An Analysis of UK Drug Policy

A Monograph Prepared for the UK Drug Policy Commission

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The UK Drug Policy Commission's objectives are to:

- provide independent and objective analysis of drug policy in the UK;
- improve political, media and public understanding of the implications of the evidence base for drug policy; and
- improve political, media and public understanding of the options for drug policy.

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Executive summary

Despite the long-standing political prominence of the problem, relatively coherent strategies and substantial investment, the United Kingdom remains at the top of the European ladder for drug use and drug dependence. This study by Professor Peter Reuter of the University of Maryland, USA, and Alex Stevens of the University of Kent, England, assesses the evidence relating to the UK drug problem and analyses the impact of current policies.

The nature of the drug problem

The United Kingdom has the highest level of dependent drug use and among the highest levels of recreational drug use in Europe. The drug problem steadily worsened over the last quarter of the twentieth century: the number of dependent heroin users increased from around 5,000 in 1975 to a current estimated 281,000 in England and over 50,000 in Scotland. Since the turn of the millennium, drug trends have shown signs of stabilisation, albeit at historically high levels.

About one quarter of those born between 1976 and 1980 have used a Class A drug at least once by 2005. The percentage of young people who have used cannabis seems to have been decreasing in recent years, although it remains around 45%. Use of other drugs that have been associated with youth cultures in the last few decades, including LSD, amphetamines and ecstasy, has also fallen, while cocaine use has increased. But, most people use illegal drugs only for a short period of time.

Occasional drug use is not the principal cause of Britain's drug problems. The bulk of drug-related harm (death, illness, crime and other social problems) occurs among the relatively small number of people that become dependent on Class A drugs, notably heroin and cocaine.

There were 1,644 identified drug-related deaths in the UK in 2005. The UK has the second-highest rate of drug-related death in Europe, at about 34 per million population aged 16 or over. The level of HIV among users in the UK is much lower than most other comparable European countries, with about 1.6% of injecting drug users being HIV positive. However, 42% of injectors in England and 64% of injectors in Scotland are estimated to be infected with hepatitis C.

Some of the estimated 327,000 problem drug users in England commit very high numbers of offences – most commonly shoplifting – to fund their drug use. Around a fifth of arrestees appear to be dependent on heroin. Illicit drugs may also be linked to violent crime through the direct effects of stimulants, such as crack cocaine, on aggression and through the operation of the illegal market, which is regulated by violence and fear. It has recently been estimated that the size of the UK market for illicit drugs is over £5 billion, despite sustained reductions in drug prices. The annual socio-economic cost of drug-related crime in England and Wales has been estimated at over £13 billion.

Drug problems are disproportionately concentrated in areas of disadvantage. Problems such as drug dependency, drug-related deaths, infections, crime and mental illness cluster together in areas that are particularly socially deprived.

The policy response

Successive governments, initially across the UK and subsequently in the devolved administrations in Scotland, Northern Ireland and Wales as well have responded forcefully to this high-profile problem since the mid-1990s.

The current 10-year UK Drug Strategy was initiated in 1998 and is therefore due for replacement or renewal in 2008. It is wide-ranging and has included a number of targets that have changed over the years. The current Public Service Agreement (PSA) targets for England were set in 2004. They involve:

- reducing the harm caused by drugs, including health impacts and drug-related offending as measured by a Drug Harm Index, as well as increasing the number of drug-misusing offenders entering treatment through the Criminal Justice System;
- reducing frequent and Class A drug use by young people under 25, especially the most vulnerable; and
- increasing the numbers of problem drug users in treatment by 100% by 2008 as well as increasing the proportion successfully sustaining or completing treatment.

In Scotland, Wales and Northern Ireland there are parallel strategies with broadly similar objectives.

To achieve these (and earlier) targets, the government and devolved administrations have sought to take action on a number of fronts, including:

- a large and unparalleled increase in expenditure on treatment services;
- drug testing and referral of offenders to treatment through the Criminal Justice System;

- increasing drug seizures and targeting 'middle' market drug dealers;
- internationally, taking on principal responsibility for curbing heroin production in Afghanistan;
- resisting calls to review the drug classification system but reclassifying cannabis from a Class B to a Class C controlled drug;
- introducing information campaigns and increased coverage of drug education programmes in school;
- early interventions with high risk groups such as truants and young offenders.

Despite the increased investment in treatment, the majority of government spending on responding to illegal drugs is still devoted to enforcing drug laws. It is however difficult to estimate government expenditure on drug policy, as it is not transparently reported. From the available data, we calculate that in the UK, as in other nations, enforcement expenditure (including police, courts and prisons) accounts for most of the total expenditure on drug policy.

An assessment of subsequent impact

Drug use appears to have broadly stabilised in the UK since the turn of the millennium and in some cases there have been reductions in reported use, although cocaine and crack use has reportedly increased.

The government has successfully increased the number of dependent drug users entering treatment, with enrolment in England increasing from 85,000 in 1998 to 181,000 in 2004/5 with significant numbers of referrals through the Criminal Justice System. Research suggests that this will have led to substantial reductions in drug use, crime and health problems at the individual level, with positive benefits for drug users, families and potential victims of crime. The majority of this treatment involves the prescription of heroin substitution drugs (mostly methadone). More than half of the estimated number of problem drug users are now in contact with structured treatment each year. Waiting times have been cut sharply.

However, it is unlikely that the benefits of treatment to individuals and families will have translated into a substantial and measurable impact on overall levels of dependent drug use and crime at the national level. International experience suggests that such impact is likely to be limited, due to the large numbers of users remaining untreated, the high rate of relapse, the variable effectiveness of treatment and the continual influx of new users.

Harm reduction measures such as needle exchanges and methadone programmes appear to have successfully prevented a major HIV epidemic among injecting drug users in the UK compared to other countries. However, they do not appear to have

prevented the rise of other blood-borne viruses such as hepatitis C.

There is little international or UK evidence to suggest that drug education and prevention have had any significant impact on drug use. The international literature consistently indicates that most school-based prevention efforts do little to reduce initiation. Even those programmes that are delivered effectively seem to have very little impact on future drug use.

Despite fears that the reclassification of cannabis would lead to an increase in its use, cannabis use according to the most recent data has continued to decline since 2001/2.

The use of custodial sentences for drug offenders increased substantially between 1994 and 2005. The annual number of people imprisoned rose by 111% and the average length of their sentences increased by 29%. Taking into account the rise in the average sentence length (37 months for drug dealing in 2004), the courts handed out nearly three times as much prison time in 2004 as they did 10 years earlier.

Some enforcement measures around the street distribution of drugs can reduce the problems related to drug markets. The impact of enforcement measures generally is experienced disproportionately amongst particular ethnic communities, notably black people who are arrested and imprisoned for drug offences at higher rates than white people.

Despite substantial increases in drug seizures, street drug prices have gone down, with the price for a gram of heroin falling from £70 in 2000 to £54 in 2005. Tougher enforcement should theoretically make illegal drugs more expensive and harder to get. The prices of the principal drugs in Britain have declined for most of the last ten years and there is no indication that tougher enforcement has succeeded in making drugs less accessible.

Policy implications

There is little evidence from the UK, or any other country, that drug policy influences either the number of drug users or the share of users who are dependent. There are numerous other cultural and social factors that appear to be more important. It is notable that two European countries that are often used as contrasting examples of tough or liberal drug policies, Sweden and the Netherlands, both have lower rates of overall and problematic drug use than the UK.

Given the international evidence as to the limited ability of drug policy to influence national trends in drug use and drug dependence, it is unreasonable to judge the

performance of a country's drug policy by the levels of drug use in that country. Yet that is the indictor to which the media and public instinctively turn. However, this is not to say that drug policy is irrelevant.

The arena where government drug policy needs to focus further effort and where it can make an impact is in reducing the levels of drug-related harms (crime, death and disease and other associated problems) through the expansion of and innovation in treatment and harm reduction services.

We know very little about the effectiveness and impact of most enforcement efforts, whether they are directed at reducing the availability of drugs or at enforcing the law over possession and supply. Imprisoning drug offenders for relatively substantial periods does not appear to represent a cost effective response.

Transparency in resource allocations is urgently needed if the overall and relative balance of supply and demand reduction interventions is to be considered.

The UK invests remarkably little in independent evaluation of the impact of drug policies, especially enforcement. This needs redressing if policy makers are to be able to identify and introduce effective measures in the future.

CHAPTER 1

Introduction

UK policy on illicit drugs may change soon. The drug strategy that was created in 1998 is being reviewed in 2007/8. The United Nations, which plays an important role in the international control system, will also evaluate how successfully the global community has fared in accomplishing the ambitions of the UN General Assembly Special Session of 1998, which called for a drug-free world. The time is therefore right to examine the strengths and weaknesses of current UK policies.

This report will attempt to provide such an analysis.[1] The report will focus on those psychoactive drugs that are currently categorised as illegal to import, sell and possess. It will refer to tobacco or alcohol only as they interact with the other drugs, although we recognise that tobacco and alcohol are associated with more disease, violence [2] and mortality in Britain than all the illicit drugs combined. We will endeavour to survey the diverse effects and problems that are associated with different kinds of drugs. Different harms are associated with, for example, cannabis and heroin, and different responses are therefore appropriate.

By policy, we mean the pattern of legislation and government action that aims to affect the use of drugs and the related problems. The remainder of this chapter describes very briefly the evolution of drug legislation. Chapter 2 examines the population pattern of use of the various illicit drugs, in particular how they have changed over time. Chapter 3 discusses the harms that are associated with these patterns of use, focusing on the most severely affected groups. This will provide the basis for the discussion, in Chapter 4, of current policies and their effects. The report will conclude, in Chapter 5, with brief assessments of the limits of drug policy and the effectiveness of current British policy.

Legislation

The Misuse of Drugs Act 1971 (MDA) continued a process of increasing legal control of psychoactive substances in the twentieth century (see 'A brief history of drug control legislation', page 15). This has passed through four distinct phases. Until 1916, there was very little legal control of drug use. Various preparations derived from opium and coca were available for sale, and were widely used. Mounting concern over the use of cocaine and other drugs by troops on leave during World

War I (Spear and Mott 1993), and then by young white women and 'men of colour' in the London underworld (Kohn 2001) accompanied the second phase of control, between 1916 and 1928. Criminalisation of the distribution and use of cocaine and mainly morphine (and later cannabis) were combined with the availability of cocaine and heroin to addicts through doctors, an arrangement that came to be known as the 'British system' and was confirmed by the Rolleston committee of 1926. This system separated the treatment of dependent drug users from the punishment of unregulated use and supply. Until the 1960s, British policy on drugs followed this system, which was found nowhere else. The number of users was never large and prevalence of drug use remained low, while small numbers of dependent users continued to receive prescribed drugs from doctors as part of their treatment.

In the 1960s, two events generated a sharp increase in the level of legal control of illicit drugs. The first was the prescription of large amounts of heroin by a few doctors, which led to diversion into the illegal market. The second was the increasing use of substances such as cannabis, amphetamines and LSD that had not previously existed to a very great extent in the UK. This led to the third phase of British drug policy, when increasing control accompanied rising prevalence between the 1960s and 1980s. By the early 1970s methadone overtook heroin as the main drug for heroin addicts in treatment, though properly licensed physicians retained the right to prescribe heroin (see Strang and Sheridan 2006). The MDA brought together the various measures that had been introduced in previous legislation and introduced the three-tier classification framework by which drugs are still classified. In the 1980s, as concern mounted over increasing heroin use, penalties for trafficking and supply were increased.

In 1991, the first legal attempt to integrate health and criminal justice responses, in the form of Schedule 1A6 Probation Orders, ushered in the fourth and most recent phase of drug legislation. There is now less of the separation between medical and punitive responses that had characterised the British system in the past.

British drug legislation should not be considered without acknowledging the influence of international agreements and conventions, which have been largely driven by the USA. Mott and Bean (1998) have argued that the main legal innovations between 1925 and 1964 were in response to international pressures, not domestic problems. The United Nations conventions still impose limits on national drug legislations, which are still most powerfully upheld by the USA (Transnational Institute 2005).[3]

Overall, both international and British legal developments show a punctuated but inexorable increase in the level of legal control of drugs. As will be shown in Chapter 2, these laws have not succeeded in their primary aim of reducing the

Table 1.1 **Current classification of drugs under the Misuse of Drugs Act (as at February 2007).**

	Class		
	A	*B*	*C*
Maximum prison sentence for possession	7 years	5 years	2 years
Maximum prison sentence for supply	Life	14 years	14 years
Drugs included	LSD Ecstasy Heroin Methadone Cocaine Psilocybin mushrooms Methylamphetamine Amphetamines prepared for injecting	Amphetamines Barbiturates	Cannabis Benzodiazepines Buprenorphine GHB Ketamine

prevalence of use of the targeted drugs. The UK now has the highest rates of illicit drug use in the European Union and over 10 million people in England and Wales are estimated to have used illicit drugs (Roe 2005).

Table 1.1 shows how controlled drugs are currently classified . Classes A, B and C are used to categorise drugs according to the perceived danger they pose to users and society, with penalties set higher for the more dangerous drugs. The current debate over these classifications will be examined in Chapter 4. Box 1.1 provides a summary of the historical development of British drug legislation.

Box 1.1 **A brief history of drug control legislation**

Introducing legal controls

1868 – Pharmacy Act. First regulation of poisons and dangerous substances, limiting sales to chemists.

1908 – Poisons and Pharmacy Act. Specifically included coca in regulations on sale and labelling.

Creating a national system

1916 – Defence of the Realm Act, 1914 (Regulation 40B). Restricted sales and possession of cocaine to 'authorised persons'.

1920 – Dangerous Drugs Act. Limited production, import, export, possession, sale or distribution of opium, cocaine, morphine or heroin to licensed persons.

1925 – Dangerous Drugs Act. Introduced control of the importation of coca leaf and cannabis.

1928 – Amendment to Dangerous Drugs Act to criminalise possession of cannabis (but doctors able to prescribe any drugs as treatments for general medicine or for addictions).

Increasing control

1964 – Dangerous Drugs Act. Ratified UN 1961 Single Convention and criminalised cultivation of cannabis.
Drugs (Prevention of Misuse Act) criminalised the possession of amphetamines.

1967 – Dangerous Drugs Act. Required doctors to notify Home Office of addicted patients. Prescription of heroin and cocaine for treatment of addictions restricted.

1971 – Misuse of Drugs Act. Set up the system classifying drugs according to their perceived harmfulness. Created offence of 'intent to supply' and set harsher penalties for trafficking and supply. Established The Advisory Council on the Misuse of Drugs (ACMD).

1985 – Controlled Drugs (Penalties) Act. Increased maximum penalty for trafficking Class A drugs from 14 years to life imprisonment.

1986 – Drug Trafficking Offences Act. Created an offence of making suspects aware of an investigation. Empowered police to compel breaches of confidentiality and to search and seize material and assets.

Integrating criminal justice and health

1991 – Criminal Justice Act. Schedule 1A6 allowed for the condition of attending drug treatment to be attached to a probation order.

1998 – Crime and Disorder Act. Created the Drug Treatment and Testing Order (DTTO).

2000 – Criminal Justice and Court Services Act. Enabled police to drug test people charged with 'trigger' offences. Created the Drug Abstinence Order, the Drug Abstinence Requirement and testing for supervised, released prisoners.

2003 – Criminal Justice Act. Enabled restrictions on bail for some arrestees ('trigger offences') who test positive for Class A drug use. Created the generic Community Order, replacing the DTTO with the Drug Rehabilitation Requirement.

Anti-Social Behaviour Act. Powers to close premises used for Class A drugs supply.

2005 – Drugs Act. Introduced drug testing on arrest. Criminalised possession and sale of unprocessed psilocybin mushrooms. Made it illegal to refuse a required treatment assessment. Increased penalties for dealing near schools.

2006 – Police and Justice Act. Extends the conditional cautioning scheme to provide for punitive conditions to be attached.

CHAPTER 2

Drug use in Britain

It is difficult to estimate the number of persons who use illegal drugs in the UK, and extremely difficult to estimate the total quantity that they consume. Recent years have seen the development of regularly administered surveys, such as the British Crime Survey (BCS) and its Scottish parallel, and various studies of school pupils, which ask respondents to report their drug use. Respondents are promised confidentiality. Given that nearly half report some use of illegal drugs, clearly many respondents are willing to report that they have violated the law by possessing drugs. However some almost certainly do not and there is an almost irresolvable controversy about the extent of under-reporting.[1] Unfortunately, there are no indirect indicators that provide an alternative method for estimation of the total numbers of users.

Another barrier to the accuracy of survey estimates is that household and school surveys are likely to miss those people who are amongst the heaviest users of illicit drugs: the homeless, prisoners and school truants. Dependent users of cocaine and heroin may also be of unstable residence, and less likely to be found in their residence at a given time. Estimates of young peoples' drug use from the BCS are also affected, almost certainly in the direction of underestimating prevalence and frequency of drug use, by the exclusion of students who live in university halls of residence. What the surveys are good for is the assessment of trends in the occasional use of drugs other than cocaine and heroin.

The surveys are not good for estimating the number of dependent users of expensive and addictive illicit drugs. BCS estimates of the prevalence of the use of the most problematic drugs, including heroin and crack, appear implausibly low. Extrapolation from the 2001 BCS provided an estimate that there were fewer heroin users than had actually presented to treatment for heroin problems in that year (Hickman *et al*. 2004). A capture–recapture study in London found rates of crack use that were four times higher than had been found in population surveys (Hope *et al*. 2005).

More sophisticated studies aimed at estimating the extent of 'problematic drug use' have been developed, using a variety of data sources, and better indicator systems are being developed. We judge that there are moderately credible estimates of the

extent of dependent heroin and cocaine use in the UK. The latest estimate is that there were 327,000 problematic drug users in England 2004/5 (Hay *et al*. 2006).[2] The available estimates for other UK countries are older, relating to 2000, when it was estimated that there were approximately 55,800 problematic drug users in Scotland, 800 in Northern Ireland and 8,000 'serious drug users' in Wales (Eaton *et al*. 2005).

The available data will be examined in more detail in this chapter and in Chapter 4, where we argue that the limitations of current indicators have serious implications for targeting, accountability and performance management in current UK drug policy.

Drug use is a common experience for those born in the United Kingdom since at least 1970. However, the majority of those who try an illegal drug use cannabis only a few times and do not go on to use other drugs or experience much harm. A small minority do go on to become dependent and troubled users of heroin and cocaine. These people tend to use drugs very frequently and so they contributed disproportionately to the estimated £5.3 billion spent on illicit drugs in the UK in 2003/4 (Pudney *et al*. 2006).

This chapter begins with a description of the trends in drug use in the general population and then moves to a more detailed description of patterns of use of the two most problematic drugs, heroin and cocaine. It concludes by comparing UK drug use with that in other similar nations.

Drug use in the general population

It now seems that what might be termed 'recreational' drug use has become firmly established as an experience that many young people will go through. One broad measure of that is the percentage of various birth cohorts who have tried an illegal drug at least once. In Table 2.1, we present data on England and Wales from the 2005 British Crime Survey (Roe and Man 2006) on the percentage of persons of different ages that have used at least one illicit drug at least once. We see that for those born between 1961 and 1970 (aged 35–44 in 2005), about one-third had used some drug but that for those born between 1971 and 1975 (aged 30–34 in 2005) the figure had risen to over 45% and is over 50% for those born between 1976 and 1980 (aged 25–29 in 2005).

The largest fraction have used cannabis – over 40% for those born since 1975.[3] The proportions that have experimented with more serious drugs (Class A), though smaller, are still substantial. For those born between 1976 and 1980, over one-quarter reported at least one use of a Class A drug, with nearly one in six reporting

Table 2.1 **Figures for the proportion of 16- to 59-year-olds reporting having used drugs in their lifetime by age group, 2005/6 BCS (England and Wales).**

Drug	*Age group*							
	16–19 (%)	*20–24 (%)*	*25–29 (%)*	*30–34 (%)*	*35–44 (%)*	*45–54 (%)*	*55–59 (%)*	*All ages 16–59 (%)*
Cannabis	35.1	44.4	46.7	40.1	28.5	18.8	11.1	29.8
Amphetamines	7.5	14.5	23.8	20.5	11.8	5.6	2.8	11.5
Any cocaine	6.5	14.5	15.2	10.4	6.4	2.4	1.1	7.3
Ecstasy	5.8	14.4	18.2	14.0	5.7	0.9	0.2	7.2
Opiates	0.4	1.1	1.9	1.2	0.9	0.5	0.3	0.9
Class A	11.2	21.8	26.5	21.4	13.6	6.6	3.6	13.9
Any drug	40.4	49.0	51.6	45.8	34.2	23.4	15.4	34.9

use of cocaine. As noted earlier, it is useful to remember that these are probably underestimates of the true proportions.

However, the percentage of people who use these drugs regularly over long periods of time is very much smaller. Table 2.2 provides data on last year use rates for the same age groups and drugs presented in Table 2.1. Whereas 26.5% of 25- to 29-year-olds reported *ever* having used a Class A drug, only 6.9% reported that they had used such a drug *in the past year*. Even for cannabis, only about one-third of the 25- to 29-year-olds reporting ever having used the drug reported that they had used it in the previous year. Most people who use illicit drugs only do so for a short time.

Last year use of drugs in Scotland shows a similar pattern, with use peaking in the 20–24 age group. In this group, the estimated proportions of people using cannabis, cocaine, ecstasy and opiates in 2004 were 25.3%, 5.6%, 5.9% and 1.5% respectively (Murray and Harkins 2006).

There are variations in reported drug use between sexes and ethnic groups. In the British Crime Survey, 40.6% of men reported having ever used an illicit drug compared to 29.4% of women. This pattern of higher drug use among men holds true across age groups, for different drugs and for lifetime and past year use (Roe and Man 2006), although the difference between the sexes' drug use patterns do seem smaller among school pupils (NatCen/NFER 2006) than those aged over 16.

Table 2.2 **Figures for the proportion of 16- to 59-year-olds reporting having used drugs in the last year by age group, 2005/6 BCS (England and Wales).**

Drug	*Age group*							
	16–19 (%)	*20–24 (%)*	*25–29 (%)*	*30–34 (%)*	*35–44 (%)*	*45–54 (%)*	*55–59 (%)*	*All ages 16–59 (%)*
Cannabis	21.8	21.2	14.8	9.4	5.2	2.5	1.1	8.7
Any cocaine	3.9	7.6	4.7	3.0	1.5	0.2	0.0	2.4
Ecstasy	3.0	5.4	3.7	2.1	0.6	0.0	–	1.6
Amphetamines	2.7	3.8	2.7	1.6	0.9	0.2	0.1	1.3
Opiates	–	–	–	–	–	–	–	0.1
Class A	6.3	10.3	6.9	4.3	1.8	0.3	0.1	3.4
Any drug	24.8	25.6	17.5	11.7	6.6	2.9	1.5	10.5

For ethnicity, in the 2001/2 British Crime Survey of 16- to 59-year-olds, respondents of mixed ethnic background had the highest rates of reported drug use, with 25% reporting any illicit drug use in the past year. People from Asian backgrounds tended to have lower reported rates of drug use (at 5%), while people of white and black ethnic origins were similar in reported levels of drug use (both 12%) (Aust and Smith 2003). Aust and Smith suggested that the high rates of reported drug use among those of mixed ethnic background may be related to their socio-economic position, with high levels of indicators of deprivation in this group.

The data presented above relates to drugs that are classified under the Misuse of Drugs Act. There are also volatile substances, such as amyl nitrate, glues and solvents, that are illegal to sell if it is likely that they are intended for abuse. In 2005/6, 8.4% of BCS respondents aged 16–59 reported that they had ever used amyl nitrate, and 2.4% reported that they had ever used glues or solvents. Recent use of both types of substance was reported most frequently by respondents aged 16–19 (Roe and Man 2006).

Trends among youth

So far we have presented data only on recent prevalence. Of equal interest is how the prevalence of use has changed in recent years. Unfortunately because of changes in survey methodology it is not possible to examine changes before 1998.

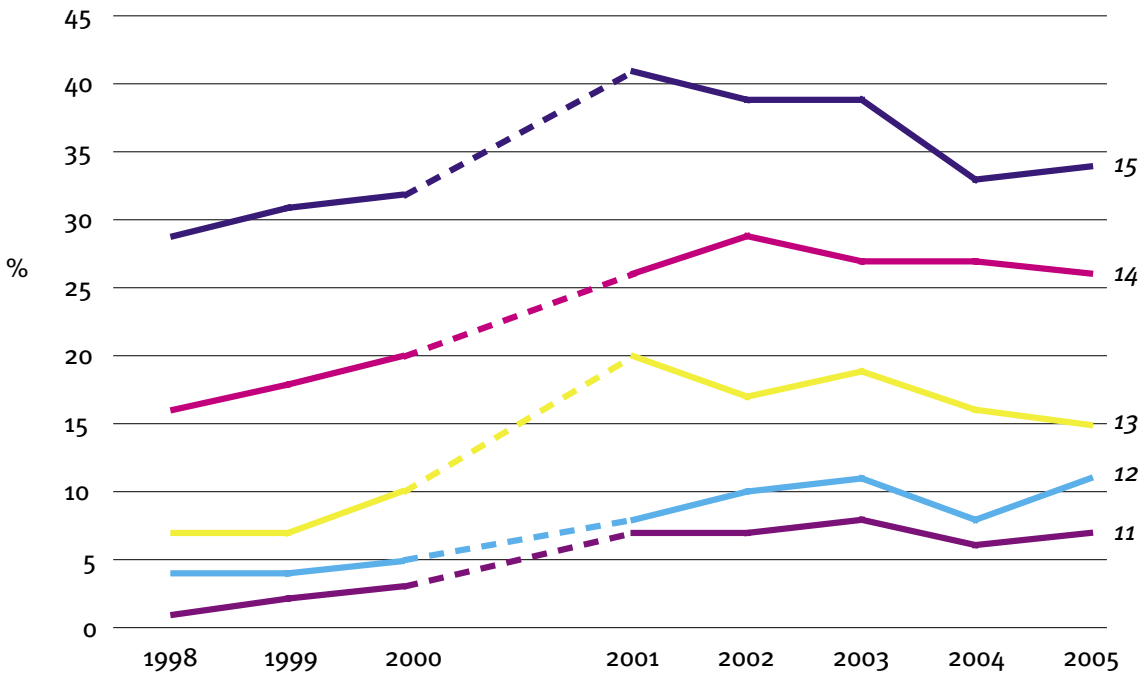

Figure 2.1 Prevalence of last year drug use by age (NatCen/NFER 2006).[4]

Figure 2.1 indicates that the prevalence of drug use (predominantly cannabis) in the last year rose among school pupils aged between 11 and 15 from 1998 to 2000. After that the patterns differ by specific age. It fell for 13- to 15-year-olds (NatCen/NFER 2006) but not for 11- and 12-year-olds.[5] The proportions of pupils reporting monthly use of drugs seems to have stabilised in England and to be falling in Scotland (ACMD 2006). Drug use among young people in Northern Ireland was lower than in other parts of the UK during the years of civil unrest, but appears to have been rising since the ceasefires following the 1998 Good Friday Agreement (Higgins *et al.* 2004).

Figure 2.2 suggests that there has been a moderate fall in the prevalence of cannabis use among young people above school age in England and Wales since 1998. From the figures available so far, use of cannabis does not appear to have been significantly affected by the reclassification of the drug in January 2004.

Ecstasy use appears to be fairly stable, around the 5% level of prevalence, with some evidence of decline since 2001/2, though prices have fallen rapidly. When ecstasy first became popular in British nightclubs, pills were sold for between £15 and £20. Independent Drug Monitoring Unit (IDMU) figures suggest that average prices had fallen to under £10 by 1997 and were less than £4 in 2004. There seems to be a natural history to the use of ecstasy, as most users stop before they have used it 40 times (Eiserman *et al.* 2005). It is not an addictive drug. So, unlike heroin, reductions in initiation into the drug will soon translate into significant reductions in the number of active users.

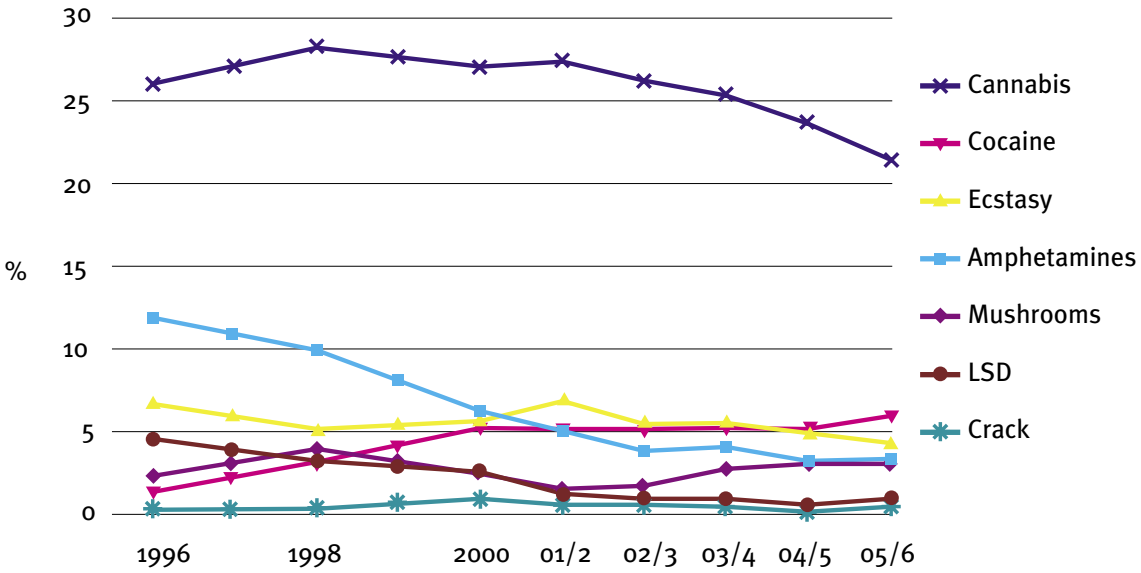

Figure 2.2 Prevalence of last year drug use reported by 16- to 24-year-olds.

Source: Roe and Man 2006.

Use of volatile substances has apparently fallen since 1998. The BCS reports that prevalence of reported use of amyl nitrate by 16- to 24-year-olds fell from 5.1% in 1998 to 3.9% in 2005/6. The reduction for glues and solvents was from 1.3% to 0.5% in the same period (Roe and Man 2006).

There has been a debate over whether 'recreational' drug use, especially of cannabis, has become a 'normal' activity among young people in Britain (Parker et al. 1998a). In response to critics of this idea, such as Shiner and Newburn (1999), Parker (2005) has argued that drug use increased rapidly in the 1990s, being reported in surveys by about 1 in 3 young people at the end of the decade, compared to around 1 in 5 at the beginning. 'Recreational' drug use appears now socially accommodated, as suggested by the growing body of research that shows that, although there continues to be a minority of young people who strongly reject drugs, they have become a regular part of life for many young people. Non drug users tend to have friendships with drug users and accept, however reluctantly, their friends' choices to use these drugs. Parker also refers, with support from Blackman (2004), to the cultural accommodation of drugs that is apparent in the increasingly neutral or even positive portrayals and mentions of drugs in mainstream films and TV programmes.

British youth culture has changed since the high tide of dance culture in the late 1980s and early 1990s. As fashions change, it is possible that drugs such as ecstasy, amphetamines and LSD are losing out in competition with other attractions. Measham (2004b) has, for example, drawn attention to how binge drinking has

recently increased, as the alcohol industry and local authorities have promoted the night time economy, in which the development of new alcohol brands, venues and later drinking hours have drawn more young people and their money into city centres.

Parker (2005) also highlights the co-occurrence of alcohol with illicit drug use as one of the dangers attendant to the normalisation of recreational drug use. Among his 'illegal leisure' study sample at age 22, 78% were drinking alcohol when they last took an illegal drug. Heavy drinking and mixing of psychoactive substances pose serious challenges to public health, including dangers during the journey home, depression and diseases associated with longer term alcohol misuse. Combined use of alcohol and cocaine produces a third substance, cocaethylene. Combining cocaine and alcohol use may increase the risk of damage to the brain (Bjork *et al.* 2003) and heavy drinking represents a serious threat to the health of cocaine users (Gossop *et al.* 2006a). Parker also notes that there is 'slippage' from recreational to problematic patterns of use. Many of the new heroin users he identified in his 1998 study did not come from the usually vulnerable groups, but had moved on to heroin through social networks they developed in the recreational scene.

Heroin

Heroin is associated with more damage, over a longer period of time, than any other illegal drug in the UK.[6] This is not because heroin itself is the most dangerous substance available. In its pure form (diamorphine), heroin has few long-term physiological effects and has been taken safely for many years by some people. Others are able to control their use of heroin, contradicting popular notions that addiction is an inevitable consequence of heroin use (Warburton *et al.* 2005, Shewan and Dalgarno 2006). But many users do experience overdoses and the harmful consequences of dependence. Heroin has been at the centre of British concerns about illicit drugs since the mid-1960s and, even with the rise of crack and cocaine, continues to account for most of the harm related to illegal drugs; for example, 86% of the estimated number of problematic drug users are users of heroin (Hay *et al.* 2006). Thus we give it more space than any other drug in describing how its use has evolved.

Heroin is the drug that is classically associated with 'epidemics' (Hunt 1974). The notion of a drug epidemic captures the fact that drug use is a learned behaviour, transmitted from one person to another. Although there are individuals – drug importers and distributors – who consciously seek to create new markets for their drugs, it is now clear that almost all first drug experiences are the result of being offered the drug by a friend or family member. Drug use thus spreads much like a

communicable disease. Users are 'contagious', and some of those with whom they come into contact are willing to become 'infected'.

In an epidemic, rates of initiation in a given area rise sharply as new users of a drug initiate friends and peers (Caulkins *et al*. 2004). At least with heroin, cocaine, and crack, long-term addicts are not particularly 'contagious'. They are often socially isolated from new users. Moreover, they usually present an unappealing picture of the consequences of addiction to the specific drug. In the next stage of the epidemic, initiation declines rapidly as the susceptible population shrinks, because there are fewer non users, and because the drug's reputation sours, as a result of better knowledge of its effects. The number of dependent users stabilises and typically gradually declines.

In most Western countries there has been just one discrete heroin epidemic. That is true for example of the Netherlands and the United States, both of which experienced an epidemic of heroin use between the late 1960s and early 1970s; since then each has had only moderate endemic levels of initiation. The United Kingdom is different. Though none of the indicators of the size of the heroin-addicted population is unimpeachable they generally rise rapidly almost without pause throughout the 25-year period 1975–2000. There are references in the literature (e.g. Parker *et al*. 1998b) to two epidemics, one in the 1980s and one in the 1990s, but there is not the sharpness of distinction in rates of change in different time periods that this suggests.

Figure 2.3 provides data on the number of 'addicts notified to the Home Office' for 1960–96; some of the notifications were new, while some were re-notifications of dependent users who had been in the system at some previous time. This series was maintained from 1935 to 1996, making it uniquely long. Notification was voluntary until 1967, but was made compulsory by the Dangerous Drugs Act of that year.[7] The numbers were always dominated by heroin notifications. The figures were fairly stable until about 1960 and then rose in relative terms quite sharply until 1967, with most of this rise occurring in London. This geographically concentrated increase led to a major change in policy, although there was no national epidemic of heroin addiction. The number of notifications remained stable for the next ten years, until about 1976. If the series after 1976 is broken into five-year periods, in each of those periods the number roughly doubled. In 1976 the number of notifications was less than 2,000; twenty years later it was more than 40,000. Few health indicators have shown such rapid deterioration over such a long period.

For purposes of tracking the emergence of a heroin epidemic, a more relevant series is that on 'new notifications' (as opposed to those who had been notified by a doctor in some earlier year as well) for heroin specifically. The number of new

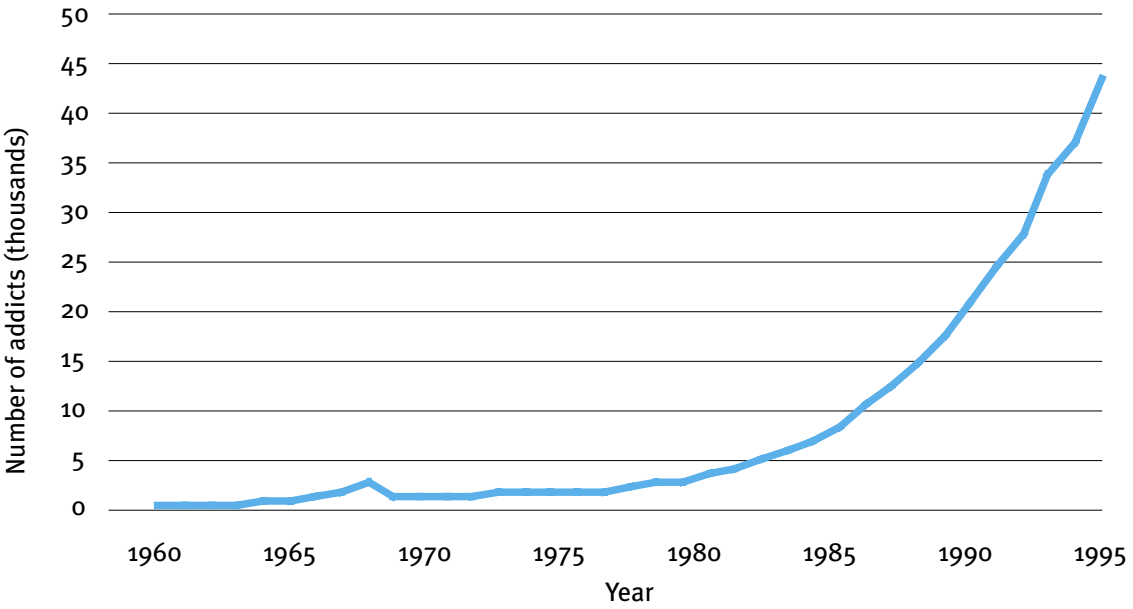

Figure 2.3 Number of addicts notified to the Home Office, 1960–96.

notifications in a given year is an indicator of initiation into dependent use in the previous few years. Though there is a delay from first year of dependence to first notification, a substantial proportion of those who became dependent were likely within a few years to come into contact with a physician who might report that dependence (Millar *et al*. 2004). The series for new notifications of heroin use for the period 1975–96 is given in Figure 2.4. The pattern is essentially the same as in Figure 2.3; the number increases by about 15% per annum over that period. In 1975 the number of new notifications of heroin dependence was 525; in 1996 the figure was just over 15,000, with large proportional increases in each five-year period, with a notable peak in 1985 and a pause from then to about 1990. (See also Strang and Taylor, 1997.)

After 1997 the series was ended, to be replaced by indicators from the Regional Drug Misuse Databases. For the period 1997–2004, there is no single indicator that is as authoritative as the notification series. There is, however, a larger number of indicators that can, with caution, be combined to tell a consistent story, namely that the numbers of addicts continued to rise until about 2000 and, less clearly, may have stabilised after that. The indicators available are treatment enrolment, mortality and seizures. The number of treatment admissions in the six-month period ending September 2000 was 50% higher than that in the six-month period ending September 1997. Deaths from drug misuse, the majority of which are for opiates, rose by 25% from 1997 to 2000 in England and Wales; for Scotland[8] the number rose by 150% in the same period. Heroin seizures, which are of course also driven by police decisions as well as quantity consumed, rose by 30 % between 1997 and 2000.[9]

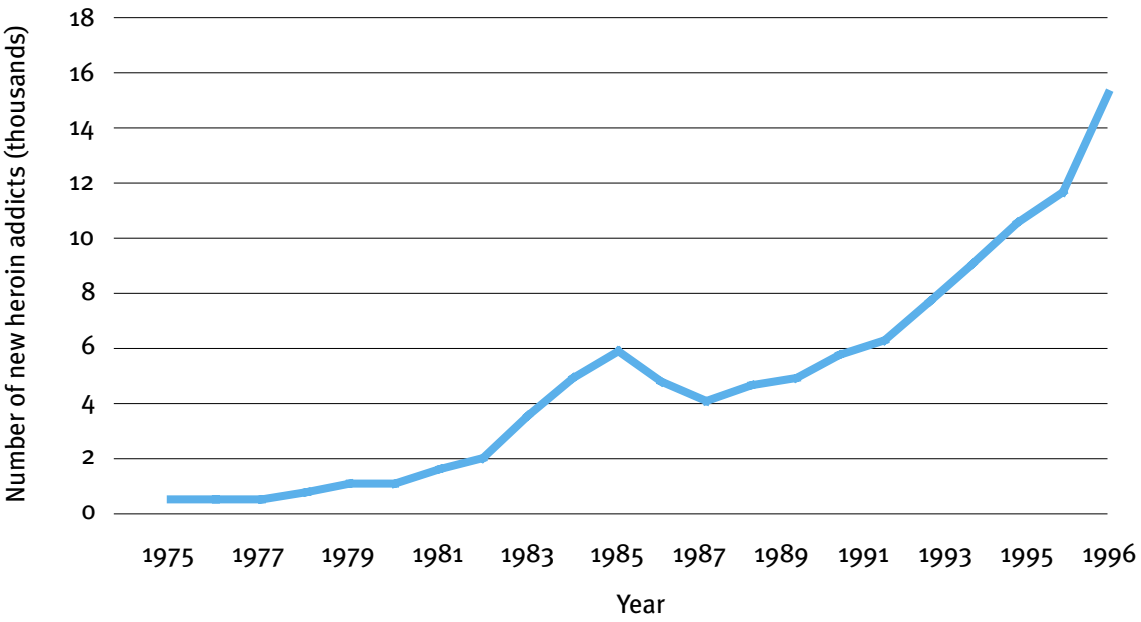

Figure 2.4 Number of new heroin addicts notified to the Home Office, 1975–96.

After 2000 there appears to be a downturn or stabilisation. Death figures decline for England and Wales and they have fallen in Scotland since 2002 (though deaths related to heroin and/or methadone vary). Heroin seizures also decline from 2001 to 2004. These suggest decrease or at least stability in consumption, given increased enforcement activity. As discussed in Chapter 4, treatment enrolment doubled between 1998 and 2005. This is probably driven not by increasing heroin addiction but by the efforts of the government, under its 1998 strategy, to increase the availability of treatment and to use the Criminal Justice System to increase treatment enrolment.

This analysis suggests that heroin addiction increased rapidly and steadily over at least a 20-year period and perhaps for 25 years before stabilising at levels that are very high by international standards, as discussed later in this chapter. Providing some support for this are data on opiate-related deaths, which in England and Wales rose from less than 50 in 1975 to about 900 in 2000. Other studies, using more sophisticated modelling techniques with other data, have generated similar conclusions. More recent research from the North West of England also supports the notion that, during the 1990s, initiation into heroin use may have started to fall in areas that had seen big increases in the 1980s (although it may still be increasing in other areas) (Millar *et al.* 2006).

One possibility is that there have been a series of local epidemics at different points in time and that they aggregated to a smooth increase in the number of addicts over a long period of time. The US heroin epidemic has been mapped as a series of regional epidemics, with higher density regions appearing first (Hunt and Chambers

1976), but these occurred over a small number of years, 1968 to 1973. Moreover, the British literature makes frequent reference to geographically specific epidemics at different times. For example, Ditton and Frischer (2001) provide analyses for Glasgow that show roughly a ten-year period (1985–95) of high incidence.[10] Pearson and Gilman (1994) refer to variations within Northern England, where it struck west of the Pennines earlier than it did to the east. Rates of drug-related death continue to vary widely between areas (Ghodse *et al*. 2006).

Heroin was initially an urban drug, not available much outside London in the 1970s. Parker et al. (1988) showed how, in the 1980s, heroin spread into socio-economically deprived area, with the new users predominantly recruited from the ranks of unemployed young men. Though there is the occasional story involving a prominent family and heroin addiction, it is still more common in economically deprived neighbourhoods (Pearson and Gilman 1994).

The heroin-dependent population has been historically at least two-thirds male. Strang and Taylor (1997) note that the proportion of males among new heroin notifications rose sharply in the 1990s. Age of first use of heroin is typically about 21. Careers of heroin dependence are clearly long for those who are unable to desist quickly and who lack the opportunities that support natural recovery (Granfield and Cloud 2001).[11] Among those notified for the first time in the period 1975–85 approximately one-quarter were under the age of 21 and the average age was 25. Given that these were notifications of dependence and required contact with a physician, this suggests initiation at an early age. The median age of those in treatment in 2004 remained relatively young, only about 30 (NTA 2005b). This contrasts, for example, with the treatment population in the USA, where the median age for heroin patients is 36 (SAMHSA, 2005).

The rise of cocaine and crack

Cocaine has been a notable feature of British drug history, even if concern has tended to focus on heroin, and cannabis has been more widely used. There was a period in the late nineteenth century when cocaine was enthusiastically promoted by medical journals and followers of Freud, and coca was used in the manufacture of freely available patent medicines and tonics. Concern over its abuse by chemists and then by soldiers led to increasing regulation of cocaine, alongside heroin, in, for example, the Dangerous Drugs Act of 1920 (Bean 1993). Use was probably very slight for the following fifty or sixty years.

Although virtually non-existent in the UK between 1960 and 1980 it did become associated with leisure pursuits of the rich and famous. Despite its use by heroin injectors in speedballs[12] and the prescription of cocaine to addicts, there was an air

of exclusivity attached to its high price and 'champagne' image. Two factors have changed this picture in more recent years; the advent of crack and the spread of powder cocaine out of fashionable metropolitan circles.

Initial concern over crack peaked in the late 1980s, following dramatic warnings that Britain was on the brink of a surge of crack use as South American drug traffickers sought to replicate their success in marketing the drug in American cities. However, Figure 2.2 suggests that crack use is still rare among the kinds of young people who respond to household surveys. Likewise, in the Scottish Crime Survey, use of crack in the past year was reported by 0.2% of respondents in 2004 (Murray and Harkins 2006). Some groups of people are considerably more likely to have used crack. A study of 160 homeless people under 25 in four cities found that 38% of them had ever used crack (compared to 2% in the 2000 British Crime Survey) (Wincup *et al.* 2003). The geographic spread was uneven; it was far more commonly reported in Birmingham than in Cardiff or Canterbury (Wincup 2006).

Crack is often used by people who have problems with other drugs. It has recently been estimated that there are approximately 193,000 recent users of crack in England and Wales, with a large overlap with heroin users. The estimated number of recent crack users in London is almost as large as that of heroin users (Hay *et al.* 2006). Despite the increasing prevalence of crack use among problematic drug users, in 2003/4, only about 7,500 (6%) of those who entered drug treatment in England reported crack as their main problem drug, but again with wide regional variations (from 2% in the North East to 23% in London) (NTA 2005a).[13] Currently it seems that crack, while not widespread, is used by a large proportion of the homeless and drug dependent populations in those urban centres where crack markets have been established.

Figure 2.2 (page 23) indicates an increase since the late 1990s in the use of powder cocaine among young people. It is estimated that over three-quarters of a million people in England and Wales used powder cocaine in 2005/6 (Roe and Man 2006). Prevalence of last year cocaine use also increased from 1.5% in 1993 to 4.6% in 2004 for all age groups in the Scottish Crime Survey (in 2004, it was reported by 5.2% of 16- to 19-year-olds and 14.1% of 20- to 24-year-olds) (Murray and Harkins 2006).[14]

Of those who entered treatment for drug problems in England in 2003/4, 4% reported their main problem drug as cocaine. It seems that the powder form of cocaine is used less frequently by dependent drug users.[15]

The increase in cocaine use has been attributed partly to the falling price of the drug. According to the Serious Organised Crime Agency's latest assessment, the average street price of a gram of cocaine fell from £69 in 2000 to £49 in December

2005 (SOCA 2006). Another factor may be changes in the image of the drug and its pattern of diffusion among young people. From being an exclusive drug, used only by the wealthy and some dependent drug users, it has now become part of the menu of psychoactive substances that young people use to enhance their leisure time. It may have come into fashion among these people as ecstasy reduced in perceived quality (Measham 2004).

International comparisons

Comparing the situation in the UK to other countries may assist us to understand the specific nature of the British drug problem, and the effectiveness of potential policy responses.

Internationally, the UK shows high rates of drug use. Estimated lifetime prevalence of cannabis use is higher in England and Wales than in any other European country, although lower than in the USA and Australia (Roe and Man 2006, SAMHSA 2006, EMCDDA 2006, AIHW 2005). As shown in Figure 2.5, British countries also have the highest rates of recent cocaine use in Europe, although recent use of cannabis is reportedly higher in France.

In addition to high rates of drug use, the UK also has relatively high rates of problematic drug use and drug-related death, as shown in Figures 2.6 and 2.7. These figures suggest that, as is often the case for social indicators, the UK falls between the USA and the rest of Europe.

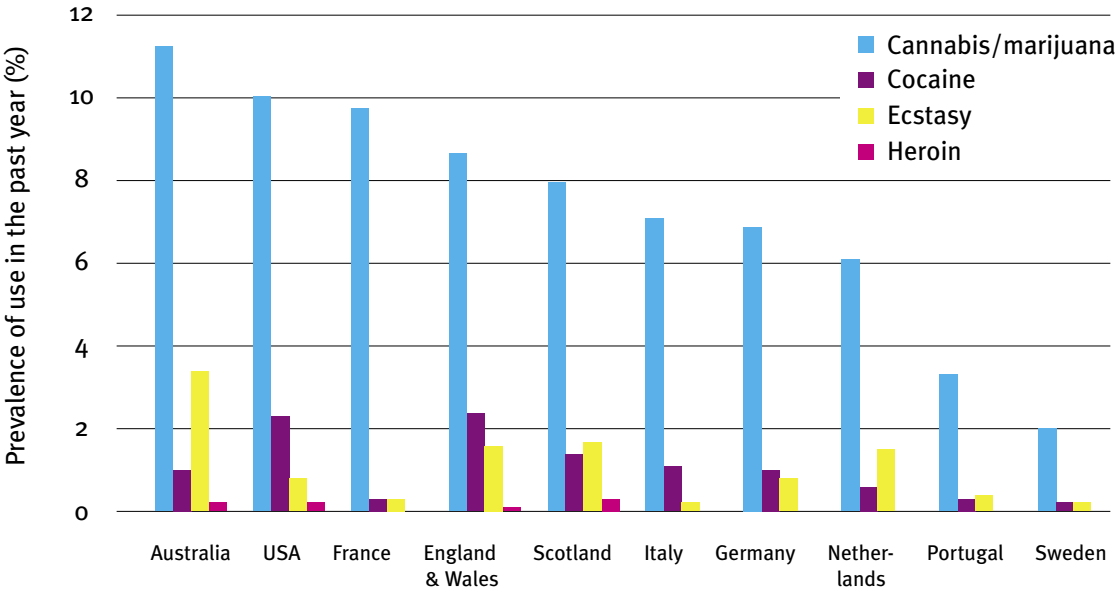

Figure 2.5 Prevalence of last year drug use reported by adults.[16]

Source: Roe and Man 2006, SAMHSA 2006, EMCDDA 2006, AIHW 2005.

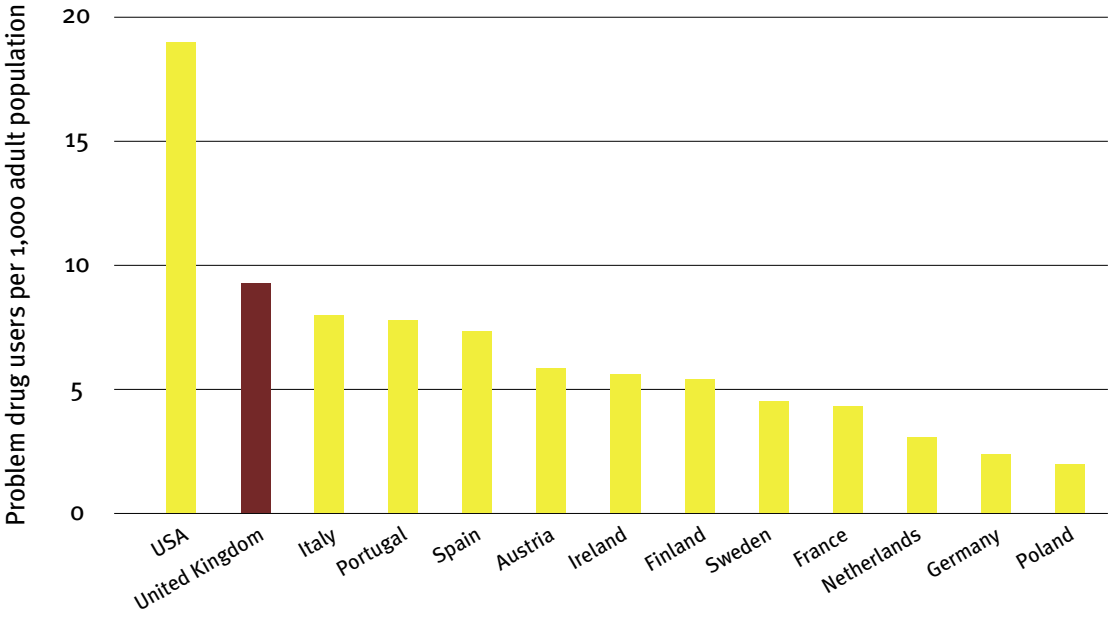

Figure 2.6 Prevalence of problem drug use at national level and range in local estimates, 1999 to 2004.[17]

Source: EMCDDA 2005, 2006, Hall et al. 2000.

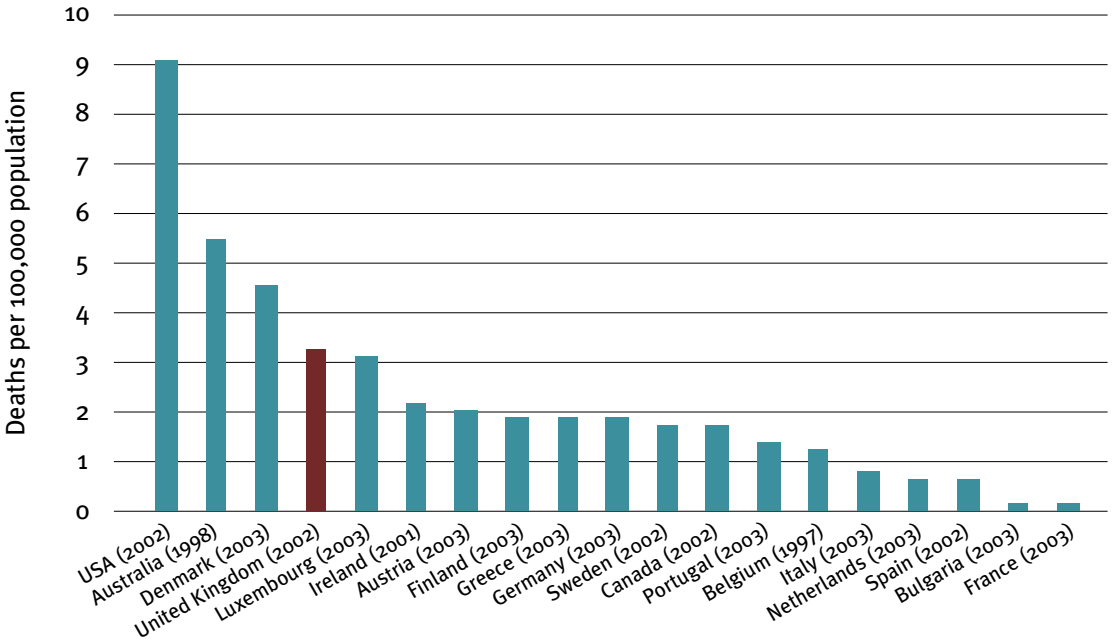

Figure 2.7 Acute drug-related deaths per 100,000 population, with year of study.[18]

Source: EMCDDA 2005, The White House 2005, AIHW 2005, CCENDU 2006.

Conclusion

From this review of the pattern of drug usage, we conclude that drugs have become an increasingly common feature of British life over the past 30 years. Most young people now have contact with drugs, and many of them have experience as drug users. The mixture of drugs that people take fluctuates over time. Cannabis is still, as in most developed countries, the most commonly used illicit drug. The popularity of ecstasy seems to be waning. Amphetamines and LSD, which were so closely associated with 1960s drug culture, are now minority tastes, even among active drug users.

Only a small proportion of users will go on to have problems with drugs. However, the number of people who do have serious problems with drugs has increased hugely since the 1970s. Heroin is still the drug that is associated with most of this problematic use, although crack has become a significant element of the drug problem in some areas over the last few years. The most concerning aspects of contemporary drug use are the historically high level of heroin use, its interaction with the spread in crack markets and the harms that may arise from young people mixing alcohol and other drug patterns and moving between recreational and problematic use.

CHAPTER 3

Drug problems in Britain

The link between drugs and drug problems is both direct and indirect. The problems arise from a combination of the psychopharmacological properties of the drug, the method of use and the choices and circumstances of the user.

The main problems that have been associated with drug use in Britain in policy discussions are:

- death;
- health problems;
- crime.

Before looking in more detail at specific harms, it is worth making the general point that these harms are very unevenly distributed through British society. Some people and neighbourhoods are much more vulnerable to drug-related harm than others. These tend to be the people and communities that also suffer social exclusion. Studies suggest that socially excluded groups of young people, such as school truants and excludees, offenders, children in the care of local authorities and those with parents who use drugs, tend to report higher rates of drug use than other young people (Budd *et al*. 2005a, Goulden and Sondhi 2001). For adults, while 'recreational' drug use is not necessarily more prevalent among socially excluded groups,[1] more harmful patterns of drug use are typically reported by people who are unemployed, unqualified, in financial difficulties and homeless or living in rented or unstable accommodation (Coulthard *et al*. 2002, Wadsworth *et al*. 2004). It seems that socio-economic deprivation is associated with drug dependence, but not drug use (von Sydow *et al*. 2002, Stevens 2003).

Other social problems such as victimisation by murder, burglary and robbery, poor health, road traffic accidents and early death also tend to concentrate in deprived areas (Dorling 2006). Drug problems tend to 'huddle together' with social problems to deepen the miseries of those who have been left behind by economic growth (Pearson 1991). For example, analysis of BCS and Census data has found that over half of all property crime is found in the poorest one-fifth of communities in England and Wales (Hope 2001). An analysis of data from the psychiatric morbidity survey found that the most socially deprived people were 10 times more likely to report

drug dependence than those who reported no indicators of deprivation (ACMD 1998). A 2003 investigation into drug-related deaths in Scotland found that 42% of those deaths took place in the most deprived neighbourhoods, comprising only 19% of the population (Zador *et al.* 2005.).[2]

Death

Drug users can die from a variety of causes. An overdose of opiates can cause the user to stop breathing. Cocaine overdose can lead to fatal heart or respiratory failure. Drugs may superimpose their toxic effects on other medical conditions, such as asthma, epilepsy, or cirrhosis of the liver. Drug use methods can transmit life-threatening infectious diseases. And drug intoxication can contribute to deaths from car crashes and other accidents. There is no official estimate of the mortality rate for drug users, but a study of three English cities found annual opioid mortality rates among injecting drug users of between 0.8% and 2.1% (Hickman *et al.* 2004). This includes deaths from overdose, but not from other causes to which drug users are vulnerable, including accidents and chronic diseases. The mortality rate for heroin users in a study in London was 17 times higher than that for non-heroin users (Hickman *et al.* 2003).

Data on drug-related death is problematic, as it relies on variable practices of

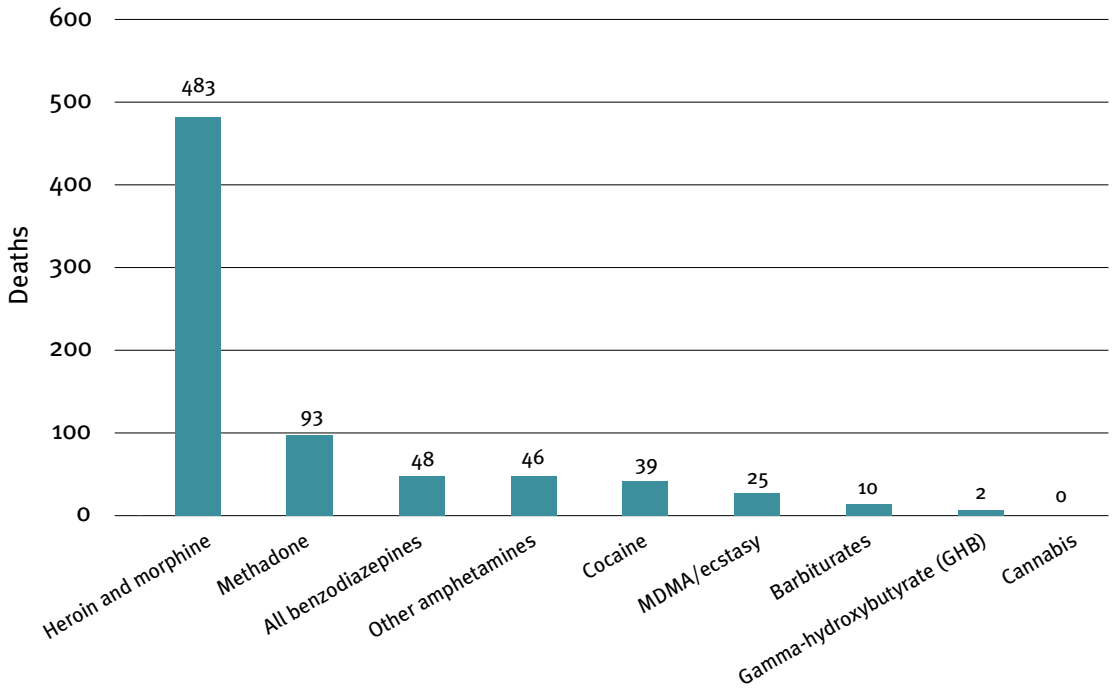

Figure 3.1 Drugs mentioned on death certificates in 2004 (where only one drug was mentioned).

Source: ONS 2006.

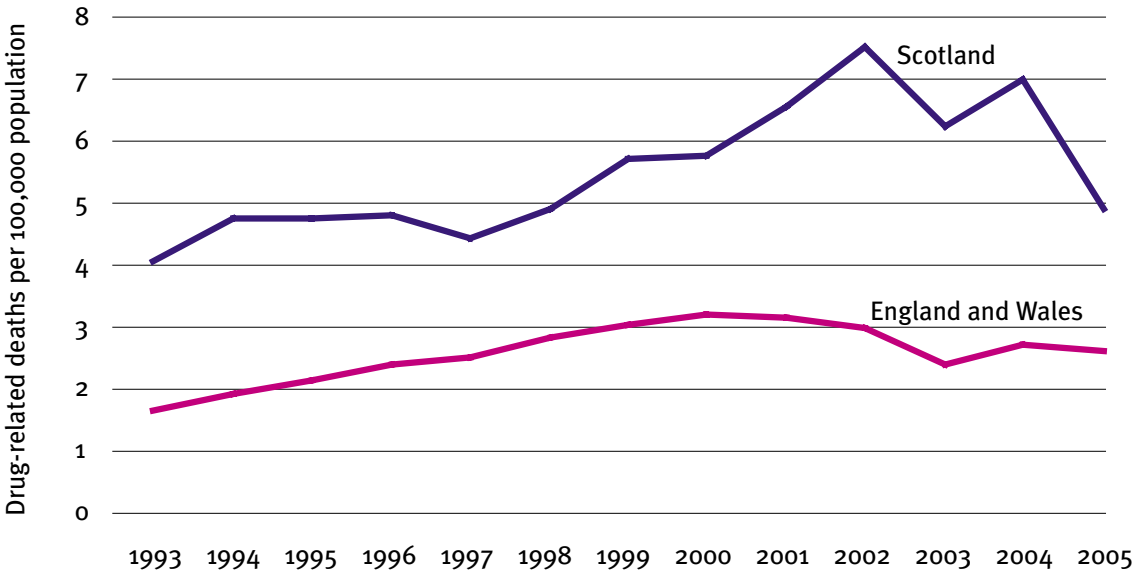

Figure 3.2 Drug-related deaths in Scotland and England and Wales.

Source: Adapted from Ghodse *et al.* 2006, ONS 2006, ACMD 2000.

recording the cause of death and the drugs related to it. The official definition is 'deaths where the underlying cause is poisoning, drug abuse, or drug dependence and where any of the substances are controlled under the Misuse of Drugs Act (1971)'. There were over 1,700 such deaths in 2004 in Great Britain. An analysis of deaths in 2000 suggested that 77% of them involved acute overdoses (Webb *et al.* 2003).

Figure 3.1 shows that heroin was by far the most common illicit drug mentioned in death certificates in 2004. It was mentioned on 483 death certificates as the only drug and on 744 certificates in total. Cannabis was not the sole drug mentioned on any death certificates. It was mentioned on 14 death certificates alongside other drugs (ONS 2006).

It has been suggested that true heroin overdoses are relatively rare, compared to cases where the level of heroin in the blood is not fatal of itself but combines with the effect of other drugs to contribute to 'multiple drug toxicity' (Darke and Zador 1996). However, a study in Sheffield did not find lower levels of heroin in the bodies of those who had also used other drugs, compared to those who died after use of heroin alone. It suggested that a period of abstinence, as a result of imprisonment or hospitalisation, is a risk factor for overdose in those who relapse to heroin use (Oliver and Keen 2003). This suggestion has been confirmed in studies of released prisoners (Bird and Hutchinson 2003) and of people leaving inpatient detoxification (Strang *et al.* 2003).

Success in reducing drug-related deaths is most likely to come from reducing overdoses among heroin users and from increasing the promptness and effectiveness of emergency resuscitation. This has been the target of recent interventions, such as the guidance issued by the National Treatment Agency (NTA 2004) and the Scottish Executive's production of a DVD (titled *Going Over*) and funding of associated first aid training for drug users and service providers.

Figure 3.2 shows that Scotland has a higher rate of drug-related death than England and Wales. The trend in all three countries seems to be falling from peak levels in recent years. The death rate has increased and then fallen in the period since 1998, leaving no overall change in Scotland, and a reduction of 7% in England and Wales.

Health

The Home Affairs Select Committee (2002) recommended that an explicit target on public health should be included in the drug strategy. In its response, the government accepted this need and referred to its target to reduce drug-related death by 20% by 2004 (which was missed) (Home Office 2002). However, the headline targets of the drug strategy, as incorporated in the public service agreement on drugs policy, still do not include direct indicators of public health.

The other drug-related health problem that has received most attention from policy makers is infectious disease, perhaps because of the scope to pass diseases from

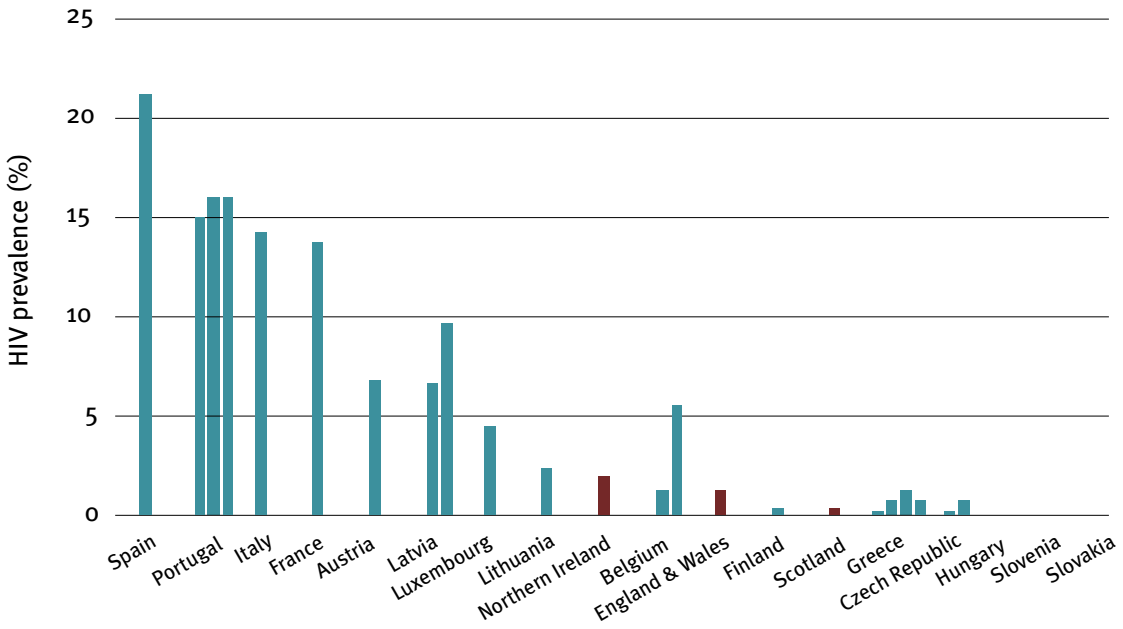

Figure 3.3 HIV prevalence found in studies of injecting drug users in 2003 (EMCDDA 2005).[3]

Note: If there is more than one study for 2003 at the same geographical level, a bar for each is presented.

injecting drug users (IDUs) to the wider population (Moss 1987). Incidence of HIV among IDUs peaked in 1986, and AIDS incidence and related deaths peaked in the mid 1990s. By the end of 2005, only 5.6% of all UK cases of HIV were attributed to injecting drug use (HPA *et al.* 2006). However, there is worrying evidence that HIV is now on the increase among IDUs. HIV prevalence among current injectors has been increasing in London since 1996 and started to rise in the rest of England and Wales in 2002 (The UK Collaborative Group for HIV and STI Surveillance 2005). There was an increase in prevalence between 2002 and 2005, from 0.9% to 1.6% (HPA 2006). The number of new HIV infections among IDUs in Scotland rose from a low of 10 in 2002 to 24 in 2005 (Scottish Executive 2006b). It is possible that these increases are linked to the rise in crack use, which is associated with riskier injecting practices (Rhodes *et al.* 2006). Although these numbers are still small, these increases are important, as they bring prevalence closer to the level where an epidemic could rapidly accelerate. The UN has noted that prevention efforts should keep HIV prevalence in IDUs below 5%, or risk a very rapid spread (UNAIDS 2001).

European comparisons on HIV

Figure 3.3 presents data on HIV prevalence among injecting drug users in a number of European nations. The available data on HIV prevalence suggests that British rates are similar to those in countries with much lower rates of drug use prevalence and drug-related death (see Figures 2.6 and 2.7). This may well be due, at least in part, to the different policies that have been pursued. The United Kingdom has an international reputation as one of the first countries to respond effectively to the threat of HIV among IDUs. Relatively early in the global HIV pandemic, following the 1985 finding that 50% of drug injectors in Edinburgh were HIV positive and the subsequent ACMD (1988) *AIDS and Drug Misuse* report, the UK government endorsed and funded interventions that are still controversial in many countries, such as needle exchange and the expansion of methadone treatment and outreach to drug users (Stimson 1996, Strang 1998). These were effective in the 1990s in limiting the spread of HIV to below that found in injecting drug users in other countries (Hope *et al.* 2001).

Other countries waited until much later in their epidemics before introducing such measures, but found that they were effective when they did. The most striking case of this is Spain. Spanish drug policy was dominated until the early 1990s by attempts to enforce abstinence, with very limited efforts to reduce the transmission of infectious disease (Rinken and Vallecillos 2002). This led to Spain having the highest rates of HIV infection among injecting drug users in Europe. From 1992–94 large-scale harm reduction programmes were introduced, which have produced significant reductions in the incidence of HIV (Hernandez-Aguado et al. 1999). However, due to the delay in introducing these measures, the prevalence of HIV among injecting drug users in Spain remains high.

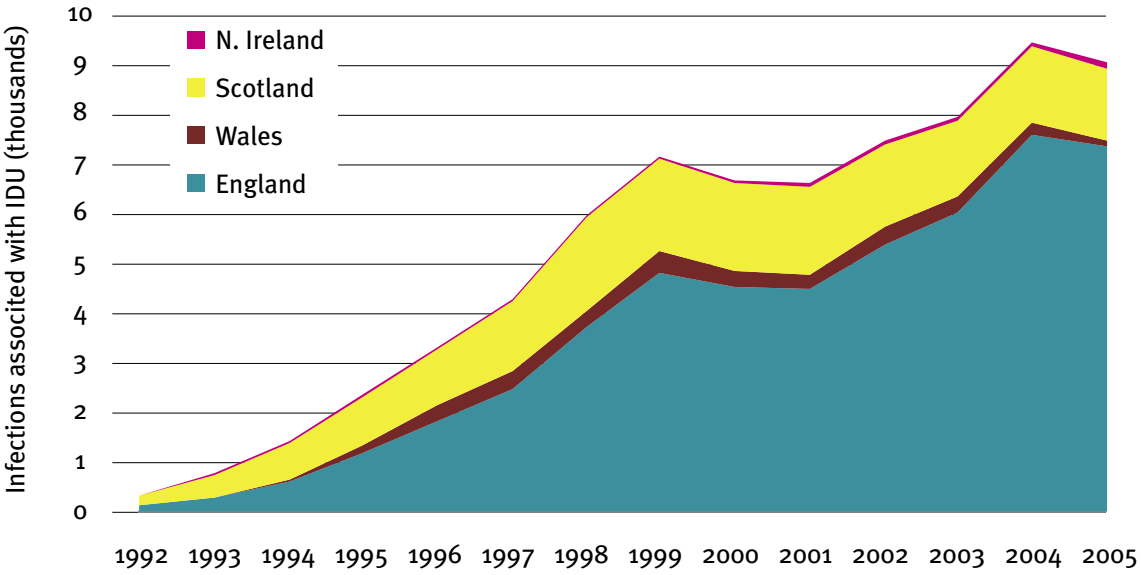

Figure 3.4 New notifications of hepatitis C infections associated with injecting drug use.

Source: Adapted from HPA et al. 2006.

A team of researchers recently found higher than expected rates of HIV and hepatitis C infection in a study in London. They suggested that this was due to high risk injecting practices, associated with newer injectors and the injection of crack (Judd et al. 2005).[4] They found higher rates of hepatitis C in their sample than in many other cities internationally (Hope *et al*. 2001).

Viral hepatitis

Figure 3.4 suggests that hepatitis C infection from injecting drug use has risen rapidly from under 350 known new cases in 1992, to over 9,000 in 2005.[5] Estimates of the prevalence of hepatitis C infection among IDUs have most recently been reported at 64% in Scotland and 42% in England. Over 90% of known cases of hepatitis C involve injecting drug use (HPA *et al*. 2006).

Hepatitis C is itself associated with a range of diseases, most importantly cirrhosis and cancers of the liver. It used to be thought that the percentage of people who had hepatitis C that went on to develop life-threatening conditions would be small. However, more recent studies suggest that the effects of the virus accelerate with age, and large proportions of people living with it will die from liver disease, but only if they are not treated. As many as 70% of people living with hepatitis C will develop liver disease and may require liver transplants (D'Souza *et al*. 2005). The current supply of donated livers would be completely inadequate to this task, and the cumulative costs to the NHS could be as high as £8 billion (University of Southampton 2005). New developments in the treatment of the disease mean

that as many as 60% of these people could be effectively cleared of the virus (Poynard 2004). And, contrary to received opinion in some medical quarters, these treatments can be provided effectively to current drug users (Foster 2006).

Despite the potential public health benefits and future cost savings of treatment, it has been estimated that only between 1 and 2% of those living with hepatitis C receive treatment each year, compared to 13% in France (University of Southampton 2005). Many drug users with hepatitis C do not know they have the disease, and may be unwittingly passing it on. The proportion of those unaware they had the disease was estimated to be 48% in 2005 (HPA *et al.* 2006). Many of them also face barriers to entering treatment. For example, it is only recently that the official guidance has been changed to state that even people who have mild hepatitis C, including current injecting drug users, should be offered treatment (NICE 2006). Awareness of this new guidance is low amongst those who could benefit from it. Alcohol use increases the risk of mortality from hepatitis C, so effective services for IDUs who have alcohol problems are also required.

In contrast to hepatitis C, there is a vaccine for hepatitis B and drug treatment agencies are recommended to offer it to their clients. The annual number of new notified hepatitis B infections among IDUs in Britain rose by 120% from 1992 to 284 notifications in 2003. But the estimated proportion of current IDUs who are living with hepatitis B fell from its 1992 peak of 35% to 19% in 2005 (HPA *et al.* 2006). This suggests that the rise in notifications may be due to increased testing and reporting. Although the uptake of the vaccine is increasing, a survey of IDUs in contact with treatment in 2005 found that 41% had not been vaccinated (ibid.). This suggests the need for continued efforts to increase the uptake of hepatitis B vaccination. It has been argued that there should be universal vaccination, as the drug users who are most at risk of infection are least likely to be offered the vaccine and to accept it (McGregor *et al.* 2003).

Cannabis and mental health

Mental health problems are another potential consequence of drug use. Much of the debate around the reclassification of cannabis has focused on this risk. The drug has been linked to three types of mental health problem: schizophrenia, depression and anxiety. It has been argued that cannabis is so dangerous to mental health that it should not have been reclassified, but should be more rigorously controlled (e.g. Phillips 2004). This argument rests on two premises. The first is that cannabis *causes* mental health problems (rather than just being correlated with them). The second is that strict legal control can reduce the prevalence of cannabis use and therefore the consequent harms.

The available research suggests that cannabis does indeed have an effect in causing

schizophrenia or schizophreniform disorder. But, as the vast majority of cannabis users do not go on to be mentally ill, it is considered to be a modest risk factor that is most relevant to people who are already vulnerable due to environmental or genetic influences. The ACMD (2005) concluded that cannabis use increases the lifetime risk of developing schizophrenia by 1%. There is also evidence that cannabis use can aggravate and prolong existing schizophrenic disorders, and of a causal link with depression and anxiety (although this research is more ambiguous) (Hunt *et al.* 2006).

It has been argued that the effects of cannabis on mental health are of more relevance to clinical practice than they are to drug policy. This is because the risk of psychosis from cannabis use represents a very small proportion of drug-related harm and the evidence suggests (as discussed in Chapter 4) that enforcement of cannabis controls has limited effects on its use, while the links between cannabis and mental health problems are important considerations in treating people who have cannabis or mental health problems (Pollack and Reuter 2007).

Other drugs have also been linked to mental health problems. For example, ecstasy has been linked to long-term mental health problems and cognitive impairment, including memory loss (Morgan 2000), although it is difficult to disentangle the effects of ecstasy from those of cannabis and other stimulants as they tend to be used by the same people (Dafters *et al.* 2004, Gouzoulis-Mayfrank and Daumann 2006). Early use of amphetamines and dependent use of cocaine and crack have also been linked to an increased risk of psychosis (Farrell *et al.* 2002). There is also increasing concern over the co-occurrence of mental illness and problematic drug use. One study found an 86% prevalence rate of personality disorder among in-patients being treated for opiate addiction (Oyefeso *et al.* 1998). Another found that more than a third of mental health patients also had substance use disorders (Menezes *et al.* 1996). Such dual diagnosis exposes people to even greater risks, including suicide, self-harm and criminal victimisation (Hunt *et al.* 2006, Stevens *et al.* in press, Najavits *et al.* 2005, Miles *et al.* 2003).

Crime

Some people who are dependent on heroin or crack also commit very high numbers of crimes (as well as their drug offences). Research on drug treatment has shown that it leads to significant reductions in both drug use and crime (see Chapter 4). However, the exact proportion of crime that is committed by drug users is not known, and there seems to be little relation between overall levels of crime and the prevalence of drug use.

Table 3.1 **Proportions of sampled arrestees reporting drug and alcohol use (adapted from Boreham et al. 2006).**

Reporting drug/alcohol use	*Percentage of sampled arrestees*
Use of cannabis in last month	46
Use of heroin in last month	18
Use of crack in last month	15
Use of cocaine in last month	10
Dependent use of heroin	18
Problematic or hazardous drinking	57

The drug–crime link

The large scale of drug-related crime was initially suggested by anecdotal reports from police officers, who noticed that their custody suites were perpetually filled with persistent, heroin-addicted thieves. This evidence was formalised by the New-ADAM (arrestee drug abuse monitoring) study, which found high rates of drug use by arrestees tested in its sampled sites. The rate of positive tests for heroin was 28% in eight English sites and 31% in two Scottish sites. The rate of cocaine positives was much higher in England, at 23%, than Scotland, at 3% (Holloway *et al.* 2004, McKeganey *et al.* 2000).

The New-ADAM study was taken to show that a high proportion of crime is committed by drug users, but it has been criticised for the unrepresentative nature of the sampled sites (Stimson *et al.* 1998). The Arrestee Survey has since been developed and samples arrested offenders at 60 custody suites in England and Wales. However, it suffers from a low response rate of 23% (Boreham *et al.* 2006). Table 3.1 shows the self-reported rates of drug and alcohol use of these offenders (which were corroborated by oral fluid tests to detect recent drug use).

It is unwise to extrapolate figures directly from those who are arrested to the much larger population of unknown offenders (Young 2004),[6] and especially from a study in which less than a quarter of eligible arrestees took part. But these figures suggest some interesting interpretations. They show that high proportions of offenders have used drugs in the month before arrest. The prevalence of dependent heroin use was high by comparison with the rest of the population, but was much lower than the 57% of arrestees who reported problematic or hazardous patterns of drinking alcohol. The proportion of heroin, crack and cocaine users was much higher when looking only at acquisitive offences, backing up the studies that suggest that acquisitive offending tends to accelerate during periods of heavy drug use (e.g. Anglin and Speckart 1988, Farabee *et al.* 2001, Budd *et al.* 2005b).

There are several reasons for the link between drug use and crime. The current drug strategy focuses on what is known as the 'economic–compulsive' link, which involves dependent users committing crime to get money to buy their drugs (Goldstein 1985). In the Arrestee Survey, 15% of arrestees reported committing crime in the past four weeks to buy drugs (Boreham *et al.* 2006). Goldstein suggested two other links, including the 'psycho-pharmacological', involving the direct effects of drugs in increasing aggression and reducing inhibition, and the 'systemic'. This third type of link is often ignored in drug policy. It describes violent offences that occur in the regulation of the illicit drug market. Having no recourse to the law, drug distributors use violence to deter and punish those who break agreements or threaten market share.

Of course, the link varies between drugs and across types of offence. Cannabis and heroin use are rarely related to violence, which is more commonly associated with the use of alcohol, cocaine and crack. The relatively low price of cannabis means that users do not regularly resort to stealing to finance consumption. Data from the New-ADAM study suggested that heroin use was associated with shoplifting and that crack use was associated with fraud, handling stolen goods and drug dealing. Neither drug was associated, in analysis with controls for other characteristics of offenders, with burglary (Bennett and Holloway 2005).

There are other factors in offenders' lives that may explain some of the links between drugs and crime. The environmental and developmental risk factors for crime and problematic drug use are similar. For example, the Edinburgh Study of Youth Transitions has found that delinquency and use of Class A drugs are both more common for those who live in socio-economically deprived neighbourhoods (McVie and Norris 2006). Displaying aggression in childhood and experiencing family conflict have also been associated with both drug use and offending in longitudinal studies (Ensminger *et al.* 2002, Hops *et al.* 1990, Shepherd and Farrington 2003). Overall, reviews of the international evidence on drug-related crime have found that 'little support can be found for a single specific and direct causal connection' (Lurigio and Schwartz 1999) and that the connection should not be divorced from the context of poverty and disadvantage in which it usually operates (Seddon 2005).

Reductions in crime

The head of the National Treatment Agency in England has told MPs that the current drug strategy is 'crime-driven and treatment-led' (Hayes 2001). The large increases in spending on drug treatment have been justified, in part, by their intended effect in reducing crime. However, crime has been falling since well before the implementation of the 1998 drug strategy, even though the prevalence of cocaine use has risen and heroin use has remained at relatively high levels (see Figure 3.5).

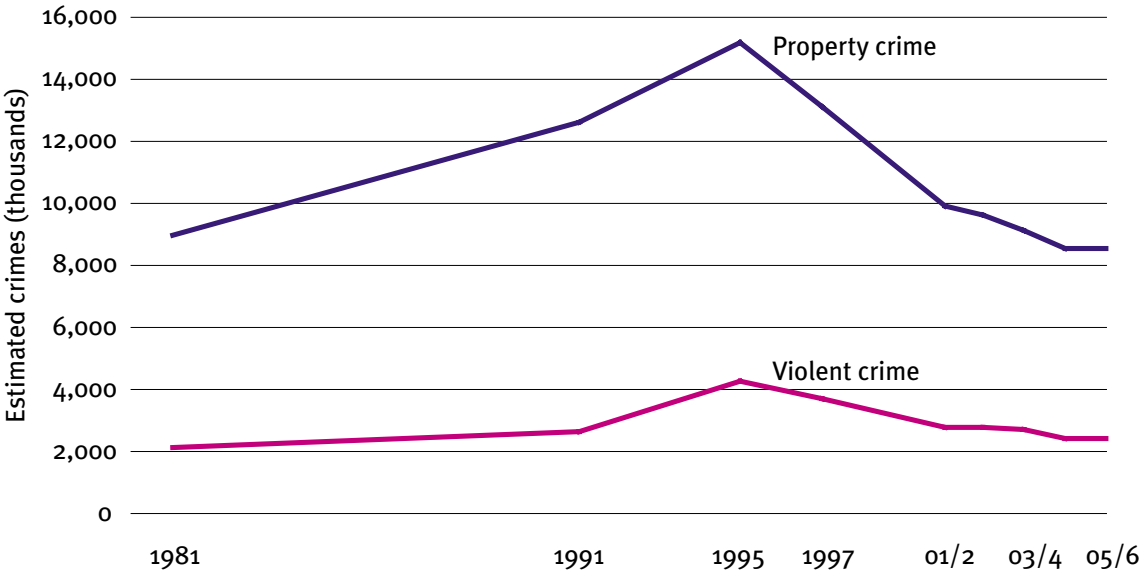

Figure 3.5 Household and personal crime in England and Wales, 1981–2005/6.

Source: British Crime Survey.

Crime peaked in England and Wales in the mid-1990s. Since then, there have been particularly large falls in domestic burglary, which is now at less than half its peak level (Walker *et al.* 2006). In Scotland, housebreaking also fell by more than half between 1992 and 2002. Overall crime reported to the Scottish Crime Survey fell between 1992 and 1999, but has since risen again (McVie *et al.* 2003).

There are many other influences on crime in addition to drug use. They include unemployment, inequality, demographics, fashion, the availability and price of consumer goods, detection and imprisonment rates and the use of locks and other situational crime prevention measures. The apparent lack of correlation between British crime rates and the prevalence of Class A drug use means that it may be difficult to discern the effect of drug policy on overall crime rates. Therefore, changes in crime rates are not directly indicative of the effectiveness of drug policy.

Other harms

Other problems for the families of dependent drug users, the communities they live in and in the countries of drug production and transit, have received less attention and are difficult to quantify. The assumption has been that eliminating or reducing drug use will naturally reduce them. One example is the harm caused to families by dependent drug use. The *Hidden Harm* inquiry into the needs of children whose parents are problematic drug users estimated that there are between 200,000 and 300,000 such children in England and Wales (between 2% and 3% of all those under 16). For Scotland, the estimate is even higher, at between 4% and 5% of all

children under 16. These children face a range of problems, including damage to their health, their development, their relationships and their education. The inquiry recommended that, as well as aiming to reduce the numbers of problem drug users, agencies should aim to engage more problem drug using parents with services (ACMD 2003). There is potential for conflict between these goals, if efforts to reduce the level of problem drug users discourage parents from accessing services. For example, it has been suggested that if more punitive approaches to drug using parents are introduced, this may make them less willing to seek help, for fear of the punishment they might face if they admit their drug use.

The harms that are tracked are primarily individual harms, partly because they are more readily measured. However, illicit drugs also damage communities, most directly through the disorder and crime that are generated around markets for drugs. The open sale and use of drugs is not merely social nuisance but can damage the reputation of an area (Lupton *et al*. 2002) and so is likely to damage investment and employment opportunities.

The creation of a large source of illegal income also has potentially serious adverse consequences. Pearson and Hobbes (2001) report mid-level drug dealers earning tens of thousands of pounds per month. More recently, researchers interviewed ten drug dealers who were motivated by profit. They reported an average weekly income of £7,500 (May *et al*. 2005). Although most drug sellers are earning much less money, and spending most of it on their own drug use, young men in communities with high levels of drug selling may be attracted to that activity and away from education and legitimate, if low wage, jobs by the prospect of much higher earnings.

In addition to drug-related harms within the UK, the supply of illicit drugs to the UK market is associated with serious harms in the countries of production and transit. Such harms include crime, conflict, corruption, environmental damage and the destabilisation of local economies. For example, in Colombia, the cocaine trade financed the growth of criminal cartels that have engaged in very high levels of violence and murder. In the armed conflict that continues, despite improvements in the security situation since 2002, both the FARC and its paramilitary opponents have used cocaine to finance activities that include kidnaps and massacres. Farmers in Colombia are often forced to grow coca through poverty or direct coercion. This cultivation and the destruction of crops by aerial fumigation have damaged large areas of fragile Amazonian rainforest (Livingstone 2004). The conflict in Colombia has spilled over into Ecuador and also into Brazil, which is an important country for both transit and consumption of cocaine. Here, there are widespread allegations of corruption and murder by police forces working against (and sometimes in collusion with) drug-financed gangs, who carry out frequent attacks on the police and civilians. Afghanistan provides another example of the deleterious effect of drug

production on the security and economy of drug producing countries. These harms are related to the demand for drugs in the UK. Their causes and costs are even harder to specify and estimate than drug-related harms that occur within the UK. It is to the cost of these harms that we now turn.

Measuring drug-related harm

There is a range of drug-related problems in the UK, each of which causes significant harm to drug users and to the wider society. Measurement of the scale of these problems is extremely difficult, but there have been attempts to measure the costs attached to illicit drug use and to develop an overall indicator of drug-related harm.

Building on work at the University of York (Godfrey *et al.* 2002), a recent report has attempted to estimate the socio-economic costs that can be attributed to Class A drugs (Gordon *et al.* 2006). The headline from this report was that Class A drug use cost the nation £15.4 billion in 2003/4 (equivalent to about 1% of UK GDP). Of these costs, 99% came from problematic drug users and 90% came from drug-related crime. Figure 3.6 illustrates the extent to which these costs are dominated by crime, with over £9.7 billion in costs estimated to be incurred by victims of such crime and over £4 billion spent by the Criminal Justice System in dealing with these crimes. However, these estimates are debatable. They extrapolate from a relatively small number of highly criminally active drug users in the National Treatment Outcome Research Study (NTORS) sample to the much larger population of problematic drug users.

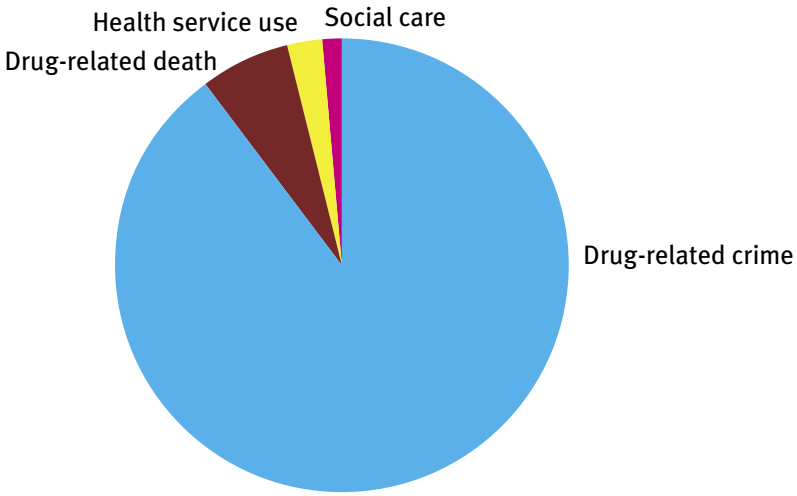

Figure 3.6 Contribution of cost categories to the total socio-economic costs of Class A drug use, 2003/4.

Source: Gordon *et al.* 2006.

There is a wider problem with this approach, which challenges the basis of such measurement of drug-related costs. Zero drug use is not attainable. What is the value of knowing the difference between what we observe and what cannot be attained? It has been argued that what governments need to know is how much it is possible to reduce various social costs through attainable reductions in drug use (Reuter 1999). Otherwise the government is chasing a chimera, never knowing whether what it has done is good enough.

The Home Office's Drug Harm Index (DHI) attempts to overcome this problem by using changes in drug-related problems, rather than measuring their absolute values (MacDonald *et al.* 2005). It looks at the year-to-year changes in various indicators of drug-related harm and then attaches a value to these changes, based on a calculation of the economic and social costs of each type of harm. These values are calculated on debatable grounds. In 2004, 70.5% of the weighting in the DHI was accorded to crime indicators, with 16.5% for domestic burglary. Drug-related deaths made up only 21.1% of the total value of the DHI.

Figure 3.7 shows the trend in the DHI from 1998 to 2004 (MacDonald *et al.* 2006). The reductions between 2002 and 2004 are mostly caused by reductions in the heavily weighted costs of drug-related crime, especially burglary. These weightings are calculated using data on the proportions of crime that are drug related from New-ADAM and the Arrestee Survey. However, as noted above, the proportion of arrestees who have used drugs is unlikely to be repeated exactly in the wider population of all criminals. Drug users are probably more likely to be arrested,[7] thus

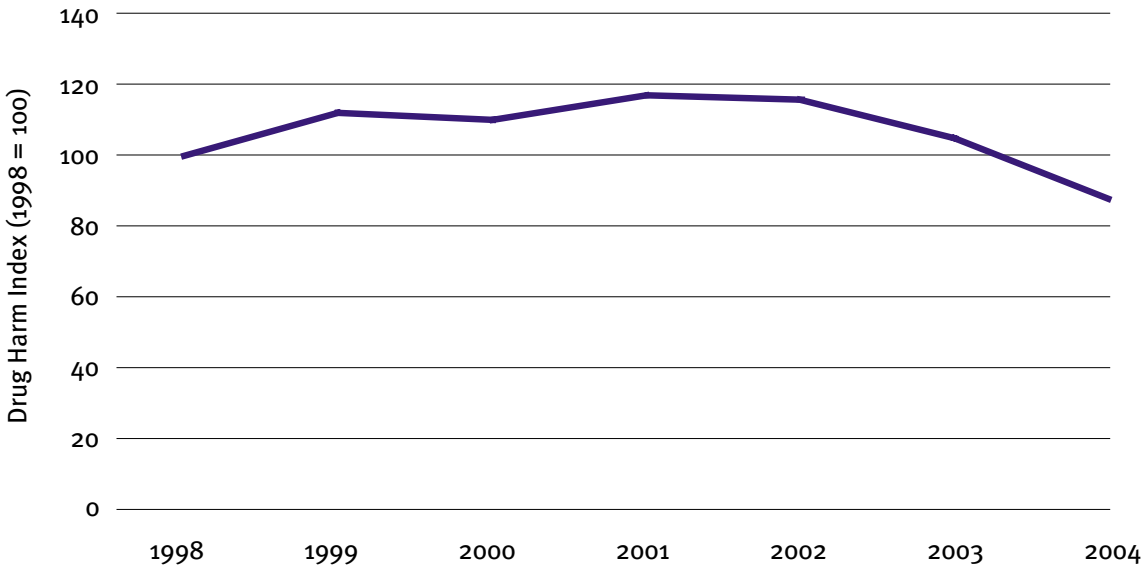

Figure 3.7 Drug Harm Index, 1998–2004.

Source: Home Office.

resulting in an over-estimate of the proportion of all crime that is drug-related within the DHI. Moreover, 'drug-related' does not imply causality. The DHI defined crimes as drug-related when arrestees reported some use of heroin, cocaine or crack within the previous month. So, while 46% of the Arrestee Survey sample had used these drugs in the previous month, only 18% had ever injected drugs and a similar proportion were assessed as being dependent (Boreham *et al.* 2006). As reported earlier, analysis of the New-ADAM data has shown that neither heroin nor crack are associated with burglary, once other offender characteristics are controlled for. The DHI therefore appears likely to have substantially overestimated the amount of crime that is truly drug-related. This challenges the validity of the reported trend in drug-related harm.

There are a number of other limitations to the DHI, as pointed out by the commentaries of Newcombe (2006) and Roberts *et al.* (2006). These include the exclusion of costs that are hard to measure, the use of indicators that change with recording practices and the value judgements that have been made, for example, in comparing the value of crime and deaths. The cumulative economic costs of the innumerable crimes that are committed by drug users may be very high. But do they really belong to the same order of cost as the devastating impact of losing children, siblings or parents to drug-related death? The health harms of drug use (such as HIV and hepatitis C) may form a small proportion of the national burden of disease, and a larger part of the burden of crime. But can we combine these figures into a tool that appears to tell us that it is more important to reduce the criminal than the health harms of problematic drug use?

The result of all these limitations is that the DHI is a partial indicator of drug-related harm. It runs the risk of introducing unintended incentives to the performance management of the drug strategy. For example, the Index would likely fall if the police were to start targeting more non drug users for arrest, thereby reducing the proportion of drug-related crime calculated from the Arrestee Survey. The DHI has been acknowledged as internationally 'pioneering work' (Roberts *et al.*: 11) in tracking drug-related harm. However, the limitations of the current version mean that it must be used cautiously for policy decision-making.

Conclusion

This review of the problems associated with drug use has shown that there are a wide variety of drug-related harms. The overwhelming majority of drug users do not cause apparent significant damage to themselves or others. The small minority of drug users who develop frequent and dependent patterns of use cause a large amount of harm to themselves and wider society. Crime and the impact on victims has been considered to cause the majority of costs associated with problematic

drug use, although it is falling and the link between this reduction and drug policy is unclear. Health harms, including HIV and hepatitis C, are increasing, and, despite recent reductions, drug-related deaths remain at a historically and internationally high level. There is a particular problem with the rapid rise in hepatitis C infection among injecting drug users and the small proportion who have access to the effective treatments that are now available. These and other drug-related harms are distributed unevenly, falling most heavily on the poor. This is because it is people who are from socially excluded groups who are most likely to develop problematic patterns of use, to have family members who do so and to suffer criminal victimisation from drug users. However, the scale and distribution of drug-related harms is very difficult to quantify. Progress is being made in developing the analysis of the cost and trend in drug-related harm, but the available indicators rely too heavily on data that is partial and of questionable validity in application.

CHAPTER 4

The impact of current drug policies

The evidence presented so far in this report suggests that the prevalence of drug use and dependence has risen notwithstanding increasing legal control through the last third of the twentieth century. Current policies represent an attempt to move beyond the failures of the past and to base the response to drug use on evidence of what works. In this chapter, we will describe current policies and assess the effectiveness of the current mix of policies. We initially discuss the standards by which the effectiveness of drug policies can be judged. We consider the role of the Misuse of Drugs Act 1971, describe the existing UK drug strategy, and review current patterns of expenditure on drug policies, before looking at the impacts of these policies in enforcing these laws, in prevention of drug use and in treating drug users.

Our discussion of the effectiveness of British drug policy is deliberately modest. We consider the marginal impact of policies more than the effect of policies in their entirety, and we judge the effectiveness of components of drug policy against one another and not against some absolute standard of public value. Thus, for example, in expressing doubts about the effectiveness of lengthy prison sentences for drug users and offering a more positive assessment of treatment, we are suggesting mainly that reallocating some resources from incarceration to treatment could be beneficial. Completely eliminating imprisonment, or raising taxes to expand treatment radically, might be considered by some to be in the national interest, but any such broad conclusions would be even more speculative than the rest of this analysis. Available data tell us relatively little about the likely effects of extensive changes in drug policy, and proposals for making major shifts in overall drug-control spending raise questions about the relative value of drug control and other public policy goals. In any event, there is no serious political consideration of wholesale reform of current drug policy.

Misuse of Drugs Act 1971

The Misuse of Drugs Act 1971 (MDA), which has been on the statute book for 35 years, provides the current legal basis for controlling the use and availability of illicit drugs. In recent years, it has been used to punish increasing numbers of drug users and dealers, but it still only deals with a small minority of drug users. Many people

have expressed concerns over the lack of effectiveness of the MDA in drawing the right balance between the dangers associated with each type of drug, in deterring drug use and in providing a fair, balanced and proportionate response to drug use by different (particularly ethnic) groups in society.

The basis for the classification system in the MDA is presumably intended to be the harmfulness and danger that was associated with each type of controlled drug. This was the original justification for placing heroin and cocaine in Class A, and cannabis in Class B. However, the Act gives no criteria of harm or dangerousness by which they may be judged. This leaves a gap that has been filled by repeated debates over how harm should be defined, on which drugs are more harmful and about why the controlled drugs should be treated so differently to two licit drugs, alcohol and tobacco, each of which cause more mortality and morbidity than all the controlled drugs combined. Since the introduction of the MDA, new substances have been included in the schedule of controlled drugs and various changes have been made to the classifications. The House of Commons Science and Technology Committee most recently questioned the reasons behind the ACMD's conclusion and the government's adoption of placing fresh psilocybin 'magic' mushrooms in Class A. They were concerned there was no clear evidence that their use carries a level of risk comparable to heroin and cocaine.

Prior to the reclassification of cannabis, it was argued by some commentators that relaxing penalties for use would lead to increased use and therefore more mental

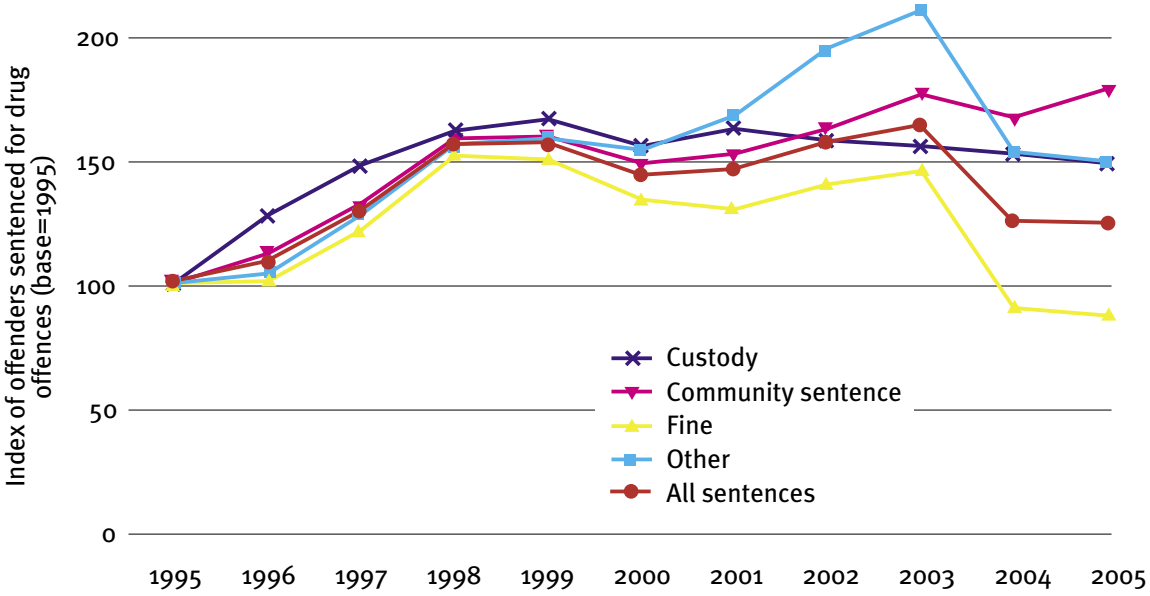

Figure 4.1 Trend in number of offenders sentenced for drug offences by type of sentence.

Source: RDS NOMS 2007.

health problems (Phillips 2004). The evidence on cannabis use to date suggests, however, that cannabis use continues to be less prevalent even since reclassification (Roe 2005, NatCen/NFER 2006).

In 2004/5, 85,000 people were arrested for drug offences in England and Wales (Ayres and Murray 2005) and nearly 42,000 drug offences were recorded by the police in Scotland (Scottish Executive 2005c). There have been significant increases in the number of offenders sentenced under the MDA since the early 1990s, as shown in Figure 4.1. The reclassification of cannabis in 2004 seems to have contributed to a large fall in the use of fines and the 'other' category of sentences (which includes absolute and conditional discharges). The trends of increases in community sentences, and of gradual reductions in the numbers imprisoned (from historically high levels) seem to have been unaffected (although, as discussed below, prison sentence length has tended to grow for drug offences).

This increase in the scale of punishment does not mean that the law directly affects the lives of a high proportion of drug users. The number of offenders sentenced in 2004 represented only 1.1% of the number of people who were estimated to take illegal drugs that year (Roe 2005).

In 2004, drug law offenders represented 6.3% of arrests in England and Wales, 10.3% of sentenced persons, 10.1% of those given community sentences and 16.2% of the prison population in Britain. If these proportions also reflected the proportion of resources expended at these different stages of the Criminal Justice System (a very big 'if' indeed), then annual spending on enforcement of the MDA might be in the order of £2 billion (see Table 4.1).[1]

In 1971, a critic of the then Misuse of Drugs Bill predicted that, if it became law, it would not halt the increase in drug use, would be impossible to enforce and would therefore lead to selective enforcement, targeting the most visible and excluded drug users (Young 1971). Now there are indeed concerns over the disproportionate impact of the use of the MDA (and stop and search powers) on certain ethnic minority groups. For example, Home Office figures show that 14% of those arrested for drug offences in England and Wales in 2003/4 were of black ethnic origin (Home Office 2005c). Only 78% were white, despite the 2001 Census figures showing that white people represent 89% and black people 2% of the English and Welsh population. Furthermore, those black people who were arrested were less likely to be cautioned and more likely to be charged, sentenced and imprisoned than their white counterparts. These amplifications of the disproportionate arrest rate for black people meant that in 2003/4, 22% of the people imprisoned for drug offences in England and Wales were black, compared to the 64% that were white (ibid.). These figures show that members of the black population are 7 times more likely to

Table 4.1 **Estimated expenditure on enforcement of the MDA, 2004/5.**

Expenditure category	*Total 2004/5 (£billions)*	*Multiplier*	*Percentage*	*Estimated amount for drug offences (£billions)*
Police	14.56	Proportion of arrests for drug offences	6.27	0.91
Administration of justice	5.72	Proportion of sentences for drug offences	10.30	0.59
Prison and offender programmes – prison	2.45	Proportion of prisoners for drug offences	16.18	0.40
Prison and offender programmes - probation	0.94	Proportion of community sentences for drug offences	10.06	0.09
Total	23.67			1.99

Source: Scottish Executive 2005a, 2005b, De Silva 2005, RDS NOMS 2005, Ayres and Murray 2005, HM Treasury 2005, Financial Secretary to the Treasury 2006.

be arrested and 14 times more likely to be imprisoned for drug offences than white people, despite their rate of drug use, as reported in the British Crime Survey, being no higher than for white people (Aust and Smith 2003).

This over-representation of black people raises important questions about the enforcement of the MDA in particular communities and is set against other earlier discussions of policing ethnic communities, and is not necessarily a result of institutionally racist enforcement of the MDA. It is possible that the increased arrest rate for black people reflects the concentration of police resources on disadvantaged neighbourhoods, where black people are more likely to live, or the presence of a higher proportion of black drug users and dealers on the streets and therefore vulnerable to arrest.[2] It may be that some ethnic groups are less likely to accept a caution by admitting guilt and so are more likely to be charged (Fletcher 2006). The higher rate of sentence and imprisonment might reflect a more serious profile of offending by black drug offenders. The Metropolitan Police's own monitoring statistics also show that black people in London are more likely to be formally dealt with for cannabis possession than white people, and are more likely to be charged rather than cautioned. Their report calls for closer examination of the

many factors that may explain this over-representation (Metropolitan Police 2006). Government agencies have a duty under the Race Relations (Amendment) Act 2000 to monitor their actions for differential impact on ethnic groups and to take action if negative impact is found, even if this is not due to racism.

The MDA was examined in depth in the Police Foundation's independent inquiry, chaired by Dame Ruth Runciman (Independent Inquiry into the Misuse of Drugs Act 1971–2000). Among its 81 recommendations, the inquiry called for changes, rather than replacement of the Act. It proposed that the classification system be reviewed to clarify the criteria by which decisions on the dangerousness of each drug are taken. Specifically, it recommended:

- reclassification of cannabis from Class B to C, meaning that possession would no longer be an arrestable offence and the maximum prison sentence for trafficking would be seven years;
- reclassification of ecstasy and LSD from Class A to B. These reclassifications were also recommended by the Home Affairs Select Committee (2002) report on drug policy;
- reduction of penalties for possession of all classes of controlled drug.

Only one of these recommendations has so far been implemented, and not in the way that the inquiry suggested. Cannabis was reclassified to Class C in January 2004, but the law was simultaneously changed to increase penalties for trafficking to 14 years and to retain the power of arrest for possession. The only legal change was that the maximum penalty for possession of cannabis was reduced from five to two years; it is not the law, but Association of Chief Police Officers (ACPO) guidance, which has created the presumption against arrest in favour of giving warnings to adults for simple cannabis possession offences in England and Wales. The other recommendations have been rejected on the grounds that they would send the wrong message about the dangers of drugs (Home Office 2002).

This use of drug legislation to send messages was strongly criticised by a report of the House of Commons Science and Technology Committee (2006). Among its sweeping criticisms of the current classification system, it argued that using it to send out signals to the public was in conflict with the stated purpose of categorising drugs according to harm and with the idea of basing policy on evidence (as there is no evidence that people respond to the signals emitted by classification). The Committee also argued that the current classifications were anomalous and, in some cases, arbitrary. In particular, it criticised the reclassification of fresh magic mushrooms into Class A. It recommended that the Advisory Council on the Misuse of Drugs should review the classification of ecstasy in the light of evidence suggesting that it is not as dangerous as other Class A drugs. It found no

persuasive evidence of a deterrent effect from classification and concluded 'that the current classification system is not fit for purpose and should be replaced with a more scientifically based scale of harm, decoupled from penalties for possession and trafficking' (ibid.: 4).[3]

In its response to this report, the government reiterated its belief that the illegality of drugs deters people from using them, but offered no empirical evidence to support this belief. It insisted that it is right to have magic mushrooms and ecstasy in Class A. It acknowledged the need for more research on the impact of classification, but decided not to go ahead with the thorough review of the classification system that had been announced in January 2006 (Home Office 2006a). It seems that the long-running debate on the MDA has reached stalemate, with many critics adamant that change is necessary, while the government insists that the current legislative framework is still appropriate.

UK drug strategy: *Tackling drugs together for a better Britain*

The initial version of the current government strategy was produced and orchestrated in 1998 by the short-lived 'UK Drugs Czar'. It built on an earlier document, *Tackling drugs together*, of the previous, Conservative, government. Both documents, as their titles suggest, emphasised partnership approaches to the drug problem, with responsibility for local delivery of the strategy being given to multi-agency Drug Action Teams (DATs) in England and similar bodies in Scotland and Wales.

The strategy placed emphasis on the use of evidence to inform development of policy and on accountability of the agencies involved in its delivery. It was accompanied by an increase in expenditure on drug issues, and claimed that money would be shifted from reacting to drug problems to proactive prevention. It was coordinated from within the Cabinet Office, which was also developing policy on reducing social exclusion.

By the time the strategy was updated in 2002, responsibility for its coordination had moved to the Home Office, which ostensibly had a narrower, crime reduction agenda than the Cabinet Office. Its targets were listed as:

- Young people – 'Reduce the use of class A drugs and the frequent use of any illicit drug among all young people under the age of 25 especially by the most vulnerable young people.'
- Communities – 'Reduce drug related crime, including as measured by the proportion of offenders testing positive at arrest.'
- Treatment – 'Increase the participation of problem drug users in drug treatment

programmes by 55% by 2004 and by 100% by 2008, and increase year on year the proportion of users successfully sustaining or completing treatment programmes.'
- Availability – 'Reduce the availability of illegal drugs' and 'contribute to the reduction of opium production in Afghanistan, with poppy cultivation reduced by 70% within 5 years and elimination within 10 years.'

These targets were included in the 2002 Public Service Agreement (PSA) on 'Action Against Illegal Drugs', along with additional targets on cutting availability. PSAs are agreements between the Treasury and government agencies that spend public money. They determine the priorities against which these agencies will be held accountable. In 2004, the drugs PSA was revised, and the specific targets on availability were dropped. The current PSA targets are:

1 Reduce the harm caused by illegal drugs (as measured by the Drug Harm Index encompassing measures of health consequences of drug use, the availability of Class A drugs and drug related crime) including substantially increasing the number of drug misusing offenders entering treatment through the Criminal Justice System.
2 Increase the participation of problem drug users in drug treatment programmes by 100% by 2008 and increase year on year the proportion of users successfully sustaining or completing treatment programmes.
3 Reduce the use of Class A drugs and the frequent use of any illicit drug among all young people under the age of 25, especially by the most vulnerable young people.

Though quite sophisticated and analytic by the standards of national drug control strategies around the world, there are still various problems with the targets and the loose linkages between intended outcomes, processes and evaluation. For example, there are problems with the indicators of their achievement. As noted in Chapters 1 and 2, these indicators rely on data sources, such as the British Crime Survey, which may exclude the most vulnerable groups and, in the case of the Drug Harm Index, weight crime harms more heavily than health harms. Inevitably there is a problem of collapsing real data into an arbitrarily constructed scale index. Moreover, it may be difficult to link changes in the indicators to actions from the strategy. Even if indicators change over time, these changes may not be caused by the strategy.

As indicated earlier the Home Affairs Select Committee (2002) recommended that, in addition to a target on numbers in treatment, there should be targets on the number of overdoses and the number of new HIV and hepatitis infections. These indicators and drug-related deaths are included in the Drug Harm Index, but its weighting ensures that their effect on it is overwhelmed by trends in crime.

The main focus of implementation of the drug strategy has been the use of treatment and other initiatives to reduce drug-related crime. This has included the development of several crime prevention initiatives and arrangements (including coordination between DATs and Crime and Disorder Reduction Partnerships, Communities Against Drugs initiative, the Drug Interventions Programme and the Tough Choices programme) and more coercive approaches to treatment (including the Drug Treatment and Testing Order, the Drug Abstinence Requirement, restrictions on bail, the Drug Rehabilitation Requirement, testing on arrest and required assessments). As the perceived goal of treatment has shifted from reduction of drug use to reduction of crime, the treatment system has become more closely aligned with the Criminal Justice System (Duke 2006). This has led to considerable discussion as to the efficacy of delivering treatment in this way.

The 2002 update of the drug strategy announced a 45% increase in planned expenditure between 2002/3 and 2005/6, with the largest increases in the budgets devoted to treatment and protecting communities (including some of the crime prevention programmes mentioned above). The actual spending comes from the budgets of several departments and agencies and is difficult to relate to the plans announced in 2002 (for example, the NTA estimates treatment expenditure at £508 million for 2005/6, compared to the planned amount of £573 million). There is little transparency in the reporting of public expenditure on drug policy.[4]

Figure 4.2 suggests that expenditure on supply reduction was planned to grow much more slowly than the treatment budget and is now smaller in absolute value. However, these figures do not include the money spent from mainstream budgets

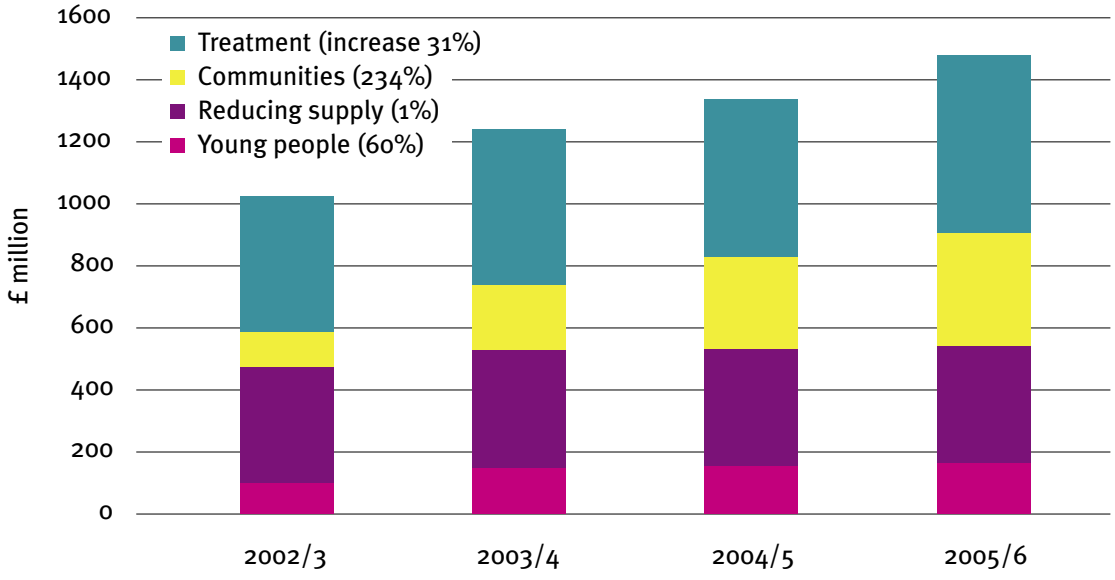

Figure 4.2 Expenditure forecast by updated drug strategy, 2002.

on investigating, prosecuting and punishing drug dealers and users, for which we have made a crude estimate of about £2 billion (see Table 4.1). This is several times higher than the expenditures on both drug supply reduction and treatment that are reported in the drug strategy. This has led to calls from many quarters questioning whether British drug policy strikes the right balance between proactive spending on prevention of drug problems and reactive spending on detecting and punishing drug users and distributors.

Enforcement

The utilitarian purpose of enforcing drug laws is presumably to reduce drug use by discouraging and preventing the distribution and use of drugs. There are several methods by which enforcement of drug laws attempts to achieve these aims. They include:

- reducing demand for drugs by catching, punishing and sentencing users, suppliers and producers (including asset confiscation);
- disrupting the operation of wholesale and retail drug markets;
- seizures of drugs at the point of importation;
- eradication of crops in countries of production.

Current UK drug policy includes elements of all these approaches. Below, we examine current policy and evidence on impact for each approach.

Reducing drug use by punishing users and dealers

The existence of legal penalties for possession of drug use is often justified on the grounds that they deter people from using drugs. This claim is very difficult to evaluate, as there is no counter-factual example (i.e. a country identical to Britain, except for its drug laws) against which to compare the deterrent effect. In Britain and many other countries in the late twentieth century, we have seen large increases in the legal penalties for drug possession which did not apparently prevent large increases in rates of drug use. This may be due, as noted above, to the small proportion of drug users who are detected and punished.

Punishment for drug offences

Even though the proportion is small, considerable police time is spent on dealing with drug offenders, and especially those apprehended in possession of cannabis. Cannabis was the drug involved in 71% of drug cases dealt with by caution or conviction in Britain in 2003 (Eaton *et al.* 2005). Before the reclassification of cannabis, it had been estimated that a police officer spent an average of five hours in dealing with each cannabis offence (May *et al.* 2002). This report also commented on the negative effects on confidence in the police among those who

had been dealt with for cannabis possession and noted the wide disparity between police force areas in the proportions of these offences that were dealt with by caution and by the various available sentences. This suggested that the harshness of punishment of cannabis users depended on where they live, as well as on their record and the seriousness of their offence.

In 2001, the so-called Brixton experiment tested the policy of saving police time by instructing officers not to arrest people they found in possession of cannabis, but to confiscate the drug and issue a warning. An evaluation of this experiment found that it was successful in freeing up police time, some of which was spent on an increased concentration on Class A drugs (PRS 2002). The policy was controversial, but was apparently popular, though not universally, with the local community. In an opinion poll, only 8% of Lambeth residents sampled disapproved of the scheme (Ipsos MORI 2002). The government cited this experiment in justifying the decision to reclassify cannabis to Class C. This was again controversial, and the subsequent Home Secretary, Charles Clarke, set up a review of the policy before the 2005 general election. In January 2006, he followed the advice of the ACMD and the Association of Chief Police Officers and kept cannabis in Class C.

The current position in England and Wales is that an adult will not usually be arrested for possession of small amounts of cannabis, unless there are aggravating circumstances (ACPO 2007). People under 18 are still arrested, and the presumption of arrest remains for cannabis offenders in Scotland. The Home Office (2005b) has reported that reclassification led to a third fewer arrests for cannabis possession in the first year, with an associated saving of 199,000 hours of police time. For all drug offences, the number of people arrested in England and Wales fell from 97,800 in 2003/4 to 72,700 people in 2004/5 (Ayres and Murray 2005). However, in 2004 there were still 27,698 convictions for drug possession in a court in England and Wales (Mwenda 2005). All those convicted or cautioned received a criminal record, with uncertain but potentially damaging effects on future employment prospects (Fletcher 2001). Over 20,000 verdicts for possession led to some form of punishment and over 1,000 led to immediate imprisonment (Home Office 2005a).[5] The majority of these prison sentences were for Class A drugs, but 174 were for possession of Class B drugs, and 82 for Class C drugs.

Including sentences for trafficking and supply, 7,981 prison sentences were given for drug law offences in England and Wales in 2004 (Nicholas *et al.* 2005). Of the people sentenced to prison, 30% were sentenced for possession, 58% for dealing, 9% for trafficking and 2% for production of drugs. Of the 6,300 people who admitted or were found guilty of dealing, 61% were imprisoned, compared to 5% of the 71,250 offenders on charges of possession (Mwenda 2005). The costs to these individuals and their families, in terms of loss of liberty, loss of earnings, damage

to relationships and family break-up are important, though not estimable. We can estimate the cost to the taxpayer. At 2001/2 prices[6] and assuming that prisoners serve half their sentences, but with no overcrowding, the estimated cost of these prison sentences exceeded £453 million.

Since 1994, both the number of people sentenced and the average length of sentences for drug offences have been rising.[7] This means that the number of prison years given in sentences has been rising faster still, and it is rising even faster for drug offences. Figure 4.3 shows that the number of prison years given in sentences for drug offences rose substantially in the eleven years from 1994. Between 1998 and 2005, this number increased by 22%. The number of people imprisoned for possession in England and Wales peaked in 1998, but was still 8% higher in 2004 than in 1994. There were increases between 1994 and 2004 in both the absolute numbers of people imprisoned and in the proportion of known offenders who are imprisoned for each of the categories of drug offence. The proportion of imprisoned offenders who are given longer prison sentences has also been increasing for all offences (ibid.: supplementary tables). The use of imprisonment has grown especially rapidly for drug dealers and distributors, but imprisonment was also used more for possession offences in 2004 than it was in the mid 1990s. The number of people sent to prison for drug law offences has also increased in Scotland, by approximately 26% between 1995/6 and 2004/5 (Scottish Executive 2006a). These increases will in all likelihood have contributed significantly to the current prison overcrowding crisis.

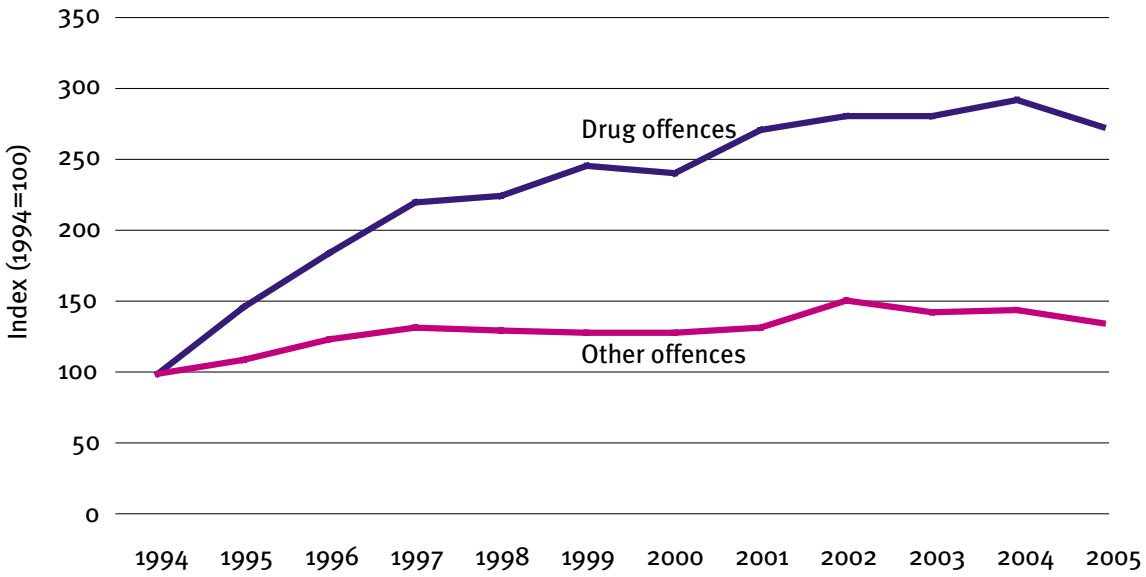

Figure 4.3 Trends in total of prison years given by sentences for drug and other indictable offences, England and Wales, 1994–2004/5.

Source: De Silva 2005, RDS NOMS 2007.

Enforcement of the MDA therefore takes a very large and increasing proportion of the total public expenditure on drug problems.

International evidence

Internationally, the criminal penalties faced by drug users vary considerably. Many states in the USA continue to enforce a policy of strict punishment for possession and distribution of even small amounts. However, eleven US states, as well as four Australian jurisdictions and a few European countries, notably the Netherlands and Portugal, have effectively decriminalised the possession of small amounts of cannabis. This has been done by replacing criminal with civil penalties, or, in the case of the Netherlands, by introducing a formal written policy for the expedient tolerance of distribution and possession of limited amounts of the drug (which remains formally prohibited).

There were no greater increases in cannabis use or favourable attitudes towards the drug in the US states that decriminalised its possession than were experienced in the states that did not (Single *et al.* 2000). More recent research comparing rates of cannabis/marijuana use in San Francisco and Amsterdam, two liberal cities with very different approaches to prohibition, found similar rates of use, although slightly higher in San Francisco (Reinarman *et al.* 2004). The data from the Netherlands suggests that the de-penalisation of cannabis use does not of itself lead to increased use, although the commercial promotion of the drug may have had such an effect (MacCoun and Reuter 2001). Recent research (Pacula *et al.* 2004) shows that decriminalisation in the US has made only a limited difference, in part because criminal penalties remain for those who are caught using the drug even where they have been eliminated for possession.

In Portugal, the decriminalisation of small amounts of all types of drugs in 2001 has apparently been followed by an increase in non-opiate drug-related deaths (from 19 in 1999 to 54 in 2003). Meanwhile, opiate drug-related deaths fell substantially (from 350 to 98). It is difficult to attribute causality in these trends to the change in drug laws. For example, the fall in opiate-related deaths has been attributed to a rapid increase in the capacity of opiate substitution treatment, and not to drug laws (Tavares *et al.* 2005).

The difficulty of attributing changes in drug use to legislation is also suggested by the case of Italy. Until 1975, drug possession was illegal and repressed. That year, possession of small amounts of drugs for personal use was decriminalised, while sanctions for trafficking were increased. In 1990, this law was repealed, and sanctions were reintroduced for personal possession. In 1993, a popular referendum took policy back to one of tolerance of possession for personal use, although administrative measures, such as suspension of driving licences and

passports, continued to be used. Throughout all these changes in legislation, use of drugs tended to increase, with no apparent effect from either legal tolerance or repression (Solivetti 2001).

Overall, the international evidence suggests that drug laws do not have direct effects on the prevalence of drug use. However, enforcement of drug laws may have effects on other drug-related harms. For example, targeting drug users and dealers for arrest may encourage them to adopt practices that are dangerous for their health. A comparative study in New York and Rotterdam showed that the tougher US approach damaged the possibilities of sharing health information through networks of users and dealers (Grund *et al.* 1992). A recent US study has shown that those cities with a tougher approach to enforcement do not have lower levels of injecting drug use, but do have higher levels of HIV infection among injectors (Friedman *et al.* 2006).

Addressing drug markets

A review of the international literature in this field has recently been carried out by the Australian Drug Policy Modeling Project (Mazerolle *et al.* 2005). The available evidence suggests that enforcement of drug laws can have effects in reducing the harm associated with drug markets, but only when this is done in partnership with other agencies. Police efforts to eradicate drug markets by arresting users and dealers do not usually lead to sustained reductions in drug-related harm.

In several US projects reviewed by Mazerolle *et al*. partnerships between police, local authorities, housing departments and family services did achieve such reductions. The partnerships have shut down locations where drugs were being used, forced private landlords to fulfil their responsibilities, used nuisance abatement orders and provided support to local families. The benefits produced have included reductions in drug sales and related crime, and improved community relations. However, there is also evidence of displacement effects in such initiatives. And the failure of some programmes, such as those in the US 'Fighting back' evaluation, to reduce drug use or related harms (Saxe *et al.* 2006) shows that success in multi-agency and community-based programmes is still difficult to achieve

As seen in Mazerolle *et al*.'s review, collaborative operations against drug markets may have other consequences than reducing drug use and crime. Drug dealing in deprived communities hinders their regeneration, saps community confidence and damages the reputation of the area (Lupton *et al.* 2002). Local residents may be reassured by seeing the police take visible action against drug dealers and this may have benefits in improving the community's quality of life. Police tactics may affect the achievement of these secondary benefits. Harms to communities seem to be

less severe where drug selling is hidden rather than visible (ibid.). Actions against visible drug markets may boost public perceptions of the safety of the community and of the responsiveness of the local authorities.

However, there is little evidence of reductions in drug use from targeting distributors and retailers of illicit drugs for arrest. The available studies, while not generally of very high methodological quality, suggest that crackdowns tend to lead to changes rather than reductions in drug selling and using. These activities tend to be displaced to areas outside the crackdown area and move back in once the operation is over. Even where police efforts have led to numerous arrests of dealers and seizures of large quantities of drugs, it has been difficult to discern sustainable impacts in reducing drug use or other crimes. One example is Operation Crackdown, which was launched in London in November 2000, and is claimed by the government as another of the drug strategy's 'key achievements' (Home Office 2005d). In the first 14 days, drugs with a street value of £1.5 million were seized and over 240 people arrested. However, interviews with drug users found that there were few changes in drug availability, price or use (Best *et al.* 2001).

Another example is provided by the Derbyshire Drug Market Project. This arrested drug dealers and aimed to get users to enter treatment by creating a shortage of drugs and doing outreach work. However, the project did not create a shortage of drugs. There was no effect on overdoses or crime rates. The drug market was apparently temporarily shut down in two towns, to the appreciation of the local community, but users were able quickly to find alternative suppliers. Fewer users than anticipated entered treatment, partly due to mistrust of treatment services working with the police, and retention rates were poor for those who did enter treatment (Parker and Egginton undated, Parker 2004).

Law enforcement is not the only way to tackle the harms associated with drug markets. Other countries have attempted to limit these harms by relaxing the enforcement of prohibition of some drugs. For example, the Netherlands' expedient policy on the distribution of cannabis has been justified by its effects in separating the markets for cannabis and more dangerous drugs. Supporters of this policy point to the rise in the average age of Dutch heroin users as indicating success in preventing young cannabis users from progressing to other drugs.[8] Some Dutch cities also have experience of informal cooperation with dealers of heroin and cocaine in order to minimise the health and public nuisance impacts of the drug market. For example, the Rotterdam 'Safe and clean' strategy involved communicating with dealers and tolerating some sites where drugs, including heroin and crack, were known to be consumed. This aimed to avoid pushing drug users into the unsafe conditions of the street and causing nuisance to residents (Van De Mheen and Gruter 2004).

Another approach is to reduce incentives to drug use and dealing by increasing opportunities for unemployed young men who are most at risk of getting involved in the trade. A US study found that even modest improvements in the accessibility of jobs for young men can have significant effects in reducing drug dealing in poor neighbourhoods (Ihlanfeldt 2007).

It seems it is very difficult to produce changes in drug use or related crime patterns by disrupting the drug market, although there may be other benefits that arise from targeting drug dealers. These benefits seem most likely to arise where proactive partnerships target the range of drug-related harms, rather than confining themselves to crackdowns against drug dealers.

Border interdiction

Customs and Excise (now part of HM Revenue and Customs) has historically been an important participant in drug policy. It accounts for most major seizures at the ports and airports of the UK and for a large share of the total quantity seized. In addition, drugs liaison officers, recently transferred to the Serious and Organised Crime Agency, work in countries of drug production and transit to assist these countries to reduce their exports of drugs to the UK. The market share of drugs seized is estimated to be about 12% for heroin, 9% for cocaine and 25% for cannabis (Pudney *et al.* 2006).

Most of the price of a drug is accounted for by transactions after it enters the UK. For example, the effective price of a kilogram of heroin increases by a factor of 20 in its journey from the fields of Afghanistan to Heathrow airport or Felixstowe port. It then increases to approximately 100–200 times the original price in its passage from the drug importer to the consumer (as estimated by Boyum and Reuter in 2005). The latest available data shows even greater increases between farm gate and street prices. In 2005, the farm gate price of opium in Afghanistan was £51 per kilogram (UNODC 2006b). Assuming it takes 4 kg of opium to make 1 kg of 40% pure street heroin, the effective farm gate price of a kilogram of heroin was £204. By the time this heroin reached British streets, it was selling for about £54,000 per kg (SOCA 2006).

The farm gate price of the drug is such a small element of the street price that major changes in production and seizure levels are likely to have only minor effects on the price to drug users. Increases in smuggling costs can be passed on with minimal consequences for consumption. The Prime Minister's Strategy Unit (PMSU 2003) asserted (without much of a transparent analytic foundation) that even a seizure rate of 60% would not lead to much reduction in the amount of drugs imported,[9] as the financial incentives for importers are so high. Some research has suggested that demand for drugs is elastic to the retail price (i.e. total expenditure falls as the

price increases) (Caulkins 2004). This idea motivates the use of border interdiction to restrict supply, increase price and therefore reduce drug use. However, it is very difficult indeed to achieve large enough reductions in supply to increase the retail price and so affect drug use.

Despite the known difficulties of affecting drug use through restricting supply, the 2002 drug strategy emphasised the importance of preventing the drugs from entering the UK. This was to be achieved through greater inter-agency and international co-operation and by increasing prison sentences for drug traffickers.

Figure 4.4 shows that there has been a dramatic increase in recent years in the amount of drugs seized in England and Wales, but with some large fluctuations caused by a small number of large seizures. These seizures have been claimed as a 'key achievement' in a brochure on the impact of the drug strategy (Home Office 2005d). However, the Prime Minister's Strategy Unit report concluded 'drug seizures in themselves are having little or no impact on reducing harms'. This is because the level of seizures that would affect supply is 'not achievable' (PMSU 2003).

Several international studies of the effect of drug seizures have shown that they usually do not affect rates of drug use (Mazerolle *et al.* 2005).[10] One contrasting example is the Australian heroin drought (Degenhardt *et al.* 2006). A combination of police and customs operations and changes in patterns of production and distribution in Southeast Asia led to a shortage of heroin to Australian users in 2001, with increased prices and reduced purity. The effects of this included a 67%

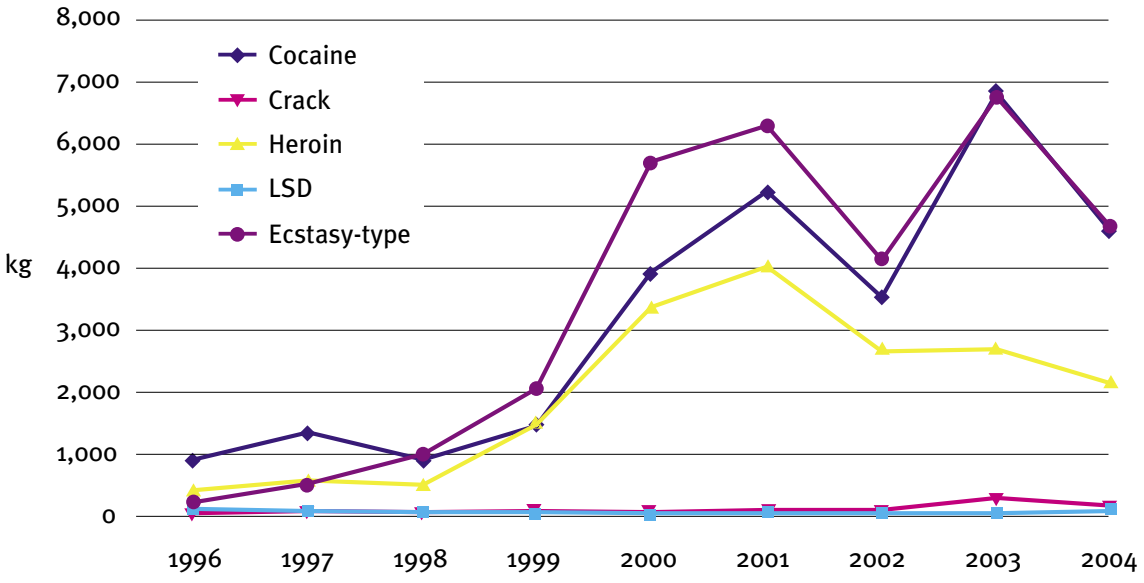

Figure 4.4 Quantities of drugs seized, England and Wales.

Source: Home Office 2006c.

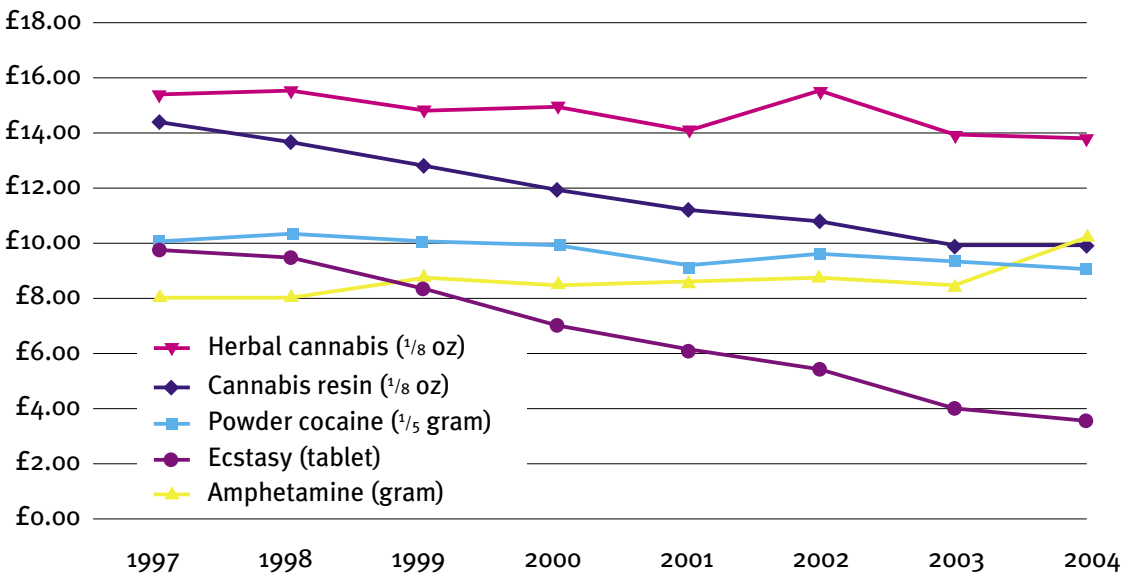

Figure 4.5 Average prices reported by drug users, 1997–2004.

Source: Independent Drug Monitoring Unit.

reduction in opiate overdoses and a reduction in opiate-related deaths from 1,116 in 1999 to 386 in 2001, showing that there are important potential benefits in limiting drug supply. There were also reductions in notifications of hepatitis C infections and in the operations of street drug markets. But there were also negative outcomes, such as a reported increase in mental disorders due to use of stimulants, including methamphetamine, and problems related to the injection of amphetamines and cocaine. There appears to have been little long-term effect on crime, although there were short-term increases in both property and violent crime at the start of the drought (Bush *et al*. 2004).

Australia had some important features associated with producing the shortage and mediating its effects. These include geographical isolation, a relatively small heroin market that had been flooded in the late 1990s, a limited cocaine market and a well-developed treatment system. The UK has not been able to replicate the heroin shortage or its effects through drug seizure. The street price of heroin fell from £70 to £54 per gram between 2000 and 2005 (SOCA 2006) and most other drug prices are also falling (see Figure 4.5).

Controlling production

It is estimated that about 90% of the UK's identified heroin supply comes from poppies grown in Afghanistan (SOCA 2006). The British government spent over £2.5 million on crop eradication in Afghanistan in 2004/5 and has also supplied and maintained helicopters for the Pakistani military (Rammell 2005). The Ministry of Defence has provided an approximate estimate of £1 billion for the planned

cost of military operations in Afghanistan over the five years from 2005/6 (House of Commons Defence Committee 2006). Current operations by British troops are assisting the Afghanistan government's programme of drug control. They have encountered stiff opposition, for example, in the opium producing Sangin valley. Between November 2001 and February 2007, 50 British soldiers were killed in Afghanistan, with increasing frequency after their deployment in Helmand province (historically the principal producing region) in 2006. Despite these efforts, poppy cultivation reached record levels this year (UNODC 2006), as predicted by the UNODC and the British government earlier in the year (Howells 2006).[11]

The available evidence on crop eradication suggests that we should not be surprised by the apparent lack of impact of current efforts. Successes in reducing supply by controlling production have been rare. Two examples are the Turkish opium ban in the early 1970s and the Mexican government's programme of opium eradication later that decade (Boyum and Reuter 2005). In both cases, supply of heroin to the United States was substantially reduced. However, within four years new sources were found to meet demand. And the circumstances of these successes are unlikely to be repeated in Afghanistan. Both Mexico and Turkey were under the control of strong governments and had other major crops and industries to which farmers could turn. Thus the governments were able to effect substantial reductions in opium production.

In Afghanistan, as in Colombia and Myanmar, the government is not in full control of the crop growing regions, and those regional populations have few other livelihoods to turn to. The current opium eradication efforts in Myanmar are likely to lead to widespread destitution (Jelsma and Kramer 2005), an outcome that Afghani farmers are apparently fighting alongside the Taliban to avoid. The President of Afghanistan has expressed reservations on the repressive tactics used by coalition forces in seeking out opium stocks, and regional leaders have warned that, unless enough aid reaches rural areas, farmers are likely to see opium as their only way of making a living. Current US moves towards the spraying of poppy fields with weed killer are not likely to lead to increased security or to sustained reductions in opium production (Jelsma *et al.* 2006). In this context, the current targets of 70% reduction in Afghani opium production by 2008 and total elimination by 2013 have little operational meaning and are unlikely to be achieved.

Crop eradication also imposes harms on the populations of drug producing countries. It may leave communities without any source of income. It can involve serious allegations of the abuse of the human rights of local populations. And it can damage the environment through the use of poisonous chemicals and by driving cultivation away from farms into fragile and precious areas of biodiversity (Jelsma and Kramer 2005, Vargas 2005).

The available evidence suggests that drug law enforcement has little effect on the overall level of drug use. However, law enforcement agencies can have significant impacts on the types and levels of harms that are associated with drugs. For example, improved targeting of police resources on the most harmful traffickers and dealers (e.g. the most violent, or those importing drugs that are not yet widespread[12]), may cost more in the short run than targeting low level markets, but may be associated with greater reductions in harms and costs (Caulkins 2004).

Prevention

As one of the main indicators used to assess drug policy is its effect on the rate of drug use among young people, it is important to examine the efforts that are taken to reduce this rate. Prevention is cited as the main policy area aiming to reduce drug initiation and continued use. The policy is predicated on the assumption that prevention efforts reduce drug use, but there is, as yet, no clear evidence showing that prevention has had this effect in the UK.

There are three main strategies for drug prevention. The first uses mass media campaigns to inform and warn the public of the dangers of drug use. The second involves educating children at school about drugs. The third consists of efforts to raise awareness and change attitudes in targeted groups, such as vulnerable and disadvantaged young people. The first mass media drug prevention initiative in Britain was the Heroin Screws You Up campaign of 1985–86. More recently, there has been the Apple campaign in Northern Ireland in 1997/8, the Know the Score heroin campaign in Scotland in 2005 and the Frank campaign in England. The Frank campaign makes particular use of the Internet to communicate with young people. The government has reported that the website receives over 15,000 hits per day, and that £9 million was spent on the campaign between 2003 and 2006 (Home Office 2006a).

These campaigns have been supplemented by increases in the coverage of school drug education programmes. The government has for some time expected schools to provide drug education to all pupils in all four countries of the UK. Guidance on drug education advocates a whole school approach that includes the full range of psychoactive substances, including alcohol and tobacco, and incorporates drug education into other aspects of the curriculum. In England during key stage 2 (ages 7–11), children should be taught about the effects of the various drugs and how to make informed decisions about their health. This work is then built on through key stages 3 and 4 (ages 11–16). The guidance advocates use of evidence-based programmes that are interactive, skills-based and provide knowledge on the actual rates of drug use among their peer group (which children often overestimate) (DfES 2004).

The schools inspectorate in England has reported significant improvements in coverage and quality of drug education. Only two out of five primary schools were providing drug education in 1997. By 2004, this had increased to four out of five. However, the inspectorate warned that the lack of evidence on effectiveness makes it difficult to predict impact on drug use (Ofsted 2005). In order to develop this evidence base, the government has also funded the Blueprint programme. This involves several components, including specialist education in schools and information for parents, coordination with local health policy and work with the media. Its evaluation is due in 2007.

The government has also targeted awareness and information campaigns at groups of young people who are most at risk of drug misuse, including young offenders, those in local authority care, school truants and excludees, children of problematic drug users, homeless young people and those exploited by prostitution. The major targeted drug prevention initiative is the Positive Futures programme, which aims to reduce drug use through involving young people in sporting and creative activities. Over 100,000 people have taken part in this programme since 2002. There is a high level of confidence by agencies working with the programme of its effect in reducing drug use, but no evaluation of its actual impact (Home Office 2006b).

There are two main limits to the likely return on investment in all three prevention strategies. The first is the research evidence suggesting that prevention rarely leads to reduced drug use. The second is that, even if it does reduce some drug use, this is unlikely to lead to major reductions in drug problems.

Mass media campaigns have rarely been rigorously evaluated in the UK. The Scottish Know the Score campaign of 2005 was evaluated, but only in terms of the impact it had on attitudes towards heroin use, and not on actual use of heroin. There was no consistent pattern in these attitudes before and after the campaign (Scottish Executive Social Research 2006), a finding that challenges any assumption that the campaign will have reduced heroin use. A study of the Northern Irish Apple campaign did find positive changes in attitudes to drugs (Ives and Wyvill 2000), but the campaign did not prevent a sharp rise in drug use in Northern Ireland from occurring. The $1.2 billion dollar National Youth Anti-Drug Media Campaign in the USA was evaluated in terms of its effects on actual drug use. None were found, apart from a small association between exposure to the campaign and *increased* initiation of marijuana use. The US Government Accountability Office reviewed and endorsed this evaluation and recommended that the budget for the campaign be cut (GAO 2006).

Even though the government seems to have learnt some of the lessons of failed school-based drug education programmes, such as the internationally widespread

Drug Abuse Resistance Education programme (GAO 2003), there is still little acknowledgement that most drug prevention education has had no impact on rates of drug use. These failures have been explained with reference to the contextual and familial effects on drug use, which schools can do little about, and the low dosage of drug education that schools can typically provide (Hawthorne 2001). There are some examples of drug education initiatives that demonstrated effect in reducing drug use rates (McGrath *et al.* 2006). The impact of even these effective programmes tends to be small (Gottfredson *et al.* 2000) and they tend to share characteristics (including high intensity and programme integrity, encouraged by the presence of evaluators) that are difficult to spread across an entire school system (see Gottfredson and Gottfredson 2002). Current evidence on drug prevention efforts suggests how difficult it is to apply evidence on best practice to the reality of school life. For example, preliminary findings from a survey of Scottish schools are that teachers were using out-of-date and ineffective materials, with little training, and that pupils found drug education to be 'uninspiring and unrelated to their own experience' (ACMD 2006).

Partly because of the small effects of even the most successful drug prevention programmes, they are unlikely to have major effects on overall rates of drug use. The positive effects of many such programmes are short-lived and may not persist beyond a few months. If they do, there may be knock-on effects in preventing the spread of drug use through social networks, meaning that successful prevention with one individual may reduce drug use among his or her peers in future. Even taking such effects into account it has been estimated (with a great deal of acknowledged uncertainty) that, if the USA were to implement fully the most effective known programmes, this would lead to a reduction of between 2% and 11% in the future consumption of cocaine (Caulkins *et al.* 1999). Relatively small changes such as this, which apply to the full population of drug users, are unlikely to have major impacts on problematic use, which affects a small minority of illicit drug users but accounts for the vast majority of drug-related harm.

A more recent entry onto the agenda of drug prevention in Britain is the issue of random drug testing in schools. This has been used at only one state school so far, the Abbey School in Faversham in Kent, with funding from the *News of the World* for over 500 tests in the two academic years 2004/5 and 2005/6. There was only one positive test (James 2006) and we understand the testing programme has now stopped. However, two successive education ministers have signalled their support for random drug testing in schools.

Drug testing has already been introduced in many US schools, and the results of research so far do not support its introduction in the UK. Some small, uncontrolled studies have shown that drug testing reduced drug use. However, the largest study

so far, involving 94,000 American pupils, with methodologically sophisticated controls for other influences, found that there was no significant difference in rates of drug use between schools that did or did not operate drug testing, including random drug testing programmes. Rates of marijuana use were slightly lower in random drug testing schools, while rates of use of other drugs (including cocaine) were slightly higher (Yamaguchi *et al.* 2003). It has often been argued that drug testing provides incentives to switch from cannabis to more dangerous drugs that are less easily detectable. The Yamaguchi study suggests that, if drug testing in schools does have any effect, it is to encourage such switching.

There have also been suggestions that such programmes damage education by creating mistrust between teachers and pupils and by discouraging attendance at school by the pupils who are most vulnerable to exclusion and future drug problems. Ofsted (2005) reported that most headteachers are against the idea of drug testing. A review carried out for the Joseph Rowntree Foundation concluded, 'it would seem prudent for the government to advise caution rather than encourage experimentation with a costly and potentially damaging new approach to drug prevention' (McKeganey 2005: 22). The ACMD (2006) also recently declared its opposition to the use of random drug testing in schools.

Overall, despite the government's welcome emphasis on basing drug prevention on research evidence, it seems that there is still little reason to suppose that prevention will have substantial effects on initiation and prevalence of drug use among young people. There is even less basis for confidence that it will reduce future levels of problematic drug use.

Treatment

The government has emphasised the role of treatment in reducing the prevalence of drug dependence and the high levels of harms that are associated with it. There has since been a large expansion in the capacity of treatment services, and an increase in enrolment of approximately 110% since 1997/8. This was a rational response to the large and increasing body of evidence that suggests that treatment of drug dependence is effective in reducing both the drug use and the offending of dependent drug users.

The case for investment in treatment has recently been boosted by the National Institute for Health and Clinical Excellence's rigorous studies of the available evidence and its resultant endorsement of a variety of treatment approaches, including maintenance prescriptions of methadone and buprenorphine, opiate detoxification, naltrexone and a range of psychosocial interventions, including cognitive behavioural treatment (NICE 2007a, 2007b, 2007c, 2007d). Various other

treatment methods have also been shown to be effective in reducing illicit drug use. These include residential rehabilitation, motivational interviewing and counselling (Stevens *et al.* 2006).

The available evidence includes the English NTORS study, which showed significant reductions in crime and drug use for patients in four different drug treatment modalities: residential rehabilitation; in-patient drug dependency units; methadone maintenance; and methadone reduction programmes. The cost–benefit ratio calculated for these outcomes ranges between £9.50 and £18 for each pound spent on treatment (depending on assumptions on crime costs)[13] (Godfrey *et al.* 2004). NTORS had no control group, so it is hard to tell whether some of these benefits may have occurred in any case, as the respondents matured out of drug use and crime. But a recent analysis of criminal convictions of the sample showed that the pattern of convictions peaking before and then diminishing after treatment was present for all age groups (Gossop *et al.* 2006b). This suggests that post-treatment reductions are not just a product of maturing out.[14] More studies in a similar vein are now under way in England (the Drug Treatment Outcome Research Study) and Scotland (the Drug Outcome Research in Scotland Study), which will provide further useful information to inform UK drug policy.

So far, policy has focused on, first, getting more drug users in treatment and, more recently, improving the quality of treatment. The mechanisms for expanding treatment engagement have been rapid growth in investment in drug treatment capacity and simultaneous use of the Criminal Justice System to direct offenders

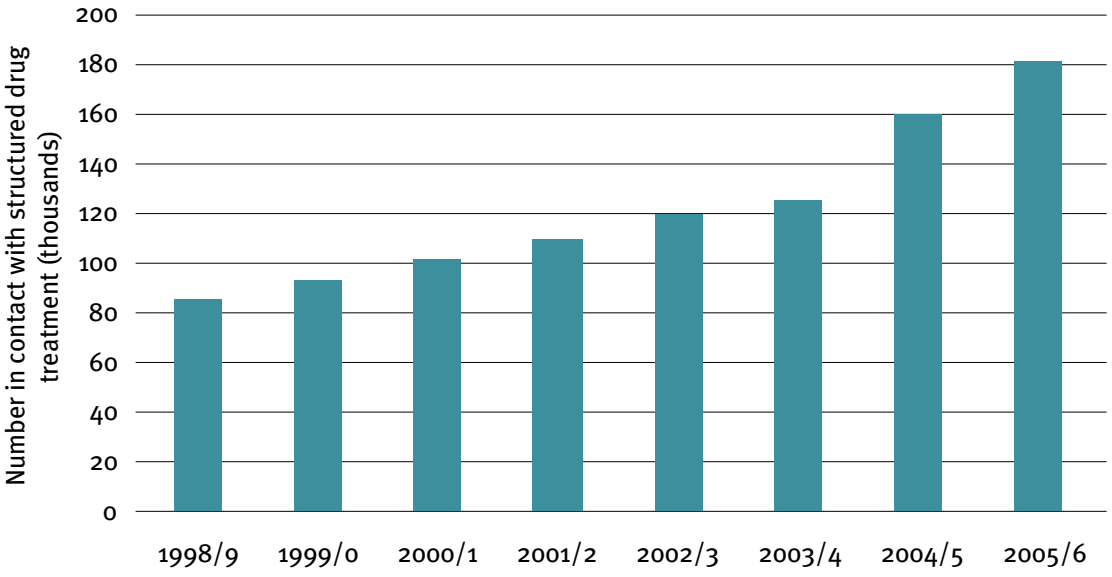

Figure 4.6 Numbers of drug users in contact with structured treatment in England.[15]

Source: NTA 2006.

into treatment. As shown in Figure 4.6, the number in contact with structured treatment in England has more than doubled since 1998, from 85,000 in 1998/9 to 181,390 in 2005/6.[16] The government has already beaten its target to increase the numbers in treatment by 100% by 2008. The target of 2.5 weeks for average waiting times for treatment has also been met. It fell from 9.1 weeks in December 2001 to 2.4 weeks in September 2005. However, there is some scepticism among drug users and workers in the field on the validity of the data on waiting times, which are generated by agencies whose performance is monitored against this indicator.[17] There is also concern, as expressed by the Home Affairs Select Committee (2002), that not enough treatment is available for users of cocaine, especially crack.

The dramatic increase in treatment capacity means that approximately 55% of the government's estimated number of problematic drug users was in contact with structured treatment in 2005/6. This is similar to the percentage of heroin users in the Netherlands in contact with treatment (Reuter and Pollack 2006). By comparison, only 17% of those who were estimated as needing treatment received it in the USA in 2005 (SAMHSA 2006). There has also been an expansion of drug treatment services in prisons. Prisons hold high numbers of problematic drug users who can benefit from treatment. The most recent survey of the psychiatric morbidity of prisoners found that 41% of sentenced male prisoners reported a measure of dependence in the year before their imprisonment (Singleton *et al.* 1997). In 1999, Counselling, Arrest, Referral, Advice and Throughcare (CARAT) teams were established in every prison in England and Wales. These teams aim to identify, assess and treat those prisoners who have drug problems and to prepare continuity of care for when they are released. They reported working on over 100,000 cases in the three years from 2002/3. A significant minority of those people reported they had never received treatment for their drug problem (May 2005). More recently, the NHS has taken over responsibility for health services in prison, including drug treatment. By the end of March 2008 the Integrated Drug Treatment System is planned to be operational, providing a wider range of more intensive drug treatment services, including maintenance prescribing, to prisoners. This represents a significant expansion in the provision of support, compared to the situation in 1995 when the first prison drug strategy was launched (Duke 2003). However, a qualitative evaluation of the work of CARAT teams has pointed out how difficult it still is to ensure continuity of care and effective multi-agency collaboration (Harman and Paylor 2005). Prison overcrowding makes this especially difficult, as it means that prisoners are often held in prisons far from their homes and are moved between prisons at short notice, causing interruption of treatment.

Many offenders do not go to prison and prisons may not offer the most appropriate environment in which to provide effective and sustainable drug treatment. A variety of other programmes have been used to encourage offenders to enter drug

treatment outside prison. Chronologically, they include Schedule 1A6 Probation Orders, arrest referral schemes, the Drug Treatment and Testing Order (DTTO), drug testing on charge, the Drug Abstinence Requirement, Communities Against Drugs, the Drug Interventions Programme, restrictions on bail, conditional cautioning, the Drug Rehabilitation Requirement, the Prolific and Priority Offender Programme, testing on arrest and required assessments. Scotland has also introduced (and kept) DTTOs and, through the Police, Public Order and Criminal Justice (Scotland) Act 2006, is also introducing mandatory drug testing on arrest. Some of these programmes have been evaluated (see Box 4.1). The target in England and Wales is to direct over 1,000 offenders into drug treatment *per week* by 2008 (this is targeted to represent 25% of treatment referrals). The figure was 1,914 *per month* in June 2005 (Home Office 2005d).

Box 4.1 Evaluated criminal justice interventions

Drug Treatment and Testing Order

This order, introduced by the Crime and Disorder Act 1998 in both Scotland, and England and Wales, enabled the courts to order offenders to enter treatment or face alternative punishment (usually imprisonment) for their crime. The early pilots were 'hardly unequivocally successful' (Turnbull *et al.* 2000: 87), but they were rolled out nationally nonetheless. Subsequent research has suggested that offenders on DTTOs can do as well as those who enter drug treatment by other routes (McSweeney *et al.* 2006), although there have been consistent concerns about high rates of non-compliance and reconviction (Cuppleditch and Evans 2005). The DTTO in Scotland was implemented more similarly to the US drug court system, and has shown higher completion and lower reconviction rates than its English counterpart (Eley *et al.* 2002, McIvor 2004). The DTTO was replaced in England in 2005 by the similar, but more flexible, Drug Rehabilitation Requirement (DRR).

Drug Abstinence Order/Requirement

The Criminal Justice and Court Services Act 2000 introduced both the Drug Abstinence Order (DAO), a community sentence requiring a person to be tested for drug use, and the Drug Abstinence Requirement (DAR), a similar condition that could be attached to other community sentences. In an evaluation of the DAO/DAR, there was a non-significant reduction in reported Class A drug use, compared to a matched comparison group, but a major increase in the numbers of offenders breached and sent to prison (Matrix MHA and NACRO 2003). Both of these sentences were repealed in 2005, when the DRR became available to courts.

Restriction on Bail

Introduced by the Criminal Justice Act 2003, this involves courts requiring defendants who test positive for Class A drugs to attend assessment and treatment as a condition of getting bail. In the pilot phase, defendants were able to benefit from rapid access to treatment, but there was little evidence of reductions in crime. The restrictions were used in addition to other bail conditions, rather than to reduce the use of custodial remands (Hucklesby *et al.* 2005, 2007).

Drug Interventions Programme for Children and Young People

This programme aims to encourage young offenders (aged 10–17) who are assessed as having problems with substance misuse to enter treatment by using arrest referral, drug testing on charge and drug treatment and testing requirements (DT(T)Rs). It was piloted in ten areas from 2003. The evaluation did not find that arrest referral or drug testing had increased rates of entry to treatment or had decreased drug use and offending. There was a range of implementation problems and very few DT(T)Rs were made (Matrix Research and Consultancy and ICPR 2007).

Dedicated Drug Courts

These are courts that are specifically set up to deal with drug-involved offenders, who are sentenced to Drug Rehabilitation Requirements. These courts have their cases reviewed by specially trained magistrates and judges, who are intended to provide continuity of contact with the offender through the sentencing and review process, following the US drug court model. The pilot courts, in Leeds and West London, are currently being evaluated and the report is due in Spring 2007.

The impact of drug treatment depends both on quantity and quality. The NTORS study found that outcomes varied widely between treatment centres (although not between treatment modalities) (Best 2004). A study in the North West of England found that the best-performing services were seven times more likely to retain clients than the worst (Millar *et al.* 2004). In order to improve performance across the drug treatment field, the NTA launched a treatment effectiveness strategy in 2005, focusing on improving the commissioning and provision of services in order to enhance the client's journey though treatment and beyond. It has introduced targets for retention and has a specific programme to develop the skills of the rapidly expanding workforce. Implementing the strategy involves creating individualised packages of support for clients, including housing and employment services in order to achieve improvements in four domains (drug use, health, crime and social functioning) and to create better planned exit routes for those who can achieve abstinence. In 2005/6, the NTA reported that 75% of those in treatment were retained for at least 12 weeks (Hayes 2006).

There is potential to increase the coverage and effectiveness of treatment, as recommended by the National Institute for Health and Clinical Excellence (NICE 2007a, 2007b, 2007c). There is also evidence to support the introduction of new modes of treatment. This is currently being done on a small scale. The government is piloting heroin-assisted treatment (see below) in four sites. Draft guidance (NICE 2007d) includes evidence on positive results from pyschosocial treatments that are not widely available in the UK, including contingency management. This involves providing vouchers, prizes or clinic privileges to reward good progress in treatment. It has been found to lead to longer periods of abstinence from illicit drug use among cocaine and heroin users in the USA (ibid.). Another approach that is rare so far in the UK, but is spreading internationally, is multi-systemic family therapy for adolescents with drug use and other problems. This has produced good results in many US studies, several international studies and is currently being piloted in London (Sheidow and Henggeler in press). The similar, multi-dimensional therapy approach, which has also shown good results in the USA (Liddle *et al.* 2001), is now being piloted in Glasgow. These multi-domain methods for working with young drug users respond to the current lack of evidence-based approaches for working with this group (Elliott *et al.* 2002). There is also potential for developing new pharmacotherapies for cocaine users, but they have not yet got beyond showing promising results in small exploratory studies (Dackis *et al.* 2004).

It is in the expansion of drug treatment that UK drug policy sticks closest to its intention to make use of research evidence. Internationally, there is much evidence to suggest that drug treatment is effective in reducing drug users' health problems and the harms they cause to others (McLellan and Marsden 2003). A review of research found robust evidence of cost-benefit from various types and settings of drug treatment (Belenko *et al.* 2005). There were dangers attendant to the rapid expansion of drug treatment. For example, the supply of qualified staff was small and it was possible that the marginal benefits of treating users would decline as more people entered treatment. These threats have been acknowledged and at least partly dealt with. For example, there has been significant effort put into workforce development and programmes have been focused on engaging the most problematic users in treatment services.

Where the policy goes beyond the available evidence is in some of the measures that have been used to encourage offenders into the system. The 'crime-driven' nature of the expansion in treatment has not been without controversy. It has been argued by some that it may have important detrimental effects on public health and the human rights of drug users by increasing the use of arrest and imprisonment, disrupting the treatment system for non-criminal drug users and taking attention away from the need to reduce bloodborne infections (Stimson 2000). The evidence on the link between drug use and crime has been divorced from the social context

of both activities (Seddon 2005) and the focus has been on a direct causal link from drug use to crime. Given that the link between drugs and crime is much more complicated than this, it is unlikely that drug treatment can achieve the reductions in overall crime rates that have been claimed for it. This simplistic version of the drug–crime link has also been used to justify measures, such as compulsory testing, restrictions on bail and drug abstinence requirements, for which the evidence base remains very thin.

The problem with some of these measures appears to be that they separate the requirement for abstinence from the provision of treatment. Research in several countries, including England, has suggested that people who enter treatment when offered the choice between treatment and a different punishment for their crime can achieve reductions in drug use and offending that are at least as great as their counterparts who enter treatment without the involvement of the Criminal Justice System (Stevens *et al.* 2005, McSweeney *et al.* 2006). People who enter such treatment do not necessarily experience their treatment as coerced as they retain an element of choice (Stevens *et al.* 2006a). Some are able to use the treatment they are offered to escape lives of dependency and crime. The research suggests that the treatment is important in enabling positive change. Evidence on efforts to compel users into giving up drugs without treatment indicates that such initiatives are less likely to succeed (Stevens *et al.* 2005).

The UK experience is not unique. Drug dependence is seen as a chronic, relapsing condition. Many people continue to use during and after treatment. Even countries, such as the Netherlands, which have engaged high proportions of their heroin-dependent populations in treatment, have not seen significant reductions in the size of this population (Reuter and Pollack 2006). The expansion in drug treatment is likely to prove highly cost-effective in the reduction of problems at the individual level. It may be playing an important role in the reported reductions in drug-related deaths. With its proven effect in reducing the health and criminal problems of dependent drug users, it offers an effective response to those people who currently experience high levels of harm from their drug use. However, given the wider socio-economic, demographic and cultural effects on drug use and crime, it is unlikely that treatment will have dramatic effects in reducing overall rates of crime and drug use. Treatment does not prevent people initiating drug use and most problematic drug users go through several years of dependent use before entering treatment. There is still a large group of dependent users who do not benefit from entry to treatment. It remains the approach to problematic drug use that has the greatest evidence for a significant return on public investment, but it is still likely to leave substantial drug-related problems.

Harm reduction

Another major element of efforts to reduce the adverse consequences of drug use is initiatives that seek to minimise the harm related to current drug use. We have shown in Chapter 3 that the international experience suggests that the UK has invested wisely in harm reduction services such as needle exchange and opiate substitution treatment and so has limited deaths and costs from HIV/AIDS.

Needle exchange and methadone maintenance treatment are among the most widely implemented harm reduction strategies, and there is strong evidence for their effectiveness in reducing drug-related deaths and transmission of infectious diseases (Wodak and Cooney 2004, Amato *et al.* 2005). Methadone maintenance, which can be viewed both as treatment and as harm reduction (because it involves current use of a controlled drug) also has effects in reducing crime. Other common approaches, such as the provision of information and the use of motivational interviewing to influence risk behaviours, have potential but less support from the little research that is available on them. And there are new innovative programmes, including heroin-assisted treatment and drug consumption rooms, that are supported by available international evidence (Hunt 2003).

In order to increase the return on investment in harm reduction services, continued efforts will be needed to ensure broader coverage of services and that new users develop safer habits. Economic modelling has been used to suggest that the cost-benefit of needle exchange can be maximised by making it available in all those communities that have high concentrations of injecting drug users (Harris 2006). There are plans to increase the coverage of methadone maintenance by, for example, ensuring continuity of prescription for those who enter and leave prisons (Marteau 2006). In addition to the treatments endorsed by NICE, drug consumption rooms and heroin-assisted treatment also offer the promise of improved health and reduced cost (Home Affairs Select Committee 2002, Independent Working Group 2006), although the evidence base for these approaches is, as yet, slimmer than those endorsed by NICE.

Heroin-assisted treatment (HAT) differs from the existing system of prescribing heroin to small numbers of long-term dependent users. It has been shown to lead to significant improvements in the health and social integration, and reductions in the offending, of patients in Switzerland and the Netherlands (van den Brink *et al.* 2003, Uchtenhagen *et al.* 1997). In the Swiss programme, experienced heroin addicts who have failed in methadone treatment are admitted to programmes in which they receive heroin under professional supervision. The clinics are open seven days a week and clients can attend up to three sessions each day.

In contrast to the earlier 'British system', the client is not limited in terms of the quantity of heroin to be injected. The client can choose the amount that he or she wants to inject. Over time those enrolled have usually reduced the quantity they consume daily. Another important difference though is that the drug has to be consumed on the premises; there are no take-home privileges.

The Swiss evaluation found that HAT led to large reductions in crime and health risk behaviours. There seemed to be no diversion from the clinics to the black market (Uchtenhagen *et al.* 1997). HAT has now become a routine part of the Swiss treatment system. Approximately 1,500 patients are enrolled in HAT at any one time, about 10% of heroin addicts in treatment. Even if HAT does not include a large proportion of those in treatment, they tend to be those who have particularly intractable dependencies, who have not responded to methadone treatment and who therefore risk causing a disproportionate amount of the harms related to heroin.

Perhaps the most important finding about heroin-assisted treatment emerged after the Swiss trials were concluded. Over a longer period, it turned out that many of the patients exited HAT to some other form of treatment (Rehm *et al.* 2001) and many do move on to become abstinent after a period of stabilisation in heroin treatment (Guttinger *et al.* 2003). This suggests that heroin maintenance is not a terminal but a transitional state, from which the addict comes to realise that their well-being depends not on having enough of the drug but on establishing a more positive life. The British government is funding a pilot study of HAT, which could become a very helpful addition to the range of programmes available for the most troubled and harm-causing heroin addicts.

Drug consumption rooms (DCRs) can act as a recruiting point to help drug users enter treatment. They provide safer places to use drugs, and are associated with reductions in overdoses and risky injection practices (Independent Working Group 2006). The government has rejected a parliamentary committee's recommendation that safe injecting areas should be set up (Home Affairs Select Committee 2002) on various grounds. These include that they would create drug dens, would contravene UN conventions, would place additional burdens on NHS budgets, would create damaging confusion between HAT and DCRs, were not supported by European evaluations and would increase dealing, nuisance and acquisitive crime. The Independent Working Group (2006) examined all these concerns, and found that they were not supported by the available research and legal opinion.

Conclusion

The British government has hardly neglected the problem of illicit drugs. Over the last two decades it has used the major components of drug policy to, as the strategy title says, 'tackle drug misuse'. Enforcement has been used to prevent the distribution of drugs, prevention has attempted to reduce the rate of initiation into drug use, treatment has been expanded in order to deal with drug dependence and harm reduction efforts have aimed to reduce the adverse consequences of use. Each of these areas has seen substantial increases in funding in recent years and changes in strategy as well.

Enforcement has been the dominant programme in terms of expenditure, though it is hard to deduce that from the available budget documents. If effective, enforcement should have raised prices and reduced availability. For price there is direct evidence of declines rather than increases, at least over the last few years. For availability there is no direct measure, but the continued high rates of use suggest that availability has not declined. Perhaps, without the tough enforcement, prices would have been lower and availability even higher, but there is no evidentiary basis for that assertion and the US experience, at its most optimistic reading, shows quite modest effects of enforcement on price (Kuziemko and Levitt 2004).

General increases in the use of imprisonment may raise the social and economic costs of drug policy, without providing commensurate benefits in reducing drug problems. Efforts to eradicate crop production in politically unstable countries may have seriously detrimental impacts on British military forces and local populations, with little prospect of reducing the scale of domestic drug-related problems. The increase in imprisonment of drug law offenders, and of people whose offending is associated with their drug use, has contributed to the current problem of severely overcrowded prisons. And the costs of such imprisonment, to individuals, families and the taxpayer, have increased substantially in the last decade.

Over the long term, prevention programmes have failed to achieve their primary aim of reducing initiation into drug use; youthful drug use has risen over most of the last decade and remains high. Again, initiation rates might have been higher without these programmes but, given that the British rates are among the highest in the world, that is not very likely. In view of the lack of evidence for effect of drug prevention programmes, it is doubtful that they have played a part in the apparent recent falls in the youthful use of cannabis.

Harm reduction is one area in which British efforts score well. Proven harm reduction programmes are cost-effective and save lives (Wodak and Cooney 2004,

Amato *et al.* 2005). This is an area where policy can have a significant impact in reducing the damage associated with drug use. The majority of those who use needle exchange and opiate substitution continue to use drugs but do so less dangerously than before, with a consequent reduction in harms to themselves and to others (including crime for those in substitution treatment). Given that the successes are now threatened by increases in drug-related diseases, consideration of the introduction of drug consumption rooms and the expansion of heroin-assisted treatment would appear appropriate.

Treatment has strong and growing evidence that it is effective in meeting the needs of people who wish to reduce the damage caused by their drug dependence. It appears to be highly cost-effective, largely through its impact on the criminality of patients. The government has achieved its aim of a rapid expansion in the number of people in treatment, but there is still more to do in increasing the quality and effectiveness of treatment services. NICE guidance now confirms that investment in drug treatment services will be cost-effective.

The dominance of enforcement in the national drug control budget is also found in other countries, such as Australia, the Netherlands and Sweden, and above all the United States (Reuter and Pollack 2006). In all cases, prosecution and incarceration are expensive; prevention and harm reduction are cheap. Enforcement activities seem to have provided little benefit to count against their considerable costs. Prevention in practice also lacks evidence of cost-effectiveness, whereas some harm reduction efforts have proven that their benefits outweigh their costs, and others may provide similar returns on investment. Most psychosocial treatments are moderately expensive, but appear to be cost-effective in reducing harms associated with drug use. None of these strategies can eliminate the use of psychoactive drugs, but harm reduction and treatment have reduced the damages done to and by drug users.

CHAPTER 5

Policy and research issues

The principal purpose of this monograph is to provide readers with an understanding of the nature of Britain's drug problems, how the government has responded to them and how effective its responses have been. In this concluding section we summarise the analysis we have presented. We present some conclusions on the state of drug policy research and we re-state the key overall conclusion of our analysis.

The limits of policy

It is striking that, despite the longstanding political prominence of the drugs problem in the UK and despite relatively coherent strategies and substantial public investment, Britain, particularly England, has fared so poorly. By measures of use and dependence rates, Britain is at the top of the European ladder. This did not happen as the consequence of one short epidemic burst but is the result of a steady worsening in the last quarter of the twentieth century. It is encouraging that the problem does not seem to have worsened since about 2000, but that is the strongest positive statement one can make confidently at present.

The most fundamental point to understand about drug policy is that there is little evidence that it can influence the number of drug users or the share of users who are dependent. There is no research showing that any of the tougher enforcement, more prevention or increased treatment has substantially reduced the number of users or addicts in a nation. There are numerous other cultural and social factors that appear to be much more important.

What are the principal determinants of rates of drug use? Surely fashion or popular culture has to be given considerable weight. For example, in most nations throughout the Western world, from Australia to Finland, there was an upturn of about one-half in rates of cannabis use among 18-year-olds between approximately 1992 and 1998 (MacCoun and Reuter 2001), though from very different base rates in the various countries. Some of those nations had become tougher in their marijuana policies in that time (e.g. the US), most made no change and others became more tolerant (e.g. Australia); the policy stance seemed to have no effect. It is hard to identify which underlying cultural values drove these changes

simultaneously, but their breadth and consistency make it very likely that the increasingly globalised popular culture has a prominent role. After about 1998, the growth stopped as abruptly as it started; again there is no policy intervention that one can turn to for an explanation. Similarly the timing of epidemics of heroin use in different nations seems unrelated to government policy and appears to be driven instead by the confluence of broad demographic, social and economic changes.

This suggests that it is simply unreasonable to assess the government's performance against measures of the prevalence of drug use, since no one can offer guidance as to what is likely to reduce prevalence. Yet that is the indicator to which the public instinctively turns and which has been an important part of the British government's own targets.[1] There is a transparency to this measure and it connects to the principal drug concern of many people, particularly parents, which is the risk of children becoming involved with dangerous substances. It is politically implausible to ignore population prevalence measures, but analysts should give more weight to other indicators, particularly related to harm such as drug-related crime and disease. Though we offer many criticisms of the Drug Harm Index, this does represent an important step forward in focusing policy on the dimensions that the government can plausibly affect.

More positively, this pessimistic view of policy also has a liberating effect. The UK government, like many others, emphasises the importance of not sending 'the wrong message' about drugs. As discussed above, that has been used to justify the current drug classification scheme, for example keeping ecstasy in Class A. But if such classification and programmatic decisions have minimal consequence for drug use, then the 'message' argument fails and the government is permitted to make these decisions on grounds of justice and efficiency.

Further, there are many unintended negative consequences of drug policy, particularly enforcement, that have been tolerated on the basis of the presumed necessity. For example, the use of imprisonment for all categories of drug offences has increased in the last two decades. The costs of this imprisonment are heavy for the taxpayer. If as it appears, the majority of these offenders have been in prison for relatively lower level drug offences, then one might reasonably question whether average sentences of three years are effective. The claim that increasingly tough enforcement sends a message that will reduce drug use does not appear to be supported by the evidence. In particular, there has been a disproportionate impact on black people, who are more likely to be arrested and imprisoned for drug offences. So, here again, policy needs to be re-considered.

Research needs

If policy is to be improved, it should be based on more accurate and reliable information. Here we offer a few observations about the state of drug policy research.

The first observation is simply that there is not much of it. Furthermore, most of what there is come from North America. In particular, there is a dearth of research on the consequences of drug enforcement efforts. The Home Office is undertaking a variety of evaluations of drug enforcement in the United Kingdom but it will take a long time indeed at the current pace to provide policy makers with a reasonable evidence base for decisions.

More specifically, there is a need to assess the effects of the increasing amount of prison space devoted to drug offenders. It could be argued that the UK is already very punitive to little benefit. However, the available evidence is not strong and a UK-specific research base should be developed.

There is also a need to strengthen the Drug Harm Index. Despite being a bold and laudable measure, the dominance of drug-related property crime in the current version does not have much authority. A research programme to build both a better conceptual and empirical foundation for this Index would help with the future policy decisions.

At a more practical level, the transparency of drug budgeting needs to be improved. For the work in this review, we have had to develop our own very crude figures because it was impossible to determine the total from the various documents published. Decisions about policy are largely decisions about expenditures; a capacity to at least roughly measure what is currently being spent is essential.

Conclusion

Government policies have only limited impact on rates of drug use itself. However policies are highly relevant because they can have significant impacts on the levels of drug-related harm. There is now a great deal of international research showing significant reduction in lifetime drug use among drug users who receive treatment and substantial reductions in both crime and health risk behaviours, especially during the treatment episode. Harm reduction initiatives, notably needle exchange and opiate substitution, reduce HIV risk behaviours – to the benefit of both individuals and society. Some research shows that particular kinds of enforcement can reduce the openness and disorder around the distribution of drugs, an important source of harms. And some research (although not from the UK) supports

the claim that well-designed and well-implemented prevention programmes can be cost-effective, even if they only moderately lower initiation rates. The research suggests that the greatest reductions in drug-related harm have come from investment in treatment and harm reduction. However, the bulk of expenditure on drug policy in the UK is still devoted to the enforcement of drug laws.

There is an urgent need to take more effective action to reduce Britain's drug problems. However, the current shortage of research means that policy makers have to operate partially blind when choosing effective measures to reduce the serious harms associated with the use of illicit drugs. The UK has introduced evidence-based measures, notably the expansion of treatment and harm reduction, that have reduced the harms that would otherwise have occurred. On the other hand, it operates measures, such as classifying drugs to deter use and increasing use of imprisonment, that have little or no support from the available research. Even if the government can do little to reduce overall rates of drug use, it could make better use of available evidence to choose policies that more effectively reduce drug-related death, crime, physical and mental health problems and other harms to the communities that currently suffer the consequences of drug use.

Notes

Chapter 1: Introduction

1 This report will cover the four countries of the United Kingdom. Although policy in Northern Ireland, Scotland and Wales is influenced by decisions made in Westminster, it is not determined by them. We will attempt to recognise some of the diversity, as well as similarities, between the various jurisdictions. Northern Ireland receives little attention because few data are available. Most indicators are available for England and Wales jointly, not separately.

2 From the 2000 British Crime Survey, it was estimated that over a third of violent offences involved an offender who was, in the view of the victim, under the influence of alcohol (Budd 2003).

3 Although Dorn and Jamieson (2000) argue that there is more room to reform drug policy within these conventions than is usually thought.

Chapter 2: Drug use in Britain

1 Some sense of the fragility of these estimates can be gained from the experience in the United States in 2002 when the flagship population survey made a number of methodological changes and produced higher estimates of the prevalence of use of cannabis and cocaine. For example, respondents were offered financial incentives to participate and the name of the survey was changed from the rather off-putting National Household Survey on Drug Use to the more neutral National Survey on Drug Use and Health. Not only did response rates rise by about 5 % (i.e. 80% of those approached to fill out the questionnaire agreed to do so, compared to 75% in 2001) but a higher percentage reported drug use; for example, the estimated number of new users of marijuana for the year 1995 rose from 2.5 million (using the 2001 survey) to 2.8 million using the 2002 survey.

2 This estimate comes from recently improved methods that are not comparable to previous government estimates of the number of problematic drug users in England.

3 The low figure for those aged 16–19 is deceptive, since a substantial fraction have not yet begun their drug using careers.

4 Figures from 2001 onwards are not directly comparable with earlier years due to a change in the survey methods. This is indicated by a broken rule between

2000 and 2001.

5 This is a surprising pattern. The rise in the younger age groups should trickle through in the following years to the older age groups; we can offer no explanation for the observed pattern, which suggests sharp declines in initiation rates for 13- and 14-year-olds around 2003 as initiation rates for 11- and 12-year-olds were rising.

6 Cannabis is used by more people but the harm they cause themselves and others individually and in total is much less.

7 The notification series certainly reflected changing medical behaviour; increased awareness of the problem of heroin addiction may have made it more likely that a heroin dependent patient would be reported by his or her doctor. Also, as treatment became increasingly available from 1965 onwards this contributed to the increase in notifications.

8 For Scotland specific heroin overdose figures are available only from 1992 onwards.

9 This refers to the number of seizures, a more stable indicator than the quantity seized, which can be driven by a small number of large seizures. Quantity seized rose by even more between 1997 and 2000 but is unstable year to year.

10 Parker and Egginton (undated) report similar data for an unnamed city in Derbyshire. Using self-reported year of initiation from a treatment sample in 2004, they find evidence that the number of initiates rose fairly steadily (in proportionate terms) over the entire period 1980 to 2000. In 1980 the number of initiates was less than 10; in 1990 it was 30 and by 2000 it was 100.

11 There are no long-term panel studies in the UK, but in the United States Hser *et al*. (2001) reported on a 33-year follow-up of some early heroin users who had been in a civil commitment programme. Nearly half of the original addicts – 284 of 581 – had died by 1996–97; of the 242 still living who were interviewed, 40% reported heroin use in the past year, and 60% were unemployed.

12 Injected mixtures of heroin and cocaine.

13 This proportion will be affected by the availability of treatment for crack problems, which is less widely available than, for example, prescription of methadone for heroin users.

14 Comparable figures are not available for Northern Ireland, although it has been suggested that drug use among young people has risen from relatively low levels since the ceasefires following the 1998 Good Friday Agreement.

15 Only 4.7% of the British people in the QCT Europe study sample who reported heroin as their main problem drug also reported recent use of powder cocaine (unpublished data).

16 Caution should be applied to the interpretation of these figures, which come from surveys in different years, using different methods (e.g. telephone or in-person interviews) and some different age ranges (the ranges start at 14 for Australia, 15 for Belgium, Greece, Spain, Ireland, Italy, Cyprus, Latvia,

Luxembourg, Northern Ireland, Netherlands, Portugal and Finland, 16 for Denmark, England and Wales and Poland, and 18 for USA, Czech Republic, Germany, Hungary, Malta, Slovakia and Sweden; they end between 59 and 64). Figures on heroin are not available from the EMCDDA for continental European countries.

17 Where the data is reported as a range, the average of the high and low end of the range has been used. The United States government does not use the category of 'problematic drug user' but a standard estimate of the number of those who are dependent on cocaine, heroin and methamphetamine (which is a rough approximation to 'problematic drug user') for 2000 was about 4 million (Office of National Drug Control Policy 2004). This would give a prevalence rate of about 20 per thousand persons aged 15–64.

18 Again, extreme caution should be applied when comparing these statistics (in Figures 2.7 and 2.8) from different years and counting methods.

Chapter 3: Drug problems in Britain

1 Data from the psychiatric morbidity survey suggests that high earners are more likely to take drugs, especially if they also have a university degree (Stevens 2003).

2 See the AMCD (2006) report, chapter 4, for a fuller discussion of the links between socio-economic deprivation, and other factors, in predicting drug use and dependency.

3 The same caution applies. These figures refer to national studies where they are available, and regional studies if not.

4 It has been suggested that those who inject crack are more likely to inject frequently, to share equipment and to risk the serious dangers of injecting in the groin. Crack injection seems to be increasingly common among injecting drug users, with reported rates of 40% among IDUs in some English cities (Rhodes *et al*. 2006).

5 It should be noted that these figures represent notifications to the Health Protection Agency, and not the actual incidence of hepatitis C. It is possible that the increases are due, in some part, to increased awareness and testing.

6 This is because only a small proportion of offences lead to arrest, and some people (especially previous arrestees and people whom the police recognise as drug users) may be more likely to be arrested for their crimes. This means that arrestees provide an unrepresentative sample of the population of offenders.

7 A study by the Irish police found that drug using offenders were almost twice as likely to be arrested as those offenders who were not drug users (Connolly 2006).

Chapter 4: The impact of current drug policies

1 This estimate is calculated by taking the Treasury's report of public expenditure in each of the relevant categories, and multiplying it by the proportion of that category that is estimated to relate to offences under the MDA (these estimated proportions are listed in the 'multiplier' column of Table 4.1). It does not include the costs of dealing with other offences that are committed by drug users. The breakdown of expenditure on prison and offender programmes spent on prisons and probation is based on the proportions reported in the Home Office accounts for 2004/5. The estimates rest on two fragile assumptions. First, that the share of arrests for a particular offence is a good measure of the share of all resources (including prevention, investigation and management) that police allocate to that offence category. Second, that drug arrests are as expensive as other kinds of arrests.

2 For example, an examination of stop and search practices in two English towns found that the over-representation of black people compared to their proportions in the residential population was actually in line with the ethnic make-up of the population that was 'available' on the streets during the times when stop and searches were most likely to happen (Waddington *et al.* 2004).

3 The Committee stated that this would enable the classification of harmfulness to be more flexible to emerging evidence and noted police comments that the current classification system is not a major factor in police decisions. It did not recommend an alternative method for determining penalties to be associated with drug offences.

4 The government itself was still using the 2002 forecasts rather than reports of actual expenditure in its 2005 report to the EMCDDA (Eaton *et al.* 2005).

5 These figures only include cases where drug possession was the principal offence. They exclude cases where the defendant was also convicted of a more serious offence. They do not include cases of possession with intent to supply. Available figures for sentences in Scotland are not split by type of offence or class of drug. In 2004/5, there were 973 custodial sentences, 1,028 community sentences, 4,633 fines and 820 cautions for drug law offences (Scottish Executive 2006a).

6 £36,535 per year per uncrowded prison place (Councell and Olagundoye 2003).

7 The average length of sentence for drug offences in 2005 was 35.8 months, compared to 17.8 months for violence against the person, and 35 months for robbery (RDS NOMS 2007).

8 The average age of both drug treatment clients and people who die from drugs has risen significantly since the 1980s (Laar *et al.* 2004).

9 Globally, it is estimated that over one-third of cocaine is seized by some governments (UNODC 2005); this has not prevented declining prices for cocaine in most nations with large user populations.

10 There is a suggested British example where seizure of drugs shifted, but did not reduce drug use. The largest seizure of amphetamines in the UK, a result of Operation Pirate in 1998, led to a temporary shortage of amphetamine. Cocaine and crack were becoming more available, and it has been argued that the seizure explains some of the move from amphetamine to cocaine that is seen in British Crime Survey figures (see Figures 2.1 and 2.2) (Atha 2006).
11 For a despairing and expert view of the prospects of eradicating Afghani opium production, see Mansfield and Pain (2006).
12 Methamphetamine provides an example of a potentially very harmful drug that is yet to establish a significant market share in the UK.
13 Ashton (1999) has criticised the use of marginal rather than full costs of treatment in this model.
14 It also confirms suggestions that offending tends to peak in the months before treatment entry, so that extrapolation from the NTORS sample's offending in the three months previous to treatment entry to all problematic drug users over a year, as carried out by Godrey *et al*. (2002), is likely to provide an overestimate.
15 The monitoring system changed in 2003/4, although an estimate that is comparable to the current system has been provided for 1998/9. Figures for 1999/0 to 2002/3 are estimated here by applying the percentage increases in the old monitoring system to that estimate for 1998/9.
16 These figures refer to those who are assessed for entry to structured drug treatment. Some of them may not make the transition into actually receiving treatment.
17 The system for generating data on waiting times is changing for the 2006/7 year.

Chapter 5: Policy and research issues

1 It is almost the exclusive indicator for the US National Drug Control Strategy. See Office of National Drug Control Policy (annual).

References

Academy of Medical Sciences (2004). *Calling time: The nation's drinking as a major health issue. A report from the Academy of Medical Sciences.* London: Academy of Medical Sciences.

ACMD (1988). *AIDS and drug misuse report: Part 1.* London: Advisory Council on the Misuse of Drugs.

ACMD (1998). *Drug misuse and the environment.* London: Advisory Council on the Misuse of Drugs.

ACMD (2000). *Reducing drug related deaths.* London: Advisory Council on the Misuse of Drugs.

ACMD (2003). *Hidden harm: Responding to the needs of children of problem drug users.* London: Advisory Council on the Misuse of Drugs.

ACMD (2005). *Further consideration of the classification of cannabis under the Misuse of Drugs Act 1971.* London: Home Office.

ACMD (2006). *Pathways to problems: Hazardous use of tobacco, alcohol and other drugs by young people in the UK and its implications for policy.* London: Advisory Council on the Misuse of Drugs.

ACPO (2007). *Guidance on policing cannabis.* London: Association of Chief Police Officers of England, Wales and Northern Ireland.

AIHW (2005). *Statistics on drug use in Australia 2004.* Canberra: Australian Institute of Health and Welfare.

Amato, L., Davoli, M., Perucci, C.A., Ferri, M., Faggiano, F. and Mattick, R.P. (2005). 'An overview of systematic reviews of the effectiveness of opiate maintenance therapies: Available evidence to inform clinical practice and research.' *Journal of Substance Abuse Treatment*, 28(4), 321–329.

Anglin, M.D. and Speckart, G. (1988). 'Narcotics use and crime: A multisample, multiperiod analysis.' *Criminology*, 26, 197–233.

Ashton, M. (1999). 'NTORS: The most crucial test yet for addiction treatment in Britain.' *Drug and Alcohol Findings*, 2, 18–22.

Atha, M.J. (2006). *Cannabis use in Britain.* London: Independent Drug Monitoring Unit.

Aust, R. and Smith, N. (2003). 'Ethnicity and drug use: Key findings from the 2001/2002 British Crime Survey.' *Findings 209.* London: Home Office.

Ayres, M. and Murray, L. (2005). 'Arrests for recorded crime (notifiable offences) and the operation of certain police powers under PACE. England and Wales, 2004/05.' *Home Office Statistical Bulletin 21/05*. London: Home Office.

Bean, P. (1993). 'Cocaine and crack: The promotion of an epidemic.' In P. Bean (ed.), *Cocaine and crack: Supply and use*. London: The Macmillan Press.

Belenko, S., Patapis, N. and French, M.T. (2005). *Economic benefits of drug treatment: a critical review of the evidence for policy makers*. Philadelphia, PA: Treatment Research Institute at the University of Pennsylvania.

Bennett, T. and Holloway, K. (2005). *Understanding drugs, alcohol and crime*. Maidenhead: Open University Press.

Best, D. (2004). 'Delivering better treatment: What works and why?' NTA National Conference, London.

Best, D., Strang, J., Beswick, T. and Gossop, M. (2001). 'Assessment of a concentrated, high-profile police operation: No discernible impact on drug availability, price or purity.' *British Journal of Criminology*, 41(4), 738–745.

Bird, S.M. and Hutchinson, S.J. (2003). 'Male drugs-related deaths in the fortnight after release from prison: Scotland 1996–99.' *Addiction* (98), 185–190.

Bjork, J.M., Grant, S.J. and Hommer, D.W. (2003). 'Cross-sectional volumetric analysis of brain atrophy in alcohol dependence: Effects of drinking history and comorbid substance use disorder.' *American Journal of Psychiatry*, 160(11), 2038–2045.

Blackman, S. (2004). *Chilling out: The cultural politics of substance consumption, youth and drug policy*. Maidenhead: Open University Press.

Boreham, R., Fuller, E., Hills, A. and Pudney, S. (2006). 'The Arrestee Survey annual report: October 2003–September 2004. England and Wales.' *Home Office Statistical Bulletin 04/06*. London: Home Office.

Boyum, D. and Reuter, P. (2005). *An analytic assessment of US drug policy*. Washington DC: The AEI Press.

Budd, T. (2003). *Alcohol-related assault: Findings from the British Crime Survey*. Home Office Online Report 35/03. London: Home Office.

Budd, T., Collier, P., Mhlanga, B., Sharp, C.and Weir, G. (2005a). *Levels of self-report offending and drug use among offenders: Findings from the Criminality Surveys*. Home Office Online Report 18/05. London: Home Office.

Budd, T., Sharp, C., Weir, G., Wilson, D. and Owen, N. (2005b). 'Young people and crime: Findings from the 2004 Offending, Crime and Justice Survey.' *Home Office Statistical Bulletin 20/05*. London: Home Office.

Bush, W., Roberts, M. and Trace, M. (2004). *Upheavals in the Australian drug market: Heroin drought, stimulant flood*. London: DrugScope and the Beckley Foundation.

Caulkins, J.P. (2004). 'Law enforcement's role in a harm reduction regime.' In K. Malinowska-Sempruch and S. Gallagher (eds), *War on drugs, HIV/AIDS and human rights*. New York: International Debate Education Association.

Caulkins, J.P., Everingham, S.S., Rydell, C.P., Chiesa, J. and Bushway, S. (1999). 'An ounce of prevention, a pound of uncertainty: The cost-effectiveness of school-based drug prevention programs.' Santa Monica, CA: RAND Corporation.

Caulkins, J.P., Knoll, C., Tragler, G. and Zuba, D. (2004). 'Modeling dynamic trajectories of initiation and demand: The case of the US cocaine epidemic.' *Healthcare Management Science*, 7: 319–329.

CCENDU (2006). *National Mortality Report*. Canadian Centre on Substance Abuse. Available from: http://www.ccsa.ca/NR/rdonlyres/D3F2E5D2-C941-4F55-B5A8-FF2BF116C37B/0/ccsaCCENDUNatlmortality2006e.pdf (accessed 14 October 2006).

Connolly, J. (2006). *Drugs and crime in Ireland*. Overview 3. Dublin: Health Research Board.

Coulthard, M., Farrell, M., Singleton, N. and Meltzer, H. (2002). *Tobacco, alcohol and drug use and mental health*. London: Office for National Statistics.

Councell, R. and Olagundoye, J. (2003). 'The prison population in 2001: A statistical review.' *Findings 195*. London: Home Office.

Cuppleditch, L. and Evans, W. (2005). 'Re-offending of adults: Results from the 2002 cohort.' *Home Office Statistical Bulletin 25/05*. London: Home Office.

Dackis, C.A., Kampman, K.M., Lynch, K.G., Pettinati, H.M. and O'Brien, C.P. (2004). 'A double-blind, placebo-controlled trial of Modafinil for cocaine dependence.' *Neuropsychopharmacology*, 30(1), 205–211.

Dafters, R.I., Hoshi, R. and Talbot, A.C. (2004). 'Contribution of cannabis and MDMA ("ecstasy") to cognitive changes in long-term polydrug users.' *Psychopharmacology*, V173(3), 405410.

Darke, S. and Zador, D. (1996). 'Fatal heroin "overdose": A review.' *Addiction*, 91(12), 1765–1772.

De Silva, N. (2005). 'Sentencing statistics 2004.' *Home Office Statistical Bulletin 15/05*. London: Home Office.

Degenhardt, L., Day, C., Gilmour, S. and 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).

DfES (2004). *Drugs: Guidance for schools*. London: Department for Education and Skills.

Ditton, J. and Frischer, M. (2001). 'Computerised projection of future heroin epidemics: A necessity for the 21st century?' *Journal of Substance Use and Abuse*, 36(1–2), 151–166.

Dorling, D. (2006). *Crime, poverty and place: 17th Eve Saville Memorial Lecture, 27th June 2006*. The Centre for Crime and Justice Studies. Available from: http://www.kcl.ac.uk/depsta/rel/ccjs/eve-saville-2006.html (accessed 17 August 2006).

Dorn, N. and Jamieson, A. (2000). *Room for manoeuvre: Overview of comparative legal research into national drug laws of France, Germany, Italy, Spain, the Netherlands and Sweden and their relation to three international drugs conventions*. London: Drugscope.

D'Souza, R., Glynn, M.J., Ushiro-Lumb, I., Feakins, R., Domizio, P., Mears, L., Alsced, E., Kumar, P., Sabine, C.A. and Foster, G.R. (2005). 'Prevalence of hepatitis C-related cirrhosis in elderly Asian patients infected in childhood.' *Clinical Gastroenterology and Hepatology*, 3(9), 910–917.

Duke, K. (2003). *Drugs, prisons and policy-making*. Basingstoke: Palgrave.

Duke, K. (2006). 'Out of crime and into treatment? The criminalization of contemporary drug policy since *Tackling Drugs Together*.' *Drugs: Education, Prevention and Policy*, 13(5), 409–415.

Eaton, G., Morleo, M., Lodwick, A., Bellis, M.A. and McVeigh, J. (2005). *United Kingdom drug situation: Annual report to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) 2005*. London: Department of Health.

Eiserman, J., Diamond, S. and Schensul, J. (2005). '"Rollin on E": A qualitative analysis of ecstasy use among inner city adolescents and young adults.' *Journal of Ethnicity in Substance Abuse*, 4(2): 9–38.

Eley, S., Gallop, K., McIvor, G., Morgan, K. and Yates, R. (2002). *Drug treatment and testing orders: Evaluation of the Scottish pilots*. Edinburgh: Scottish Executive Central Research Unit.

Elliott, L., Orr, L., Watson, L. and Jackson, A. (2002). *Drug treatment services for young people: A systematic review of effectiveness and the legal framework*. Edinburgh: Effective Interventions Unit. Scottish Executive Drug Misuse Research Programme.

EMCDDA (2005). *Annual report 2005: The state of the drugs problem in Europe*. Luxembourg: Office for Official Publications of the European Communities.

EMCDDA (2006). *Annual report 2006: The state of the drugs problem in Europe*. Luxembourg: Office for Official Publications of the European Communities.

Ensminger, M.E., Juon, H.S. and Fothergill, K.E. (2002). 'Childhood and adolescent antecedents of substance use in adulthood.' *Addiction*, 97(7), 833–844.

Farabee, D., Joshi, V. and Anglin, M.D. (2001). 'Addiction careers and criminal specialization.' *Crime and Delinquency*, 47(2), 196–220.

Farrell, M., Boys, A., Bebbington, P., Brugha, T., Coid, J., Jenkins, R., Lewis, G., Meltzer, H., Marsden, J., Singleton, N. and Taylor, C. (2002). 'Psychosis and drug dependence: Results from a national survey of prisoners.' *British Journal of Psychiatry*, 181(5), 393–398.

Financial Secretary to the Treasury (2006). Home Office Resource Accounts, 2004–05. London: The Stationery Office.

Fletcher, D.R. (2001). 'Ex-offenders, the labour market and the new public administration.' *Public Administration*, 79(4), 871–891.

Fletcher, R. (2006). Personal communication with the authors.

Foster, G. (2006). 'Hepatitis C: Disease, treatment and prognosis.' *Release Drugs University V.* London: RIBA.

Friedman, S.R., Cooper, H., Tempalski, B., Keem, M., Friedman, R., Flom, P. and Des Jarlais, D.C. (2006). 'Relationships of deterrence and law enforcement to drug-related harms among drug injectors in US metropolitan areas.' *AIDS*, 20(1), 93–99.

GAO (2003). *Youth illicit drug use prevention: DARE long-term evaluations and federal efforts to identify effective programs*. GAO-03-172R. Washington, DC: General Accounting Office.

GAO (2006). *ONDCP media campaign: Contractor's national evaluation did not find that the youth anti-drug media campaign was effective in reducing youth drug use*. GAO-06-818. Washington DC: General Acountability Office.

Ghodse, H., Corkery, J., Oyefeso, A., Schifano, F., Tonia, T. and Annan, J. (2006). *Drug-related deaths in the UK*. London: International Centre for Drug Policy.

Godfrey, C., Eaton, G., McDougall, C. and Culyer, A. (2002). 'The economic and social costs of Class A drug use in England and Wales, 2000.' *Home Office Research Study 249*. London: Home Office.

Godfrey, C., Stewart, D. and Gossop, M. (2004). 'Economic analysis of costs and consequences of the treatment of drug misuse: 2-year outcome data from the National Treatment Outcome Research Study (NTORS).' *Addiction*, 99(6), 697–707.

Goldstein, P. (1985). 'The drugs–violence nexus: A tripartite framework.' *Journal of Drug Issues*, 15, 493–506.

Gordon, L., Tinsley, L., Godfrey, C. and Parrott, S. (2006). 'The economic and social costs of Class A drug use in England and Wales, 2003/04.' In N. Singleton, R. Murray and L. Tinsley (eds), *Measuring different aspects of problem drug use: Methodological developments*. London: Home Office.

Gossop, M., Manning, V. and Ridge, G. (2006a). 'Concurrent use of alcohol and cocaine: Differences in patterns of use and problems among users of crack cocaine and cocaine powder.' *Alcohol and Alcoholism*, 41(2), 121–125.

Gossop, M., Trakada, K., Stewart, D. and Witton, J. (2006b). 'Levels of conviction following drug treatment: Linking data from the National Treatment Outcome Research Study and the Offenders Index.' *Findings 275*. London: Home Office.

Gostin, L. and Mann, J. (2004). 'Toward the development of a human rights impact assessment for the formulation and evaluation of public health policies.' In K. Malinowska-Sempruch and S. Gallagher (eds), *War on drugs, HIV/AIDS and human rights*. New York: International Debate Education Association.

Gottfredson, D.C. and Gottfredson, G.D. (2002). 'Quality of school-based prevention programs: Results from a national survey.' *Journal of Research in Crime and Delinquency*, 39(1), 3–35.

Gottfredson, G.D., Gottfredson, D.C. and Czeh, E.R. (2000). *National study of*

delinquency prevention in schools. Ellicott City, MD: Gottfredson Associates Inc.

Goulden, C. and Sondhi, A. (2001). 'At the margins: Drug use by vulnerable young people in the 1998/99 Youth Lifestyles Survey.' *Home Office Research Study 228*. London: Home Office.

Gouzoulis-Mayfrank, E. and Daumann, J. (2006). 'The confounding problem of polydrug use in recreational ecstasy/MDMA users: A brief overview.' *Journal of Psychopharmacology*, 20(2), 188–193.

Granfield, R. and Cloud, W. (2001). 'Social context and "natural recovery"': The role of social capital in the resolution of drug-associated problems.' *Substance Use and Misuse*, 36(11), 1543–1570.

Grund, J.-P., Stern, L.S., Kaplan, C., Adriaans, N.F. and Drucker, E. (1992). 'Drug use contexts and HIV consequences: The effect of drug policy in patterns of everyday use in Rotterdam and the Bronx.' *British Journal of Addiction*, 87, 381–392.

Guttinger, F., Gschwend, P., Schulte, B., Rehm, J. and Uchtenhagen, A. (2003). 'Evaluating long-term effects of heroin-assisted treatment: The results of a 6-year follow-up.' *European Addiction Research*, 9(2), 73–79.

Hall, W., Ross, J., Lynskey, M., Law, M. and Degenhardt, L. (2000). 'How many opioid users are there in Australia?' *Medical Journal of Australia*, 173, 528–531.

Harman, K. and Paylor, I. (2005). 'An Evaluation of the CARAT Initiative.' *The Howard Journal*, 44(4), 357–373.

Harris, Z.K. (2006). 'Efficient allocation of resources to prevent HIV infection among injection drug users: The Prevention Point Philadelphia (PPP) needle exchange program.' *Health Economics*, 15(2), 147–158.

Hawthorne, G. (2001). 'Drug education: Myth and reality.' *Drug and Alcohol Review*, 20(1), 111–119.

Hay, G., Gannon, M., MacDougall, J., Millar, T., Eastwood, C., McKeganey, N. and Gordon, L. (2006). 'Local and national estimates of the prevalence of opiate use and/or crack cocaine use (2004/05).' In N. Singleton, R. Murray and L. Tinsley (eds), *Measuring different aspects of problem drug use: Methodological developments*. London: Home Office.

Hayes, P. (2001). 'Select Committee on Home Affairs Memoranda. Memorandum 46, submitted by the National Treatment Agency (NTA).' London: The Stationery Office.

Hayes, P. (2005). 'Debate: This house believes that we need more coercive testing and treatment services.' *National Drug Treatment Conference, 21 February*. London: Exchange Supplies.

Hayes, P. (2006). 'Board meeting on 16th May 2006: Chief Executive's report.' National Treatment Agency for Substance Misuse. Available from: http://www.nta.nhs.uk/ (accessed 6 September 2006).

Hernandez-Aguado, I., Avino, M.J., Perez-Hoyos, S., Gonzalez-Aracil, J., Ruiz-Perez, I., Torrella, A., de la Hera, M.G., Belda, F., Fernandez, E., Santos, C., Trullen, J. and Fenosa, A. (1999). 'Human immunodeficiency virus (HIV) infection in parenteral drug users: Evolution of the epidemic over 10 years.' *International Journal of Epidemiology*, 28(2), 335–340.

Hickman, M., Carnwath, Z., Madden, P., Farrell, M., Rooney, C., Ashcroft, R., Judd, A. and Stimson, G. (2003). 'Drug-related mortality and fatal overdose risk: Pilot cohort study of heroin users recruited from specialist drug treatment sites in London.' *Journal of Urban Health – Bulletin of the New York Academy of Medicine*, 80(2), 274–287.

Hickman, M., Higgins, V., Hope, V., Bellis, M., Tilling, K., Walker, A. and Henry, J. (2004). 'Injecting drug use in Brighton, Liverpool, and London: Best estimates of prevalence and coverage of public health indicators.' *Journal of Epidemiology and Community Health*, 58(9), 766–771.

Higgins, K., Percy, A. and McCrystal, P. (2004). 'Secular trends in substance use: The conflict and young people in Northern Ireland.' *Journal of Social Issues*, 60, 485–506.

HM Treasury (2005). *Public expenditure statistical analyses 2005*. Cm 6521. London: HMSO.

Holloway, K., Bennett, T. and Lower, C. (2004). 'Trends in drug use and offending: The results of the New-ADAM Programme 1999–2002.' *Findings 219*. London: Home Office.

Home Affairs Select Committee (2002). *The government's drug policy: Is it working? Third report. Session 2001–2002 HC 318*. London: The Stationery Office.

Home Office (2002). *The government reply to the third report from the Home Affairs Select Committee Session 2001–2002 HC 318. The government's drug policy: Is it working?* Cm 5573. London: The Stationery Office.

Home Office (2005a). *Statistics on race and the criminal justice system – 2004*. London: Home Office.

Home Office (2005b). *Criminal statistics, England and Wales 2004*. Supplementary tables. London: Home Office.

Home Office (2005c). 'Press release: Cannabis reclassification.' London: Home Office.

Home Office (2005d). *Tackling drugs. Changing lives: Turning strategy into reality*. London: Home Office.

Home Office (2006a). *Seizures of drugs in England and Wales, 2004*. London: Home Office.

Home Office (2006b). *'Positive futures' impact report: End of season review*. London: Home Office.

Home Office (2006c). *Drug classification: Making a hash of it? The government reply to the fifth report from the House of Commons Science and Technology Committee 2005–6 HC1301*. London: HMSO.

Hope, T. (2001). 'Crime victimisation and inequality in risk society.' In R. Matthews and J. Pitts (eds), *Crime, disorder and community safety: A new agenda?* London: Routledge.

Hope, V.D., Hickman, M. and Tilling, K. (2005). 'Capturing crack cocaine use: estimating the prevalence of crack cocaine use in London using capture-recapture with covariates.' *Addiction*, 100(11), 1701–1708.

Hope, V.D., Judd, A., Hickman, M., Lamagni, T., Hunter, G., Stimson, G.V., Jones, S., Donovan, L., Parry, J.V. and Gill, O.N. (2001). 'Prevalence of hepatitis C among injection drug users in England and Wales: Is harm reduction working?' *American Journal of Public Health*, 91(1), 38–42.

Hops, H., Tildesley, E., Lichtenstein, E., Ary, D. and Sherman, L. (1990). 'Parent–adolescent problem-solving interactions and drug use.' *American Journal of Drug and Alcohol Abuse*, 16, 239–258.

House of Commons Defence Committee (2006). *Costs of peace-keeping in Iraq and Afghanistan: Spring supplementary estimate 2005–06. Fourth report of session 2005–06.* London: The Stationery Office.

House of Commons Science and Technology Committee (2006). *Drug classification: Making a hash of it?* London: The Stationery Office.

Howells, K. (2006). *Hansard* 12 July 2006: Column 1908W. London: Stationery Office.

HPA (2006). 'Press release: HIV in injecting drug users reaches highest levels for a decade.' 16 March. London: Health Protection Agency.

HPA, Health Protection Scotland, National Public Health Service for Wales, CDSC Northern Ireland and CRDHB (2006). *Shooting up: Infections among injecting drug users in the United Kingdom 2005. An update – October 2006.* London: Health Protection Agency.

Hser, Y.-I., Hoffman, V., Grella, C.E. and Anglin, M.D. (2001). 'A 33-year follow-up of narcotics addicts.' *Archives of General Psychiatry*, 58(5), 503–508.

Hucklesby, A., Eastwood, C., Seddon, T. and Spriggs, A. (2005). *The evaluation of the Restriction on Bail pilots: Implementation lessons from the first six months.* Home Office Online Report 36/05. Home Office: London.

Hucklesby, A., Eastwood, C., Seddon, T. and Spriggs, A. (2007). *The evaluation of the Restriction on Bail pilots: Final report.* Home Office Online Report 06/07. Home Office: London.

Hunt, I.M., Kapur, N., Robinson, J., Shaw, J., Flynn, S., Bailey, H., Meehan, J., Bickley, H., Parsons, R., Burns, J., Amos, T. and Appleby, L. (2006). 'Suicide within 12 months of mental health service contact in different age and diagnostic groups: National clinical survey.' *British Journal of Psychiatry*, 188, 135–142.

Hunt, L.G. (1974). 'Recent spread of heroin use in the United States.' *American Journal of Public Health*, 64 (Supplement), 16–23.

Hunt, L.G. and Chambers, C. (1976). *The heroin epidemics: A study of heroin use in the United States: 1965–75.* New York: Spectrum Press.

Hunt, N. (2003). *A review of the evidence-base for harm reduction approaches to drug use*. London: Forward Thinking on Drugs.

Hunt, N. (2004). 'Public health or human rights: What comes first?' *International Journal of Drug Policy*, 15, 231–237.

Hunt, N., Lenton, S. and Witton, J. (2006). *Cannabis and mental health: Responses to the emerging evidence. Report eight*. Oxford: Beckley Foundation.

Ihlanfeldt, K.R. (2007). 'Neighbourhood drug crime and young males' job accessibility.' *The Review of Economics and Statistics,* 89(1), 151–164.

Independent Inquiry into the Misuse of Drugs Act 1971 (2000). *Drugs and the law. (Runciman report)*. London: Police Foundation.

Independent Working Group (2006). *Drug consumption rooms: Summary report of the Independent Working Group*. York: Joseph Rowntree Foundation.

Ipsos MORI (2002). *Lambeth cannabis policing experiment*. Ipsos MORI. Available from: http://www.mori.com/polls/2002/polfound.shtml (accessed 17 November 2006).

Ives, R. and Wyvill, B. (2000). *Evaluating public information campaigns on drugs: A summary report*. Belfast: Health Promotion Agency for Northern Ireland.

James, J. (2006). Personal communication. Faversham: Abbey School.

Jelsma, M. and Kramer, T. (2005). 'Downward spiral: Banning opium in Afghanistan and Burma.' *TNI Briefing Series No. 2005/2*. Amsterdam: Transnational Institute.

Jelsma, M., Kramer, T. and Rivier, C. (2006). 'Losing ground: Drug control and war in Afghanistan.' *TNI Briefing Series No 2006/5*. Amsterdam: Transnational Institute.

Joint Committee on Human Rights (2004). *Seventh report: Drugs bill*. London: UK Parliament.

Judd, A., Hickman, M., Jones, S., McDonald, T., Parry, J.V., Stimson, G.V. and Hall, A.J. (2005). 'Incidence of hepatitis C virus and HIV among new injecting drug users in London: Prospective cohort study.' *British Medical Journal*, 330 (7481), 24–25.

Kohn, M. (2001). *Dope girls: The birth of the British drug underground*. London: Granta Books.

Kuziemko, I. and Levitt, S. (2004). 'An empirical analysis of imprisoning drug offenders.' *Journal of Public Economics*, 88(9–10): 2043–2066.

Laar, M.v., Gageldonk, A.v., Ketelaars, T., Ooyen, M.v., Cruts, G. and Gelder, P.v. (2004). *The Netherlands Drug Situation, 2004: Report to the EMCDDA*. Utrecht: Trimbos Institute.

Liddle, H.A., Dakof, G.A., Parker, K., Diamond, G.S., Barrett, K. and Tejeda, M. (2001). 'Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial.' *American Journal of Drug and Alcohol Abuse*, 27(4), 651–688.

Livingstone, G. (2004) *Inside Colombia: Drugs, democracy, and war*. New Brunswick: Rutgers University Press.

Lupton, R., Wilson, A., May, T., Warburton, H. and Turnbull, P.J. (2002). 'A rock and a hard place: Drug markets in deprived neighbourhoods.' *Home Office Research Study 240*. London: Home Office.

Lurigio, A.J. and Schwartz, J.A. (1999). 'The nexus between drugs and crime: Theory, research and practice. *Federal Probation*, 63, 67–72.

MacCoun, R. (1998). 'Biases in the interpretation and use of research results.' *Annual Review of Psychology*, 49, 259–287.

MacCoun, R. and Reuter, P. (2001). 'Evaluating alternative cannabis regimes.' *British Journal of Psychiatry*, 178, 123–128.

MacDonald, Z., Collingwood, J. and Gordon, L. (2006). *Measuring the harm from illegal drugs using the Drug Harm Index: An update*. Home Office Online Report 08/06. London: Home Office.

MacDonald, Z., Tinsley, L., Collingwood, J., Jamieson, P. and Pudney, S. (2005). *Measuring the harm from illegal drugs using the Drug Harm Index*. Home Office Online Report 24/05. London: Home Office.

McGrath, Y., Sumnall, H., McVeigh, J. and Bellis, M. (2006). *Drug use prevention among young people: A review of reviews. Evidence briefing update*. London: National Institute for Health and Clinical Excellence.

McGregor, J., Marks, P.J., Hayward, A., Bell, Y. and Slack, R.C.B. (2003). 'Factors influencing hepatitis B vaccine uptake in injecting drug users.' *Journal of Public Health Medicine*, 25(2), 165–170.

McIvor, G. (2004). *Reconviction following drug treatment and testing orders*. Edinburgh: Scottish Executive.

McKeganey, N. (2005). *Random drug testing of schoolchildren: A shot in the arm or a shot in the foot for drug prevention?* York: Joseph Rowntree Foundation.

McKeganey, N., Connelly, C., Knepil, J., Norrie, J. and Reid, L. (2000). *Interviewing and drug testing of arrestees in Scotland: A Pilot of the Arrestee Drug Abuse Monitoring (ADAM) Methodology*. Edinburgh: The Scottish Executive Central Research Unit.

McLellan, A.T. and Marsden, J. (2003). *Contemporary drug abuse treatment: A review of the evidence base*. New York: United Nations Office on Drugs and Crime.

McSweeney, T., Stevens, A., Hunt, N. and Turnbull, P. (2006). 'Twisting arms or a helping hand? Assessing the impact of "coerced" and comparable "voluntary" drug treatment options.' *British Journal of Criminology*, Advance Access (doi:10.1093/bjc/azl087).

McVie, S. and Norris, P. (2006). *Neighbourhood effects on youth delinquency and drug use. Edinburgh study on youth transitions and crime. Number 10*. Edinburgh: University of Edinburgh.

McVie, S., Campbell, S. and Lebov, K. (2003). *Scottish Crime Survey*. Edinburgh: Scottish Executive Social Research.

Mansfield, D. and Pain, A. (2006). *Opium poppy eradication: How to raise risk when there is nothing to lose?* Kabul: Afghanistan Research and Evaluation Unit.

Marteau, D. (2006). *Clinical management of substance misuse: Presentation at prisons and beyond...2006*. Federation of Drug and Alcohol Professionals. Available from: http://www.fdap.org.uk/fdapevents/prisons2006.html (accessed 28 November 2006).

Matrix MHA and NACRO (2003). 'Evaluation of drug testing in the criminal justice system in nine pilot areas.' *Findings 180*. London: Home Office.

Matrix Research and Consultancy and ICPR (2007). *Evaluation of Drug Interventions Programme pilots for children and young people: Arrest referral, drug testing and drug treatment and testing requirements*. Home Office Online Report 07/07. London: Home Office. Available from: http://www.homeoffice.gov.uk/rds/pdfs07/rdsolr0707.pdf (accessed 13 February 2007).

May, C. (2005). 'The CARAT drug service in prisons: Findings from the research database.' *Findings 262*. London: Home Office.

May, T., Duffy, M., Few, B. and Hough, M. (2005). *Understanding drug selling in communities: Insider or outsider trading?* York: Joseph Rowntree Foundation.

May, T., Warburton, H. and Turnbull, P. (2002). *Times they are a changing: Policing of cannabis*. York: Joseph Rowntree Foundation.

Mazerolle, L., Soole, D. and Rombouts, S. (2005). *Drug law enforcement: The evidence. Drug Policy Modelling Project monograph 05*. Fitzroy, Victoria: Turning Point Alcohol and Drug Centre.

Measham, F. (2004). 'The decline of ecstasy, the rise of binge drinking and the persistence of pleasure.' *Probation Journal*, 51(4), 309–326.

Menezes, P.R., Johnson, S., Thornicroft, G., Marshall, J., Prosser, D., Bebbington, P. and Kuipers, E. (1996). 'Drug and alcohol problems among individuals with severe mental illness in South London.' *British Journal of Psychiatry*, 168, 612–619.

Metropolitan Police (2006). *Policy on possession of cannabis - enforcement policy following its classification from a Class B drug to a Class C controlled drug: Monitoring report*. Metropolitan Police. Available from: http://www.met.police.uk/foi/pdfs/policies/cannabis_monitoring_report.pdf (accessed 14 November 2006).

Miles, H., Johnson, S., Amponsah-Afuwape, S., Finch, E., Leese, M. and Hornicroft, G. (2003). 'Characteristics of subgroups of individuals with psychotic illness and a comorbid substance use disorder.' *Psychiatric Services*, 54(4), 554–561.

Millar, T., Donmall, M. and Jones, A. (2004). *Treatment effectiveness: Demonstration analysis of treatment surveillance data about treatment completion and retention*. London: National Treatment Agency for Substance Misuse.

Millar, T., Gemmell, I., Hay, G., Heller, R.F. and Donmall, M. (2006). 'How well do trends in incidence of heroin use reflect hypothesised trends in prevalence of problem drug use in the North West of England?' *Addiction Research & Theory*, 14(5), 537–549.

Morgan, M.J. (2000). 'Ecstasy (MDMA): A review of its possible persistent psychological effects.' *Psychopharmacology*, 152(3), 230–248.

Moss, A. (1987). 'AIDS and intravenous drug use: The real heterosexual epidemic.' *British Medical Journal*, 294(6569), 389–390.

Mott, J. and Bean, P. (1998). 'The development of drug control in Britain.' In R. Coomber (ed.), *The control of drugs and drug users: Reason or reaction*. Amsterdam: Harwood.

Murray, L. and Harkins, J. (2006). *Drug misuse in Scotland: Findings from the 2004 Scottish Crime and Victimisation Survey*. Edinburgh: Scottish Executive Social Research.

Mwenda, L. (2005). 'Drug offenders in England and Wales 2004.' *Home Office Statistical Bulletin 23/05*. London: Home Office.

Najavits, L.M., Schmitz, M., Gotthardt, S. and Weiss, R.D. (2005). 'Seeking safety plus exposure therapy: An outcome study on dual diagnosis men.' *Journal of Psychoactive Drugs*, 37(4), 425–435.

NatCen/NFER (2006). *Drug use, smoking and drinking among young people in England in 2005: Headline figures*. London: NHS Health and Social Care Information Centre.

Newcombe, R. (2006). *A review of the UK Drug Strategy PSA Targets and Drug Harm Index*. Manchester: Lifeline.

NICE (2006). 'Peginterferon alfa and ribavirin for the treatment of mild chronic hepatitis C.' *NICE technology appraisal guidance 106*. London: National Institute for Health and Clinical Excellence.

NICE (2007a). 'Methadone and buprenorphine for the management of opioid dependence.' *NICE technology appraisal 114*. London: National Institute for Health and Clinical Excellence.

NICE (2007b). 'Naltrexone for the management of opioid dependence.' *NICE technology appraisal 115*. London: National Institute for Health and Clinical Excellence.

NICE (2007c). *Opiate detoxification for drug misuse. Draft for consultation*. London: National Institute for Health and Clinical Excellence.

NICE (2007d). *Psychosocial management of drug misuse. Draft for consultation*. London: National Institute for Health and Clinical Excellence.

Nicholas, S., Povey, D., Walker, A. and Kershaw, C. (2005). *Crime in England and Wales, 2004/2005*. London: Home Office.

NTA (2004). *Reducing drug-related deaths: Guidance for drug treatment providers*. London: National Treatment Agency for Substance Misuse.

NTA (2005a). *Statistics from the National Drug Treatment Monitoring System for 12 months ending March 2004*. National Treatment Agency for Substance Misuse. Available from: http://www.nta.nhs.uk/ (accessed 4 August 2006).

NTA (2005b). *Statistics from the National Drug Treatment Monitoring System*. 1st April 2004 – 31st March 2005. London: National Treatment Agency for Substance Misuse.

NTA (2006). *Performance information*. National Treatment Agency for Substance Misuse. Available from: http://www.nta.nhs.uk/frameset.asp?u=http://www.nta.nhs.uk/programme/national/performance_information.htm (accessed 29 November 2006).

Office of National Drug Control Policy (annual) *National drug control strategy.* Washington DC: Executive Office of the President.

Ofsted (2005). *Drug education in schools.* London: Office of Her Majesty's Chief Inspector of Schools.

Oliver, P. and Keen, J. (2003). 'Concomitant drugs of misuse and drug using behaviours associated with fatal opiate-related poisonings in Sheffield, UK, 1997–2000.' *Addiction*, 98(2), 191–197.

ONS (2006). *Deaths related to drug poisoning: England and Wales*. National Statistics Online. Available from: http://www.statistics.gov.uk/statbase/Product.asp?vlnk=11695 (accessed 7 August 2006).

Oyefeso, A., Ghodse, A.H., Clancy, C., Crawford, V. and Byrne, S. (1998). 'Co-morbidity of personality disorder in opiate addicts.' *Chinese Journal of Drug Dependence*, 7(2), 115–116.

Pacula, R., Chriqui, J. and King, J. (2004). *Marijuana decriminalization: What does it mean in the United States?* Santa Monica, CA: RAND.

Parker, H. (2004). 'The new drugs interventions industry: What outcomes can drugs/criminal justice treatment programmes realistically deliver?' *Probation Journal*, 51(4), 379–386.

Parker, H. (2005). 'Normalization as a barometer: Recreational drug use and the consumption of leisure by younger Britons.' *Addiction Research and Theory*, 13(3), 205–215.

Parker, H. and Egginton, R. (undated). *Managing local heroin-crack problems: Hard lessons about policing drug markets and treating problem users. Final report from the Derbyshire Drug Market Project.* Manchester: SPARC, Manchester University.

Parker, H., Bakx, K. and Newcombe, R. (1988). *Living with heroin: The impact of a drugs 'epidemic' in an English community.* Milton Keynes: Open University Press.

Parker, H., Aldridge, J. and Measham, F. (1998a). *Illegal leisure: The normalization of adolescent recreational drug use.* London: Routledge

Parker, H., Bury, C. and Egginton, R. (1998b). *New heroin outbreaks amongst young people in England and Wales.* London: Home Office Police Research Group.

Pearson, G. (1991). 'Drug-control policies in Britain.' In M. Tonry (ed.), *Crime and Justice Review, Vol. 14*. Chicago, IL: Chicago University Press.

Pearson, G. and Gilman, M. (1994). 'Local and regional variations in drug misuse: The British heroin epidemic of the 1980s.' In M. Gossop and J. Strang (eds), *Responding to drug misuse: The British system*. Oxford: Oxford University Press.

Pearson, G. and Hobbes, D. (2001). *Middle market drug distribution*. Home Office Research Study no. 227. London: Home Office.

Phillips, M. (2004). 'Reclassify cannabis upwards.' *Daily Mail*, 8 January.

PMSU (2003). *SU drugs report. Phase 2 report: Diagnosis and recommendations*. London: Prime Minister's Strategy Unit.

Pollack, H. and Reuter, P. (2007). 'The implications of recent findings on the link between cannabis and psychosis.' *Addiction*, 102, 173–176.

Poynard, T. (2004). 'Recent developments in hepatitis C diagnostics and treatment.' In J. Jager, W. Limburg, M. Kretzschmar, M. Postma and L. Wiessing (eds), *Hepatitis C and injecting drug use: Impact, costs and policy options. EMCDDA Monograph 7*. Lisbon: European Monitoring Centre on Drugs and Drug Addiction.

Prendergast, M.L., Podus, D., Chang, E. and Urada, D. (2002). 'The effectiveness of drug abuse treatment: A meta-analysis of comparison group studies.' *Drug and Alcohol Dependence*, 67(1), 53–72.

PRS (2002). *Evaluation of Lambeth's pilot of warnings for possession of cannabis: Summary of final report*. London: PRS Consultancy Group.

Pudney, S., Badillo, C., Bryan, M., Burton, J., Conti, G. and Iacovou, M. (2006). 'Estimating the size of the UK illicit drug market.' In N. Singleton, R. Murray and L. Tinsley (eds), *Measuring different aspects of problem drug use: Methodological developments*. London: Home Office.

Rammell, B. (2005). *Hansard* 7 April: Column 1774W. London: Stationery Office.

RDS NOMS (2005). 'Offender management caseload statistics 2004.' *Home Office Statistical Bulletin 17/05*. England and Wales. London: Home Office.

RDS NOMS (2007). 'Sentencing statistics 2005.' *Home Office Statistical Bulletin 03/07*. London: Home Office.

Rehm, J., Gschwend, P., Steffen, T., Gutzwiller, F., Dobler-Mikola, A. and Uchtenhagen, A. (2001). 'Feasibility, safety, and efficacy of injectable heroin prescription for refractory opioid addicts: A follow-up study.' *The Lancet*, 358(9291), 1417–1420.

Reinarman, C., Cohen, P.D.A. and Kaal, H.L. (2004). 'The limited relevance of drug policy: Cannabis in Amsterdam and San Francisco.' *American Journal of Public Health*, 94, 836–842.

Reuter, P. (1999). 'Are calculations of the economic costs of drug abuse either possible or useful?' *Addiction*, 94(5), 627–630.

Reuter, P. and Pollack, H. (2006). 'How much can treatment reduce national drug problems?' *Addiction*, 101, 341–347.

Rhodes, T., Stoneman, A., Hope, V., Hunt, N. and Judd, A. (2006). 'Groin injecting in the context of crack cocaine and homelessness: From "risk boundary" to "acceptable risk"?' *International Journal of Drug Policy*, 17(3), 164–170.

Rinken, S. and Vallecillos, M.R. (2002). 'The evolution of Spanish HIV prevention policy targeted at opiate users: A review.' *Drugs: Education, prevention and policy*, 9(1), 45–56.

Roberts, M., Bewley-Taylor, D.R. and Trace, M. (2006). *Monitoring drug policy outcomes: The measurement of drug-related harm. Report nine.* Oxford: Beckley Foundation.

Roe, S. (2005). 'Drug misuse declared: Findings from the 2005/06 British Crime Survey.' *Home Office Statistical Bulletin 16/05*. London: Home Office.

Roe, S. and Man, L. (2006). *Drug misuse declared: Findings from the 2005/06 British Crime Survey.* Home Office Statistical Bulletin 15/06. London: Home Office.

SAMHSA (2005). *Results from the 2004 National Survey on Drug Use and Health: Detailed tables. Table 1.12B*. SAMHSA, Office of Applied Studies. Available from: http://www.drugabusestatistics.samhsa.gov/NSDUH/2k4nsduh/2k4tabs/Sect1peTabs1to66.htm#tab1.12b (accessed 16 January 2006).

SAMHSA (2006). *Results from the 2005 National Survey on Drug Use and Health: Detailed Tables*. Washington DC: SAMHSA, Office of Applied Studies.

Saxe, L., Kadushin, C., Tighe, E., Beveridge, A.A., Livert, D., Brodsky, A. and Rindskopf, D. (2006). 'Community-based prevention programs in the war on drugs: Findings from the "Fighting Back" demonstration project.' *Journal of Drug Issues*, 36(2), 263–294.

Scottish Executive (2005a). *Prison statistics Scotland: 2004 statistical bulletin. Criminal justice series.* CrJ/2005/8. Edinburgh: Scottish Executive.

Scottish Executive (2005b). *Criminal proceedings in Scottish courts: 2004/05 statistical bulletin. Criminal justice series*. Edinburgh: Scottish Executive.

Scottish Executive (2005c). *Recorded crime in Scotland: 2004/05 statistical bulletin. Criminal justice series.* CrJ2005/10. Edinburgh: Scottish Executive.

Scottish Executive (2006a). *HIV reports, Scotland by transmission category and year of report, as at 31 December 2005*. Edinburgh: Scottish Executive.

Scottish Executive (2006b). *Criminal proceedings in Scottish courts: 2004/05 statistical bulletin. Criminal justice series.* Edinburgh: Scottish Executive.

Scottish Executive Social Research (2006). *Know the score: Heroin 2005 pre- and post-campaign evaluation.* Edinburgh: Scottish Executive.

Seddon, T. (2005). 'Drugs, crime and social exclusion: Social context and social theory in British drugs-crime research.' *British Journal of Criminology*, Advance Access published 30 August.

Sheidow, A.J. and Henggeler, S.W. (in press). 'Multisystemic therapy with substance using adolescents: A synthesis of the research.' In A. Stevens (ed.), *Crossing frontiers: International developments in the treatment of drug dependence*. Brighton: Pavilion Publishing.

Shepherd, J. and Farrington, D. (2003). 'The impact of antisocial lifestyle on health.' *British Medical Journal*, 326, 834–835.

Shewan, D. and Dalgarno, P. (2006). 'Evidence for controlled heroin use? Low levels of negative health and social outcomes among non-treatment heroin users in Glasgow (Scotland).' *British Journal of Health Psychology*, 10, 33–48.

Shiner, M. and Newburn, T. (1999). 'Taking tea with Noel: The place and meaning of drug use in everyday life.' In N. South (ed.), *Drugs: Cultures, controls and everyday life*. London: Sage Publications.

Single, E., Christie, P. and Ali, R. (2000). 'The impact of cannabis decriminalisation in Australia and the United States.' *Journal of Public Health Policy*, 21(2), 157–186.

Singleton, N., Meltzer, H., Gatward, R., Coid, J. and Deasy, D. (1997). *Psychiatric morbidity among prisoners: Summary report*. London: National Statistics.

Singleton, N., Murray, R. and Tinsley, L. (2006). *Measuring different aspects of problem drug use: Methodological developments*. Home Office Online Report 16/06. Home Office. Available from: http://www.homeoffice.gov.uk/rds/pdfs06/rdsolr1606.pdf (accessed 1 December 2006).

SOCA (2006). *The United Kingdom: Threat assessment of serious organised crime*. London: Serious Organised Crime Agency.

Solivetti, L.M. (2001). *Drug use criminalization v. decriminalization: An analysis in the light of the Italian experience*. Swiss Federal Office of Public Health. Available from: http://w3.uniroma1.it/DCNAPS/solivetti/swissho.pdf#search=%22italy%20decriminalization%20drugs%22 (accessed 12 August 2006).

Spear, H.B. and Mott, J. (1993). 'Cocaine and crack within the "British system": A history of control.' In P. Bean (ed.), *Cocaine and crack: Supply and use*. London: The Macmillan Press.

Stevens, A. (2003). 'Drug use, dependence and deprivation.' Unpublished analysis of data from the Psychiatric Comorbidity Survey. Available by emailing a.w.stevens@kent.ac.uk.

Stevens, A., Berto, D., Frick, U., Hunt, N., Kerschl, V., McSweeney, T., Oeuvray, K., Puppo, I., Santa Maria, A., Schaaf, S., Trinkl, B., Uchtenhagen, A. and Werdenich, W. (2006a). 'The relationship between legal status, perceived pressure and motivation in treatment for drug dependence: Results from a European study of quasi-compulsory treatment.' *European Addiction Research*, 12, 197–209.

Stevens, A., Berto, D., Frick, U., Kerschl, V., McSweeney, T., Schaaf, S., Tartari, M., Turnbull, P., Trinkl, B., Uchtenhagen, A., Waidner, G. and Werdenich, W. (in press). 'The victimisation of dependent drug users: Findings from a European study.' *European Journal of Criminology* (to be published in Volume 4, Issue 4, 2007).

Stevens, A., Berto, D., Heckmann, W., Kerschl, V., Oeuvray, K., van Ooyen, M., Steffan, E. and Uchtenhagen, A. (2005). 'Quasi-compulsory treatment of drug dependent offenders: An international literature review.' *Substance Use & Misuse*, 40, 269–283.

Stevens, A., Hallam, C. and Trace, M. (2006). *Treatment for dependent drug use: A guide for policymakers*. Oxford: Beckley Foundation.

Stevens, A., Trace, M. and Bewley-Taylor, D.R. (2005). *Reducing drug related crime: An overview of the global evidence. Report five*. Oxford: Beckley Foundation.

Stimson, G. (2000). '"Blair declares war" or the unhealthy state of British drugs policy.' *International Journal of Drug Policy*, 11(4), 259–264.

Stimson, G., Hickman, M. and Turnbull, P.J. (1998). 'Statistics on misuse of drugs have been misused.' *British Medical Journal*, 317(7169), 1388.

Stimson, G.V. (1996). 'Has the United Kingdom averted an epidemic of HIV-1 infection among drug injectors?' *Addiction*, 91(8), 1085–1088.

Strang, J. (1998). 'AIDS and drug misuse in the UK – 10 years on: Achievements, failings and new harm reduction opportunities.' *Drugs-Education Prevention and Policy*, 5(3), 293–304.

Strang, J. and Taylor, C. (1997). 'Different gender and age characteristics of the UK heroin epidemic of the 1990s compared with the 1980s: New evidence from analyses of national treatment data.' *European Addiction Research*, 3, 43–48.

Strang, J. and Sheridan, J. (2006). 'Heroin and methadone prescriptions from a London drug clinic over the first 15 years of operation (1968–1983): Old records examined.' *Substance Use & Misuse*, 41(9), 1227–1238.

Strang, J., McCambridge, J., Best, D., Beswick, T., Bearn, J., Rees, S. and Gossop, M. (2003). 'Loss of tolerance and overdose mortality after inpatient opiate detoxification.' *British Medical Journal*, 326, 959–960.

Tavares, L.V., Graça, P.M., Martins, O. and Asensio, M. (2005). *External and independent evaluation of the 'National Strategy for the Fight Against Drugs' and of the 'National Action Plan for the Fight Against Drugs and Drug Addiction – Horizon 2004'*. Lisbon: Institute for Drugs and Drug Addiction.

The UK Collaborative Group for HIV and STI Surveillance (2005). *Mapping the issues: HIV and other sexually transmitted infections in the United Kingdom – 2005*. London: Health Protection Agency Centre for Infections.

The White House (2005). *National drug control strategy: Data supplement*. Washington DC: The White House.

Transnational Institute (2005). 'The United Nations and harm reduction – revisited: An unauthorised report on the outcomes of the 48th CND session.' *TNI Drug Policy Briefing 13*. The Hague: Transnational Institute.

Turnbull, P.J., McSweeney, T., Webster, R., Edmunds, M. and Hough, M. (2000). *Drug treatment and testing orders: Final evaluation report*. London: Home Office Research, Development and Statistics Directorate.

Uchtenhagen, A., Gutzwiller, F., Dobler-Mikola, A. and Stephen, T. (1997). 'Programme for a medical prescription of narcotics: A synthesis of results.' *European Addiction Research*, 3(4), 160–163.

UNAIDS (2001). *Effective prevention strategies in low HIV prevalence settings*. Geneva: UNAIDS.

University of Southampton (2005). *The UK vs. Europe: Losing the fight against hepatitis C*. London: Hepatitis C Trust.

UNODC (2005). *World Drug Report 2005*. Vienna: United Nations Office on Drugs and Crime.

UNODC (2006a). 'Press release: Afghan opium cultivation soars 59 percent in 2006, UNODC survey shows.' 2 September. Vienna: United Nations Office on Drugs and Crime.

UNODC (2006b). *World Drug Report 2006*. Vienna: United Nations Office on Drugs and Crime.

Van De Mheen, D. and Gruter, P. (2004). 'Interventions on the supply side of the local hard drug market: Towards a regulated hard drug trade? The case of the city of Rotterdam.' *Journal of Drug Issues*, 34(1), 145–161.

Van den Brink, W., Hendriks, V.M., Blanken, P., Koeter, M.W., van Zwieten, B.J. and van Ree, J.M. (2003). 'Medical prescription of heroin to treatment resistant heroin addicts: Two randomised controlled trials.' *British Medical Journal*, 327(7410), 310.

Vargas, R. (2005). 'Drugs and armed conflict in Colombia.' In M. Jelsma, T. Kramer and P. Vervest (eds), *Trouble in the triangle: Opium and conflict in Burma*. Chiang Mai: Silkworm Books.

Von Sydow, K., Lieb, R., Pfister, H., Hofler, M. and Wittchen, H.U. (2002). ‚What predicts incident use of cannabis and progression to abuse and dependence? A 4-year prospective examination of risk factors in a community sample of adolescents and young adults.' *Drug and Alcohol Dependence*, 68(1), 49–64.

Waddington, P.A.J., Stenson, K. and Don, D. (2004). 'In proportion: Race, and police stop and search.' *British Journal of Criminology*, 44(6), 889–914.

Wadsworth, E.J.K., Moss, S.C., Simpson, S.A. and Smith, A.P. (2004). 'Factors associated with recreational drug use.' *Journal of Psychopharmacol*, 18(2), 238–248.

Walker, A., Kershaw, C. and Nicholas, S. (2006). *Crime in England and Wales 2005/06*. London: Home Office.

Warburton, H., Turnbull, P.J. and Hough, M. (2005). *Occasional and controlled heroin use: Not a problem?* York: Joseph Rowntree Foundation.

Webb, L., Oyefeso, A., Schifano, F., Cheeta, S., Pollard, M. and Ghodse, A.H. (2003). 'Cause and manner of death in drug-related fatality: An analysis of drug-related deaths recorded by coroners in England and Wales in 2000.' *Drug and Alcohol Dependence*, 72, 67–74.

Wincup, E. (2006). Personal communication.

Wincup, E., Buckland, G. and Bayliss, R. (2003). 'Youth homelessness and substance use: Report to the drugs and alcohol research unit.' *Findings 191*. London: Home Office.

Wodak, A. and Cooney, A. (2004). *Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users: Evidence for action technical papers*. Geneva: World Health Organization.

Yamaguchi, R., Johnston, L.D. and O'Malley, P.M. (2003). *Drug testing in schools: Policies, practices and association with student drug use. Youth, Education & Society Occasional Paper 2*. Ann Arbor: University of Michigan.

Young, J. (1971). *The drugtakers: The social meaning of drug use*. London: Paladin.

Young, J. (2004). 'Voodoo criminology and the numbers game.' In J. Ferrell, K. Hayward, W. Morrison and M. Presdee (eds), *Cultural Criminology Unleashed*. London: Glasshouse Press.

Zador, D., Kidd, B., Hutchinson, S., Taylor, A., Hickman, M., Fahey, T., Rome, A. and Baldacchino, A. (2005). *National investigation into drug related deaths in Scotland, 2003*. Edinburgh: Scottish Executive.