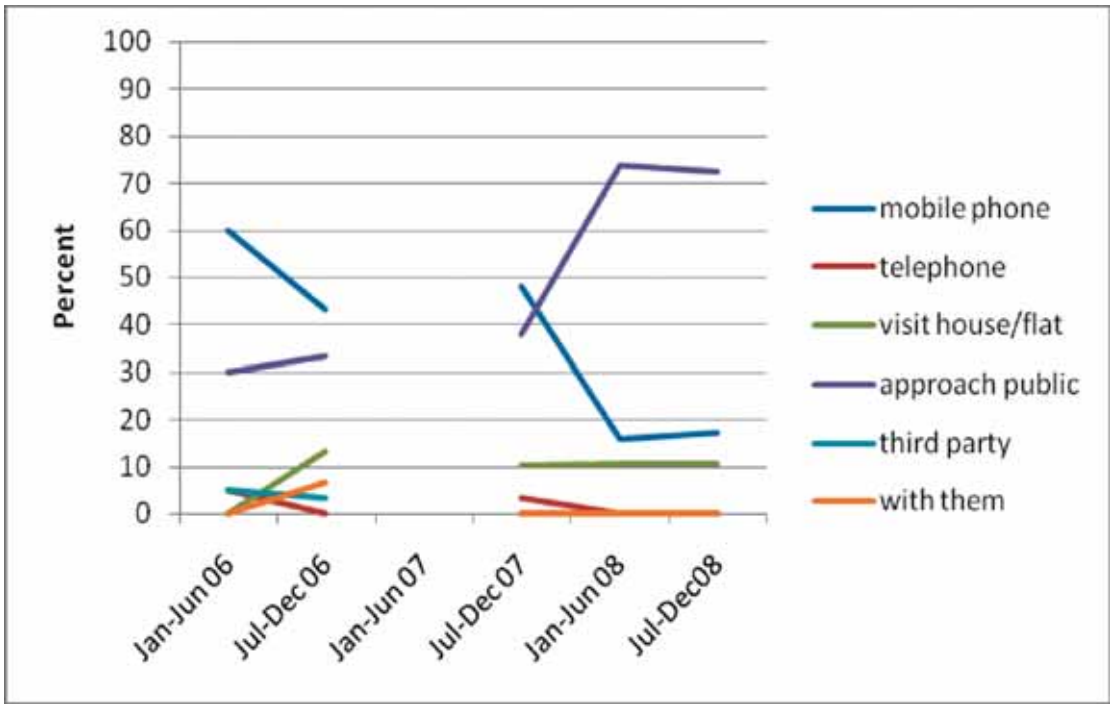
Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

Figure 4.28 Proportion of Victorian users who reported that heroin was very easy/easy to obtain, 1997 to 2007



Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

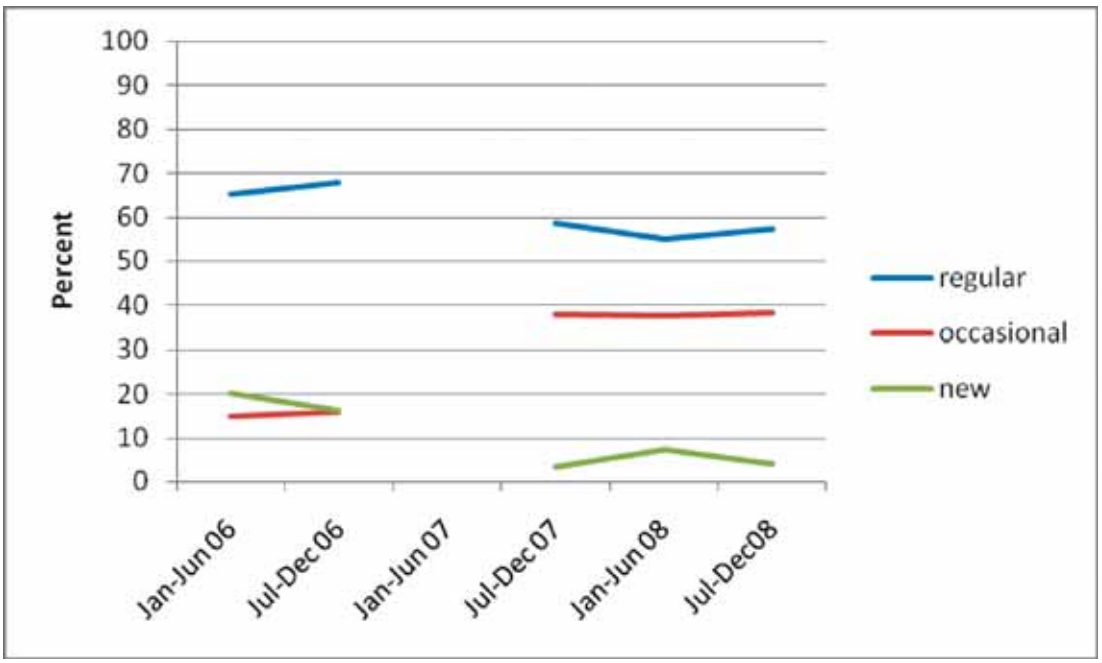
Figure 4.29 Proportion of Footscray DUMA respondents who contacted their heroin supplier the last time: with a mobile phone; via telephone; visiting a house/flat; approaching them in public; via a third party; or because they were already with them, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

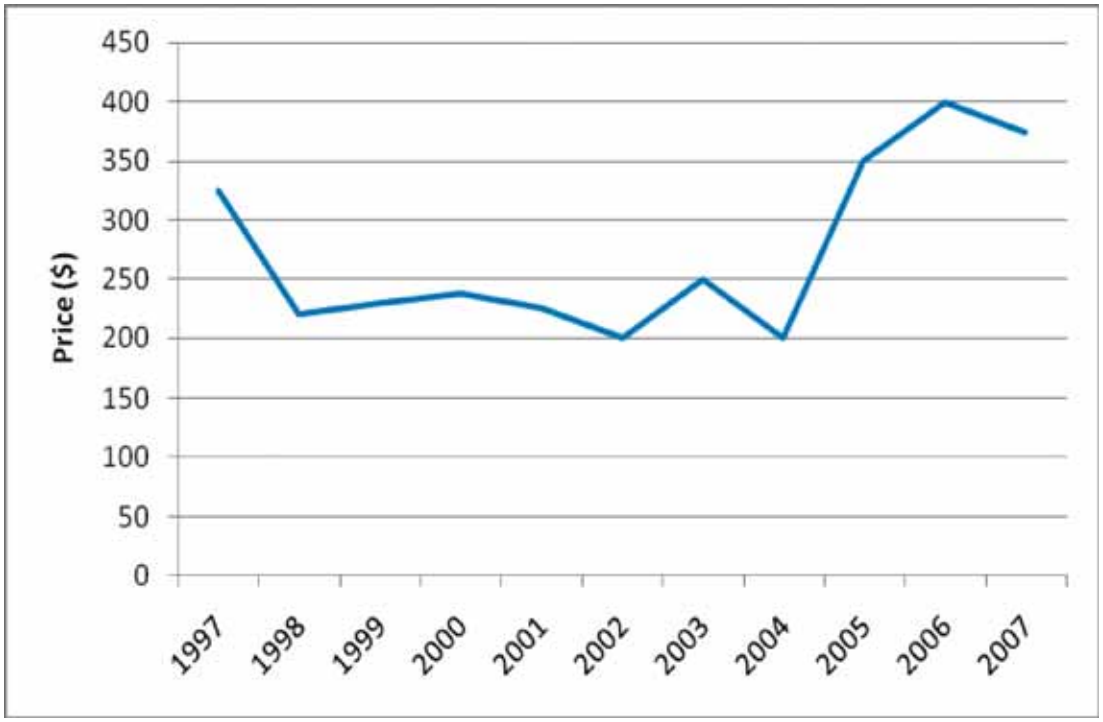
Figure 4.30 Proportion of Footscray DUMA respondents who obtained their heroin the last time from a regular, occasional or new source, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

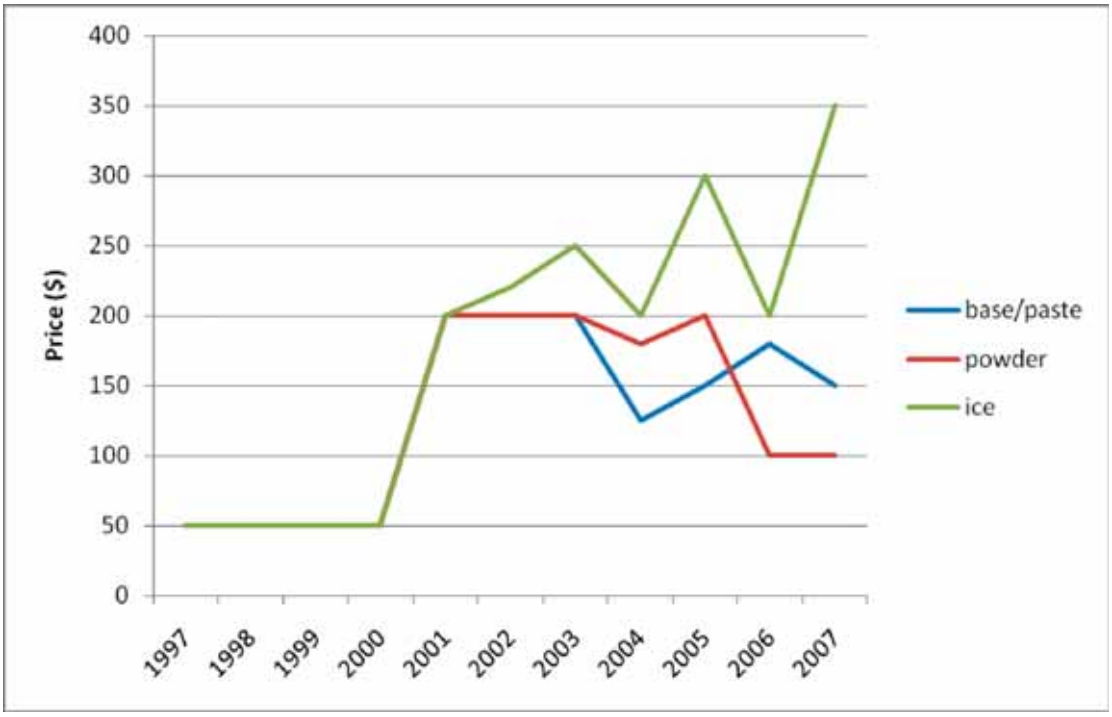
Source: AIC DUMA datafiles

Figure 4.31 Self-reported cocaine price (per gram) in Victoria, 1997 to 2007



Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

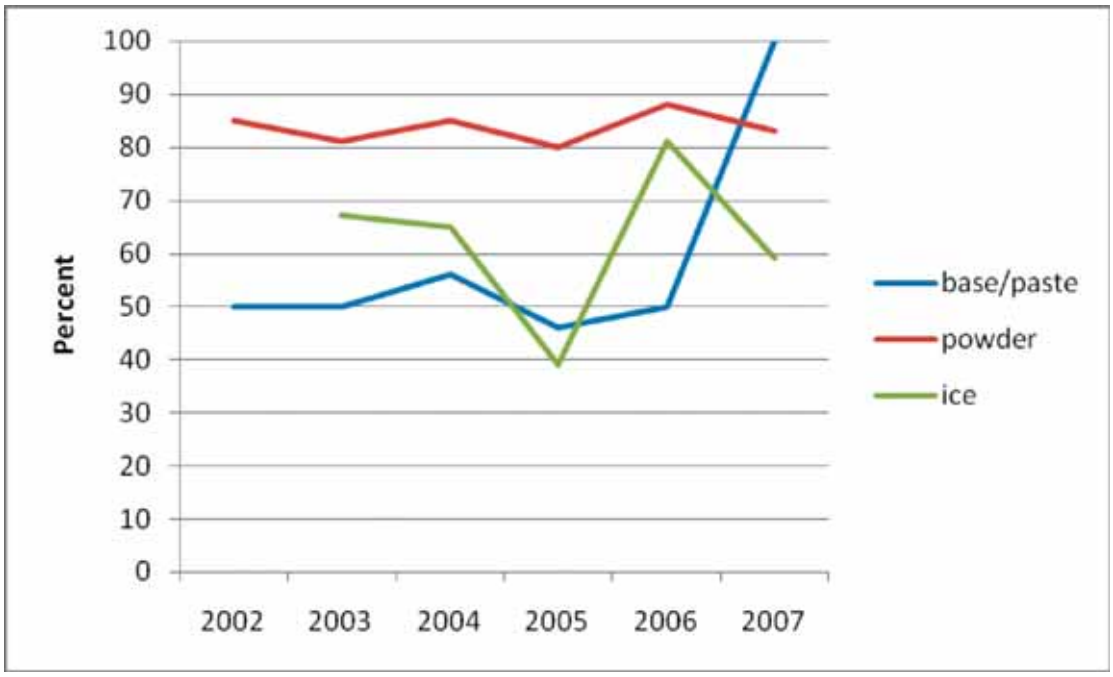
Figure 4.32 Self-reported methamphetamine price (per gram) in Victoria, 1997 to 2007



Note: Between 1997 and 2001 prices for the three forms of the drug are combined

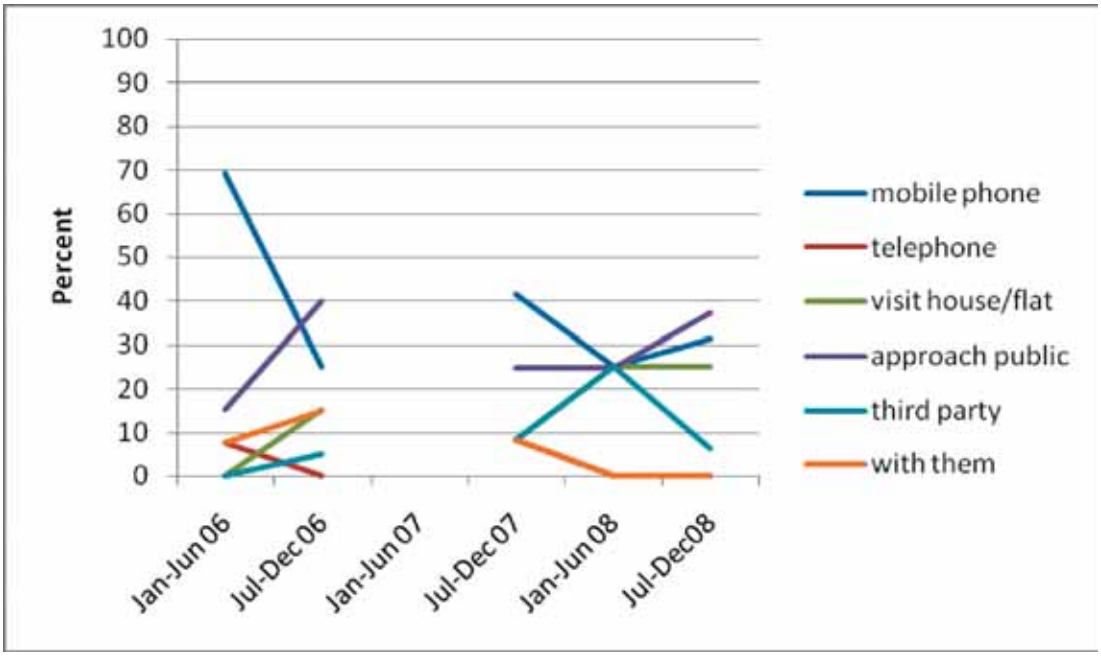
Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

Figure 4.33 Proportion of Victorian users who reported that methamphetamines were very easy/ easy to obtain, 2002 to 2007



Source: Illicit Drug Reporting System annual reports (Victoria) 1998–2008

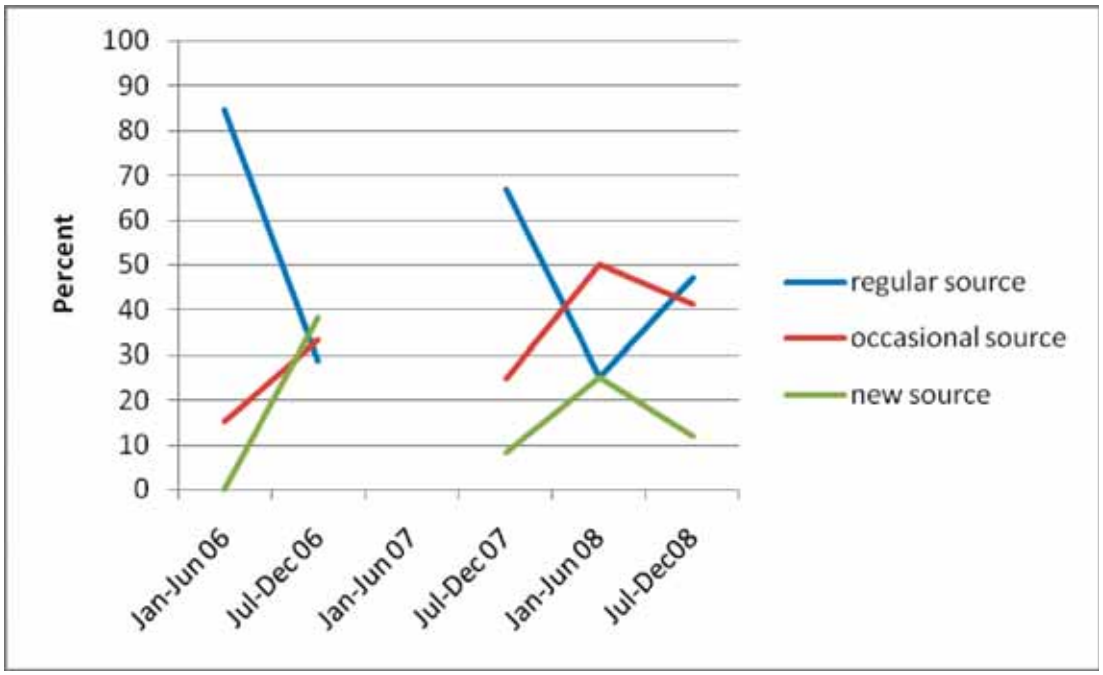
Figure 4.34 Proportion of Footscray DUMA respondents who contacted their amphetamine supplier the last time: with a mobile phone; via telephone; visiting a house/flat; approaching them in public; via a third party; or because they were already with them, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

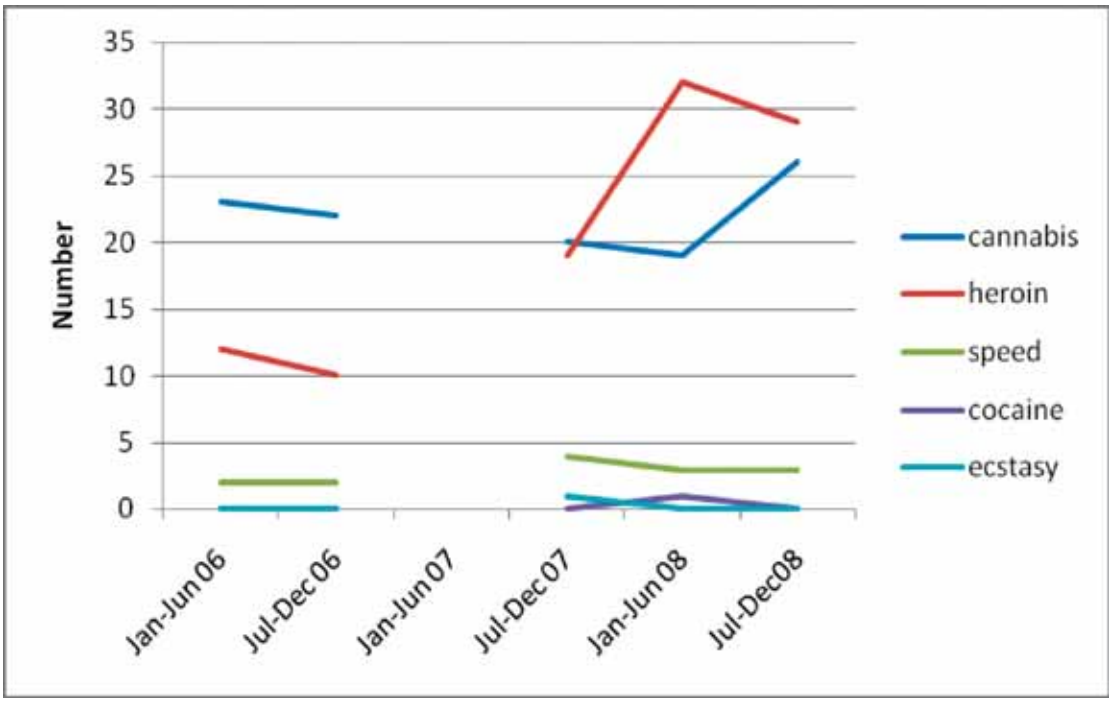
Figure 4.35 Proportion of Footscray DUMA respondents who obtained their amphetamines the last time from a regular, occasional or new source, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

Source: AIC DUMA datafiles

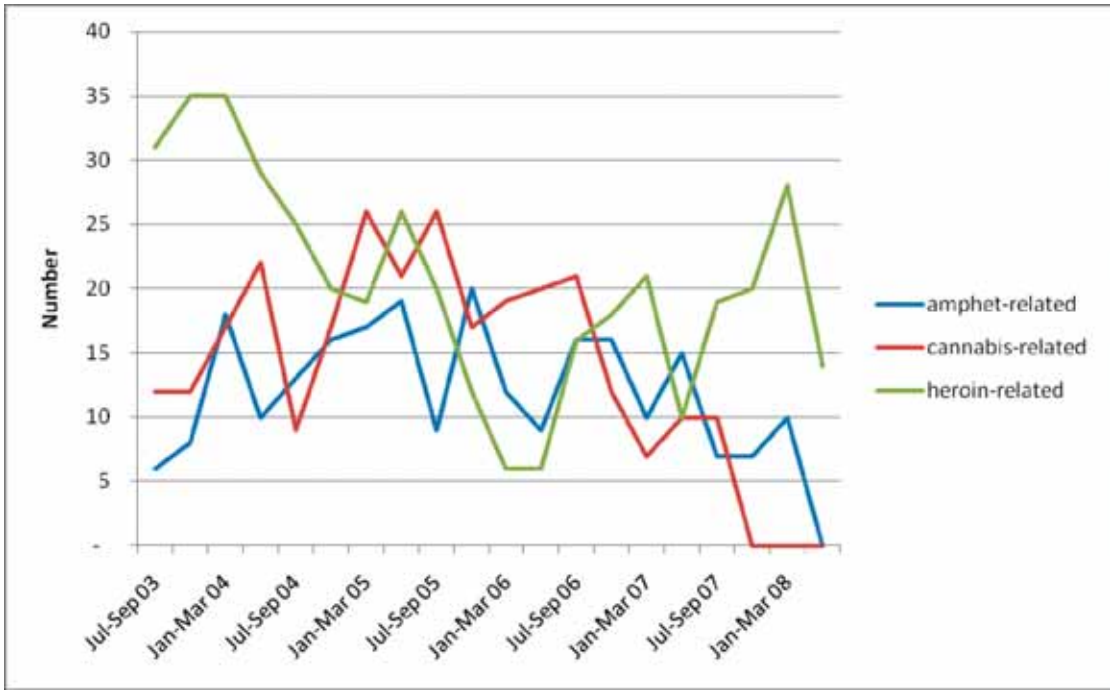
Figure 4.36 Number of Footscray DUMA respondents who consumed illicit drugs more than three times a week in the past 30 days, January–June 2006 to July–December 2008



Note: DUMA was not conducted at the Footscray site between January 2006 and July 2006

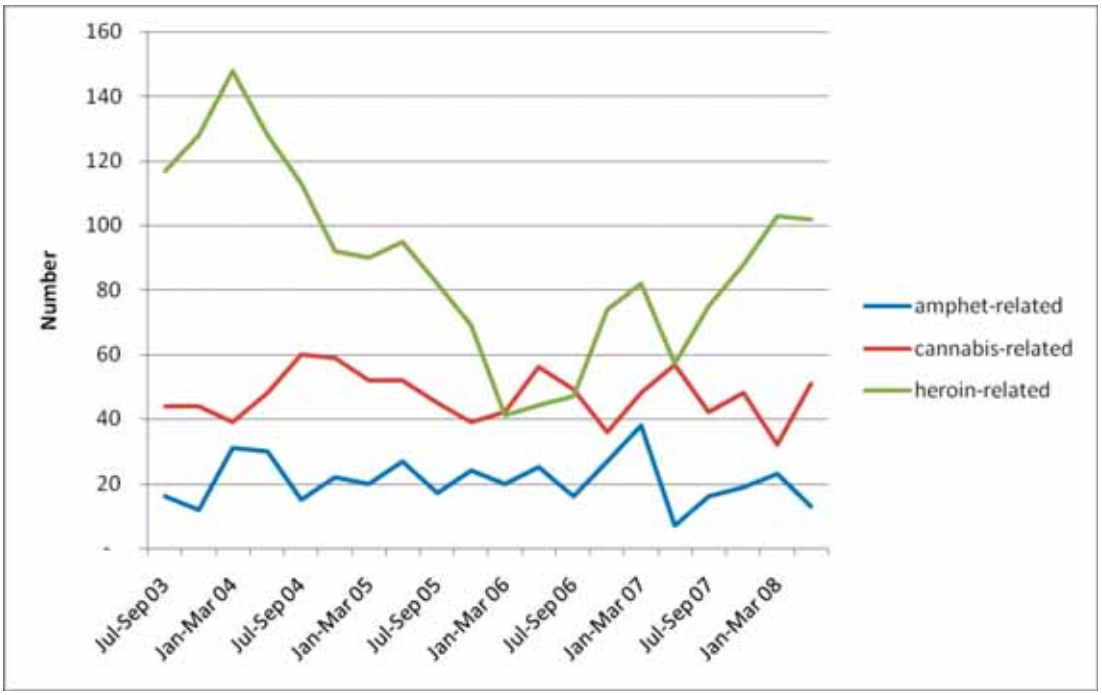
Source: AIC DUMA datafiles

Figure 4.37 Number of drug-related deaths in Victoria, July–September 2003 to April–June 2008



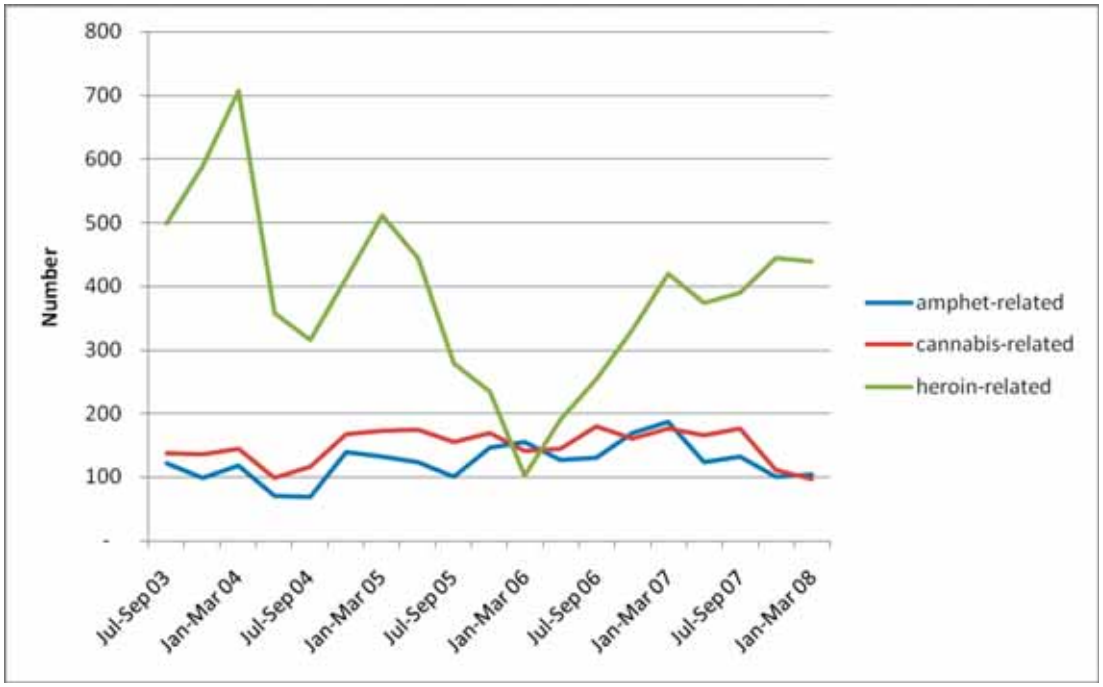
Source: Victorian Department of Human Services data files

Figure 4.38 Number of drug-related emergency department presentations in Victoria, July–September 2003 to April–June 2008



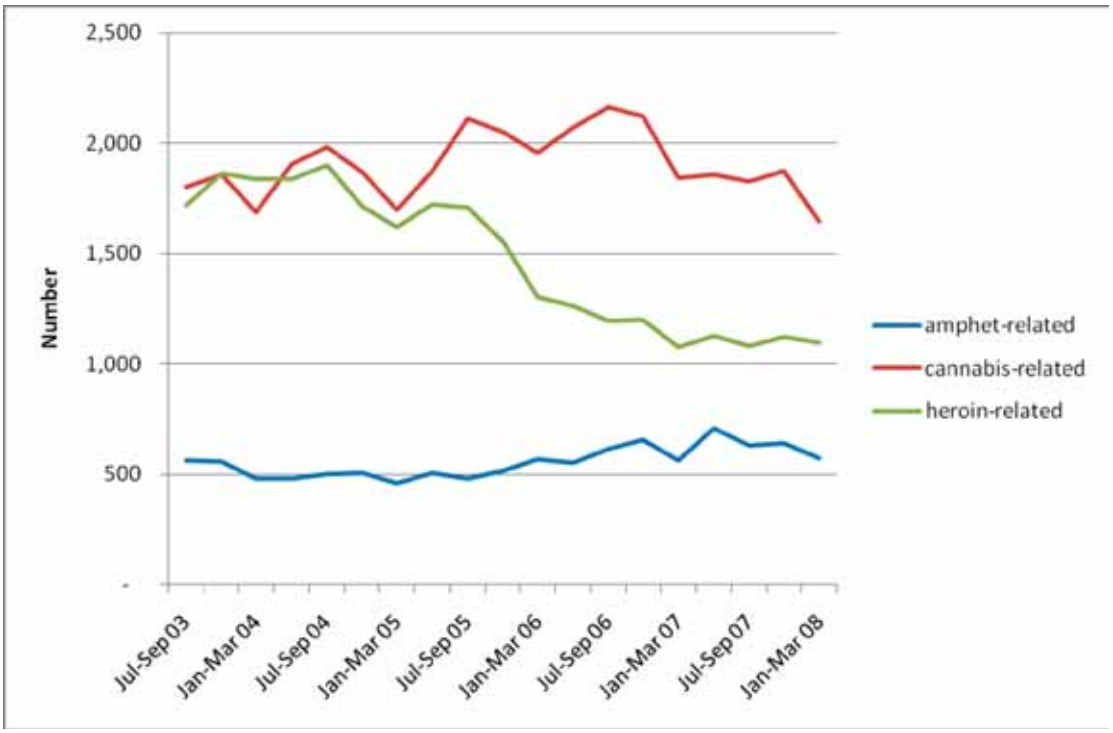
Source: Victorian Department of Human Services data files

Figure 4.39 Number of drug-related ambulance attendances in Victoria, July–September 2003 to January–March 2008



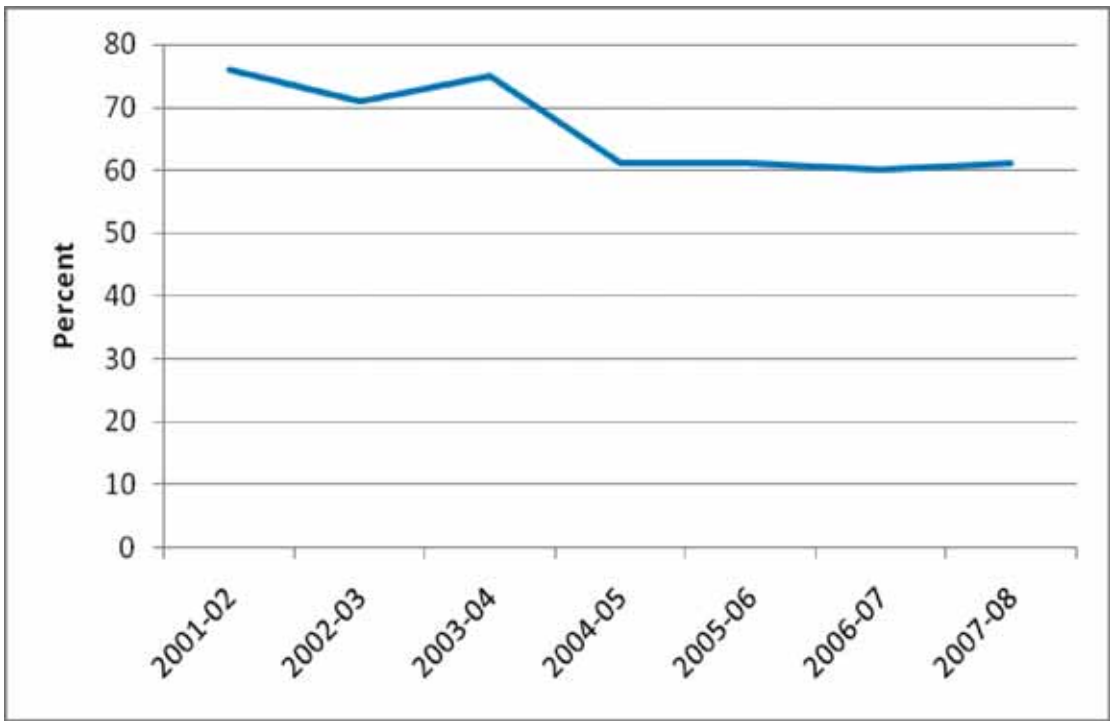
Source: Victorian Department of Human Services data files

Figure 4.40 Number of clients in drug treatment in Victoria, July–September 2003 to January–March 2008



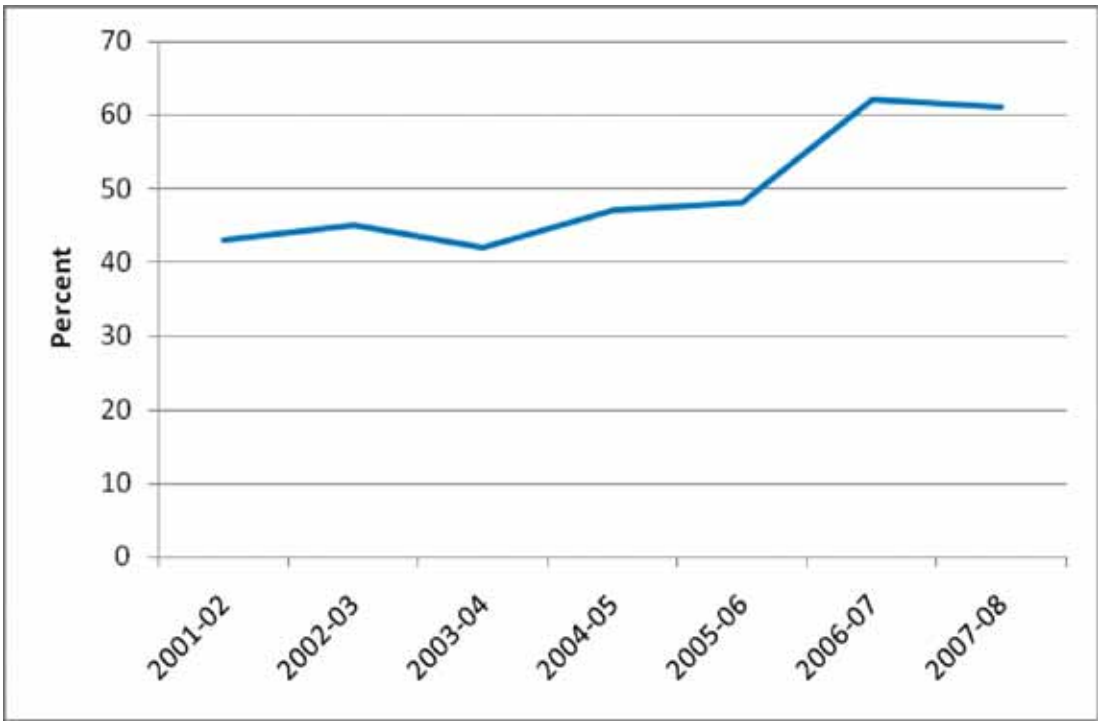
Source: Victorian Department of Human Services data files

Figure 4.41 Proportion of Victorians who think that illegal drugs are a major problem/somewhat of a problem in their neighbourhood, 2001–02 to 2007–08



Source: Productivity Commission 2000–2009

Figure 4.42 Proportion of Victorians who feel safe walking/jogging in public after dark in their neighbourhood, 2001–02 to 2007–08



Source: Productivity Commission 2000–2009

Appendix 7: Revised model drug law enforcement performance measurement framework

Performance measures	Performance indicators	Available data sources
Trends in illicit drug detections/seizures	Number of illicit drug detections/seizures by drug type	Law enforcement databases
Trends in weight of illicit drug detections	Weight of illicit drug detections/seizures by drug type	Law enforcement databases
Trends in illicit drug arrests	Number of illicit drug traffic/supply arrests by drug type Number of illicit drug possession/use arrests by drug type	Law enforcement databases
Trends in illicit drug street prices	Median street price of illicit drugs by drug type	Law enforcement databases Illicit Drug Reporting System (IDRS)
Purity of illicit drugs	Median purity of illicit drugs by drug type and/or Number/proportion of people who perceive the purity of illicit drugs to be 'high' by drug type	Law enforcement databases IDRS
Perceived availability of illicit drugs	Number/proportion of people who perceive the availability of illicit drugs to be very easy/easy by drug type	IDRS

Performance measures	Performance indicators	Available data sources
Changes in where users obtain their drugs	Number/proportion of users who sourced their illicit drugs the last time from:	Drug Use Monitoring in Australia (DUMA)
	a house/flat	
	a public building	
	home delivery	
	on the street/outdoors	
	Number/proportion of users who contacted their drug supplier the last time by:	
	calling them on a mobile	
	calling them on the telephone	
	visiting a house/flat	
	approaching them in public	
	obtaining drugs through a third party	
	being with them already	
	Number/proportion of users who got their drugs the last time from:	
	a regular source	
	an occasional source	
	a new source	
	Number/proportion of users who got their drugs the last time from a location different to the arrest location	

Performance measures	Performance indicators	Available data sources
Changes in trafficking modes	Number and weight of illicit drug detections/ seizures (by drug type) that were trafficked via: air cargo sea cargo air passengers/crew sea passengers/crew postal services	Customs' 'Druglan' database
Trends in robberies	Number of people arrested for armed/unarmed robbery	Law enforcement databases
Trends in weight of illicit drug detections	Weight of illicit drug detections/seizures by drug type	Law enforcement databases
Changes in trafficking modes	Number and weight of illicit drug detections/ seizures (by drug type) that were trafficked via: air cargo sea cargo air passengers/crew sea passengers/crew postal services	Customs' 'Druglan' database
Trends in the frequency of illicit drugs consumed by drug type	Number/proportion of people who used illicit drugs in the past month by drug type Number/proportion of people who consumed illicit drugs more than three times a week by drug type	DUMA IDRS

Performance measures	Performance indicators	Available data sources
Trends in drug-related deaths	Number/proportion of drug-related deaths by drug type	Jurisdictional health agencies Australian Institute of Health & Welfare (AIHW)
Trends in drug-related emergency department presentations or hospital separations	Number/proportion of drug-related emergency department presentations (or hospital separations) by drug type	Jurisdictional health agencies AIHW
Trends in ambulance attendances at overdose	Number/proportion of ambulance attendances at overdose by drug type	Jurisdictional health agencies
Trends in clients participating in drug treatment	Number/proportion of clients in drug treatment by drug type	Jurisdictional health agencies AIHW
Trends in level of safety felt by the community	Number/proportion of people who feel safe/very safe walking/jogging locally after dark	National Survey of Community Satisfaction with Policing (NSCSP)
Trends in community concern about the 'drug problem'	Number/proportion of people who think that illegal drugs are a major problem/somewhat of a problem in their neighbourhood	NSCSP