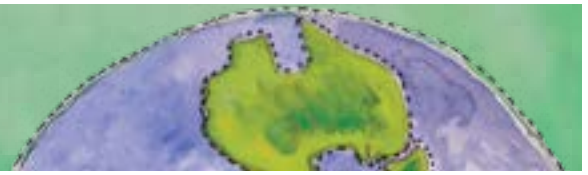


## 5.5 Illicit drug use— current and future issues



This article focuses on illicit drug use, which is a risk factor for ill health and death in Australia (see Box 5.2 for definitions). Illicit drug use is associated with conditions such as HIV/AIDS, hepatitis C, low birthweight, malnutrition, infective endocarditis (leading to damage to the heart valves), poisoning, mental illness, suicide, self-inflicted injury and overdose (AIHW 2010). The relative health impact of illicit drug use varies depending on the specific type of drug used and the circumstances of its use. Overall, however, illicit drug use (and disorders) account for an increasing proportion of the global burden of disease (moving from the 18th to 15th ranking risk factor between 1990 and 2010) (IHME 2013).

Illicit drugs not only have dangerous health impacts but they are a significant contributor to crime, road accidents and violent incidents, and to relationship breakdown and social dysfunction (MCDS 2011). In 2004–05, illicit drugs were estimated to cost Australia \$8.2 billion dollars for that year, including \$201 million in health-care costs (compared with \$15.3 billion for alcohol) (Collins & Lapsley 2008).

The National Drug Strategy commenced in 1985 and seeks to engage all levels and parts of government, the non-government sector and the community. The overarching approach of the Strategy is harm minimisation, which encompasses the 3 equally important pillars of demand reduction, supply reduction and harm reduction (MCDS 2011). The harm-minimisation approach encourages collaboration and partnerships between those groups with a direct interest in drug policy and legislation.

Since 1998, reported use of all illicit drugs combined has fallen in the general population. Within this overall trend, however, use of some drugs increased, and in recent years a number of new drugs and trends have emerged, with associated changes in the broader illicit drugs environment.

In particular, these developments have included:

- increased use of specific illicit drugs such as cannabis, cocaine and hallucinogens
- increased misuse of over-the-counter and prescription pharmaceutical drugs such as prescription opioids and benzodiazepines
- emerging psychoactive substances or 'EPS', such as synthetic cannabinoids and mephadrone (sometimes also referred to as 'new' or 'novel' drugs)
- the emergence of new markets and technologies, especially internet-based trading schemes, of which the Silk Road is perhaps the best-known example.

This article explores these trends, highlights current evidence on these issues, and highlights areas where additional information would inform activity to reduce the health-related harms, costs and impacts of illicit drug use on Australians.

**Box 5.2****Definition of illicit drug use**

The term 'illicit drug' can encompass a number of broad concepts including:

- illegal drugs—a drug that is prohibited from manufacture, sale or possession in Australia, for example, cannabis, cocaine, heroin and ecstasy
- misuse, non-medical or extra-medical use of pharmaceuticals—drugs that are available from a pharmacy, over-the-counter or by prescription, which may be subject to misuse, for example opioid-based pain relief medications, opioid substitution therapies, benzodiazepines, over-the-counter codeine, and steroids
- other psychoactive substances—legal or illegal, potentially used in a harmful way, for example, kava, or inhalants such as petrol, paint or glue (but not including tobacco or alcohol) (MCDS 2011).

Each data collection cited in this article uses a slightly different definition of illicit drug use; please see the relevant report for additional information.

Data on the general population have generally been drawn from the National Drug Strategy Household Survey (NDSHS). The scope of the survey is residential households, and excludes institutional settings, hostels, motels and homeless people. Findings are subject to sampling and non-sampling bias and are based on self-reported data (and therefore not empirically verified by blood tests or other screening measures) (AIHW 2011). Data from this and previous surveys in the series are used in this article to report on illicit drug use trends among the general population. Results from the 2013 NDSHS will be available in the second half of 2014.

Data on young people in this article are drawn from the Australian School Students Alcohol and Drug (ASSAD) survey (White & Bariola 2012).

In addition to general population surveys, data are collected from people who inject drugs, and from current ecstasy users. Data in this article on these sentinel populations are drawn from the Illicit Drug Reporting System (IDRS) and the Ecstasy and related Drugs Reporting System (EDRS). When combined with data from interviews with key experts and other indicator data, these surveys provide early warnings of trends in illicit drug use.

## What we know about illicit drug use

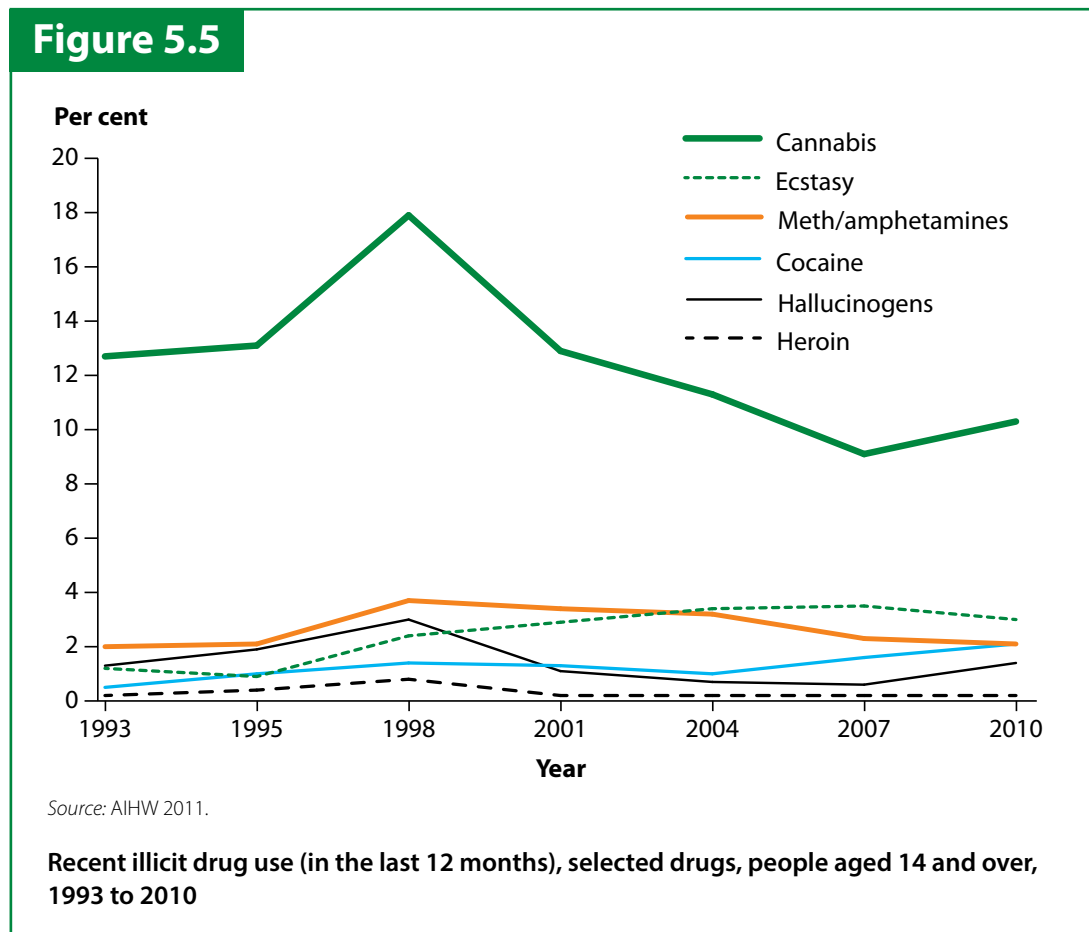
### Illicit drug overview

In 2011, between 167 million and 315 million people worldwide aged 15–64 were estimated to have used an illicit substance in the preceding year. This corresponds to between 3.6% and 6.9% of the global adult population (UNODC 2013a).

Findings from the 2010 NDSHS showed that in 2010 in Australia most people had never used an illicit drug (60.2%) but that just over 1 in 7 (14.7%) had used 1 in the last 12 months (AIHW 2011).

The most common illegal drugs recently used in 2010 were cannabis (used by 10.3% of the population), ecstasy (3.0%) methamphetamines (2.1%), and cocaine (2.1%). Pharmaceutical misuse (4.2%) eclipsed illegal drug use (except cannabis) when drug types were combined.

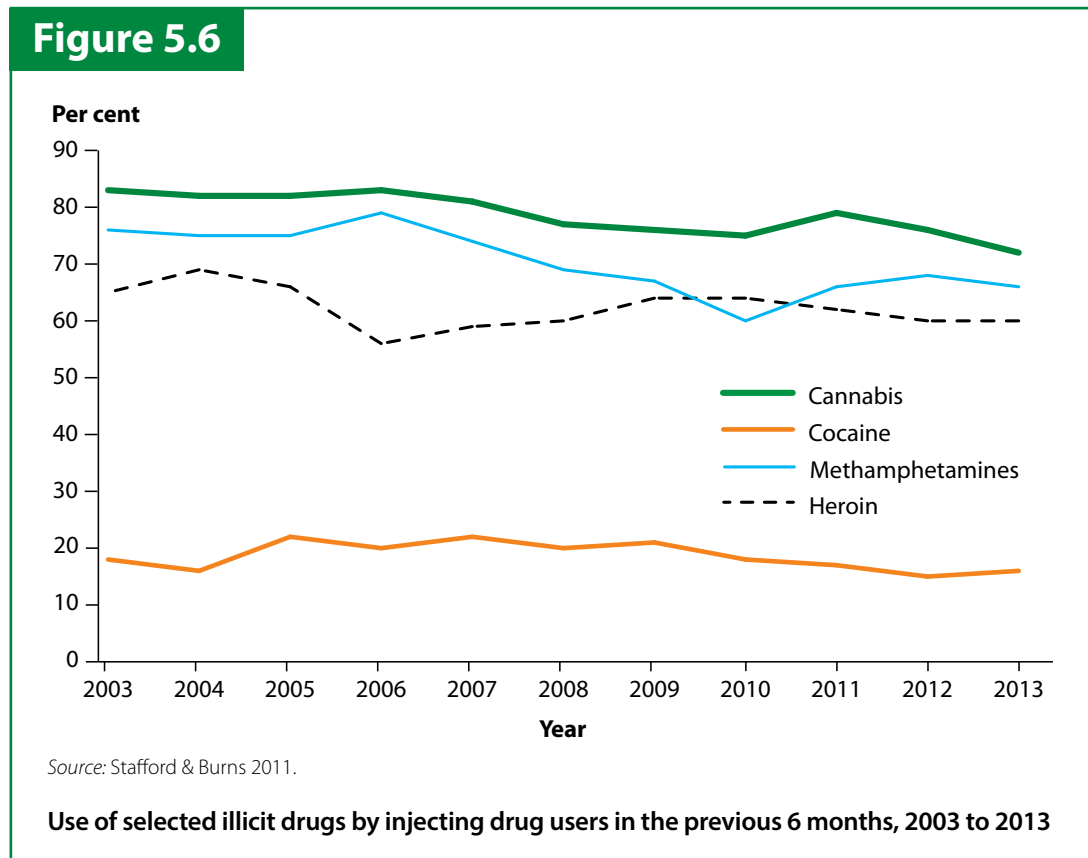
Illicit drug use in the previous 12 months fluctuated between 1993 and 2010 for various drugs (Figure 5.5). Between 2007 and 2010, the overall figure rose from 13.4% of the population to 14.7% for all illicit drugs combined. This rise was mainly due to an increase in people using cannabis, pharmaceuticals for non-medical purposes, cocaine and hallucinogens (for example, LSD or magic mushrooms). Recent use of pharmaceuticals for non-medical purposes increased between 2007 and 2010, from 3.7% to 4.2%. This was the first rise for this category since 2001.



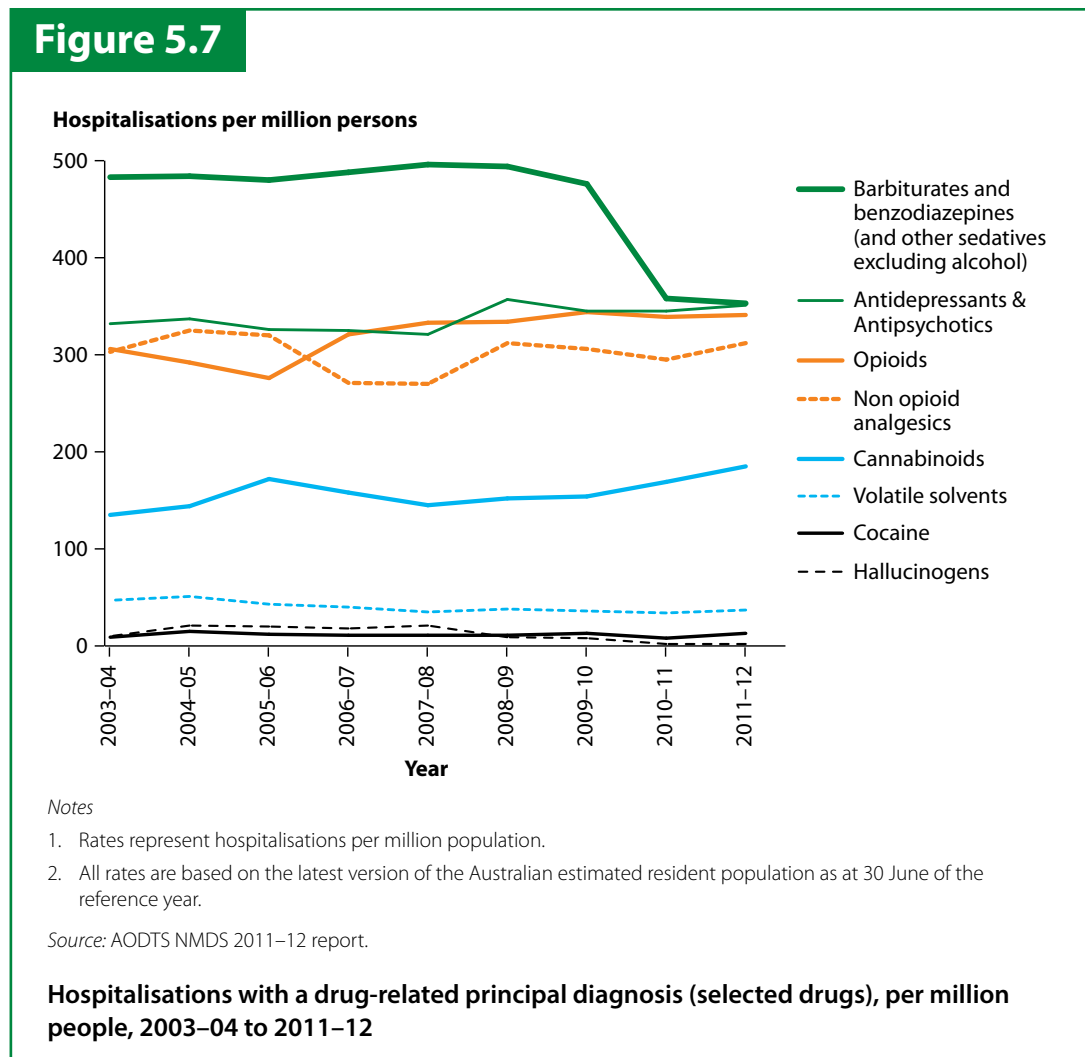
Illicit drug use varies by population characteristics and was more prevalent among the following groups when compared with the proportion for the whole population (14.7%):

- males (17.0% compared with 12.3% for females)
- younger people (27.5% for people aged 20–29)
- people who identified as being homosexual/bisexual (35.7%)
- unemployed people (24.9%).

The drug use patterns of injecting drug users surveyed through the IDRS were different to the general population. Cannabis (72%) was the most commonly used drug, but this was followed by methamphetamine (66%) and heroin (60%) (Figure 5.6). The 2 most common illicit drugs used among the general population (not including ecstasy) were also used most frequently among recent ecstasy users. According to the EDRS, 86% of recent (last 6 months) ecstasy users had used cannabis in the previous 6 months and 50% had used methamphetamines.



While the total number of drug-related hospitalisations gradually increased from about 81,000 in 2003–04 to 108,000 in 2011–12, this was largely driven by alcohol rather than illicit drugs. Indeed, the rate of hospitalisations for illicit drugs remained relatively stable over the period 2003–04 to 2011–12, except for a fall in the rate of hospitalisations for barbiturates and benzodiazepines (and other sedatives excluding alcohol) over the latter part of that period. There have, however, been increases associated with antidepressants and antipsychotics, opioids and non-opioid pain-killers, some of which may have been due to misuse (Figure 5.7).



### Cannabis

In 2010, recent use of cannabis was 10.3%, up from 9.1% in 2007. The only statistically significant increase, however, was in people aged 50–59 (from 3.8% in 2007 to 5.5% in 2010). Over the longer term there has been a fall in recent cannabis use (from a peak of 17.9% in 1998).

Cannabis was the most commonly used illicit drug among young people aged 12–17, with 15% of students in 2010 reporting the use of cannabis at some time in their life. This was less than the 2005 figure of 18%.

In 2013, 86% of recent ecstasy users had used cannabis.

Cannabis use has changed very little among recent ecstasy users, fluctuating between 76% and 86% over the last decade. Just under 3 in 4 (72%) of injecting drug users had used cannabis in the last 6 months, down from 83% in 2003.

Treatment demand for cannabis use has remained relatively stable over the last decade at between 30,000 and 35,000 treatment episodes annually.

### Ecstasy

Recent use of ecstasy was lower in 2010 (3%) than in 2007 (3.5%), after increasing steadily since 1995. Just 2.7% of secondary school students in 2010 had ever used ecstasy and use has fallen from 3.9% in 2005. It is not possible to measure ecstasy use over time in the EDRS. However, looking at drug of choice over time, people nominating ecstasy as their preferred drug has declined over the last decade from 52% to 32% in 2013.

### Methamphetamines

In 2010, at 2.1%, use of methamphetamines had fallen to the lowest level seen since 1995. A similar trend has been seen among young people where students were less likely to have ever used the drug in 2011 (2.9%) than in 2005 (5.3%). Similar patterns were also seen among ecstasy and injecting drug users between 2003 and 2013 (from 84% down to 50% for ecstasy users and 76% down to 66% for injecting drug users). Treatment for amphetamines has fluctuated between 10,000 and 15,000 episodes each year over the last decade.

### Cocaine

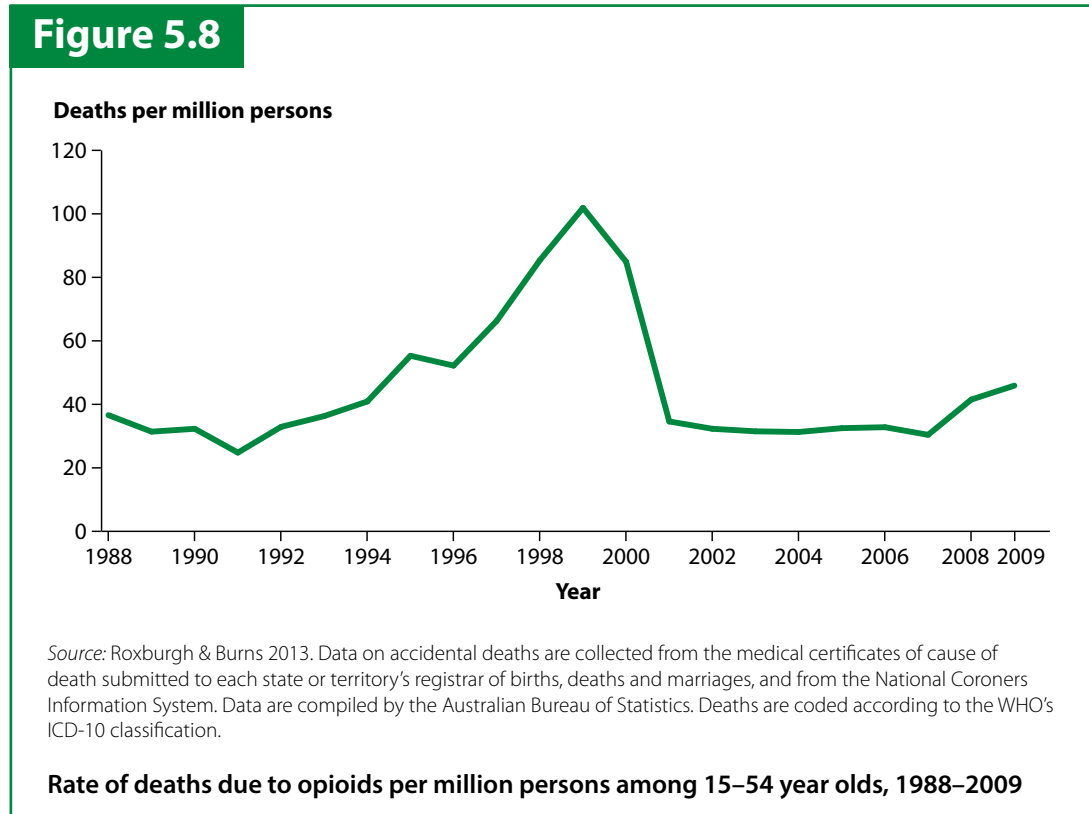
Cocaine use has been increasing since 2004, and this trend continued in 2010 with a rise from 1.6% in 2007 to 2.1% in 2010. Cocaine users were more likely to live in major cities and be more socioeconomically advantaged than other drug users. Use among regular ecstasy users increased from 23% in 2003 to 36% in 2013, peaking at 48% in 2010. Cocaine use among injecting drug users has declined since 2003 (from 83% to 72% in 2013). Use of cocaine was rare among young people.

### Heroin and other opioids

After peaking at 0.8% in 1998, heroin use among the general population remained stable between 2001 and 2010 at 0.2%. Similar patterns of heroin use were seen among injecting drug users, with the proportion reporting heroin use in the preceding 6 months remaining fairly stable between 2007 and 2013 (between 59% and 64%).

There was a major change in the heroin market in Australia in early 2001 when reductions in heroin availability and purity, and increases in price, resulted in decreased heroin use and harm, which was followed by a sharp fall in fatal heroin-related overdoses (Degenhardt & Day et al. 2006). The level of opioid-related deaths in the years following the shortage has remained relatively low, although there was a small rise between 2007 and 2009, attributed to a rise in deaths from prescription opioid overdoses (Figure 5.8).

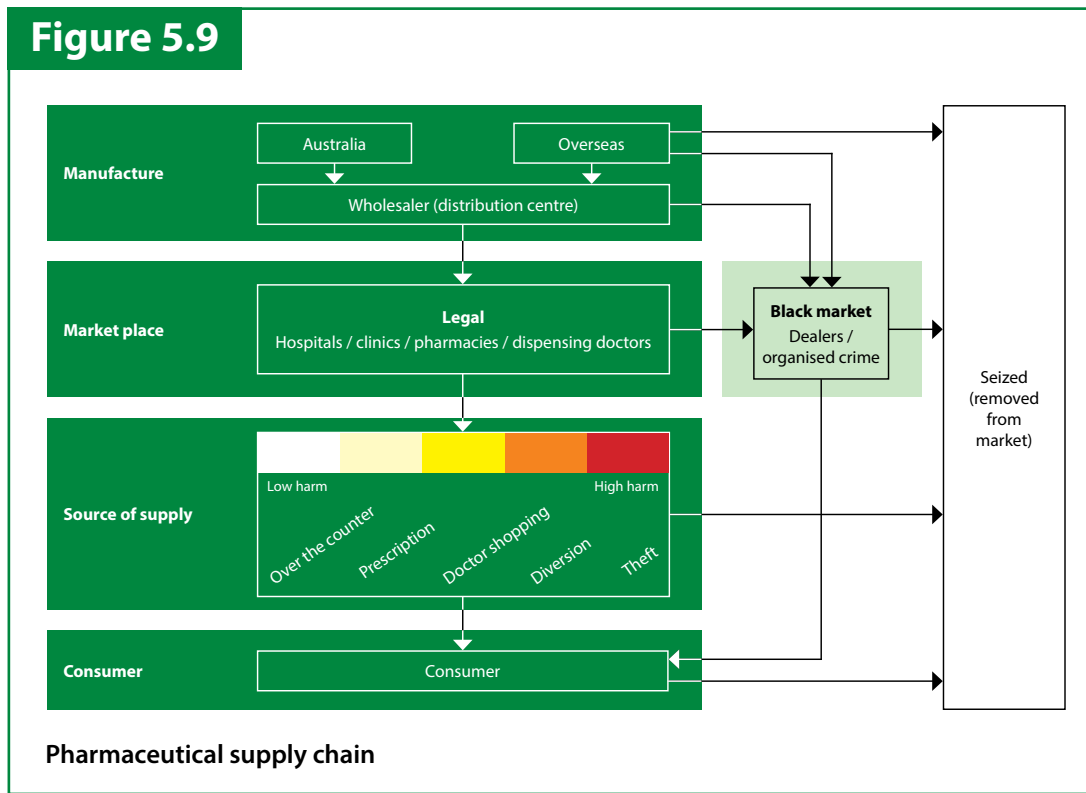
**Figure 5.8**



### Use and misuse of pharmaceutical drugs including opioids

Pharmaceutical drugs provide a broad range of benefits to improve the health and quality of life of Australians. The fact that some medicines are also subject to misuse does not detract from these benefits. However, pharmaceutical misuse is an emerging issue of concern (Nicholas et al. 2011) and therefore 1 of the issues explored in this article.

Australian interest in pharmaceutical misuse stems from the Canadian and United States experience where use and harms of prescription drugs are now more common than for heroin (Nicholas et al. 2011). In addition, as highlighted in figures 5.7 and 5.8, Australia has seen an increase in mortality and morbidity associated with prescription drugs, from opioids in particular. The source of supply of pharmaceuticals is complex, which creates challenges for monitoring and control (Figure 5.9).



Opioid dependence is a chronic, relapsing condition that requires long-term treatment. Treatment is tailored to a person's individual circumstances, and treatment types may be combined (for example, opioid pharmacotherapy combined with counselling) or varied over time (NDARC 2004). The 3 main treatment approaches for opioid dependence are:

- detoxification (also called withdrawal)
- opioid pharmacotherapy (also called substitution or maintenance treatment)
- abstinence-based treatments including self-help groups, counselling and therapeutic communities (NDARC 2004).

The broad goal of treatment for opioid dependence is to reduce the health, social and economic harms to individuals and the community arising from dependence (DoHA 2007).

Opioid pharmacotherapy involves replacing the drug of dependence with a legally obtained, longer-lasting opioid that is taken orally. It reduces or eliminates withdrawal symptoms and drug cravings (NDARC 2004). Research suggests that pharmacotherapy treatment reduces heroin use and associated criminal behaviour and improves physical and mental health and social functioning (Ritter & Chalmers 2009).



In Australia, 3 medications are registered for short-term detoxification and long-term maintenance treatment for opioid-dependent people:

- methadone oral liquid (available since 1969)
- buprenorphine tablet (available since 2000)
- buprenorphine–naloxone tablet (available since 2005) or film (available since 2011) (DoHA 2007; DoHA 2012).

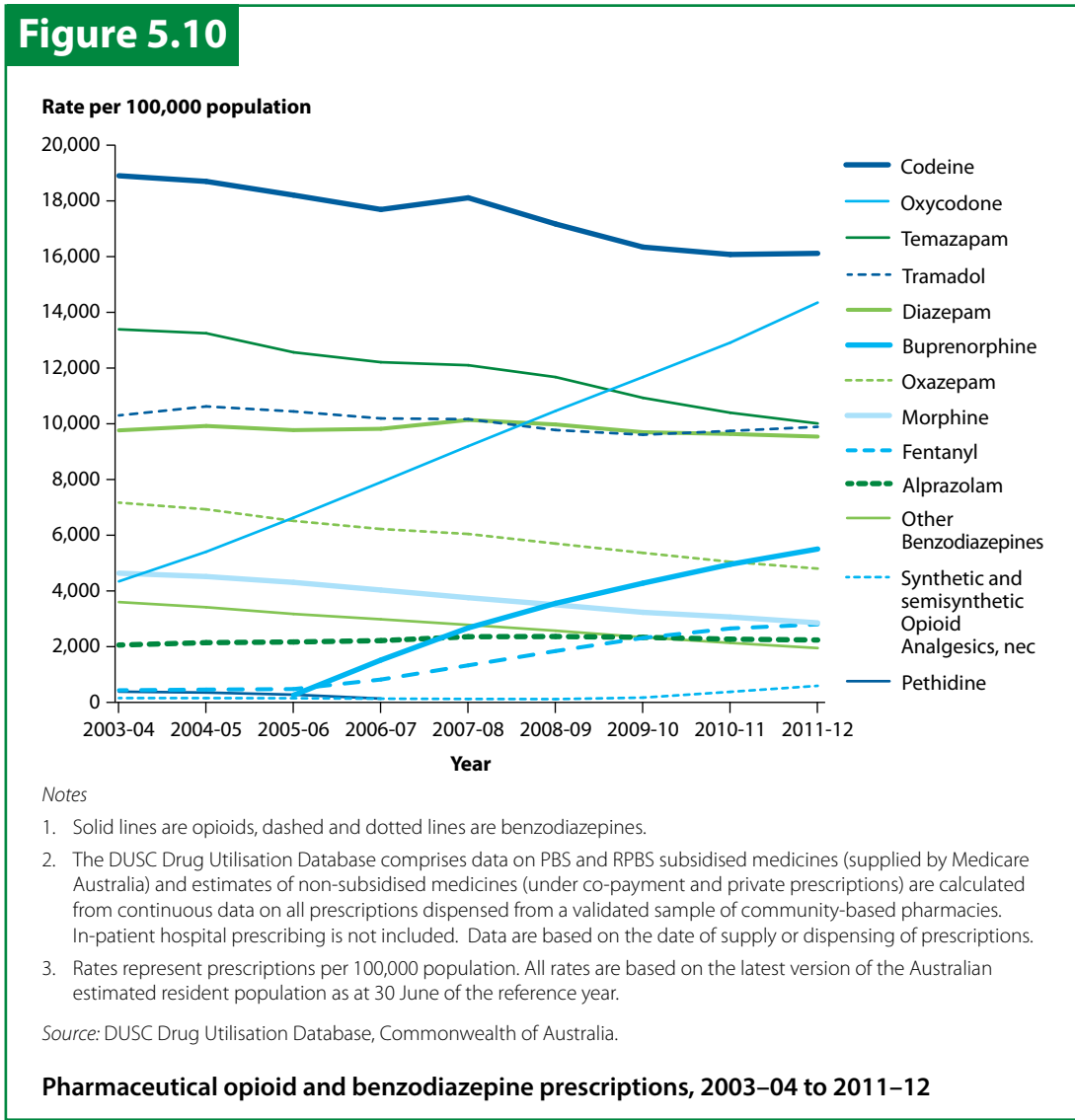
National data on treatment specifically for opioid use are available from 2 main sources, the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS) and the National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) collection.

Findings from the AODTS NMDS show that treatment for heroin declined from about 23,000 to 13,000 episodes over the last decade (AIHW 2013a); however, treatment for some pharmaceutical opioids, including morphine, codeine, oxycodone and fentanyl, increased over the last 5 years. These increases are likely to be conservative estimates due to data coding issues in some jurisdictions. The AODTS NMDS does not capture the majority of treatment provided for opioid dependence. NOPSAD captures information on opioid pharmacotherapy in Australia and showed an increase in the number of clients receiving pharmacotherapy treatment from about 24,700 in 1998 to 47,442 in 2013 (AIHW 2014). Clients were about twice as likely to report heroin as an opioid drug of dependence than they were for all opioid pharmaceuticals combined.

Prior to 2001, heroin was responsible for more than two-thirds of opioid-related hospitalisations (at around 5 or 6 hospitalisations per 100,000 people) until 2005–06 when other opioids, including morphine, oxycodone and codeine, became twice as likely as heroin to be reported as a principal diagnosis (Roxburgh et al. 2011).


Australia has experienced a substantial increase in pharmaceutical opioid supply in recent years. Data from the Pharmaceutical Benefits Scheme shows an increase in prescriptions of some pharmaceutical opioids (including oxycodone, buprenorphine and fentanyl) over the last decade (Figure 5.10). Prescription of benzodiazepines has remained stable or declined over the same period. Analysis of PBS and other data by Roxburgh et al. (2011) suggests that prescriptions for oxycodone are increasing in Australia, predominantly for low-dose formulations, and for older patients. However, increased availability is linked to increased misuse, medical emergencies and poisoning deaths (Roxburgh et al. 2011).

The latest data published by the Australian Crime Commission in its 2011–12 Illicit Drug Data Report showed that in 2011–12, the total number of pharmaceuticals detected at Australian borders (imported illegally) increased by 10 per cent, from around 1,200 in 2010–11 to 1,300 in 2011–12, the highest reported in the last decade. The majority (97%) of these detections were benzodiazepines. The total number of pharmaceutical opioid detections has remained relatively stable at around 40 in both 2010–11 and 2011–12. Oxycodone was the most common pharmaceutical opioid detected at Australian borders in 2011–12, accounting for about half of those detections (ACC 2013).



**‘New’, ‘novel’ or emerging psychoactive substances**

In recent years, so-called ‘new’, ‘novel’ or emerging psychoactive substances (EPS) have entered the illicit drug market as ‘legal’ alternatives to illegal drugs with the potential to pose risks to public health and safety (UNODC 2013b). EPS have been known in the market by terms such as ‘legal highs’, ‘herbal highs’, ‘bath salts’ and over the last decade have been introduced through various modes of distribution and account for an increasingly significant share of illicit drug markets in some countries (UNODC 2013b).



EPS often mimic the effects of existing illicit psychoactive drugs such as cannabis, ecstasy and LSD, or have a chemical structure very similar to existing illicit substances (NDARC 2013a). They include substances such as synthetic cannabinoids (such as 'spice') and synthetic cathinones (such as mephedrone, called 'drone' or 'MCAT' and dimethylmethcathinone, called 'MM-CAT' or 'meowmeow'). Recent data from the EDRS found that, overall, just under half (44%) of regular ecstasy users surveyed reported recent use of any form of EPS in 2013, including synthetic cannabinoids, in the preceding six months. This proportion has increased slightly from 40% in 2012 (NDARC 2013b).

Analysis of border seizures containing EPS indicates that the number of seizures has continued to increase since 2006–07 (ACC 2013).

### **Emerging marketplaces**

Over the last 15 years, both in Australia and internationally, there have been new developments in the marketing and distribution of drugs, with the Internet playing an increasing role (PWMRG 2010). There are now many internet sites selling drugs such as prescription opioids, substances marketed as 'legal' highs, and EPS.


The National Drug and Alcohol Research Centre's 'Drugs and new technologies' or 'DNeT' project uses a number of methods to monitor 'surface' websites (registered with search engines, and hence can be found using tools such as Google), and 'deep web' marketplaces for the illicit drug trade (where transactions are encrypted and therefore anonymised). There is some evidence that the most commonly known of these marketplaces, the Silk Road, has broadened the availability of EPS and other more conventional illicit drugs (Van Buskirk et al. 2013a).

Over the 12-month period between August 2012 and August 2013, the number of retailers shipping to Australia on the surface web gradually declined from a peak of 119 in September 2012 to 79 in August 2013. The number of retailers on the Silk Road, however, increased from 282 to 532 (Van Buskirk et al. 2013b). In October 2013, following the arrest of its alleged moderator, the Silk Road website was closed down. However, following the closure, discussions on the Silk Road forums and elsewhere suggested alternative marketplaces have since emerged.

### **What is missing from the picture?**

Data on the costs of illicit drugs to the community were last published in 2008 (based on 2004–05 data). More up-to-date data would provide better insights into the scale of this issue in Australian society.

While information on both licit and illicit drug use is available through population surveys, and administrative and other data collections, understanding the complexities of the relationship between use and harms associated with these drugs, particularly for poly-drug use, remains a challenge. Data on the structure of the illicit drug market, price variations and supply chains is also difficult to explore given the illegal activities often involved.



For the AODTS NMDS and NOPSAD collections, the AIHW is working with states and territories to improve data on pharmaceutical opioids. Changes were implemented to the NOPSAD collection in 2013 to include the main opioid drug of dependence that led clients to opioid pharmacotherapy treatment. Results of this work were released in June 2014. National collection of drug-related emergency department presentations will also contribute to better understanding of this emerging issue, as data on primary and additional diagnoses will be collected from 2013–14.

The Electronic Recording and Reporting of Controlled Drugs (ERRCD) initiative, originally developed by the Tasmanian Government, is a way to develop a nationally consistent system to collect and report real time data relating to the dispensing of drugs such as prescription opioids. The system is at various stages of implementation across the country.

New questions on EPS have been included in the 2013 NDSHS questionnaire and will provide the first national general population estimate of the use of these drugs. Results from the survey will be released in the second half of 2014. Questions have also been included on whether people source selected illicit drugs online. It is also anticipated that questions on where drugs are obtained (specifically on the Internet) will be included in future EDRS research.

Performance and Image Enhancing Drugs (PIEDs) have received considerable recent public and media attention. While recent information on criminal justice activity (such as seizures) is available, more information on the use of these drugs is needed. The release of results from the 2013 NDSHS, as mentioned above, will also shed light on the size and complexity of this issue.

#### Where do I go for more information?

For more information on illicit drug use and harms in Australia, see AIHW drug-related reports available online at <[www.aihw.gov.au/alcohol-and-other-drugs](http://www.aihw.gov.au/alcohol-and-other-drugs)>. Also see the additional research and statistics from the *National Drug and Alcohol Research Centre*, the *Australian Crime Commission* and the *National Centre for Education and Training on Addiction* websites.

More information can also be found in Chapter 5 'Alcohol risk and harm' and 'Tobacco smoking', Chapter 6 'Youth health: the prime of life?' and Chapter 7 'Health behaviours of Indigenous Australians'.

#### References

- ACC (Australian Crime Commission) 2013. 2011–12 Illicit drug data report. Australian Crime Commission. Canberra: ACC.
- AIHW (Australian Institute of Health and Welfare) 2010. Australia's health 2010. Australia's health series no. 12. Cat. no. AUS 122. Canberra: AIHW.
- AIHW 2011. 2010 National Drug Strategy Household Survey report. Drug statistics series no. 25. Cat. no. PHE 145. Canberra: AIHW.
- AIHW 2013a. Alcohol and other drug treatment services in Australia 2011–12. Drug treatment series 21. Cat. no. HSE139. Canberra: AIHW.
- AIHW 2014. National Opioid Pharmacotherapy Statistics Annual Data Collection 2013. Drug treatment series no. 23. Canberra: AIHW.
- Collins D & Lapsley H 2008. The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004-05. National Drug Strategy Monograph Series no. 66. Canberra: DoHA.
- Degenhardt L, Day C, Gilmour S & Hall W 2006. The 'lessons' of the Australian 'heroin shortage'. Substance Abuse Treatment, Prevention, and Policy 1:11. doi:10.1186/1747-597X-1-11.

- DoHA (Department of Health and Ageing) 2007. National pharmacotherapy policy for people dependent on opioids. Canberra: DoHA for National Drug Strategy.
- DoHA 2012. Pharmaceuticals Benefit Scheme. Canberra: DoHA. Viewed 22 March 2013 <[www.pbs.gov.au/medicine/item/6470M-6471N-9749D-9750E](http://www.pbs.gov.au/medicine/item/6470M-6471N-9749D-9750E)>.
- IHME (Institute for Health Metrics and Evaluation) 2013. GBD Profile: Australia. Seattle: Institute for Health Metrics and Evaluation.
- Ministerial Council on Drug Strategy (MCDS) 2011. National Drug Strategy 2010–2015: a framework for action on alcohol, tobacco and other drugs. Canberra: Commonwealth of Australia.
- NDARC (National Drug and Alcohol Research Centre) 2004. Treatment options for heroin and other opioid dependence: a guide for frontline workers. Canberra: DoHA for the National Drug Strategy. Viewed 11 February 2013, <[http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/content/C8A49A8F08C2F7FBCA2575B4001353A9/\\$File/opioid\\_workers.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/content/C8A49A8F08C2F7FBCA2575B4001353A9/$File/opioid_workers.pdf)>.
- NDARC 2013a. Emerging psychoactive substances (EPS) fact sheet. Sydney: NDARC, University of New South Wales. Viewed 28 November 2013, <<http://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/EPS%20Fact%20Sheet.pdf>>.
- NDARC 2013b. The highs and lows of the party, EDRS key findings presentation. Sydney: NDARC, University of New South Wales. Viewed 28 November 2013, <[http://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/Presentation\\_EDRS%20National%202013\\_Sindicich.pdf](http://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/Presentation_EDRS%20National%202013_Sindicich.pdf)>.
- Nicholas R, Lee N, & Roche A. 2011. Pharmaceutical drug misuse in Australia: complex problems, balanced responses. Adelaide: National Centre for Education and Training on Addiction (NCETA), Flinders University.
- PWMRG (Psychonaut Web Mapping Research Group) 2010. Psychonaut Web Mapping Project: final report. London: Institute of Psychiatry, King's College.
- Rainsford C, Lenton S & Fetherston J 2010. Indicators of changing trends in heroin and other opioid use in IDRS data nationally and in Western Australia. Drug Trends Bulletin, April 2010. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Ritter A & Chalmers J 2009. Polygon: the many sides to the Australian opioid pharmacotherapy maintenance system. ANCD research paper no. 18. Canberra: Australian National Council on Drugs.
- Roxburgh A, Bruno R, Larance B & Burns L 2011. Prescription of opioid analgesics and related harms in Australia. Medical Journal of Australia 195(5):280–84.
- Roxburgh A & Burns L 2013. Accidental drug-induced deaths due to opioids in Australia, 2009. Sydney: National Drug and Alcohol Research Centre.
- Stafford J & Burns L 2011. Key findings from the 2013 Illicit Drug Reporting System (IDRS). Sydney: National Drug and Alcohol Research Centre.
- Sindicich N & Burns L 2013. An overview of the 2013 Ecstasy and Related Drugs Reporting System. Sydney: National Drug and Alcohol Research Centre.
- UNODC (United Nations Office of Drugs and Crime) 2013a. World drug report 2013. Publication Sales No. E.13.XI.6. Vienna: United Nations.
- UNODC 2013b. The challenge of new psychoactive substances. Vienna: United Nations.
- Van Buskirk J, Roxburgh A, Bruno R & Burns L 2013a. Drugs and the internet, Issue 1. Sydney: National Drug and Alcohol Research Centre.
- Van Buskirk J, Roxburgh A, Bruno R & Burns L 2013b. Monitoring the silk road: findings from the first year. Drug and Alcohol Review 32 (Supplement S1):2–74.
- White V & Bariola E 2012. Australian secondary school students' use of tobacco, alcohol, and over-the counter and illicit substances in 2011. Melbourne: Cancer Council Victoria.