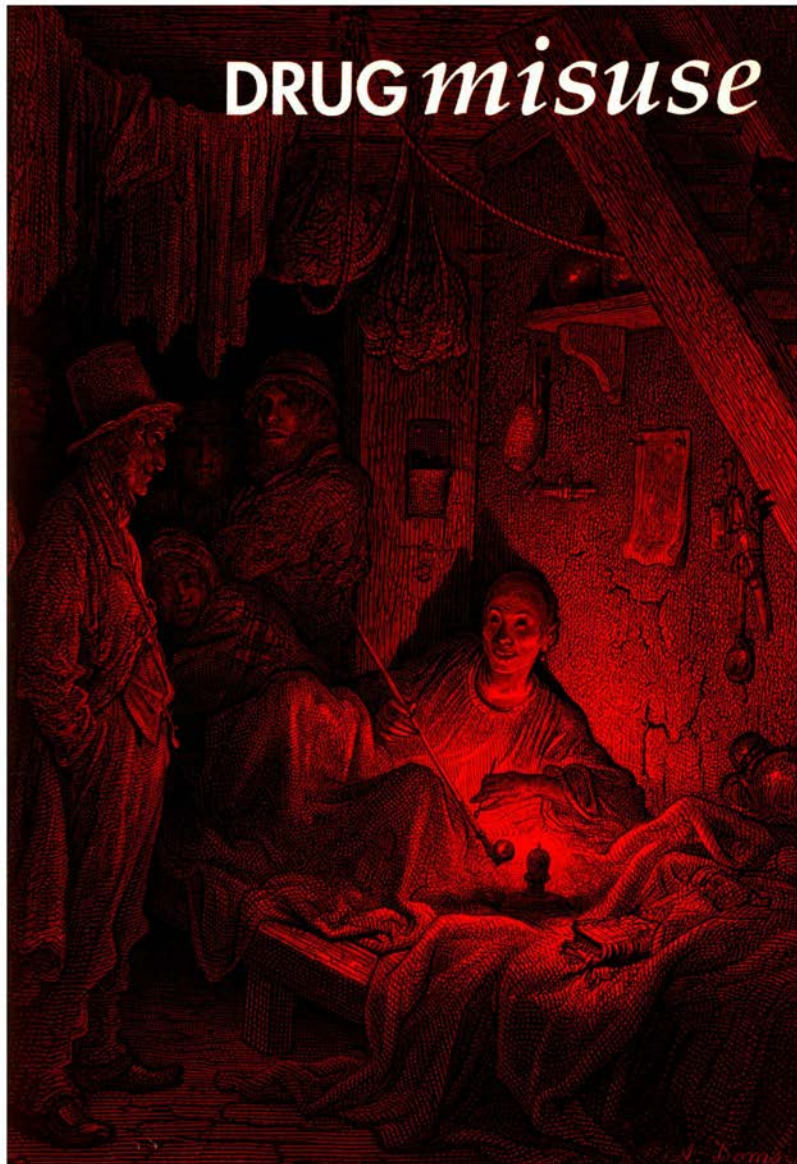


DRUG *misuse*



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Office of Health Economics

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INTRODUCTION

Throughout history the desire to experience an altered state of consciousness can be seen to have been part of the essential nature of man. In all parts of the world substances have been used to suppress pain, relieve depression and also to provide pleasurable sensations. Tobacco, alcohol, caffeine (coffee and tea), cannabis, cocaine, heroin, barbiturates or tranquillisers, for example, offer easy and immediate ways of altering psychological states. For some people the ease and immediacy with which such substances achieve these effects prove particularly seductive (Gossop, 1987). This can lead to the misuse of 'drugs' of addiction and to the abuse of similar substances such as alcohol and tobacco.

The consequences of any form of 'drug' taking involve an interrelationship between the individual and his or her personality, which may increase or decrease vulnerability to drug misuse; the characteristics of the substances taken; and the social and cultural context in which they are used (see Box 1). By this it is meant that problems with drug use arise if a particular drug induces physical or psychological dependence and/or the personality of the user is such that there is an increased risk of dependence (some people who take substances which are known to be addictive in others will not become dependent although over a period of regular use this would probably change). These important aspects of 'drug' taking will be considered later in the paper. However, whilst it is certain that some 'drugs' cause physical and psychological dependence¹ and that some people are more susceptible to addiction than others it is often the social and cultural context in which the 'drug' is used that determines whether or not the use of a particular substance is viewed as 'a problem' or is socially acceptable.

Certain forms of 'drug' use are long established and culturally integrated social habits. They are typical of traditional rural societies in the less well developed countries, but may also be seen in isolated groups in industrialised countries. Whilst the patterns of the 'drug' taking may cause considerable psychic disturbance neither the users nor the communities concerned regard these substances as harmful or evil. However, a higher degree of social acceptance is usually accorded to those substances that cause only mild and short lived

¹ The World Health Organisation in 1964 defined drug dependence as 'a state, psychic and sometimes also physical resulting from the interaction between a living organism and a drug, characterised by behavioural and other responses that always include a compulsion to take the drug on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. Tolerance may or may not be present. A person may be dependent on more than one drug.'

BOX 1 A note on definitions – drugs, medicines and other substances

In any discussion of the use and misuse of chemical substances problems arise regarding terminology and in particular the use and definition of the word 'drug'. In its broadest sense the word 'drug' may be taken to include all substances which alters the function of the body physiologically or psychologically, this would embrace substances at one end like coffee, tea, alcohol and cigarettes through to illegally used and obtained substances like heroin and cocaine and at the other end prescribed medicines (see Table 1). Obviously this is a highly simplified view and clearly there are some substances which could appear in more than one of the groups. For example, morphine is both a prescribed medicine used in the control of severe pain and is also used illegally. In addition societal attitudes may influence the group in which certain substances appear, for example in certain Moslem countries alcohol is an illegal substance.

In a narrower sense the word drug is taken to mean illicit substances, this means, for the purposes of this paper, those substances listed in the United Kingdom Misuse of Drugs Act 1971 as 'controlled drugs' and the legal though socially disapproved and harmful recreational use of substances such as glues or solvents. The Misuse of Drugs Act is intended to prevent the non-medical use of certain substances and for this reason controls not just medicinal drugs but also drugs with no current medical uses. For the purposes of this paper the word drug will be taken to mean an illicit substance unless it appears in quotation marks in which case it will be taken to mean all chemical substances.

We take 'drugs' for two main reasons: either to remedy a clinical condition be it physical or psychological, usually under medical supervision; or to release ourselves from normality, either by making us artificially more alert or more relaxed or by altering our mood and perceptions. It is with drug misuse² in this second category, that this paper is concerned and it concentrates primarily on the misuse of illicit drugs.

intoxications, that is, 'drugs' which allow the user to retain a degree of control over their own behaviour, for example, opium, cannabis and alcohol in moderate amounts and weak preparations, tobacco, coca leaves and betel.

'Drugs' with stronger effects are also socially acceptable but only in cultural settings where either the belief system assigns an important and desirable function to the severe intoxications that they cause, for example, the Native American Church has a legal dispensation to use the 'button' of the peyote cactus, which contains mescaline, as a sacrament in their services or alternatively 'drug' taking forms an essential part and underpins membership of a particular social group, for example in certain inner city areas in the United Kingdom heroin misuse plays an important role in the youth subculture (Burr, 1989).

2 Drug misuse is a broader and less judgemental term than 'drug abuse' and encompasses not only the illicit use of drugs but also the taking of legitimately prescribed medicines in an unorthodox way.

Table 1



Some forms of 'drug' use occupy a recognised place among a community's acceptable social practices and can be divided into two distinct categories. The first group involves 'drugs' that produce few harmful effects in the short term, and it is generally held that they will have no adverse effects if they are used in accordance with the prescribed norms. For example, the drinking of coffee and tea form part of the daily routine in most human societies. Like traditional folk customs, such as the use of cannabis at Hindu festivals or the use of mescaline in Latin American folk healing, they meet important social needs and involve the largest populations of users (Gossop & Grant, 1990). However, the second group are responsible for a significant array of problems from the health and public safety points of view. Alcohol and tobacco are obvious

examples of the latter category, though alcohol is banned in some Moslem countries and the smoking of tobacco is gradually becoming less socially acceptable in most westernised countries.

Society's relationship with compounds which modify the state of consciousness is one of constant change. New 'drugs' become fashionable, old 'drugs' are less frequently used and some 'drugs' become less socially acceptable. For example, in the early nineteenth century laudanum, an alcoholic solution of opium, was readily available at any corner grocer's shop and was a popular household remedy for minor aches and pains. In the middle of the last century Britain was consuming each year, on average the equivalent of 150 standard doses (10-20 mg) of morphine per head of population (Royal College of Psychiatrists, 1987). At the same time there was a strong Temperance Movement campaigning against 'the evils of the demon alcohol'. One of the most successful temperance crusades, conducted throughout England, Scotland and Ireland, was that led by a Catholic priest named Father Matthew in 1840. In the period 1834 to 1845 the consumption of spirits fell by 23 per cent due, it has been suggested, in no small part to Father Matthew's temperance crusade (by the 1870's the consumption of spirits had risen again) (Watson, 1986). Unfortunately, some of Father Matthew's converts, in an attempt to keep their pledge, turned to drinking ether as a cheap and permissible alternative to alcohol.

Today, the scene has changed. Even though opium, alcohol and other dependence producing substances have been used and misused for a very long time, it has been proposed that the present situation is characterised by changes which started after the Second World War (Gossop & Grant, 1990). The demand for psychoactive drugs since World War II has increased steadily. This demand has been generated by the interaction between the material, technological and cultural changes which have taken place in the post war society. In turn this demand has been fed by the growing illegal production of, and traffic in, opiates, and by abuse of a rapidly increasing number of synthetic substances.

The increasing demand for illicit drugs since World War II is dramatically illustrated by Figure 1 which shows the number of addicts in the United Kingdom known to the Home Office. In 1960 the number of new addicts was 437, in 1990 the number had risen to 6,923 and the total number of addicts was 17,755. Home Office addiction statistics are derived from doctors notifying cases of opiate or cocaine addiction. No other types of drugs are covered and only addicts seen by doctors can be recorded. The collection of addiction statistics and the problems associated with them will be discussed in a later section of the paper. However, many addicts do not seek medical attention during any given year and even when they do so the statistics are

Figure 1 Total number of new addicts known to the Home Office

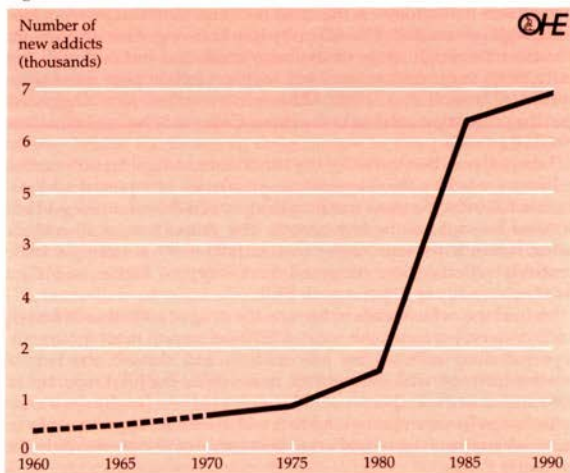


Table 2 Drug addicts notified

Type	1990
Heroin	14,497
Methadone	4,992
Dipipanone	387
Cocaine+	1,085
Morphine	839
Pethidine	91
Dextromoramide	283
Opium	23
Other opiates	13
All addicts	17,755*

+ The term cocaine includes the compounds cocaine hydrochloride and cocaine freebase (crack).

* As an addict can be reported to be addicted to more than one notifiable drug the figures for individual drugs cannot be added together to produce totals.

Source: Home Office, 1991.

totally reliant on conscientious doctors notifying the Home Office. Given these limitations it is therefore not surprising that many opiate addicts go unrecorded. The difficulty is in knowing what proportion. The most thorough study of the issue conducted in London in the early 1980's suggests that just 1 in 5 regular (daily) opiate users were notified (Hartnoll et al, 1985). Other commentators have suggested that the proportion notified to the Home Office may be as small as 1 in 10 (ISDD, 1990).

Table 2 shows that in 1990 of the 14 notifiable drugs³ heroin was the substance used by the overwhelming majority of reported addicts. Heroin has been the most common drug of addiction for new addicts notified throughout the last decade. The proportion of all addicts using heroin rose from 72 per cent in 1980 to 93 per cent in 1985, probably reflecting the increased availability of heroin and then declined steadily to 84 per cent in 1990.

Methadone, which tends to become the drug of addiction of heroin addicts receiving treatment, was in 1990 the second most commonly reported drug misused by new addicts and showed the largest relative increase, with new addicts over double the total reported in 1989 and renotified addicts over 50 per cent higher. This increase may reflect more treatment of new addicts with methadone, particularly in cases where the drug of addiction being treated is not one of the 14 notifiable drugs.

There was also in 1990 a substantial increase in the number of new addicts reported as addicted to cocaine although as a percentage of new notifications the number of cocaine addicts has remained relatively stable at nine per cent. Interestingly, it would appear that despite the fact that the number of seizures of cocaine by weight in the years between 1987 and 1989 exceeded that for heroin, misuse of the drug has not so far resulted in significant demands for medical treatment. Although a recent review from the United States has suggested that cocaine may induce myocardial infarction in patients with normal coronary arteries (Annals Internal Medicine, 1991). The treatment and rehabilitation of drug misusers will be considered later in this paper.

³ The statistics on addicts relate to notifications under the Misuse of Drugs (Notification of and Supply to Addicts) Regulations 1973, which require doctors to send to the Chief Medical Officer at the Home Office details of persons whom they consider or suspect to be addicted to any of the following 14 controlled drugs: cocaine, dextromoramide (palfium), diamorphine (heroin), dipipanone (diconal), hydrocodone, hydromorphone, levorphanol, methadone (physeptone), morphine, opium, oxycodone, pethidine, phenazocine, pritrinide. These drugs which, apart from cocaine, are all opiates, do not cover all drugs to which addiction is possible.

The causes of drug misuse are considered in the paper at four levels; firstly the significance of what drugs do to and for the individual; secondly the influence that a drugs availability has on the likelihood and level of misuse; thirdly, whether certain characteristics or personality type makes a person more susceptible to drug misuse; and fourthly the influence of environmental factors such as family relationships, peer group pressure and unemployment on drug misuse. Whilst the causes of drug misuse in this paper have been broken down into four parts it should be recognised that they are in fact interrelated and there is no single explanation for drug misuse. The long term consequences of drug misuse such as the breakdown of relationships, poor health, loss of employment and the problems in financing what is often an expensive habit frequently through crime and the impact for society as a whole are discussed later in the paper. The immediate physical effects of drug use for the individual are given in Boxes 2-5.

In recent years drug misuse in Britain and in many other countries has become the focus of intense social and political concern. Over recent years Britain and many other parts of the world have experienced dramatic changes in the extent and pattern of drug use. It is not surprising that society faced with the sharpness and complexity of some of these changes should show a degree of confusion, panic in some circumstances and under reaction in others, both tying the drug debate into available rhetoric about liberty or moral decline or rushing only for more treatment (Royal College of Psychiatrists, 1987). Diverse news stories abound about young children using volatile substances ('glue sniffing' and the inhalation of aerosol propellants), acid house parties, the spread of AIDS among injecting drug users and into the general population, and drug related crime.

However, the extent of the problem must clearly be placed in some sort of perspective. It is hoped that this paper will go some way towards answering the question of whether or not the current level of concern is justified.

THE INCIDENCE AND PREVALENCE OF DRUG MISUSE

In 1967, the Office of Health Economics in its paper on 'Drug Addiction' stated that 'Accurate statistics on drug addicts are extremely difficult to compile'. Unfortunately, in this sense, nothing has changed in the last twenty years. Despite a considerable amount of information being produced about illicit drug use it is still doubtful whether an accurate picture of the current situation is available.

The statistics discussed in this section relate to the following illicit drug groups: opiates; drugs that depress the nervous system; drugs that stimulate the nervous system; and drugs that alter perceptual function. These illicit drug groups and their properties are considered in the next section.

Home Office Statistics

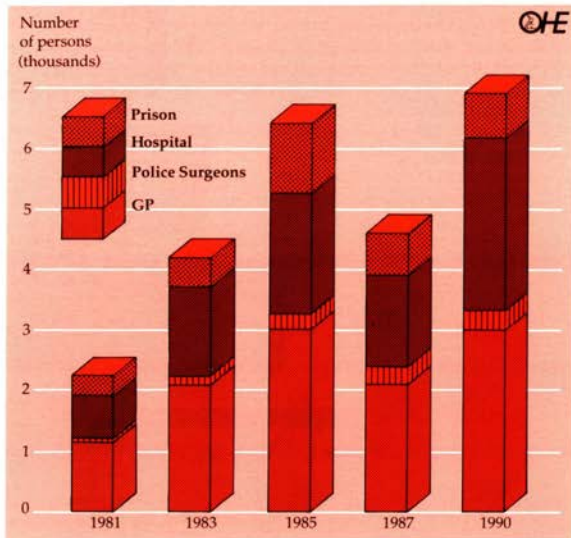
Two important indicators of trends in illicit drug use are published annually by the Home Office. The first of these records the number of addicts⁴ notified to the Home Office by medical practitioners. Addicts can be notified, on a named patient basis, by medical practitioners who are in general medical practice, hospital or treatment centres or who are either police surgeons or prison medical officers. As might be expected doctors in general practice account for nearly 50 per cent of all notifications received (see Figure 2).

A doctor who attends a patient suspected or known to be addicted to one or more notifiable drug (for list of notifiable drugs see footnote on page 8) must notify the Home Office. For all practical purposes this means that these statistics record the number of opiate addicts which come to the attention of and are notified by medical practitioners. What is not shown are the number of non-addicted opiate users nor the number of people addicted to drugs other than opiates (except cocaine).

There are a number of problems with the Home Office statistics. The biggest problem in estimating opiate addiction is the fact that only a minority of regular opiate users seek medical treatment during any given year. Some will not come, or choose not to bring themselves to the attention of the medical services, possibly because they do not wish to be notified as addicts (Bennett and Wing, 1986). Some, even if they come to the attention of the medical profession, will not be notified by the doctor they attended (Strang and Shah, 1985). As mentioned earlier, community based studies have found that only 1 in 5 regular (daily) opiate users were notified to the Home Office (Hartnoll et al, 1985 & Crowe, 1988). It has been estimated that

⁴The legal criterion for identifying an addict is that they must have an 'overwhelming desire' to continue taking one or more notifiable drugs as a consequence of having taken them before.

Figure 2 New drug addicts notified to the Home Office by source of first notification



nationwide, and particularly in areas where medical treatment is fairly scarce the figure may be closer to 1 in 10. As can be seen from Figure 3 the closer to the notification the more certain we can be of actual numbers of addicts but the further removed these are from the total number of drug misusers.

Another major problem is the fact that the statistics are significantly influenced by the conscientiousness with which doctors notify the Home Office. In 1988, for example, there was a 13 per cent increase in the number of addicts notified, however, a substantial proportion of this increase has been attributed to the fact that in the previous year doctors were sent a 'reminder' of their responsibilities together with the new style notification form.

The Home Office is aware of the problems associated with statistics relating to the notification of addicts and hopes to overcome some of

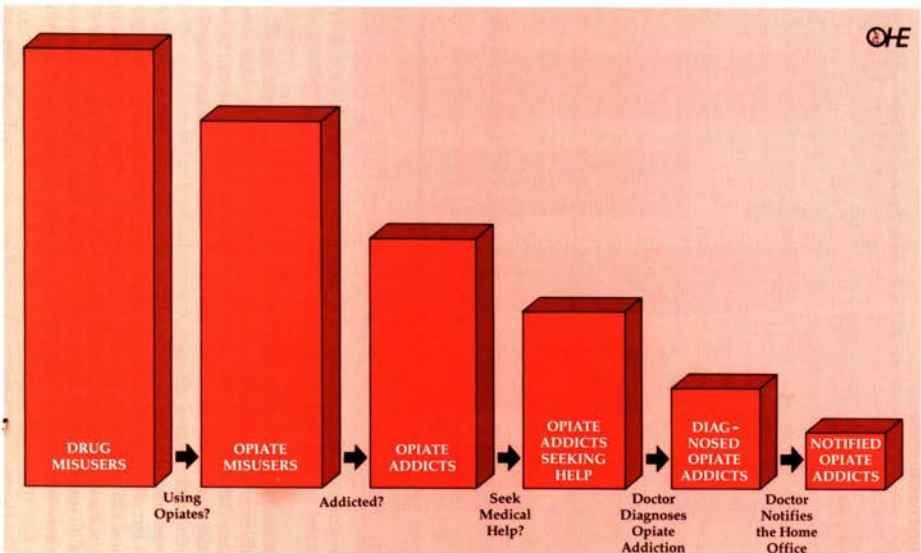
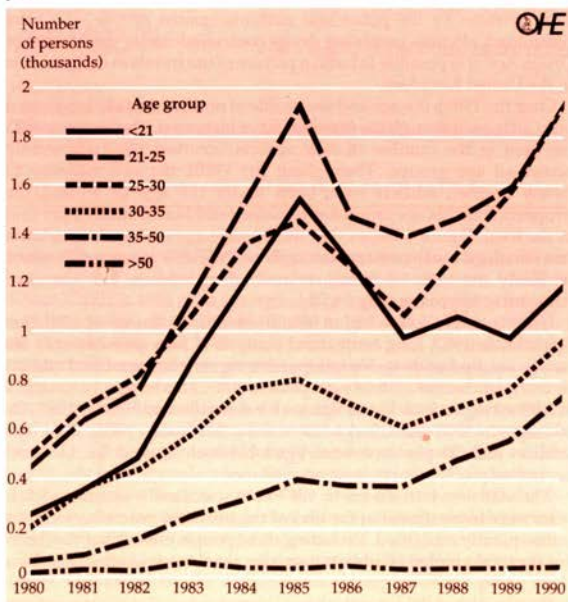


Figure 3 The route to notification

the difficulties with the implementation in 1991 of a more comprehensive recording system. In the future the new data bases will collate information on problem drug users of any kind (not just opiate addicts) seen by any service dealing with drug misuse problems as well as by doctors. At a later date this may be widened to include services such as probation and social work, which see cases of drug misuse but do not specialise in this area.

The data bases will be kept by Regional Health Authorities who will be required to submit six monthly reports to the Department of Health. Doctors will still be required to notify cases of opiate and cocaine addiction to the Home Office. As discussed there is already a problem with doctors failing to notify addicts; whether they will be

Figure 4 New drug addicts notified to the Home Office by age and year



more conscientious about filling in an additional form is open to doubt.

In any case, the new data collection system will not solve the main problem with the Home Office figures since they will still only record problem drug users who come into contact with doctors and other services. In future as well as guessing what proportion of opiate addicts get notified we can guess what proportion of problem drug users are recorded in the regional data bases.

Given these problems with the Home Office statistics, some of which will continue even with the implementation of the new system, why should we take any notice of them? Apart from the fact that there is no alternative, while the statistics are a poor indicator of the total number of problem drug users they are a better guide to the trends in the total number of opiate addicts, which is probably the most serious and damaging kind of drug use. Together with the second set of statistics published by the Home Office, which record convictions and drug seizures by the police and customs against people who have committed offences involving drugs controlled under the Misuse of Drugs Act⁵ it is possible to build a picture of the trends in drug misuse in the United Kingdom.

Over the 1980's the age and sex profile of notified addicts has altered very little even though the numbers have increased. The increase of 23 per cent in the number of new addicts occurred relatively evenly across all age groups. Throughout the 1980's the vast majority of newly notified addicts have been under the age of 30 and the proportion in this age group has remained stable at around 75 per cent of the total. Figure 4 shows that the average age of new drug addicts has remained fairly constant throughout the 1980's at around 26 years. Similarly the ratio of female to male drug addicts has remained constant at approximately 1 to 3.

Unfortunately, following an alteration in the collation of addiction statistics in 1987, long term trend analysis is now possible only for newly notified addicts. No comparable figures for renotified addicts or total numbers of addicts exist prior to 1987. This having been said, it is interesting to look at the figures for renotified addicts in 1990. On average, in 1990 renotified addicts were three years older than new addicts and 70 per cent were aged between 21 and 34. Of these renotified addicts 28 per cent were women.

The statistics introduced in 1987 now specifically exclude addicts who were in treatment at the end of the previous year who were not subsequently renotified. Excluding these people means that the figure for the total number of addicts is smaller than it would otherwise have

5 These 'controlled' drugs include all those (opiates and cocaine) to which addiction must be notified as well as drugs such as cannabis, amphetamines, LSD etc.

been, this is clearly demonstrated in Table 3 and Figure 5. Of course some addicts will have died or been cured nevertheless, this is one way of reducing the recorded number of drug addicts!

The trend in addict notifications has been closely paralleled by the number of drug offences. In 1989 there were 38,415 seizures of controlled drugs and persons found guilty, cautioned or dealt with by compounding for drug offences, in 87 per cent of these cases cannabis

Table 3 Drug addicts notified to the Home Office during the year and/or in treatment with notifiable drugs

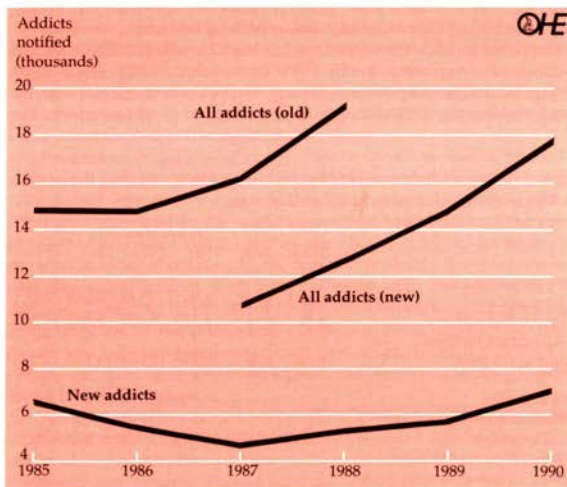
	<i>Number of persons</i>					
	1985	1986	1987	1988	1989	1990
New statistics						
1. New addicts	6,409	5,325	4,593	5,212	5,639	6,923
2. Renotified addicts	n/a	n/a	6,123	7,432	9,146	10,832
3. All addicts notified during the year	n/a	n/a	10,716	12,644	14,785	17,755
Old statistics						
4. Addicts in treatment on 31 December	7,052	8,435	10,389	12,977	n/a	n/a
5. All addicts = addicts in treatment on 1 January plus those notified during the year	14,688	14,758	16,128	19,179	n/a	n/a

was the drug involved. The number of drug offenders rose by 25 per cent in 1989. The number of offenders grew steadily from 14,300 in 1979 to 27,000 in 1985 at an average of 10 per cent per annum, dropped to 23,900 in 1986 and then rose to 26,300 in 1987 and 30,500 in 1988. The rise between 1988 and 1989 can be almost entirely accounted for by increases in the number of persons cautioned and fined.

However, as with addict notifications, the majority of drug users are not cautioned or convicted of drug offences. For example in 1981, a year for which particularly reliable survey data exists, it is probable that one million people in the United Kingdom used cannabis, but less than 16,000 were apprehended. This means that less than 2 per cent of offenders came to the attention of the police or customs. Whilst the conviction rate for other drugs may differ it is likely that the overall rate for drug offences is around 1-2 per cent.

This means that there is a considerable possibility that the statistics will be influenced by the enforcement strategies of the police and customs, by the relative detectability of a drug (LSD is active in very small quantities which can easily be concealed unlike cannabis), or of

Figure 5 Addicts notified to Home Office 1985-90



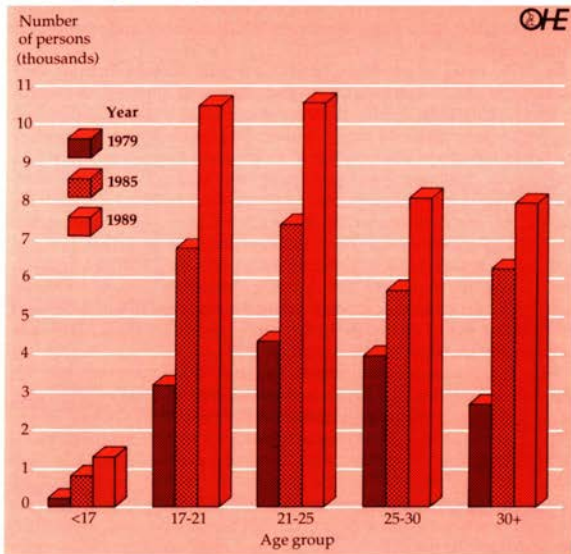
a particular kind of offender. Young people are more likely to be out in situations which attract police attention than an older person and this may be reflected in the Home Office statistics (see Figure 6).

In 1989, 65 per cent of drug offenders were aged between 17 and 29, the average age being 25, very similar to that of notified addicts. Over the last decade the sex distribution has remained fairly stable, the vast majority of offenders being male. In fact, as a proportion of the total, female drug offenders only represent 10 per cent of the total. This would appear to suggest that a female drug addict is less likely to come to the attention of the police than a male drug addict.

Deaths among drug addicts are in fact not as common as is generally believed and contrary to popular belief most opiate users survive. Like many people with alcohol related problems many addicts either cease using illicit substances or reduce their drug use.

Even so in 1989, 300 previously notified addicts died. This figure has increased each year since 1984 and reflects the growth in the number of new addicts in the early 1980s. In the period 1985 to 1989

Figure 6 Persons found guilty, cautioned or dealt with by compounding for drug offences



Source: Home Office 1990.

seven out of ten deaths of notified addicts were from North Western region, the four Thames regions and Scotland. Approximately one third of addicts who died between 1985 and 1989 were notified only once prior to death. A sixth of all addicts who died in the same period were originally notified less than 12 months before death. The average time between first notification and death was 5 years. Almost half of all those who died between 1985 and 1989 had been notified in the 12 months prior to death.

Home Office figures suggest that in this four year period as a whole, on average 0.8 per cent of addicts died within 12 months of first being notified, 0.6 per cent within the second year and a further 0.6 per cent in the third year. These figures are somewhat lower than those found by Ghodse et al (1985), whose study covered the much longer period

1967 to 1979, of 3 per cent for the first year, 1.9 for the second year and 0.7 for the third year. The apparent decrease in the death rates cannot be explained by the statistics alone but it may reflect changes in the availability of certain drugs, for example barbiturates, and methods of administration.

In 1989, drug dependence, non-dependent abuse of drugs and poisoning by controlled drugs were associated with almost 1,200 deaths. Of these 1,200 deaths, 250 deaths were attributed to drug dependence or non-dependent abuse of drugs (other than alcohol and tobacco), a further 200 deaths were as a result of accidental poisoning by controlled drugs and 280 involved poisoning by controlled drugs with 'undetermined external cause', and 430 people committed suicide with the aid of controlled drugs (300 of the 1,200 deaths were of previously notified addicts, see above). The number of deaths from AIDS where the person was known to be an injecting drug user was 18; although small, this is double the number in 1987. Injecting drug users are now one of the more rapidly increasing exposure categories among cases of AIDS and the total number of deaths in the UK amongst addicts from AIDS now exceeds 100 (see page 50) (Home Office, 1991).

The total number of deaths where drug dependence or non-dependent abuse of drugs was considered to be the underlying cause has more than doubled between 1979 and 1989 (Home Office, 1991). The use of volatile substances (not a controlled drug, see Box 3 for legal status) accounts for almost three fifths of the increase. In 1989 almost 40 per cent of the 250 deaths in this category involved morphine type drugs and one third involved volatile substances (see Figure 7⁶). Over twenty five per cent of those who died were aged under 20 and the majority of the latter had used volatile substances. In 1990, there were 145 deaths from misusing solvents, the highest death toll ever from inhaling solvents (DOH, 1992).

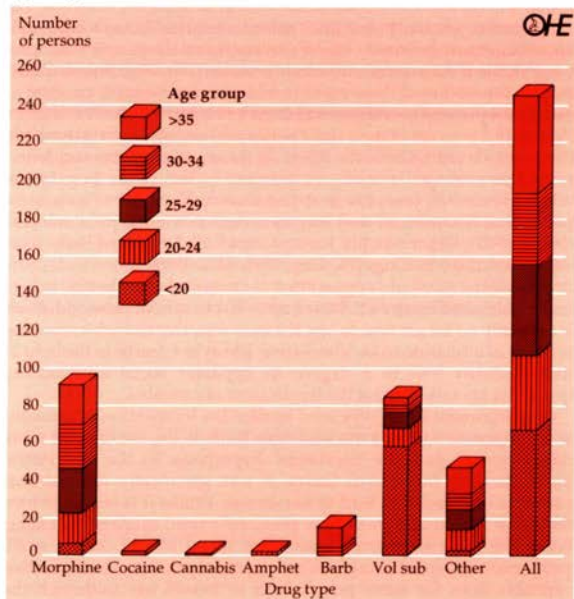
Other sources of statistical information

As previously stated most illicit drug use in the United Kingdom passes unrecorded. Unlike in the United States and Canada, there are no routine national or regular drug surveys. Despite this there have been several surveys conducted which indicate the extent of self reported drug use in at least some sections of the population.

Several studies have sought to estimate the prevalence or incidence of drug misuse in certain local communities, for example in South

6 In Figure 7 - 'morphine' includes all morphine type drugs and where taken in combination with another drug. 'Other' includes all combinations excluding morphine, unspecified drug dependence, antidepressants (3 deaths) and mixed, unspecified, non-dependent drug abuse. The numbers in each column cannot be added together to reach a total.

Figure 7 Deaths from drug dependence or non-dependent abuse by drug and sex in 1989



Source: Home Office 1991.

Tyneside (Pattison et al, 1982), Bristol (Gay et al, 1986; 1987), Glasgow (Haw, 1985), and the Wirral (Parker et al, 1986; 1987). These local surveys have great value, especially if they are focused on areas in which there appear to be unusual or serious drug problems. Recently, attention has been centred on what seems to be exceptionally high rates of opiate misuse among the young in deprived areas such as the Wirral (Parker et al, 1986) and the Muirhouse district of Edinburgh (Robertson, 1990). The study by Parker et al concluded that there were 1,600 problem drug users in the Wirral, most of whom used opiates.

Hartnoll et al (1985), have suggested that between 20,000 and 30,000 people in London were using opiates regularly in 1984 and today it is widely acknowledged that there are in the region of 150,000 regular

opiate users in the United Kingdom, thus supporting the belief that the Home Office statistics record between five and ten per cent of total users.

The most commonly used illicit substance in the United Kingdom is cannabis. It is consistently found that nearly all the people who have used an illicit substance have used cannabis. The 1982 British Crime Survey found that of those aged 16 and over 5 per cent (7 per cent of men and 4 per cent of women) admitted having used cannabis at some time with 3 per cent of men and 2 per cent of women having used it in the previous year. Above the age of 35 the use of cannabis was found to be less common at around 1 per cent or less of the population, whereas below 30 years of age approximately 8 per cent of men and 4 per cent of women said they had used cannabis in the previous year (Mott, 1985). Other smaller surveys conducted more recently have supported these findings (Balding, 1988; RBL, 1989).

These surveys would suggest that cannabis smoking seems to be a well established leisure activity of up to 10 per cent of young adults. It is certainly no longer true to say, if it ever was, that cannabis smoking is a sign of affiliation to an 'alternative' lifestyle. Clearly, in the light of its popularity and to a degree its apparent social acceptability questions are raised about the legalisation of cannabis.

One argument frequently used against the legalisation of cannabis is the suggestion that its use somehow leads to the use of other more dangerous drugs – the 'escalation' hypothesis. In the mid 1980's, particularly in the United States, it was specifically claimed that cannabis use tended to lead to heroin use. Whilst it is fairly obvious that most heroin users will have previously used cannabis (cannabis being the most commonly used illicit drug) in fact only a small proportion of cannabis users subsequently try heroin. It may be that cannabis does for some people lead to heroin use (although the compounds do have completely different effects) but there are alternative explanations. For example, it could be that heroin and cannabis use are both caused by something in the persons psychological or social background (see pages 31-34) which the researchers have failed to take into account; it may be that people use cannabis first because it is more widely available and they come across it before heroin; or it could be that cannabis use involves people in the buying of illegal drugs, making it more likely that they will meet with an offer of heroin which some will accept. Clearly more research is needed before it can conclusively be said that there is a link between cannabis and heroin use and if a link is proved, for prevention purposes, it will be vital that the mechanism by which it operates is understood.

Amphetamines are probably the second most commonly misused illicit drug in the United Kingdom. They are cheap, highly potent and

domestically produced and they are probably the main reason why in the United Kingdom cocaine and crack have not captured a substantial proportion of the illicit drugs market as they have in the United States. This is a clear illustration of how drugs with similar effects (both amphetamines and cocaine are stimulants) are used to substitute for each other according to price and availability (see pages 22 and 37).

So far as it can be ascertained from European data, patterns of drug misuse seem to be similar to that in Britain although variations exist in the way in which the problem is tackled.

Drug misusers come from all social class backgrounds and from virtually all walks of life. Most of those who use illicit drugs appear to be young, between 15 and 35 years of age, and males outnumber females, although some studies suggest that the latter difference may be small (Plant, 1989). Perhaps the most important point to be drawn from the various studies is that between a quarter and third of people in the United Kingdom seem to have used some form of illicit drug, probably cannabis, by the time they reach their twenties.

ILLICIT DRUG GROUPS

There is a wide variety of 'drugs' which can influence mental function. They range from familiar substances like alcohol to the more exotic such as fly agaric. They may be derived from plant material or be the products of the laboratory. Some have a legitimate place in medicine whilst others may only be used for illicit purposes. It is, as previously stated, only with illicitly used substances that this paper is concerned. Certain drugs calm the mind, others cause excitement and some cause complex mental experiences (Royal College of Psychiatrists, 1987).

Although this is a complex area it is possible to classify drugs based on the fact that any drug is likely to belong to a recognisable family and type depending on its type of action. That is, whilst a drug may have particular characteristics of its own its general pharmacological properties will be those of its group.

For drugs to be placed in the same group a number of different criteria must be met. Firstly, these drugs must have similar effects in humans, although they may differ in potency. Secondly, it may be the case that all drugs within the same class attach themselves to the same type of 'receptor sites' in the brain, for example, opiate drugs impinge on opiate receptors. Thirdly, drugs which belong to the same group will produce the same type of withdrawal state. A fourth criterion is 'cross tolerance', this implies that one drug will effectively substitute for another in the same group thus relieving withdrawal symptoms; a clear example of this is the way methadone is used as a substitute for heroin (Royal College of Psychiatrists, 1987).

Drugs are commonly classified into one of the following groups (see Boxes 2-5): opiates, depressants, stimulants and drugs which alter perceptual function (hallucinogenics). However some drugs do not fit easily into these groups usually because they have some of the properties of more than one group. For example, cannabis has the actions of both a depressant and a hallucinogen; solvents and gases can produce mixed effects including sedative, anaesthetic and hallucinogenic; and benzodiazepines whilst producing similar effects to other drugs in the depressant group evidence suggests that they can produce a different type of dependence. Nevertheless as a compromise, these substances have been placed in the group which is the closest to their action.

Opiates (see Box 2)

Opium (the origin of the name opiate for this group of drugs) is the resinous extract of the white poppy (*Papaver somniferum*). Within opium there are more than a dozen alkaloids; however, only a few of these have any medical value and even fewer are of any interest to the

BOX 2 Opiates	
	<i>Drug group</i>
	Opiates, Opioids, Narcotic Analgesics
<i>Scientific names</i>	Diacetylmorphine diamorphine or heroin Dipipanone Methadone Buprenorphine Pethidine Dextromoramide Dextropropoxyphene Opium Morphine Codeine
<i>Common names</i>	'Junk', 'Skag', 'H', 'smack' 'dike', 'pinkies' 'amps' (injectable) 'linctus' (oral)
<i>Legal status</i>	Prescription only medicine. Controlled drugs. Prescription only medicines, except in the form of some very dilute mixtures available without prescription from pharmacies. Controlled drugs, but legal to possess without a prescription.
<i>Recommended medical use</i>	Pain relief, cough suppression, anti-diarrhoea agents. Treatment of opiate dependence (methadone).
<i>Methods of administration</i>	Heroin can be smoked, sniffed or injected. Most other opiate preparations can be injected or swallowed.
<i>Prevalence and availability</i>	Illicitly produced and imported heroin is the most widely misused of this class of drugs. In many areas heroin is commonly available on the illicit market. Other opiates available.
<i>Effects</i>	Reduce sensitivity to and emotional reaction to pain, discomfort and anxiety. Feelings of warmth, contentment. Relatively little interference with mental or physical functioning. Higher doses, sedation, stupor, sleep/unconsciousness. Tolerance and physical dependence with frequently repeated doses. Depressant effects may be dangerously magnified if more than one opiate is taken at a time, or if opiates are taken with other depressant drugs.

Source: Adapted from ISDD, 1991.

BOX 3 Drugs that depress the nervous system

<i>Drug group</i>				
	Barbiturates and other hyposedatives	Benzo-diazepines	Solvents and Gases	Alkyl Nitrites
<i>Scientific names</i>	Barbiturates Quinalbarbitone Amylobarbitone (combination of above) Pentobarbitone Butobarbitone	Minor tranquilisers Diazepam Chlordiazepoxide Lorazepam Oxazepam Benzodiazepine hypnotics Nitrazepam Flurazepam Triazolam Temazepam	Toluene Acetone Butane Fluorocarbons Trichloroethylene Trichloroethane	Amyl nitrate Butyl nitrate
<i>Common names</i>	'Downers', 'Barbs' and various slang terms derived from trade names or colour of pill/capsules.	'Tranx' Sleeping pills	Glue Glue Lighter fuel Aerosols Cleaning fluid Cleaning fluid	'Poppers', 'Rush' 'Locker room'
<i>Legal status</i>	Prescription only medicine. Controlled drugs.	Prescription only medicine. Controlled drugs but legal to possess without a prescription.	In UK illegal to sell knowingly for inhalation. In Scotland misusers may be taken into care.	Pharmacy medicine. Unrestricted.
<i>Recommended medical use</i>	Promote sleep in severe, intractable insomnia.	Relieve anxiety. Promote sleep in insomnia.	None.	None.
<i>Methods of administration</i>	Swallowed as pills, capsules or elixirs. Injected.	Swallowed as pills, capsules. nose/mouth.	Vapours or gases inhaled through	Vapours inhaled through nose/mouth.
<i>Prevalence and availability</i>	Barbiturate pills and capsules produced for medical use are available on the illicit market.	Most commonly prescribed drugs in Britain. Also available on the illicit market.	Widely available in shops, homes and places of work. Some 5-10 per cent of secondary school pupils may have tried them.	Available in sex shops, clubs, bars etc.
<i>Effects</i>	Depress the nervous system relieve tension and anxiety, promote relaxation, impair the efficiency of mental and physical functioning, and decrease self control. In higher doses there can be 'drunken' behaviour, drowsiness, stupor, sleep/unconsciousness. With the exception of minor tranquilisers, these effects may be associated with positive feelings of or pleasure. Tolerance develops with frequently repeated doses. In high doses there can be strong physical dependence to alcohol or hyposedatives, less strong to minor tranquilisers, not at all to solvents or gases. Depressant effects may be dangerously augmented if more than one depressant drug is taken at a time, or if depressant drugs are taken with opiate type drugs. With nitrites 'rushing sensation as blood vessels dilate; enhanced sexual pleasure; possible headaches, vomiting and dermatitis. Excessive use of nitrites could bring on methaemoglobinemia (severe vomiting, shock and unconsciousness) which has caused fatalities. Tolerance develops, but no reports of withdrawal or dependence.			

recreational user. The major active ingredient in opium is morphine, a product which is ten times more potent than its parent, weight for weight. In addition to morphine, opium contains other psychoactive substances which can be extracted in pure form, including codeine which is widely used in the treatment of pain and coughs.

Morphine can be converted by a chemical process into heroin (diacetyl morphine or diamorphine). There are also many entirely synthetic opiates such as methadone, widely used in the treatment of heroin dependence, pethidine and dipipanone. All these substances share a capacity to relieve pain, to produce a pleasant, detached euphoria and to induce physical dependence leading to withdrawal symptoms when they cease to be used.

Drugs that depress the nervous system (see Box 3)

This group includes the barbiturates and a variety of synthetic sedatives and sleeping tablets. These substances have in common the ability to cause a degree of drowsiness, sedation or relaxation but may also cause the loss of inhibitions as a result of their depressant effect on the brain. They also all have the potential to induce changes in the nervous system that lead to withdrawal syndromes.

Drugs that stimulate the nervous system (see Box 4)

Cocaine is the psychoactive ingredient of the coca leaf. It produces a sense of exhilaration and decreases feelings of fatigue and hunger. Similar effects are produced by synthetic substances like amphetamines and related substances such as methylphenidate and diethylpropion. Amphetamine is currently being illegally manufactured on a large scale in the form of amphetamine sulphate.

All the substances in this group can cause extreme excitement and short lasting psychotic illness. They have a high dependence potential, although withdrawal symptoms tend to be limited to temporary feelings of tiredness and depression.

Drugs that alter perceptual function (see Box 5)

This group includes LSD, psilocybin, mescaline, peyote and certain other plant derived or synthetic substances. These drugs have the ability to induce highly complex psychological effects, including hallucinations and other types of perceptual distortions. Occasionally these experiences can be particularly frightening, hence the term 'a bad trip'. As a rule hallucinogens do not cause physical dependence although there is some evidence to suggest that long term use may lead to psychological dependence.

BOX 4 Drugs that stimulate the nervous system

	<i>Drug group</i>	
	Amphetamines and amphetamine like drugs	Cocaine
<i>Scientific names</i>	Amphetamines Amphetamine sulphate Dexamphetamine (combination of the above) Amphetamine like drugs Methylphenidate Diethylpropion	Cocaine hydrochloride Cocaine freebase
<i>Common names</i>	'Uppers', 'Speed' 'Sulphate', 'Whizz'	'Coke', 'Snow' 'Crack', 'Freebase', 'Base'
<i>Legal status</i>	Prescription only medicine. Controlled drugs.	Prescription only medicine. Controlled drugs.
<i>Recommended medical use</i>	Treatment of narcolepsy and hyperkinesia.	Rarely prescribed. Local anaesthetic.
<i>Methods of administration</i>	Amphetamine sulphate powder sniffed. Pills and capsules, taken by mouth. Frequently injected.	Cocaine hydrochloride powder sniffed, sometimes injected. Cocaine freebase smoked.
<i>Prevalence and availability</i>	Illicitly manufactured amphetamine sulphate commonly available on the illicit market, plus some pills and capsules produced for medical use, cannabis, probably the most widely misused controlled drug.	Illicitly manufactured imported powder available on the illicit market, but expensive; home-produced crack available in some areas.
<i>Effects</i>	Drugs that stimulate the nervous system increase alertness, diminish fatigue, delay sleep, increase ability to maintain vigilance or perform physical tasks over a long period, and elevate mood. High doses can cause nervousness, anxiety and temporary paranoid psychosis. Withdrawal effects include hunger and fatigue. Although unpleasant, these effects are practically never of the kind that might require medical assistance.	

Source: Adapted from ISDD, 1991.

BOX 5 Drugs that alter perceptual function

<i>Drug group</i>				
	LSD and other synthetic hallucinogens	Cannabis	Hallucinogenic Mushrooms	Hallucinogenic Amphetamines
<i>Scientific names</i>	Lysergic and diethylamide and lysergide Phencyclidine	Cannabis Sativa (contains tetrahydrocannabinol) Herbal cannabis Cannabis resin Cannabis oil	Psilocybe semilanceata (contains psilocybin and psilocin) Amanita muscaria	Methylenedioxy-amphetamine and MDMA POM DOM MDA
<i>Common names</i>	LSD, 'Acid' PCP, 'Angel dust'	'Pot', 'Dope', 'Blow' etc 'Grass', 'Marrihuana', 'Ganja', 'Weed' etc 'Hash', 'Hashish'	Liberty cap 'Magic mushrooms' Fly Agaric	'Ecstasy', 'E'
<i>Legal status</i>	Controlled drugs; LSD not available for medical use.	Controlled drugs; not available for medical use; illegal to allow premises to be used for smoking cannabis.	If prepared for use may be a controlled drug. Otherwise unrestricted. Unrestricted.	Controlled drugs; not available for medical use.
<i>Recommended medical use</i>	None.	None.	None.	None.
<i>Methods of administration</i>	Swallowed as variously formed, illicitly produced paper squares, pills, tablets, capsules etc.	Burnt and smoked by itself (herbal cannabis) or with tobacco. Sometimes eaten (resin).	Swallowed raw, cooked or brewed into a beverage, often after drying.	Swallowed as tablets or capsules.
<i>Prevalence and availability</i>	Illicitly manufactured LSD is commonly available on the illicit market. Other hallucinogens relatively rare.	Liberty Caps grow wild in autumn in many parts of Britain and are commonly taken for hallucinogenic effects. Use of other mushrooms rare.	Most widely misused controlled drug in Britain. Probably one million people in UK use cannabis. Smuggled supplies widely available on illicit market.	Illicitly manufactured and generally available on the illicit market.
<i>Effects</i>	Heightened appreciation of sensory experiences, perceptual distortions, feelings of dissociation, insight, elevation of mood. Sometimes anxiety or panic, occasionally severe. Relatively little physiological arousal or sedation, and minimal risk of physical dependence. With hallucinogens and hallucinogenic mushrooms, commonly pseudohallucinations. With cannabis, relaxation, drowsiness, talkativeness. With PCP, significant physiological effects including anaesthesia, sedation or stimulation, and relatively high probability of adverse physical and psychological effects. With Ecstasy feelings of empathy with others at low doses; more amphetamine like restlessness and anxiety at higher doses.			

Source: Adapted from ISDD, 1991.

Poly drug use

In many parts of the world a pattern of multiple drug use is emerging, that is different drugs are being used either at the same time, consecutively or haphazardly as dictated by availability and market forces. This pattern is becoming increasingly common in inner city areas. The poly drug use may take the form of replacing one drug with another from the same group, for example heroin users will take other opiates if for some reason they are unable to obtain any heroin. Alternatively, users often pair up an opiate like heroin with a stimulant like cocaine or amphetamine and inject them together. The stimulant thus counter acting the soporific effects of the opiate.

THE INDIVIDUAL AND DRUG MISUSE

The causes of drug misuse

Why people misuse drugs is a question which people frequently ask. Theories abound as to the causes but most are speculative in that they are reliant on personal experiences, be they clinical or otherwise, of a specific sub group of drug users. There is a lack of valid information on the characteristics of individuals prior to drug use and most theories about the causes of drug misuse have been arrived at from descriptions of established drug users. The majority of British studies of drug misuse have been related to specific, highly selective atypical sub groups. Because of the narrow area in which they are working many researchers have only drawn attention to a few factors which are especially relevant to their area of research. Whilst there are differences of opinion on specific issues there is general consensus in the literature that 'drug-related behaviour is the interaction between drug, personality and environment' (Edwards, 1974). In other words, 'drug taking involves so many variations of behaviour, personality and social background, that the idea of a key factor seems unlikely.' (Plant, 1975)

In order to impose some order on the wide range of causes of drug misuse the subject will be considered at four levels. Firstly the significance of drugs effects on the individual, that is what drugs do to and for the individual. Secondly, the influence that a drug's availability has on the likelihood and level of use or misuse. Thirdly, whether or not certain characteristics or a personality type makes a person more or less likely to misuse drugs and fourthly, the influence of environmental factors such as family, peer group and social deprivation. In considering these four aspects separately it should not be forgotten that they are in fact interrelated.

Drug effects on the individual

One explanation for drug taking is that the person derives pleasure or benefit from the experience that the drug provides, that is a 'high', a sense of risk or relief from pain or anxiety. Whilst this explanation obviously over simplifies the situation it does contain a measure of truth. Many self report investigations have indicated that individuals often explain their drug misuse as an attempt to achieve an altered state of consciousness (Limentani, 1968; Einstein et al, 1975; Plant, 1975). It has been suggested that 'drug' use (not only illicit drugs but also tobacco and alcohol) is so widespread due to the fundamental human need to achieve an altered state of consciousness. This is compatible with the idea that drugs are often taken as an immediate short cut to pleasure, happiness and excitement.

There is a commonly held belief that some drug use is a response to

individual psychological needs and this has been interpreted to suggest that drug use may be an attempt at self medication (Plant, 1981). For example, for some adolescents who are going through a period of personal anxiety may experiment with drugs (Royal College of Psychiatrists, 1987). It is recognised that many people who are drug dependent have a history of psychiatric disturbance and it is possible that for such individuals there is a pressing need to use drugs to alter their mental state or alleviate mental disturbance or stress. However, this theory is only speculative since there is no evidence regarding what would have happened to the individual if they had not become drug dependent.

Despite this it has been strongly suggested that some individuals do take drugs to induce relief of symptoms, for example anxiety and depression. However, precise motivations for drug use are difficult if not impossible to identify and just because depression and anxiety are common features amongst drug using populations it is certainly not sufficient to suppose that drug use was adopted as a deliberate attempt at self-medication.

However, the usefulness of a drug to the individual is more than merely a chemical effect on the brain. Taking drugs can also have a psychodynamic significance, that is that the son of an alcohol dependent father may drink or take drugs to identify with or punish the parent. In a study by O'Bryan (1989) carried out between 1984 and 1986 it was found that in a group of solvent users all the core users had problems in their family relationships, typically parental drunkenness and violence in the home; the heroin user may inject drugs as a way of expressing their sense of worthlessness and despair or as an escape from difficulty in forming human relationships (Royal College of Psychiatrists, 1987).

Availability

There is little doubt that the availability of drugs is a major reason why drugs are used and misused and that any factors which increase the availability of a drug will increase the likelihood of its use and misuse. Those in the medical, nursing, dental and allied professions have for a long time been recognised as being especially at risk of becoming drug dependent (Brit Med J 1967, 1969). The most frequently proposed explanation for this high risk is the availability of opiates and other drugs of dependence. For other people contact with drug users and the opportunity if so inclined to use drugs appear to be common conditions for use. The concept of the 'evil drug pusher' has generally been over played. A young person who starts to take heroin seldom does so because a drug pusher has sought to corrupt them but rather because they are mixing in a group in which heroin is available, because they are casually offered the drug by a friend and because a

variety of social and personal circumstances has increased the likelihood that they will accept such an offer (Royal College of Psychiatrists, 1987). This being said, many addicts will sell drugs in order to finance their own addiction.

Availability also appears to dictate patterns of drug use in a given area at a given time (Plant, 1981). Many drug users, particularly those in institutions, appear willing to use whatever substances are available or to substitute another drug with similar properties if their drug of preference is not available (see page 28). However, availability alone does not explain why only some people in a given situation use drugs or go on to become dependent upon them. Generally speaking it can be said that the availability of drugs is an indication of their acceptability in a particular social group. That is, if a person has easy access to cannabis, LSD, heroin etc it usually follows that such an individual is in an environment which condones and supports drug use. In such a situation peer pressure to enter into communal drug use as a form of normative behaviour may be very strong (Plant, 1981).

Personality

The idea that certain personality traits or characteristics predispose an individual towards drug misuse and dependence is popular and there have been many attempts to define the psychological characteristics of a dependence prone personality and even to demonstrate that certain personality types develop substance specific dependence (Ghodse, 1989). It has been suggested that alcoholics are a different 'personality type' from those who are dependent on heroin who are in turn different from those dependent on cocaine.

Several studies have shown that there is an increased risk of personality disorder among drug addicts. A study by Craig (1982) indicated that between 73 and 90 per cent of opiate addicts were diagnosed as having some sort of personality disorder. Other studies have shown that there is a higher incidence of drug misuse among those with personality disorders than in those without (Ghodse, 1989). Consequently, whilst there is clearly a statistical association between drug misuse and personality disorder, it is not possible to say with any degree of certainty anything about causality. The majority of studies carried out in this area have compared drug dependent with non-drug dependent individuals and there is no more real evidence to suggest that personality disorders had caused drug dependence than prolonged drug taking had affected the results of personality testing. Thus, it may be argued that behaviour such as crime and prostitution, often considered to be examples of maladaptive behaviour and evidence of personality disorder, may in reality be examples of highly adaptive behaviour, carried out in order to sustain an increasing drug habit (Ghodse, 1989).

An additional problem is that most studies have concentrated on a highly selected sub-group of drug users, often those in prison or hospital, who are unrepresentative of the drug using population as a whole. Also institutionalisation may affect the results of personality testing. Ideally, what is needed is a prospective study, that is knowledge of a personality before drug taking followed by a waiting period to see who becomes a drug misuser, however such a study would be very difficult to carry out. Retrospective personality studies which ask about for example, early relationships, school records, truancy and employment prior to drug dependency are difficult to assess and tend to be unreliable. Results from such studies should be treated with caution.

However, whilst taking these limitations into account, the general conclusion of many researchers has been that drug misusers have personality disorders in excess of their prevalence in the general population. The terms frequently used to describe drug misusers are 'immature', 'problems in forming stable relationships' and 'unable to delay gratification'. This is a considerable way from description of a dependence prone personality, although there may be personality traits which change the likelihood of an individual becoming drug dependent.

Those individuals who do misuse drugs undoubtedly do so for a variety of different reasons both stated and unstated. It is a behaviour which in industrialised societies usually begins in adolescence or young adulthood, research has indicated that in this group the single personality trait most commonly linked with drug misuse is lack of traditional values. This is frequently revealed by rebelliousness, resistance to social structures, disregard of social expectations and a willingness to participate in deviant activities (Ghodse, 1989). Drug taking is often perceived as being an expression of independence and adult and sophisticated behaviour. Curiosity is another motivation for misusing drugs, curiosity about their effects combined with a desire for a new and thrilling and pleasurable experience.

Environmental factors

It is understandable that environmental factors should be blamed for drug misuse particularly when its prevalence starts to rise sharply. In westernised urban societies the most common factors blamed are poverty and unemployment. Whilst these factors may indeed be relevant it must be remembered that not everyone in a particular environment, however deprived, becomes drug dependent. Equally, there are many instances of misuse and dependence among those who are affluent, well educated and employed. The British literature does not support the view that drug taking is a response to extreme social deprivation. Although many individuals in clinic populations come

from low status or disturbed backgrounds others do not and casual drug use such as cannabis smoking is widespread amongst students and other groups many of whom come from high status family backgrounds (Stimson, 1972).

Whether unemployment is a cause of drug misuse is debatable; however, in Britain there does appear to be some sort of relationship between mass unemployment, social deprivation and heroin use, all of which have increased substantially during the 1980's. The circumstances of unemployment, for example 'idle time', will make it more likely that heroin misuse will spread more rapidly within a neighbourhood, once the drug has become available (Pearson, 1987). Parker et al (1986) have shown that young unemployed people living in areas with higher than average rates of social deprivation were more likely to become known to the medical and social agencies as opioid users. In addition, the absence of work status, with its rewards and commitments to compete with the claims of heroin, will make it more difficult for a user to give up the drug and its accompanying lifestyle.

What should not be forgotten is that in those sections of society where there is poor housing, lack of education, uncertain job opportunities and prospects and where many people are living in isolation and outside any intimately supportive social structure, there are likely to be all kinds of medico-social problems, for example child abuse, delinquency or suicide (Royal College of Psychiatrists, 1987). Consequently, it is unsurprising that if drug problems start to spread nationally then certain cities or geographical areas within cities will be more vulnerable to such an epidemic than more privileged locations. Causality is never straightforward and it is not only poor social deprivation or unemployment which influence drug misuse but also factors such as the breakdown of family and social support and the social climate which prevails.

A great deal of interest has been focused on the disturbed family backgrounds or drug misusers, especially those in institutionalised or clinic populations (Beckett and Lodge, 1971; Boyd, 1975). The evidence from these studies would appear to suggest that early parental separation (usually defined as the absence of one or both parents before the age of 15 or 16) is a common feature amongst those deeply involved with drug use. These results should be treated with caution since obviously not all children from broken homes become involved with drugs and equally some children from supposedly stable homes may get caught up in drug taking. What counts as 'stability' often involves much more than surface appearances (Gossop and Grant, 1990).

When seeking causes for drug dependence it is easy to limit the field of interest to that of the local problems which receive so much media

publicity, poverty, unemployment, breakup of local communities, drug pushers, organised crime and break down of parental authority. But drug use is not a new phenomena and dependence has been recognised for thousands of years, as mentioned in the introduction to this paper, and whilst these problems may well be contributory factors they are almost certainly not the causes of drug dependence.

Any theory of the causes of drug dependence must be sufficient to encompass the wide range of dependent behaviour that is seen today, for example the adolescent glue sniffer, the cannabis smoking student, the doctor injecting himself with pentazocine and the mystic seeking truth with LSD. None of the factors discussed above is sufficient to cause drug dependence on its own and their relative importance is different in different circumstances. Drug related behaviour is the consequence of interaction between the drug, the individual, society and the environment.

The effects of drug misuse

Health

The main criteria for measuring the severity of drug-related ill-health are excess mortality (that is mortality in drug users compared with that in the general population) and excess morbidity (prevalence of diseases in drug users compared with prevalence in the general population). Both mortality and morbidity must be interpreted as a consequence of complex interactions involving a wide range of factors.

Firstly, the pharmacological and toxicological properties of the drugs used and the combinations of the drugs used are discussed earlier in the paper. Secondly, there is the accessibility of health services to the drug user and their utilisation. The types of treatment and rehabilitation which are currently used will be considered later in the paper, however, the accessibility of primary care, hospital and social services to drug misusers must be a cause for concern. Fear of being notified as a drug addict may prevent many drug misusers from coming forward for medical treatment even if the complaint is unrelated to their use of drugs. Women are more likely than men to remain in the hidden sector of drug users unknown either to the police or the treatment services and it is therefore important that they are more easily able to consult their GP (Banks & Waller, 1988). Although there is no stigma attached to attending a family practitioner unlike a drug dependence unit there does not appear to be any easy way of overcoming the drug misusers fear of notification (see page 10).

BOX 6 Routes of drug administration

The route by which a drug is taken into the body can be important for a number of reasons. Methods of administration vary in the rapidity with which a drug reaches the brain, in the likely brain or blood level achieved, in the risks of dependence and in the dangers of overdose and certain types of physical damage. Some drugs can be taken in a variety of ways while for others only one route of administration is likely to be appropriate. The principal routes are as follows:

Ingestion

In addition to the obvious pills and capsules, many drugs can be eaten or drunk, for example, laudanum (opium in an alcoholic solution), bhang (a drink made from cannabis), the oral route is a slow way of getting the drug into the body compared with other methods and has lower risks of dependence.

Sucking or chewing

Cocaine, for example, has traditionally been used in the Andes by placing a wad of leaves inside the cheek. Chewing provides a way of absorbing the drug through the lining of the mouth plus it has the cost effective advantage of not exposing the substance to destructive digestion in the stomach.

Inhalation

This is a rapid way of getting a drug into the blood stream through the lungs. Some drugs are inhaled by smoking the raw materials, for example cannabis, others are inhaled directly, like volatile solvents, while still others rely on heat turning a solid into an inhalable gas, for example 'free-basing' cocaine and 'chasing the dragon' with heroin.

Sniffing

Here the drug is absorbed through the lining of the nose. Sniffed heroin and cocaine illustrate this technique.

Intravenous injection

From the point of view of the addict this is likely to be the most cost effective method of administering a drug as well as being potentially the most dangerous. None of the drug is digested, burnt or otherwise wasted, and it is rapidly carried through the bloodstream to the brain. There are dangers of accidental overdose, and the introduction of dirt and infections such as hepatitis, septicaemia and HIV. Intravenous injection is also a particularly rapid way of establishing dependence on a drug. Drugs which are commonly intravenously injected include heroin, cocaine, barbiturates and amphetamine sulphate.

Other modes of injection

Some users, particularly at the beginning of their drug using career, may prefer to inject a drug into their muscles or under the skin, 'skin-popping'. The same technique will be used if the surface veins have been blocked by the clotting and inflammation brought about by repeated intravenous injections.

The route of administration of drugs will influence the extent of health problems experienced by drug misusers. The Home Office figures (1991) indicate that 64 per cent of new addicts and 68 per cent of renitified addicts in 1990 were injecting drugs. Whilst there are obviously health consequences in smoking or snorting drugs, for example damage to nasal membranes, the more serious health problems relate to drug injectors. Injectors, whether regular or irregular, face three specific consequences not faced by non-injectors. In the first place, the mode of administration typically delivers the whole dose into the bloodstream in one batch. This eliminates the possibility of regulating the dose in response to felt effects, as is possible with smoking or snorting. Overdose is more likely with injection than other forms of administration (see Box 6). In the second place, injection carries the danger of infection. This is related to some users lack of stable housing and facilities to maintain cleanliness and the failure or inability to use sterile equipment and water (which is used to dissolve heroin prior to injection). Hepatitis and HIV can be passed from one user to another if they share a needle. Thirdly, veins may be damaged by injection, especially if material not totally soluble in water is injected. Fourthly, the mode of administration may affect how users perceive themselves and their drug use and hence have consequences for their future use of drugs; for example some injectors become very involved in playing at the role of addict.

With drugs such as heroin and amphetamines dependence often develops so rapidly that a lifestyle characterised by inactivity, self-neglect and a preoccupation with obtaining supplies is often established very quickly. However, a swift decline with growing social problems or death is not inevitable. In a 10 year follow up study of 128 heroin addicts Stimson and Oppenheimer (1982) found that 38 per cent of the sample had become abstinent, 15 per cent had died but a further 38 per cent had stabilised their addiction (a further nine per cent were of uncertain status). These 'stable' addicts had adopted routines for taking their heroin that did not involve intoxication, they worked in jobs which allowed them to attend weekly clinics and take drugs throughout the day and they moved out of friendships with other addicts so that they relied solely on clinics to supply their drugs.

The cost of drug use

The economic mechanisms controlling the price of addictive substances are different from those governing the normal market place. Within the illegal market, drug prices are completely artificial as compared to what they would be if they were being sold in a legal market where the normal rules of supply and demand would apply.

Table 4 Typical retail prices of drugs on the illicit market by drug, London and Glasgow

<i>Drug</i>	<i>Year</i>			<i>£s</i>	
	1985	1986	1987	1988	1989
Cocaine (per gm)					
London	55	90	75	60	60-80
Glasgow	75	70	85	85	100
Heroin (per gm)					
London	65	90	85	90	70-80
Glasgow	90	90	90	70	80-100
Amphetamines (per gm)					
London	15	15	15	13	12-15
Glasgow	15	15	15	15	12-25
Cannabis resin (per ounce)					
London	65	50	60	90	80-100
Glasgow	95	85	110	110	85-120

Sources: 1985-1988 Hansard: 21 March 1989, col 537-538; 1990 ISDD.

Costs fluctuate but in 1990 a heroin user could be spending up to £175⁷ per week. Table 4⁸ shows the typical retail prices of various drugs on the illicit market in London and Glasgow between 1985 and 1989. Maintaining an addiction to drugs is expensive. In order to finance their drug habit users often resort to crime, most usually the resale of drugs and prostitution (James et al, 1979) but also crimes such as shoplifting and burglary. Mott (1981) believes that drug misuse is not associated with criminal activity except in respect of offences directly drug related (that is, the funding of the dependency), and that addicts who commit offences that are not drug related are more similar to other offenders than to other drug addicts.

Breakdown of relationships

As previously stated, for many addicts (non-stabilised) the maintenance of their supply of drugs becomes their main priority and everything else in life is forced into second place. Since most of the day is spent either thinking about drugs, taking them or making efforts to

⁷ On average a heroin user would take a quarter of a gram of heroin per day at a street value of £80-100 per gram. This gives a weekly cost in the region of £175 (ISDD, 1991).

⁸ Whilst the very nature of illicit market in drugs means that the prices listed in the table are little more than estimates it is interesting to note that the prices of certain drugs, in particular amphetamines, have not risen in line with inflation and therefore have become cheaper in real terms.

procure them, other responsibilities at home or at work become neglected. Marital discord and/or family frictions occur, work performance declines and often attendance at work becomes erratic. If the situation continues it often becomes intolerable for family, friends and employers with the result that the drug user may lose both their job and their family support and home. These losses may be a crisis for the drug user and stimulate them into seeking help for their addiction. However, if they fail to seek help or it is not forthcoming it is likely that the drug user will turn to his or her drug using friends for support, thus making the chances of recovery less likely. Such friends will already have been made in order to ensure a ready supply of drugs (Banks & Waller, 1988).

The illegality and limited availability of most drugs presents an additional problem to the user. Sources of supply have to be established and the drugs collected; this may be done by private arrangement or at some acknowledged 'street market'. Burr (1983) has described in detail her infiltration of and the operation of the Piccadilly drug scene in London. The essential features of 'street markets' are easy accessibility, regular presence of known dealers and protection against harassment from the police or opportunist criminal elements, protection is afforded by the openness and bustle.

CONTROLLING THE DRUGS PROBLEM

The evolution of British drugs policy

Drugs policy in Britain has moved through a number of phases, each one partly dictated by what went before. Indeed, it has been argued that policy and practice on illicit drug use has always been geared to trying to deal with yesterday's problem (MacGregor, 1989). In the first phase, through the nineteenth century, there were increasing controls on the sale of opium but it was not until the 1920 Dangerous Drugs Act that a serious attempt was made to control the prescribing of 'addictive' drugs, mainly heroin (invented 1874) and morphine. International pressure particularly from the United States played a large part in the public health campaigns of the early twentieth century. This Act together with the establishment of the Rolleston Committee in 1926 mark the beginning of the second phase and established what came to be known as the 'British system'. The British system left the responsibility with individual doctors to decide how best to treat each individual patient and allowed the prescribing of morphine or heroin to patients who were thought unable to live a useful and normal life without them (maintenance prescribing).

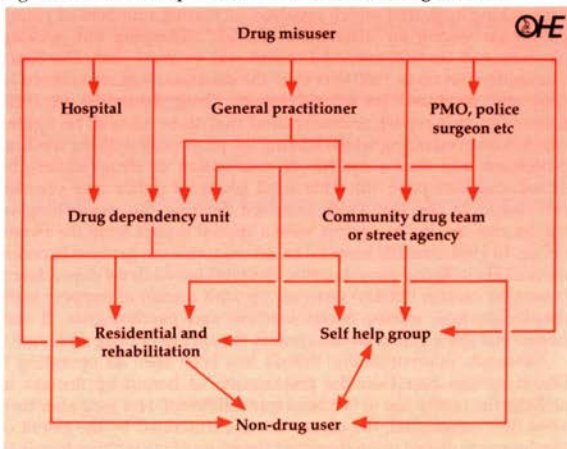
This system lasted until the end of the 1960s, when a new form of drug taking appeared which involved increasing numbers of young people embracing an 'alternative lifestyle', dropping out, seeking pleasure and centred around London and its West End. The Brain Committee (set up in 1960 to review the situation) was reconvened in 1964 and produced its second report, *Drug Addiction* in 1965. Essentially this report recommended that there should be tighter controls on prescribing whilst leaving the power still with the medical profession and that a system of notification of drug addicts be introduced (see page 10). This third phase of policy and practice introduced in the late 1960s involved limiting the prescribing of heroin and cocaine to doctors with a special licence from the Home Office. In 1968 over 500 hospital based doctors were granted licences, most of them being psychiatrists. Hospital based drug dependency treatment centres (DDUs) were set up with a team of support staff, usually doctors, nurses, social workers and psychologists. It was hoped that these clinics would contain the spread of drug addiction.

Although, internationally, Britain has been seen as operating a liberal system based on the prescription of heroin by doctors to addicts, the reality has in fact been quite different. Not long after they were first established, the clinics became frustrated by the extent of the demands placed upon them and the ethics of prescribing heroin in any quantity. Between 1971 and 1978 the amount of heroin prescribed fell by 40 per cent and in its place was substituted injectable methadone and oral methadone. Most clinics in the mid 1970s

favoured gradual withdrawal programmes rather than long term prescribing. Gradually other agencies began to play a role in the containing and managing of drug misuse, especially voluntary agencies, which offered immediate advice and counselling, 'crisis intervention' and longer term rehabilitation, and which also dealt with clients thought not to be dependent on opiates but who took a variety of drugs according to availability (for further information see Box 7 and Figure 8). In addition other health services became increasingly involved for example accident and emergency departments and more particularly general practitioners. In 1970, 15 per cent of new notifications of addicts came from general practitioners by 1990 this figure has increased to 43 per cent (see Figure 2). Clearly the assessment and treatment of opiate addiction is no longer solely the preserve of specialists (Ashton, 1987).

The plans for the pattern of services in the 1980s, the clinic system, grew out of the 1960s but their implementation was hampered by increasing pressure on public expenditure from the late 1970s onwards. Almost from the beginning, these services were starved of

Figure 8 Access and patterns of treatment for drug misusers



Note: Drug misusers are individuals and no one pattern of treatment suits all misusers. Some drug misusers will try various sources and types of treatment at different times. There is a very high drop out/relapse rate among drug misusers.

BOX 7 Agencies and services available for drug misusers

For all drug users it is essential to work out a long term plan aimed at bringing about change in them and their lifestyle so that they no longer require drugs and can cope without them even if they continue to be freely available. A variety of treatment options exist: some are directed at the underlying causes which may have initiated drug taking and/or are contributing to its continuation; some help to resolve the problems associated with drug taking; and others aim to reduce or stop drug taking regardless of other problems or circumstances. Not all interventions are suitable for all patients nor are they mutually exclusive. Some of the services available for drug misusers are described below.

Drug counselling

Drug counselling is primarily an advisory service but the advice given is supported by the practical help of a professional counsellor. Counselling involves assessing the specific needs of an individual and then providing or directing the person towards those services which meet their needs. The first step usually taken by counsellors in discussion with the drug user is to establish realistic goals which may include not just their problem drug use but also school, work, leisure time activities and relationships with family and friends. Progress in achieving the stated goals is monitored by seeing the patient regularly, and problems can be appropriately dealt with as they arise by a counsellor who becomes known and trusted by the patient.

A whole range of problems can be dealt with in counselling sessions. When appropriate specific treatment options can be discussed such as in-patient or out-patient detoxification, maintenance treatment, drug free therapeutic communities etc and the necessary arrangements for their implementation can be initiated. Other areas of daily living may also be open to advice such as ways in which encounters with other drug users and drugs can be avoided.

Vocational rehabilitation

Vocational rehabilitation is a treatment style aimed at helping patients to acquire job related skills. These may be specific skills related to a particular type of job or the interpersonal skills needed to obtain and retain employment. The theory behind this treatment is that because drug misuse is just one element of an individual's total behavioural repertoire by intervening to encourage and develop desirable behaviour, that is obtaining a job, this may lead to a reduction in less desirable behaviour, drug misuse.

Whether this theory is credible or not, it is undoubtedly true that unemployment rates may be very high among drug misusers and especially among young misusers and that they may be receptive to help in this area of their lives. Delinquent adolescent behaviour and drug misuse may have interfered with their basic education. They may have limited vocational skills and poor employment records. Particularly during times of high unemployment it may be virtually impossible for them to get a job without intervention and help from an outside agency.

Many of the problems of drug misusers are no different from other long term unemployed and referral to professional agencies may be helpful. However, schemes for vocational counselling can also be located in out-patient clinics or incorporated into residential programmes for drug misusers.

Therapeutic communities

It has long been recognised that detoxification does not solve drug dependency, that the chances of relapse are quite high and that it takes time for drug misusers to learn to live without drugs. For many, the necessary change in lifestyle is very difficult if they remain in an environment where drugs are readily available. Therapeutic communities developed as a response to this situation. There are many different types of community with different underlying philosophies but all insist on residents being drug free, although often for only a short period (24 hours), before admission and some provide medical supervision of detoxification. Programmes last for varying lengths of time (3-15 months); they may offer group or individual psychotherapy which may be compulsory. Some will accept residents who are on bail and conditions of bail and some offer vocational training.

Evaluation of the effectiveness of therapeutic communities is difficult but generally those drug misusers who successfully complete the programme subsequently do well. However many of those who enter these communities are unable to endure the lifestyle expected of them and leave early. It should not be forgotten that residents of therapeutic communities usually have a long history of drug misuse and a correspondingly poor prognosis therefore the success rate of these communities, however small, is especially creditable.

Hostels

The risk of relapse is high if newly abstinent drug dependent individuals return to their old environments, hostels provide an opportunity for them to consolidate the success of withdrawal. The hostels act as a half way house, the pressures of daily life are reduced by living in the hostel and help and counselling are available if problems arise but there is also little supervision so that residents can regain responsibility for conducting their own lives in preparation for living independently.

Self help groups

In many self help groups there is an underlying philosophy that it is impossible for an individual to overcome a drug problem on their own but that this can be achieved with the help and support of the group. A common theme of all self help groups is that of mutual aid, of individuals helping each other by offering friendship and sharing common experiences. They provide group support, social acceptance and social identity for people who may have become very isolated because of their drug problem. Because those who have successfully come off drugs usually continue to attend group meetings new members are able to meet and identify with abstinent individuals, this may be the first time that they become aware that abstinence is an achievable goal.

Self help groups have often developed where and because professional services are failing to meet the needs of drug misusers, it is therefore easy to understand why some of these groups have anti professional attitudes. Equally some professionals view these groups with suspicion and feel threatened by them. Professional health care and self help groups should not be in competition but rather complement one another and professionals should encourage their patients to attend the groups. However, it is essential that professionals do not become directly involved with the groups since they would then be no longer self help groups.

There is a complementary range of groups for the families of drug misusers. These meet a need which is largely ignored elsewhere and help families cope with the pressures of living with a drug misuser.

Crisis intervention

Crisis intervention centres are usually staffed by nurses and social workers with a doctor for medical emergencies. They offer temporary shelter and social support to drug misusers at times of crisis when it is hoped that they will be more responsive to help and more motivated to tackle their drug problem. These centres are particularly useful for those who abuse barbiturates and other sedative hypnotics and who arrive at a hospital accident and emergency department in a state of chronic intoxication. Whilst they cannot be discharged in this condition they are unwelcome on any conventional medical ward due to their often aggressive and disruptive behaviour. If they are referred and taken direct to a crisis intervention centre their detoxification can be supervised by trained personnel and when they are sufficiently recovered the process of counselling can begin. Crisis intervention proves a valuable entry point into treatment for many people who would not otherwise be helped but it is only the beginning of the process towards abstinence and referral to rehabilitative treatment for most misusers will be important.

In-patient care

A patient may be admitted for in-patient care in a drug dependency unit for a variety of reasons, for example: for assessment of their state of dependence: for stabilisation on opiates: for detoxification: for the treatment of secondary complications such as abscesses, hepatitis, septicaemia and HIV infection: and assessment of mental state. A drug dependency in-patient unit is therefore likely to have at any one time patients with a wide variety of problems.

Ideally, the in-patient unit provides a structured and therapeutic environment in which specific and general treatment interventions can be implemented. A variety of activities are usually organised on a regular basis, these include various group sessions dealing with the problems and difficulties associated with drug dependency. It is hoped that patients in hospital will start to develop a way of life and a daily routine which is not centred on drugs and drug taking.

Source: Ghodse, 1989.

resources and there was a no effective mechanism whereby funds were allocated at a regional and district level. The clinic system was simply a loose collection of ideas, policies, institutions and activities (Stimson and Oppenheimer, 1982) but what kept it together in practice was a reformist orientation.

In the phases of the development of British drug treatment practice there are three clear models of policy. Firstly, the medical model. This model characterised the second phase of British policy and practice and is based on a metabolic theory of addiction, craving. Addicts, in this model, are perceived to be suffering from a chronic illness. The second model, the reformist model, dominated the 1970s and 1980s.

This philosophy united doctors, social workers, those in statutory and those in non-statutory agencies. The model is concerned with rehabilitation and is based on social learning theories; it stresses the need for a change in lifestyle if the aim of a drug free existence is to be achieved. The third model, the libertarian model, has begun to win some renewed support in recent years. The libertarian model sees the purpose of the drug services as being providers of what the addict requires but cannot legally obtain. Supporters of this view argue for long term prescribing by medical practitioners and some even go so far as to advocate a controlled market in drugs, that is legalisation, putting drugs on the same basis and alcohol and tobacco.

Unfortunately, as can be seen from the earlier section on the incidence and prevalence of drug misuse, the numbers of registered drug addicts and the estimated number of addicts in the community has continued to rise. In the last decade policy and practice has appeared to move into a fourth phase.

The 1982 report of a working group of the Advisory Council on the Misuse of Drugs⁹ on *Treatment and Rehabilitation* seemed to accept that the clinics had failed in their objective of controlling the spread of addiction. The report contained 45 recommendations and proposed a new response to the problem. It emphasised that all services should be directed in such a way as to focus on the problems of drug misuse rather than concentrating on diagnosis or restricting availability to those believed to be addicted to any particular substance. In the 1970s the clinics had been criticised for failing to offer treatment to people using amphetamines, barbiturates or a mixture of drugs. In addition the report indicated that a full range of complementary services were needed to respond adequately to the problem of drug misuse; a purely medical approach was felt to be inappropriate and a co-ordinated multidisciplinary group incorporating health, social, probation and education services and the voluntary sector was required (although it was still implied that medical input should form the major part). The main focus of this approach was to be on rehabilitation: 'the main objective must be to utilise not only the full range of specialist services but also the existing statutory services concerned with social support, including social work and youth services, housing and employment agencies' (ACMD, 1982).

In this redesigned system, the clinics continued to play a leading role supported by other agencies. This has caused some resentment among the other agencies partly because it is felt that recognition of their role and support for their activities has not been given, including an absence of secure funding for their services, but also

⁹ The Advisory Council on the Misuse of Drugs is a statutory body set up under the Misuse of Drugs Act 1971.

because there is a lack of information about what happens in the clinics. Due to the need to bid for funds rehabilitation projects and voluntary agencies have in general produced annual reports of their work and encouraged evaluation (Glanz and MacGregor, 1984; Dorn and South, 1985). But little is known about the activities of DDUs, particularly outside London.

An attempt to document the situation was made in 1982 (Smart, 1985) and covered both large DDUs and small ad hoc arrangements. This survey found that the bulk of treatment available to drug users within the NHS was provided on an out-patient basis. Over half the units were established in the 1960s, almost one quarter in the 1970s and the remainder in the 1980s. Only three fifths were special or designated clinics; very few had consultants working on a full time basis; full time staff of any kind were found to be rare; the majority of patients were injecting users; the average waiting lists in 1982 were three weeks and the main source of referrals came from general practitioners. The study was unable to identify whether the services were working effectively and whether the different policies of DDUs around the country reflected different local problems, lack of resources or a lack of motivation to tackle the issue. Smart (1985) states that 'without a sounder picture of what is going on on the ground, policy from above will have little chance of success.'

In 1985, an investigation of GP services in relation to drug misusers was made (Glanz and Taylor, 1986). In a survey conducted in England and Wales it was found that one in five general practitioners came into contact with an opiate drug misuser in a given four week period. There were some marked regional variations, in some regions consultations were concentrated at only a few practices. Whilst, most new patients were seeking help with withdrawal and/or rehabilitation, one third appeared to the general practitioner to be mainly interested in obtaining a prescription for opiates. Glanz comments that 'the substantial demand on the part of opiate misusers for help in coming off their drugs emphasises the strategic position of general practitioner as both provider and gatekeeper for key services in response to this problem'. Unfortunately, the indications are that although the number of general practitioners dealing with drug misusers is increasing a substantial number of general practitioners are reluctant to take on the management of drug misusing patients and are very quick to refer to DDUs and other drug agencies.

Throughout the 1980s various reports have been published about drug misuse. Whilst these reports have highlighted the problems with existing services it is noticeable that very little of any substance has changed. In 1985 the Social Services Committee devoted its fourth report to the *Misuse of Drugs with Special Reference to the Treatment and Rehabilitation of Misusers of Hard Drugs*. Its views are summarised in

**BOX 8 Paragraph 105 of the Fourth Report of the Social Services Committee
Misuse of Drugs with special reference to the Treatment and Rehabilitation
of Misusers of Hard Drugs**

The misuse of drugs, and particularly misuse of heroin and cocaine, is a serious and growing problem. It demands an immediate, determined response from Government and from society as a whole. Existing services are woefully inadequate to cope with the increasing pressure. Treatment facilities are few, underfunded, often inaccessible and always with long waiting lists. Rehabilitation is provided, if at all, by voluntary organisations unable to plan ahead for lack of secure funding. Experienced staff are in very short supply. Drug misusers and their families do not know where to turn for help. General medical and social services are too often unable to become involved. Many drug misusers end up in prison where they are likely to receive no help at all. There is still little sense of direction in the Government's preventive efforts. Recent initiatives, national and local, are welcome but not enough. Merely encouraging local and health authorities to create services out of existing resources will not work. Most local and health authorities are unwilling to give any degree of priority for drug misusers. The Government must put forward a clear long-term strategy for the co-ordinated development and maintenance of services for drug misusers. New money will be needed and projects of proven worth must be guaranteed adequate funding. Training facilities for specialist staff of all disciplines must be increased greatly. Drug misusers can be helped to come off, and stay off drugs. There are a number of examples of services which work. Drug misuse can be tackled but only if expressions of concern are matched by action.

what has become a much quoted paragraph (see Box 8). Unfortunately their complaints are as valid today as they were six years ago.

The Home Office in 1986 produced a government strategy publication *Tackling Drug Misuse*. The government's strategy involved a five point plan: to reduce supplies from abroad; make enforcement even more effective; strengthen deterrence and tighten domestic controls; develop prevention; and improve treatment and rehabilitation. Its proposals under the first three recommendations partly followed on from the Interim report of the Home Affairs Committee (1985) and the response on prevention being to appoint specialist drug advisers and to run a series of public health information campaigns.

One of the most important aspects of this report was the setting up of the Central Funding Initiative (CFI). The aim of the CFI was to provide a 'rapid response' in the face of a 'burgeoning problem' and applications were invited for funds for services for drug misusers. Through this, funding was offered to statutory and voluntary organisations which developed new services for drug misusers. The objectives of the CFI were: to provide for regional and local

assessments of the nature and spread of drug misuse; to improve levels of awareness of the problems of drug misuse and increase the ability of professional and others working in this area to help people with drug related problems; to improve links between health services provision and other community based services; and to improve the effectiveness of services and to provide value for money (DHSS, 1983). Although these were the stated objectives clearly it was an attempt to pump prime health services for drug misusers. The CFI was criticised on the grounds that the pattern of services that would develop would be haphazard and would not reflect the true needs of the drug using community and therefore its impact may be limited and also that good projects might not be successful in securing funds and consequently close. To some extent the critics have been proved right.

The second part of the Government's action was to persuade the Regional Health Authorities to develop their own services. Clearly it was unrealistic to expect health authorities to find all the extra funds necessary to get the new services up and running and in addition problem drug users had long been at the bottom of any priority list for financial support in terms of services.

The total sum allocated through the CFI was £17.5 million (spread over seven years, 1983-90). By 1987, the total number of grants awarded was 188 and of these 56 per cent were administered through health authorities and 42 per cent through the voluntary sector (the remainder through local authorities). All 14 regional health authorities received some CFI funds although the amounts and the pattern of services developed in each region varied. Of the grants awarded, 40 per cent were for community based projects (56 per cent of the budget) and seven new residential rehabilitation projects were funded (9 per cent of the total budget). In addition, other projects funded were for training and education, information gathering and research, self-help groups, development of services at DDUs and further support for voluntary agencies (MacGregor, 1989).

The impact of AIDS

The impact of AIDS on British drugs policy has been considerable. From a policy which was for the most part aimed at treatment and rehabilitation it would appear that priorities have changed towards risk minimisation, that is safer drug misuse, at least, that is among those working with drug misusers. The attitude of the Government is more complex.

In 1988 the Working Group on AIDS and Drug Misuse of the Advisory Council on the Misuse of Drugs published its report. The guiding principles behind the report to try and keep drug misusers in

touch with appropriate help and to try to keep habitual drug misusers in contact with treatment or other help to reduce unsafe injecting and other harmful behaviour. The report recommended that needle exchange systems be extended; free condoms be provided to addicts by clinics and GPs; that drug clinics adopt a policy of prescribing more freely to addicts whilst maintaining abstinence from drugs as the ultimate goal; confidential access to condoms for prisoners; pharmacists should sell needles and syringes; and the police should ensure that their activities do not discourage drug misusers from obtaining sterile equipment. However, the Government totally rejected the working groups advice, especially regarding the central funding of needle exchange schemes and the provision of condoms to prisoners.

In the same year the Social Services Committee on AIDS also had its advice rejected. The Governments response implied that there would be no additional funding available to combat AIDS. The new needs generated would have to compete with other demands for public expenditure.

Perhaps surprisingly in the light of their earlier attitude, the Government allocated health authorities for the financial year 1989/90 £17 million to be spent on drug services more than doubling the amount provided in 1987/88 (see Table 5). Future funding has also been assured thus ending the yearly uncertainties that have made planning difficult. It has also to some extent solved the question of whether health authorities would continue to fund CFI projects once

Table 5 Health authority funding earmarked for drug services

	<i>£ millions</i>		
	1987/88	1988/89	1989/90
England			
general	5*	5	5
prevention	1+	4	9
Scotland			
CFI support	1.1	1.1	1.1
HIV prevention	-	0.3	1
Wales			
general	1	1	7
needle exchanges	-	0.1	0.18

Note: In England and Scotland money allocated for HIV prevention may be used to develop a range of drug services, not just those aimed primarily at HIV prevention.

* Annual funding available since 1986/87 to support drug services.

+ See Table 6 for expenditure on prevention by Department of Health.

Source: Druglink March/April 1989.

Table 6 Funds allocated by Department of Health for health education in relation to drug abuse

<i>Year</i>	<i>£ millions</i>
1986-87	1.7
1987-88	5.4*
1988-89	1.9

Source: Hansard, May 1989.

*Includes major joint drugs misuse/AIDS anti-injecting campaign. By mid 1987 the drugs and AIDS campaign had cost £9 million (Power, 1989).

NOTE: Since 1985/86, £100,000 has been allocated per annum for in-service training for teachers in addition to the amounts included in the table.

central money ceased to be available (February 1990).

Whilst a level of funding for drug services for both treatment and prevention (see Table 6) the problem of targeting of resources still remains and this will be discussed in more detail later in the paper. However, a major criticism of British drug services is the lack of co-ordination between national, regional and local levels. In fact it has been argued that there is no identifiable policy for drug service provision since there is such confusion (MacGregor, 1989). There is certainly little logic to the shape of the services which have developed. The desire to be seen to be doing something has often led to money being put into frontline non-residential facilities which often have no back up. Variations have occurred throughout the country both in terms of the level of provision and the types of services offered and again this has happened without thought to levels of demand for services in particular areas nor whether the types of services (see Box 7 and Figure 8) being provided are likely to encourage drug misusers to make use of them.

At present it is not clear what kind of treatment helps to retain people in contact with drug services nor how people can be encouraged to stop injecting. Although some answers may be found from lessons learnt in other areas where health improvement has been promoted, as with reduction of cigarette smoking, increased exercise and changes in diet, research must be undertaken. One difficulty is that a substantial proportion of drug addicts are not 'motivated', that is they have no sense of direction or other purpose in life except obtaining and taking drugs and are not interested in prolonging their life. Once they change their attitude to life in general then specific behaviour changes can follow. An additional problem is that existing drug services are obviously only seeing a minority of the total number of drug misusers. Whether the current services being provided do not attract them or whether it is simply that they do not perceive that they

have a problem is a debateable point but a solution must be found, particularly with an increasing number of HIV positive people and AIDS deaths among the drug using community¹⁰. By August 1991 there had been a cumulative total of 108 deaths from AIDS and a further 120 cases of AIDS where it was known that the transmission of the virus was through intravenous drug misuse.

In a study conducted during 1990 (PHLS et al, 1991) it was found that the prevalence rate among 1,421 injecting drug users in London the prevalence rate for HIV-1 was 1.1 per cent. Of those who began injecting between 1986 and 1990 (43 per cent), however, 22 per cent had evidence of hepatitis B infection. The relatively low prevalence rate for HIV-1 found among drug users in this study must be treated with caution since other studies also conducted in London during 1990 have found prevalence rates of 2.4 to 7.7 per cent.

The recommendations of the Working Party on AIDS and Drug Misuse (see above), in particular the extension of needle exchange systems would go some way in helping to prevent the transmission of the HIV virus. In Merseyside, which has the highest population of drug addicts in treatment of any part of the UK, active prevention strategies of a wide ranging nature, including out reach work appear to have been successful in preventing the transmission of the HIV virus. Merseyside has the second lowest rate of HIV infection in the UK with only one new case reported in the two years to July 1990. Of those known to be HIV positive, 53 per cent are IV users in Scotland, but only 9 per cent in Merseyside (Blaxter, 1991).

However, the funding for health education in relation to drug misuse (see Table 6) is minimal. The efficacy of the media campaigns launched by the Government is highly questionable. Not only have the campaigns been extremely costly they tend to reinforce stereotypes of drug users and 'preach to the converted'. Those who are using drugs or may in the future consider using drugs probably do not get the message of the campaign. Given the limited resources available the wisdom of continuing an expensive prevention campaign should be reassessed. Perhaps a better use of resources would be for subjects such as drug misuse and AIDS to be dealt with within the context of the school curriculum rather than as a 'television spectacular' (Power, 1989).

The costs of drug misuse

Due to the lack of a co-ordinated approach to the treatment and rehabilitation of drug misusers and the considerable input of the

¹⁰ It was estimated that in 1988/89 the costs per patient/year for each AIDS patient was £17,000 and, it was thought that this was an underestimate of the true cost (Blaxter, 1991).

Table 7 NHS expenditure on drug misuse, UK, 1989/90*

<i>Health service sector</i>	<i>Cost attributed to drug misuse £ million</i>	<i>Total cost £ million</i>	<i>Per cent attributed to drug misuse</i>
Hospital services	27.5	14,265	0.19
General practice	2.16	2,008	0.1
Pharmaceutical services	1.87	2,738	0.07
Other	N/A ¹¹	7,069	N/A
Total	31.53	26,080	0.12

Source: OHE estimates, 1991.

* The estimates are calculated as follows:

Pharmaceutical services – Number of prescriptions written for methadone hydrochloride multiplied by the net ingredient cost and dispensing cost for 1989 (98 per cent of all registered drug addicts receiving drug treatment are prescribed methadone).

General practice – An estimate of the number of consultations specifically for drug misuse has been calculated taking into account the age of addicts and the number of prescriptions written by GPs for drugs used in the treatment of drug misuse. This figure was then multiplied by the average cost of a GP consultation. The real cost of GP services for drug misuse may actually be less than the figure quoted but it is unlikely that it is more.

Hospital services – This figure was calculated in two parts, firstly mental and psychiatric services, where more accurate data is available, and secondly other hospital services (including Accident and Emergency, special treatment units, in-patients and out-patients). The calculation was made using data relating to numbers of patients, average length of stay/number of consultations, and cost per consultation/bed day.

N/A – Not available.

¹¹ It is calculated that £16.5 million was spent on residential drug services in 1989/90. Of this money £4.4 million was public monies (DSS allowances, Home Office, Department of Environment, Local authorities, and Regional and District Health Authority grants) the remainder was financed through private fees and voluntary donations. The figure is not included in the table since it is not financed for the most part by the health service (SCODA, 1991; OHE, 1991).

voluntary sector calculating the expenditure by the National Health Service on drug misuse is fraught with difficulties.

In Table 7 an attempt has been made to assess the expenditure on drug misuse, breaking it down into the component parts of hospital services, general practice, and pharmaceutical services. As can be seen from the table, in 1989/90 it is estimated that NHS expenditure on drug misuse was £31.53 million or 0.12 per cent of the total NHS budget. However, there are other costs associated with drug misuse which must be taken into consideration. It is conservatively estimated

that by the late 1980's over £100 million was being spent each year on drug enforcement, that is customs, drug related police activities, court costs, and prisons (Wagstaff & Maynard, 1988), however, it could be argued that these costs arise out of societal attitudes to drugs and addiction. In addition there are costs for which it is not possible accurately to estimate such as loss of working days, social security benefits, drugs related crimes (for example burglaries and prostitution) and the breakdown of families and relationships.

The real question which needs answering is not whether drug services are receiving sufficient funding but rather are the resources that are available being directed in a manner likely to achieve maximum benefit. Until this question is answered the question relating to levels of funding is of little value.

CONCLUSION

As this paper has indicated drug misuse in itself (although there may be severe consequences for the individual) is not the massive health problem that the media would lead us to believe. However, what is increasingly becoming a health problem is those diseases which can be transmitted by injecting drugs, in particular hepatitis and the HIV virus. Indeed, injecting drug misusers comprise the fastest growing group of people with AIDS in Europe (Carballo & Rezza, 1990) and this obviously has important consequences for the rest of society. Between 1985 and 1989 the proportion of drug injectors among people with newly diagnosed AIDS in Europe rose from 15 per cent to 36 per cent, with the figure rising above 50 per cent in some regions (WHO, 1990). Although in Britain the epidemic began later than in other countries this fact must not lead to complacency; it is a chance to identify targets and aim to reduce the speed and spread of the HIV infection in society as a whole. Already studies have shown that the prevalence of HIV infection amongst injecting drug users is increasing and in Edinburgh a prevalence rate of 51 per cent has been recorded (Robertson et al, 1986).

In the green paper *The Health of the Nation* (1991) drug misuse is only mentioned in the context of HIV and AIDS. This would appear to have placed the problem of drug misuse into its proper perspective and clearly from the evidence given earlier in the paper drug misuse itself is not an appropriate key area¹². However, in order to influence the rate and the extent of the spread of the HIV virus action must be taken to reduce the number of people injecting drugs and/or encourage safer methods of injecting through needle exchange systems and education, and the green paper fails to identify targets in this area which would help achieve their stated objective of reducing the numbers of new cases of HIV and AIDS.

The question that needs to be asked is whether there are sufficient opportunities to influence injecting drug misusers behaviour. Whilst as a rule intravenous drug use is a closet behaviour (Strang, 1991) there are already in existence opportunities to influence drug misusers. General practitioners already see an estimated 6000-9000 opiate addicts each month (Glanz & Taylor, 1986); pharmacists are asked for needles and syringes by an estimated 20,000 drug misusers

12 The criteria for the selection of key areas in *The Health of the Nation* green paper are as follows: first, the area should be a major cause of premature death or avoidable ill-health (sickness and/or disability) either in the population as a whole or amongst specific groups of people; second, the area should be one where effective interventions are possible, offering significant scope for improvement in health; and third, it should be possible to set objectives and targets in the chosen area and monitor progress towards achievement through indicators.

a month (Glanz et al, 1989); and of the 50,000 inmates in British prisons it is estimated that 10 per cent of men and 25 per cent of women will be opiate addicts (Maden et al, 1991) although in 1990 prison medical officers only identified 1,000 opiate addicts (Home Office, 1991).

A distinctive feature of drug misuse is the way in which it changes over time. The Home Office figures show a persistent increase in the number of recorded addicts from 2,000 addicts in 1970 to over 17,000 in 1990 (see Figure 1), however closer examination of the figures reveals that during the 1960s there was an epidemic of intravenous amphetamine use, largely countered by public health measures; during the 1970s there was an intravenous barbiturate epidemic which was associated with high morbidity and mortality. Even with heroin the pattern of use has altered over time: during the 1960s and 1970s virtually the sole route of administration was by injection; during the 1980s in some British cities at least this has changed. By 1987, 90 per cent of heroin users on the Wirral, Merseyside, were taking heroin by 'chasing the dragon' (see Box 6) (Parker et al, 1987) as were 50 per cent of a local treatment sample in south London (Gossop et al, 1988) whereas, for example, in Edinburgh injecting has remained the only route of administration (Robertson, 1990).

The fact that existing services are coming into contact with drug users and that the patterns of drug use have changed over time does mean that there is scope for altering drug using behaviour. Strategies for action have already been produced by the Advisory Council on the Misuse of Drugs (see previous chapter). Their reports have provided a framework for the promotion of involvement by general practitioners backed up by a local drug service or community drug team in every district. The Central Funding Initiative from the Department of Health primed the development of these services. With the report on *AIDS and Drugs Misuse* (ACMD, 1988) concern shifted from dependent drug misusers to injecting users and at the same time the target change in behaviour itself altered.

In Scotland, the early McClelland report identified the essential components of a national strategy (Scottish Home and Health Department, 1986). 'All drug misusers must be brought into contact... [with] a framework of service provisions which offer a comprehensive approach to the many complicated social, financial, legal, psychiatric and other problems which afflict many misusers'; 'substitution prescribing is likely to be a necessary part of the means used to attract clients to the services and to establish safer drug using practices'; practical steps must be taken to provide sterile injecting equipment to addicts who are unwilling to stop injecting'; 'staff working with drug misusers will require adequate training and continuing access to sources of expert support...'. Thus the aim is the reduction of HIV transmission among drug injectors and through

them to the broader general public: the means by which this will be achieved is through the refocusing of any and every possible contact with drug injectors (Strang, 1991).

However, whilst the aforementioned documents contain goals to be achieved there are no specific targets or means of measuring progress. The new regional databases (see page 13), which will provide data on local drug users in contact with statutory and statutorily funded services, should provide the means for implementing many of the necessary changes, for example, measuring changes over time in the addiction to treatment interval of new patients. However, information will still be missing on patterns of drug misuse outside treatment services. This gap in information must be dealt with soon. The United States National Institute on Drug Abuse has for many years conducted household surveys to gather information on different types of drug misuse 'ever' and 'last month'. The US Department of Health and Human Services document *Healthy People 2000* (DHHS, 1990) relies heavily on this source of information to assess the impact of public health and education measures. Until such time as regular household surveys of this nature are set up in Britain no one will know the value of the various anti-drug and anti-injecting campaigns which have been undertaken.

The consultation document *The Health of the Nation* could have been an excellent opportunity to apply a truly valuable strategic approach to the problem of injecting drug misuse which in turn would have gone some way to achieving the Governments objective of reducing the numbers of new cases of AIDS and HIV. It must be hoped that as the targets to be set develop this oversight will be corrected and another opportunity to promote better health in Britain will not be missed.

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