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European Monitoring Centre
for Drugs and Drug Addiction

ANNUAL REPORT 2004

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Foreword

This year's annual report of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) includes data from the 25 Member States of the European Union and from Norway. The wealth of information presented not only helps us to understand better the extent to which drug problems affect both the citizens of Europe and the communities they live in, but also enables us to reflect on the policies and actions that Member States have developed to respond to the complex and multifaceted challenge that the use of drugs presents.

Those familiar with the previous EMCDDA reports on the European drug situation may be struck by the considerable differences that arise from this enlarged perspective. Many of our assumptions on the nature and direction of trends in the drug problem need to be reviewed and adapted to reflect the reality of the more complex, dynamic and diverse situation that faces Europe today.

Not all countries can provide information in all areas, nor are all the data available open to simple comparison. For this reason, methodological notes are provided and we alert the reader to the caveats that need to be considered when drawing conclusions. Nonetheless, the information that is now available on the European drug situation is substantial and increasingly robust. We look forward to bringing you an increasingly comprehensive data set in future years as investments currently being made by Member States bear fruit. The more technically aware reader, or those wanting more specific details on any aspect of this report, can inspect the full data tables that underpin the summary information presented here, which are available in the accompanying statistical bulletin and in the extended online version of this publication. For those requiring only a concise overview of developments, the 'At a glance' section provides a summary of key developments, which are then explored in more depth in the body of the report.

We gratefully acknowledge the fact that the information in this report is the product of a partnership and dependent on the work of our partners in the Reitox network and the scientific experts who have contributed to national and EU-level working groups. The report is also informed by, and benefits from, our ongoing work with the European Commission in support of the evaluation of the European action plan on drugs (2000–04).

Some commentators focus on the difficulties that may arise from greater European integration, particularly the ability of organised crime to benefit from the opening of borders and the free movement of goods and individuals. Such challenges are not ignored in this report, but another message can also be found. We increasingly share, as Europeans, common problems resulting from the use of drugs, but we also bring to the debate different historical experiences and perspectives. The data found in this report represent a common commitment of our Member States to collect comparable information and use it to facilitate the development of more effective and better-targeted policies and responses. The enlargement of the European Union offers us a new opportunity to share our experiences of what works and to cooperate more closely to develop better-coordinated activities. In this endeavour the EMCDDA is committed to playing its part in working with Member States to assemble the high-quality data sets that are necessary to underpin an informed debate.

Marcel Reimen
Chairman, EMCDDA Management Board

Georges Estievenart
Executive Director, EMCDDA

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Introductory note

This annual report is based on information provided to the EMCDDA by the EU Member States and Norway (participating in the work of the EMCDDA since 2001) in the form of a national report. The statistical data reported here relate to the year 2002 (or the last year available). In the area of responses to drug use and for the selected issues more recent data may be reported.

The national reports of the Reitox focal points are available on the EMCDDA website (http://www.emcdda.eu.int/?nnodeid=435).

An online version of the annual report is available in 20 languages and may be found at http://annualreport.emcdda.eu.int. Further material, referred to in footnotes with the reference OL, is presented only in the online version. Available in English, this includes a wealth of graphics, tables and background information.

The 2004 EMCDDA statistical bulletin provides the full set of source tables on which the statistical analysis is based (http://statistics.emcdda.eu.int). It also provides further detail on the methodology used.

At a glance — an overview of the European drug situation

In this overview section, some of the key developments covered in the EMCDDA's 2004 annual report on the state of the drugs problem in Europe are highlighted. The reader should refer to the body of the report for a full discussion.

Policies and the legal framework

Among the major policy developments noted in the report is the mid-term evaluation of the action plan that stemmed from the 1998 United Nations special session on the world drug problem (UNGASS). In addition, the EMCDDA is contributing to the evaluation of the EU action plan on drugs (2000–04), which will conclude in 2004.

In June 2003, the Council of Ministers adopted a recommendation on the prevention and reduction of health-related harm associated with drug dependence. Key areas covered by the recommendation include health protection and risk reduction, reducing the incidence of blood-borne diseases among drug users (HIV, HCV and TB), reducing drug-related deaths and establishing appropriate evaluation mechanisms. In 2003, the Council of Ministers also reached a political agreement on a framework decision on drug trafficking. This agreement focused on achieving alignment of penalties and widening the target of action to those criminal and terrorist organisations that derive funds from drug trafficking.

Work continued in 2003 on the control of new synthetic drugs in the European Union, with the Council of Ministers adopting a decision to apply control measures to 2C-I, 2C-T-2, 2C-T-7 and TMA-2.

In 2003, there was an increase in the number of countries whose drug policy operates within the framework of an overall national strategy, with drug plans adopted in Denmark, Germany, Lithuania and Slovenia. Once, as planned, Estonia and France follow suit in 2004, over three quarters of all EU Member States will have adopted this approach. Common themes found in national strategies include a commitment to a balanced approach in respect of demand- and supply-side activities and an explicit recognition of the importance of coordination.

Evaluations of drug policy can provide important lessons for the future. Areas in which monitoring or evaluations were reported by Member States in 2003 include the impact of new drug legislation; the impact of changing legal provision regarding drug possession for personal use, and particularly possession of cannabis; measures to allow local authorities to act against premises associated with drug trafficking or public nuisance; schemes designed to refer those with drug problems to bodies outside the criminal justice system; and actions to counter drug trafficking and money laundering activities. Approaches taken in the Member States to measure national drugs strategies are set out in a selected issue on evaluation.

Two countries (Belgium, United Kingdom) reported changes in the legal classification of cannabis. In both of these countries problematic cannabis use is explicitly addressed by laws or guidelines, and the legal changes instituted have a number of important dimensions that have sometimes been ignored in the media's reporting of these actions.

An increasingly important area for future activities and international cooperation is that of putting in place powers to allow the assets of drug traffickers and criminal gangs to be confiscated. Spain, France, Ireland and the United Kingdom all report new developments in this area.

The issue of driving under the influence of drugs and how to deal with it remains of considerable concern in many Member States. In 2003, three countries (France, Austria and Finland) made significant changes to clarify or reinforce legislation in this area.

Drug prevention

Drug prevention work in Europe can be categorised as targeting the community as a whole (universal prevention) or those most at risk, at either group (selective) or individual level (indicated). The most highly developed models of universal prevention are programmes targeting the school population, for which a fairly robust evidence base is available to guide programme content and delivery. A number of countries report encouraging developments in the coverage and delivery of school-based prevention programmes. However, in many countries there remains significant potential for improvement in both the coverage and quality of universal prevention work. Universal prevention effort outside school settings also has

considerable potential, but currently this kind of approach is pursued in only a few countries.

Although the importance of developing prevention work among those most at risk is increasingly recognised, there remains a substantial need to invest in this kind of focused prevention.

Cannabis

Cannabis remains the most commonly used illegal substance in the EU, with a high level of variation between countries. Recent studies among 15-year-old school students suggest that lifetime prevalence varies from under 10 % to over 30 %, with the highest rates being reported by boys in the United Kingdom (42.5 %). A small but consistent proportion (about 15 %) of 15-year-old school students who have used cannabis in the last year report doing so on 40 or more occasions. Such intensive use of cannabis is concerning, particularly the possibility that this group might be at risk of experiencing negative consequences. This issue and the fact that reported demands for cannabis treatment have risen in Europe are covered in more detail in a selected issue. The prevalence of recent (in the last year) cannabis use peaks among young adults (15–34 years), ranging in most countries between 5 % and 20 %. It appears that cannabis use increased substantially in most countries during the 1990s, but, in some countries at least, has now stabilised.

More than 30 countries are cited as sources of the cannabis seized in Europe, illustrating the global nature of cannabis production. Europe is the world's largest market for cannabis resin, the majority of which originates in Morocco, which is now the main worldwide source of this form of the drug. Cannabis is also now cultivated within most European countries, although in all countries, with the exception of the Netherlands, imported cannabis products still predominate. The potency of cannabis imported into Europe appears to have remained relatively stable for a number of years. Cannabis grown within the EU using intensive methods is typically of higher potency, but there is considerable overlap between the two products.

Amphetamine-type stimulants (ATS), LSD and other synthetic drugs

Historically in Europe, amphetamine has been the drug most commonly used after cannabis. This now appears to be changing in a number of countries, notably Germany, Spain, the Netherlands, Finland and the United Kingdom, where recent survey evidence suggests that use of ecstasy now equals, or even exceeds, amphetamine use. Despite this rise in ecstasy use, in 2002 Europe continued to account for the majority of global seizures of amphetamine (86 % by volume). Lifetime prevalence rates for ecstasy use generally range from 0.5 % to 7 % of the adult population, although rates are higher in younger males. For example, lifetime prevalence rates of between 11 % and 17 % are reported among 15- to 24-year-old males in the Czech Republic, Spain, the Netherlands and the United Kingdom. Overall, the increase in the use of ecstasy that occurred during the 1990s now appears to have stabilised, with only a few countries still reporting an upward trend. Studies of particular populations repeatedly show that ecstasy use is more common among young people attending what have become known as 'dance events/parties', although some recent evidence suggests that this link may be weakening.

Deaths involving ecstasy are rare in comparison with opiate-related deaths, but they arouse considerable public concern. Problems of definition and measurement make analysis of this topic difficult. Fewer than 100 ecstasy deaths were reported to the EMCDDA in the last year for which data were available. However, this figure must be treated with caution, as some countries reported no data and, when toxicological information was available, often other substances were also present. Around two thirds of all reports of ecstasy-related deaths received by the EMCDDA came from the United Kingdom, where the trend is upwards. It is unclear how much this finding reflects a high prevalence of ecstasy use and to what extent it reflects differences in reporting practices.

Member States continue to target the recreational use of stimulants with a range of prevention and harm reduction programmes, with activities in this area most apparent in some of the new Member States. The use of ATS as a primary reason for seeking drug treatment is rare except in Sweden and Finland, which have a long history of problems due to the chronic use of amphetamines, and the Czech Republic, where problems with the use of 'pervitin', a locally produced methamphetamine, have existed for some time.

Although the use of methamphetamine constitutes a growing problem in a global context, in Europe significant use of this drug has until now been restricted to the Czech Republic. However, sporadic reports of methamphetamine

use are now being received from a number of other European countries, raising the spectre of potential further diffusion of this particularly damaging form of drug use.

Cocaine

Recent surveys suggest that between 0.5 % and 6 % of adults have used cocaine at some point (lifetime prevalence). Among young adults (15–34 years) lifetime prevalence rates generally range between 1 % and 10 %. Typically, around half of those who have ever used cocaine report having done so in the last year. Consumption figures are higher in Spain and the United Kingdom — in both countries recent use (last year) prevalence among adults is over 2 %, compared with less than 1 % in most other countries. This means that prevalence of recent use of cocaine in Spain and the United Kingdom is now similar to that in the United States, although lifetime prevalence rates remain lower. Cocaine trends are difficult to track at the national level, but the data that do exist suggest that recent cocaine use among young people has risen to some extent in Denmark, Germany, Spain, the Netherlands and the United Kingdom, with Greece, Ireland, Italy and Austria also reporting increased use based on local or qualitative sources.

The number of cocaine seizures increased between 1997 and 2002 in all countries except Germany and Italy. Trends from available data suggest that when a complete analysis is possible it will reveal that the number of seizures at EU level rose again in 2002. In most countries the price of cocaine is also reported to have fallen during this period.

The smoking of crack cocaine (cocaine base) remains restricted to some of the larger cities in Europe, where use appears to be most common in marginalised groups. For example, data from studies of the users of drug consumption rooms show that rates of cocaine smoking are particularly high among female sex workers. Although rare in the general population, cocaine smoking is particularly associated with an elevated risk of health and social problems.

Toxicological analysis shows that in some countries cocaine is commonly found in combination with opiates in drug-related fatalities. Deaths attributable to cocaine in the absence of opiates remain rare but may be increasing. In the United Kingdom, the numbers of mentions of cocaine on death certificates increased eightfold between 1993 and 2001, and in the Netherlands the number of deaths attributed to cocaine alone rose from 2 in 1994 to 26 in 2001. Cocaine may also contribute to deaths due to cardiovascular problems, but these cases may be poorly represented in the statistical evidence.

Treatment options for those with cocaine problems tend for the most part to be generic approaches, usually without a pharmacological component. Work is under way to improve the efficacy of pharmacological interventions but, apart from prescribing for symptomatic relief, no clear consensus exists on what constitutes good practice in this area. The management of crack cocaine users, in particular, can present challenges for treatment centres.

Problem drug use, heroin use and drug injection

Heroin use and injecting drug use form the major component of the EMCDDA problem drug use indicator. This indicator is a composite measure designed to help estimate the size of the largely hidden chronic drug problem. Estimates of problem drug use range from 2 to 10 cases per 1 000 of the adult population. Estimates of the size of the problem drug-using population vary considerably between and within countries, with relatively high figures reported in Denmark, Italy, Luxembourg, Portugal and the United Kingdom.

Problem drug users in Europe appear to be becoming a more heterogeneous group. In many countries, most problem drug users were historically characterised by heroin use, but polydrug use and stimulant use are becoming more common. Although estimation is difficult, it appears that heroin use is relatively stable in many countries and levels of new recruitment into the behaviour (incidence) have fallen compared with the situation in the 1990s. This analysis may not hold true for the new countries of the EU.

Europe accounts for just over a quarter of all heroin seized worldwide. No clear trend in the volume of heroin seized in the EU can be observed, and overall this appears to be relatively stable. In terms of both volume and number of seizures, the United Kingdom, followed by Spain, report more seizures than other countries.

A limited amount of opiate production takes place in European countries, largely confined to the production of locally consumed poppy straw products. No clear trends are observable from recent data regarding either the purity of heroin or the price of heroin at street level.

Opiates remain the principal cause of death associated with illicit substances in Europe. Each year there are between 8 000 and 9 000 recorded fatal overdoses, but this figure is almost certainly an underestimate. Most victims are young men in their mid to late 20s or early 30s, although ages at death appear to be rising. Although considerable inter-country variation is found, in general drug-related deaths steadily increased in the EU as a whole over the 1980s and 1990s. Between 2000 and 2001, many countries reported a decrease in the numbers of drug-related deaths and, as a result, at EU level, there was a small but statistically significant fall in reported deaths, from 8 838 to 8 306. However, the number of deaths remains high from a historical perspective.

A worrying recent development has been reports of the trafficking of fentanyl, a synthetic opiate that is up to 100 times more potent than heroin. Recent seizures have been reported in a number of countries bordering the Baltic Sea and in Russia. In Estonia, fentanyl appeared on the drug market as a heroin substitute at the end of 2001, and in Finland a major consignment of methylfentanyl was seized in 2002.

Studies of heroin users in treatment suggest a marked difference between countries in the extent to which users inject or smoke the drug. Among new treatment demands by those using heroin, less than half now report injecting and, in some countries, injecting appears to be coming increasingly uncommon. Elsewhere, and particularly, but not exclusively, in the new Member States, drug injecting remains the norm among heroin users. Overall estimates of prevalence of injecting drug use range from two to six cases per 1 000 of the adult population.

The HIV epidemic is spreading in some of the new members of the EU and in bordering countries although prevalence rates in the EU countries vary widely. In western Europe, the apparent stabilisation or decline in HIV prevalence is threatened by concerns about some new local outbreaks that have occurred since the mid-1990s and the continuing high rates of infection found in some populations.

Rates of hepatitis C (HCV) infection remain high among drug injectors in Europe, with studies finding that from a quarter up to almost all the injectors surveyed have antibodies to the virus. In some cases, a direct correlation between rates of HCV and HIV infection can be observed. Hepatitis B infection also remains common among injecting drug users (IDUs) in Europe, despite the availability of vaccination. With the possible exception of some of the Baltic countries, the prevalence of tuberculosis among IDUs in EU countries remains low, but high rates of infection are found in some countries bordering the EU.

In general, investment in needle and syringe exchange programmes (NSPs) for drug injectors appears to have increased across the EU. Estonia and Latvia have rapidly expanded services in this area, and NSPs have also been introduced in Northern Ireland and Flanders (Belgium). However, in some countries with established programmes the number of syringes distributed has fallen, possibly reflecting lower levels of injecting. The main trends in the development of low-threshold services are for greater integration with other survival-oriented services, such as shelters and primary healthcare facilities, and for greater flexibility in opening hours. Drug consumption rooms are provided by three Member States, and in 2004 the EMCDDA published a detailed study on these facilities.

Drug treatment

Drug-related treatment in the majority of Member States largely involves treatment for opiate use, or polydrug use including opiates. Some form of substitution treatment remains the predominant therapeutic option for this group, although in the new Member States availability of substitution treatment is limited and drug-free treatment regimes remain common. It should also be noted that in the Czech Republic, Finland and Sweden injecting amphetamine users constitute a significant proportion of those in drug treatment.

Available data on those seeking help for drug problems suggest that the characteristics of those in need of help have now diversified. As well as injecting and non-injecting use of heroin, a range of polydrug, stimulant and cannabis use problems are reported. In 2002, for the first time, the EMCDDA's treatment demand indicator showed that, in the 11 countries for which data are available, cannabis displaced opiates as the drug for which the highest number of new clients were referred for treatment in specialist outpatient facilities. The extent to which this represents changes in reporting practice, expansion of service provision or changes in the characteristics of those in need is discussed in detail in the selected issue on cannabis problems in context.

It is increasingly recognised that drugs services need to be integrated with other healthcare provision, especially those

services targeting marginalised and socially disadvantaged groups. Responding effectively to those who have both a drugs problem as well as a psychiatric health problem is particularly challenging. This subject is examined in the selected issue on psychiatric co-morbidity.

Prison issues

Drug users are over-represented in prisons compared with the general population. Estimates of lifetime prevalence of drug use among prisoners vary between 22 % and 86 %, depending on the prison population, detention centre and country. With a relatively high prevalence of injecting drug use, prisons are a high-risk setting for the spread of infectious diseases. Measures to combat this have included introducing substitution treatment and needle and syringe programmes (NSPs) in prisons. The health consequences of drug use in prisons, compounded by restricted access to services and the isolation of prison health services from the regular health system, are increasingly being addressed in the context of the national health and welfare systems. Alternatives to prison, introduced by innovations in penal policy, are diverting drug users to quasi-compulsory treatment or community service on the assumption that their needs are better served by such interventions.

Chapter 1
New developments in policies and laws

In this chapter, recent developments in drugs policies in the EU as a whole, as well as in individual Member States, are described. In most cases, the information supplied is based on changes occurring in 2003, a year that marked the beginning of the second half of the EU action plan on drugs 2000–04. In addition, 2003 heralded the deadline for national governments to carry out a mid-term review of their progress in developing and implementing a national drug control strategy, in accordance with the Declaration on the Guiding Principles of Drug-Demand Reduction, which stemmed from the 1998 United Nations General Assembly Special Session (UNGASS) ([1]) on the world drug problem. As the EU action plan 2000–04 concludes this year, it is opportune to consider the progress that has been made in the evaluation of this action. The EMCDDA is playing a full and active role in this process, which, it is to be hoped, will facilitate sound policy-making in the field of drugs. It is principally from this perspective that strategies and legislative developments at both national and EU levels will be examined.

EU developments

In 2003, two new legal instruments were adopted at European level to tackle the drugs problem. One addresses the issue of public health while the other deals with illicit drug trafficking. Other issues dealt with at EU level during 2003 included measures to take account of new synthetic drugs, the implementation of coordination activities and instruments and the role of the EMCDDA.

Public health

On 23 September 2002, the European Parliament and the Council adopted a new Community action programme for public health (2003–08), which is based on three general objectives: health information, rapid reaction to health threats and health promotion through addressing health determinants. Actions under health information and promotion strands are particularly relevant in the drugs area.

In June 2003, the Council of Ministers adopted a recommendation entitled 'The prevention and reduction of health-related harm associated with drug dependence', a document produced at the instigation of the European Commission in May 2002. This text constitutes a major achievement, being the first EC recommendation in the field of public health concerning drugs. More specifically, it is aimed at reducing the health-related harm associated with drug dependence ([2]). Many Member States have already incorporated the findings of this document in their national drugs strategies.

This document recommends the following:

- Member States should, in order to provide for a high level of health protection, set as a public health objective the prevention of drug dependence and the reduction of related risks, and develop and implement comprehensive strategies accordingly.
- Member States should, in order to reduce substantially the incidence of drug-related health damage (such as HIV, hepatitis B and C and tuberculosis) and the number of drug-related deaths, make available, as an integral part of their overall drug prevention and treatment policies, a range of different services and facilities, particularly aiming at risk reduction.
- Member States should consider a specified list of actions, in order to develop appropriate evaluation to increase the effectiveness and efficiency of drug prevention and the reduction of drug-related health risks.

Member States should report to the Commission on the implementation of this recommendation within two years of its adoption, and subsequently on request by the Commission. This will allow implementation of the recommendation to be followed up at Community level and enable subsequent appropriate action to be taken to meet the objectives of the EU action plan on drugs.

([1]) http://www.unodc.org/adhoc/gass/content.htm.

([2]) For an overview of the role of harm-reduction policy see Table 1 OL: Role of harm reduction.

In addition, the recommendation invites the EMCDDA to bring technical support to the European Commission to prepare a report, in accordance with the European action plan on drugs, with a view to the revision and updating of that recommendation.

Drug trafficking

Following the conclusions of a special meeting of the European Council in Tampere, Finland, in 1999, and in response to the EU strategy and action plan on drugs, a proposal for a framework decision laying down 'minimum provisions on the constituent elements of criminal acts and penalties in the field of illicit drug trafficking' was submitted by the European Commission to the Council and European Parliament. The Council of Ministers in November 2003 reached a political agreement on this first framework decision in the field of drug trafficking. This framework decision is considered to be a key instrument in tackling drug trafficking as the alignment of penalties for drug-trafficking offences among Member States in an enlarged EU becomes increasingly important.

The basic principle of this framework decision is that Member States should criminalise not only drug trafficking but also attempting to do so or inciting, aiding or abetting others to traffic drugs. Measures contained in this framework decision target drug traffickers and the criminal and terrorist organisations that derive funds from trafficking in order to finance their illegal activities.

This framework decision envisages the imposition of sanctions on those who participate at any stage in the traffic of substances covered by United Nations conventions and EC decisions: production, offering for sale, transport, distribution and possession or purchase with intent to traffic. It asks countries to ensure that 'offences … are punishable by criminal penalties of a maximum of at least between 1 and 3 years of imprisonment' or between 5 and 10 years of imprisonment when the offence involves large quantities of drugs or those drugs that cause the most harm to health. The crux of the framework decision is that it sets out a common definition of what is considered drug trafficking at EU level and lays down recommended penalties for this offence within the EU. In achieving agreement among Member States, national differences in the definition of what constitutes personal consumption had to be overcome. For this reason, offences related to personal drug consumption, as defined by the national laws of Member States, are excluded from the framework decision.

The framework decision will come into force from the date of its publication in the *Official Journal of the European Union*, and Member States will have 18 months to take the necessary measures to comply with this instrument.

New synthetic drugs

Continuing its task of controlling new synthetic drugs, the Council of Ministers, in November 2003, adopted a decision regarding control measures and criminal sanctions in respect of the new synthetic drugs 2C-I, 2C-T-2, 2C-T-7 and TMA-2. These substances, which are not listed in any of the schedules to the 1971 United Nations Convention on Psychotropic Substances, are now to be subject to control measures and criminal penalties in the Member States.

In October 2003, the Commission brought forward a draft for a Council decision to replace the 1997 joint action concerning the information exchange, risk assessment and the control of new synthetic drugs ([3]). This initiative is directly related to the outcome of the external evaluation of the joint action undertaken by the Commission as stipulated by the European Union action plan on drugs 2000–04. The proposed new legal instrument aims to clarify the definitions and procedures and extends the scope to all new synthetic drugs and all new narcotic drugs alike.

Coordination

Also in November 2003, the Commission adopted a communication on coordination activities and instruments in the field of drugs in the EU. The communication is based on the findings of a study, organised by the EMCDDA in cooperation with the Commission, of the existing arrangements and mechanisms for coordination in the Member States ([4]). The communication confirms that coordination is essential if the EU is to respond effectively to the complexity of the drugs phenomenon and its consequences.

Role of the EMCDDA

Finally, in December 2003, the Commission proposed recasting the regulations governing the EMCDDA. The proposal, which will be discussed by the Council in 2004, covers several areas, including amendments to the basic regulations, changes designed to strengthen the role of the EMCDDA in the context of new drug use patterns and EU enlargement and amendments to take account of the role of the EMCDDA as a contributor to the evaluation of the EU action plan on drugs.

([3]) OJ L 167, 25.6.1997, pp. 1–3.

([4]) http://www.emcdda.eu.int/?nnodeid=1356.

National policies

'Drug strategies' ([5])

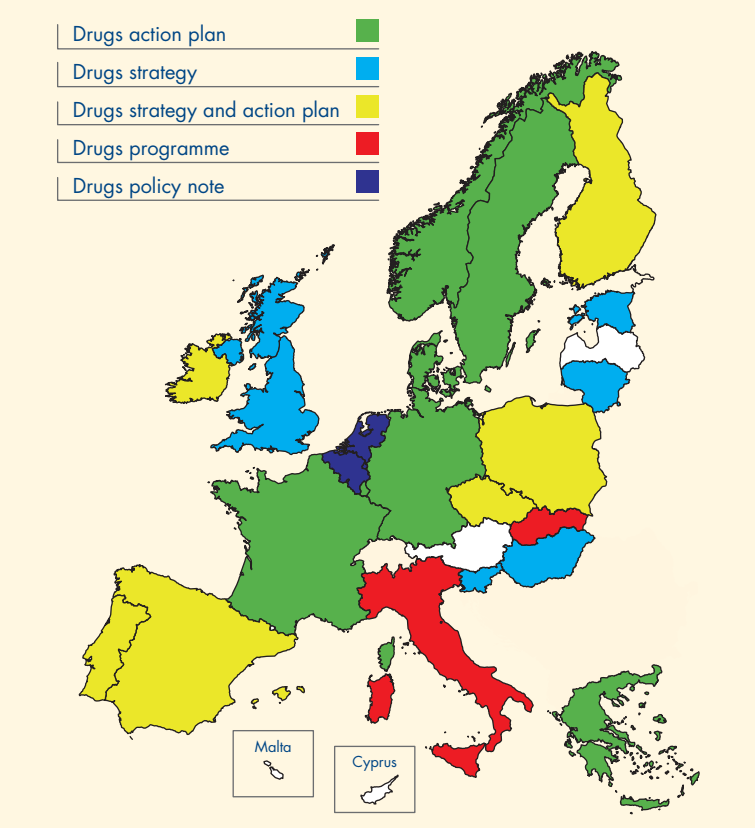
The trend for Member States to adopt a 'national drugs strategy', a cornerstone of EU drug policy, was reported in last year's annual report and continued in 2003 (Figure 1). In 2003, drugs plans and programmes were adopted in Denmark, Germany, Lithuania and Slovenia. In 2004, Estonia and France ([6]) are expected to follow suit, bringing the total number of Member States that operate a drug policy under the framework of an overall national drugs strategy to 21 out of a total of 25 (22 out of 26 if Norway is included) ([7]) ([8]).

The fact that 'national drugs strategies' have been implemented so widely in a relatively short period of time (1997–2004) ([9]), and within a well-defined geographical area, affords the opportunity to make comparisons of the phenomenon in different Member States and obtain an EU-wide perspective.

As a first observation, it is becoming more and more common to adopt a holistic approach to drug policy, incorporating both demand- and supply-reduction activities, the so-called 'balanced approach' ([10]). All documents analysed exhibit this trait. Secondly, coordination is assuming a more important role. Increasingly, national drugs strategies are carried out in a centrally coordinated manner (most EU countries have national coordination agencies and national coordinators ([11])), albeit in close cooperation with regional and local agencies. Thirdly, greater consideration is being given to the delivery of interventions on the ground and to the monitoring and assessment of implementation as tools to ensure accountability to decision-makers (see selected issue on evaluation, p. 75).

However, there are important differences in both the structure and content of 'national drugs strategies'. For instance, the level of detail provided and the emphasis given to actions and objectives vary considerably. Some documents are structured in such a way as to allow stated actions and overall implementation to be followed up; others are less detailed, presenting general objectives but not tying them to operational objectives, targets or performance indicators. Drugs policy documents also vary in their use of terminology: some countries have adopted action plans,

Figure 1: Variety of 'national drugs strategies'



NB: The theoretical distinction between a drug policy, a national drugs strategy (which should identify general principles as well as a framework and direction) and an action plan (which puts the strategy into action, setting out detailed specific actions) is not always maintained in different national documents. Because of the diversity among countries we describe the national strategic documents as officially presented without making any attempt to consolidate definitions or draw comparisons.

Sources: Member States' national strategies.

([5]) Because the structure and content of national drugs strategies vary greatly among countries, no attempt is made in this report to harmonise definitions and concepts. Thus, the expression 'national drugs strategy' (in quotation marks) means any official document approved by a government and which identifies general principles and specific interventions/objectives to be achieved (in a stated time span) in the field of drugs, whether officially presented as a drugs strategy or as a plan of action, political notes, etc. For further information, see EMCDDA *National strategies and coordination mechanisms* report (http://www.emcdda.eu.int/?nnodeid=1354).

([6]) See Box 1 OL: Recently adopted 'national drugs strategies'.

([7]) Norway, although not a member of the EU, is a member of the EMCDDA. Of the 25 EU Member States, only four countries do not (yet) report on a so-called national drugs strategy: Cyprus, Latvia, Malta and Austria. In Cyprus and Latvia, a drugs strategy is in preparation. In Austria, each province has its own plan although there is no federal drugs strategy.

([8]) See Table 2 OL: Current 'national drugs strategies' in the field of drugs in the EU countries.

([9]) Included in this timespan is the Netherlands, which documents its drug policy in a policy note *Drug policy in the Netherlands: continuity and change* (1995) and various follow-up documents (XTC 2001, Cocaine 2002, Cannabis 2004).

([10]) The principle of a balanced approach was endorsed in the political declaration of UNGASS in 1998: 'there shall be a balanced approach between demand reduction and supply reduction, each reinforcing the other, in an integrated approach to solving the drug problem'. In this chapter, no attempt is made to assess the extent to which Member States have achieved a 'balanced approach'; rather, it is simply observed that such an approach is receiving increasing attention.

([11]) For details, see http://www.emcdda.eu.int/?nnodeid=1360.

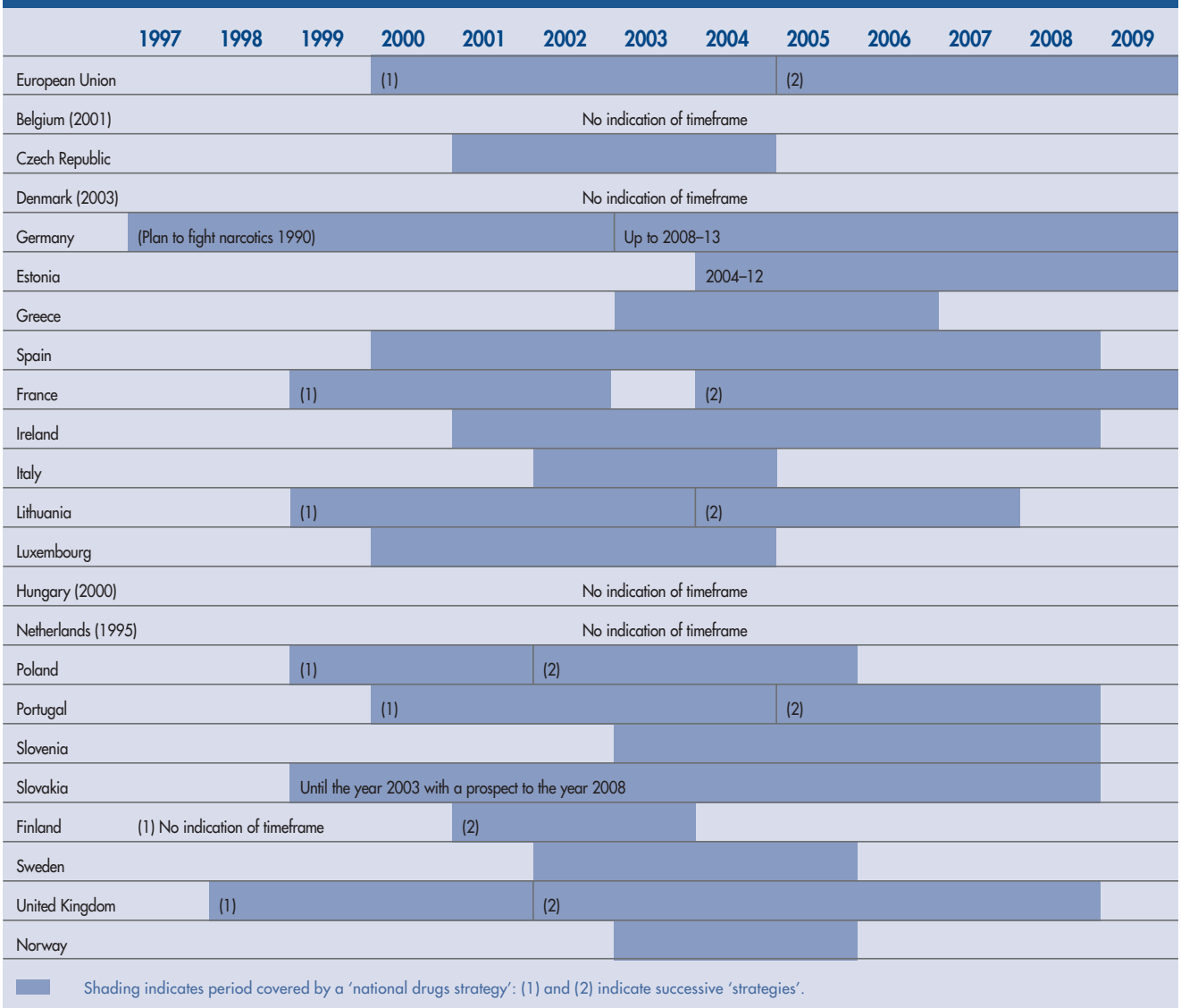
others have strategies and some have implemented programmes. Indeed, the different political objectives and agendas might determine a very wide picture in which rather varying sceneries are portrayed under the expression 'national drugs strategy' (Figure 1). Nevertheless, while the terms action plan, programme and strategy may be used interchangeably ([12]), they do not necessarily reflect differences in political objectives or agendas.

Another aspect that varies between Member States is the timeframe of the national drugs strategy. Most countries have adopted a timeframe of 3–5 years; however, in some countries the strategy covers a period of 8–10 years, whereas in others no timeframe at all is indicated (Table 1). In this respect, the link between 'national drugs strategies' and the EU action plan on drugs should be considered.

The differences in content may reflect different political objectives or differences in the national characteristics of the drug phenomenon. We report here on two of the most relevant areas of divergence: the substances covered and the main aim of the strategies.

Although national drugs strategies typically focus on classified drugs, many documents extend to the so-called legal drugs, mainly alcohol and tobacco, particularly when considering the areas of education, prevention and treatment (Table 2). In some countries, this consideration takes the form of specific actions and projects, while in other countries 'legal drugs' are only mentioned. In many countries that include alcohol in their 'drugs' strategies, a national action plan on alcohol is also in place.

Table 1: Timeframe of 'national drugs strategies'



([12]) A drugs strategy may be defined as a 'unifying theme, framework for determination, coherence and direction' and an action plan as a 'scheme or programme for detailed specific actions' (*Strategies and coordination in the field of drugs in the European Union, a descriptive review*, November 2002: http://www.emcdda.eu.int/?nnodeid=1354).

Table 2: 'Legal drugs' in national drugs strategies

Country	Alcohol	Tobacco	Action plan on alcohol (1)
Belgium	•	•	No
Czech Republic	•	•	No
Denmark	n.a.	n.a.	Yes
Germany	•	•	Yes
Estonia	○	○	Yes
Greece	•	n.a.	n.a.
Spain	•	•	No
France	•	•	Yes
Ireland	•	○	Yes
Italy	○	n.a.	Yes
Lithuania	n.a.	n.a.	Yes
Luxembourg	n.a.	n.a.	No
Hungary	•	○	Yes
Netherlands	•	•	Yes
Poland	○	○	Yes
Portugal	•	○	Yes
Slovenia	○	○	No
Slovakia	•	•	No
Finland	n.a.	n.a.	Yes
Sweden	n.a.	n.a.	Yes
United Kingdom	○	○	Yes
Norway	•	•	Yes

• action envisaged; ○ substance mentioned; n.a.: not available.

(1) WHO alcohol database (http://www.euro.who.int/alcoholdrugs).

Although all countries share the same general objectives (reduction in demand, reduction in supply, etc.) and the EU action plan 2000–04 sets six common objectives ([13]), the way in which it is envisaged that those objectives will be achieved varies depending on the general aim of the drug policy. The principal difference is that in some countries the aim is to achieve a 'drug-free society' while in others the main objective is to reduce the negative consequences of drugs for both individuals and society. However, the situation is not clear-cut: the majority of 'national drugs strategies' mix these two aims (even adding others), giving more weight to one or to the other. The chosen aim (and the extent to which emphasis is placed on achieving it) shapes the actions originating from the 'national drugs strategies'.

While acknowledging that differences are necessary to address specific political agendas as well as local characteristics and cultures, considerable effort has been expended on coordination at the European level. The adoption of a coordinated EU approach to drugs (EU drugs strategy and EU action plan 2000–04), which has been consolidated and structured in recent years, is intended to continue in the future.

The future direction of drug policy in the enlarged EU and whether 25 different national drugs strategies (without considering the regional and local strategies) will eventually be linked under the umbrella of the EU strategy remains an open question. However, issues such as the types of instrument that could be considered by Member States (strategy, programme, action plan), as well as their duration, constitutive principles and criteria, and main objectives and goals could be collegially discussed among the Member States.

National policies: evaluation of laws ([14])

There has been an increasing trend in the last few years to evaluate, or to report the evaluation of, new laws (whether of their implementation and/or of their impact). In the field of drugs, there may be monitoring or evaluation of many different aspects of drug control laws, including the basic law prohibiting use or possession, the responses to drug offences and the fight against trafficking and money laundering. In some countries, pilot schemes are implemented and evaluated before the scheme is rolled out across the whole country.

For example, since 1999, Belgium, the Czech Republic, Germany, Hungary, Sweden and the United Kingdom have all reported some form of monitoring or evaluation of various aspects of basic legal provisions addressing the offence of drug use or possession. This has resulted in major changes in the drug legislation in Belgium, Hungary and the United Kingdom.

Assessment of the effect of criminalisation has been the focus of debate and evaluation. Among the evaluation initiatives, we highlight two apparently similar situations that have led to different outcomes. Both Hungary and Sweden have recently evaluated the effects of criminalising drug use. In March 1999, the Hungarian Criminal Code was amended to make the use of drugs a criminal offence, and the option of requiring offenders to undergo therapy was restricted to addicted users. However, subsequent scientific studies found that the aim of reducing the abuse, consumption and

([13]) (1) To reduce significantly over five years the prevalence of drug use, as well as new recruitment to it, particularly among young users under 18 years of age; (2) to reduce substantially over five years the incidence of drug-related health damage (HIV, hepatitis, TB, etc.) and the number of drug-related deaths; (3) to increase substantially the number of successfully treated addicts; (4) to reduce substantially over five years the availability of illicit drugs; (5) to reduce substantially over five years the number of drug-related crimes; (6) to reduce substantially over five years money laundering and the illicit trafficking of precursors.

([14]) For an extended version of this section, see Box 2 OL: National policies: evaluation of laws.

circulation of narcotic drugs was not achieved; the number of people trying drugs and the number of registered offences and offenders continued to rise. In addition, the change in the law made the legal classification of drugs more difficult and legal proceedings more complicated, and had a negative effect on the conduct of participants in the drug market. The study's authors concluded that the punishments were too rigorous and failed to take account of the fact that young people become drug users not because they have a criminal nature but because of their circumstances. As a result, a new amendment, effectively reversing the changes and taking account of the study's findings, was implemented on 1 March 2003.

In Sweden, in 2000, the National Council for Crime Prevention researched the effects of the 1988 regulation (strengthened in 1993) that made simple drug use an offence. The research revealed that the introduction of the regulation resulted in a sharp increase in the number of people arrested for minor drug offences. Although many of those arrested were well-known drug abusers, some were young, previously unknown users. An important reason for adopting the regulation was to identify young people at an early stage in their drug career, and the report concluded that this was accomplished. The report also discusses the regulation's impact on the drug market (which has escalated). It concluded that there were no clear indications that the criminalisation of drug use had a deterrent effect on young people.

With regards to other responses, evaluations of several legal instruments to deal with drug offenders are being or have been conducted in the United Kingdom, such as testing following trigger offences, drug courts and arrest referral schemes. Other methods of dealing with drug offenders are also being evaluated in Germany (treatment instead of punishment), Ireland (arrest referral) and the Netherlands (compulsory treatment).

The Netherlands is also using evaluation techniques to assess the effectiveness of recent laws aimed at countering drug trafficking (detention of couriers) and money laundering (public contracts). In Sweden, governmental authorities' directives include specific requests for the government to evaluate the organisation and implementation of the police in fighting drugs. Evaluation techniques have also been used to improve responses to local drug dealing and public nuisance, such as coordination of local responses in Ireland, the power to close premises in the Netherlands and the ability to order driving re-tests in Germany.

Evaluation is clearly being recognised as an increasingly important tool in dealing with all aspects of the drug problem. Such evaluations of laws may assess their implementation, effectiveness or efficiency. In general, the evaluations reported have tended to support the value of the policy response under consideration. Yet the willingness to actually reverse a policy based on evaluation results, as has occurred in Hungary, shows a new trust in evidence-based research that has often been lacking. This welcome trend in evaluation forms part of a more general trend for public administration to be more accountable, and increasingly to rely on traditionally private-sector concepts such as performance targets and cost-effectiveness.

Developments in national legislation

Cannabis legislation

In the past year, cannabis has been reclassified in two countries, in both cases attracting much media coverage, not all of it accurate. In Belgium, a package of two laws, a decree and a prosecutorial directive instigated several changes to the legal framework, perhaps the most fundamental of which was to place cannabis products in a different legal category from other drugs. New offences were created, so that an adult committing a first or second offence of possession of cannabis intended for personal use, in the absence of indications of nuisance or problematic use, would only receive a fine and be required to register with the police. The prosecutorial directive interprets cannabis sufficient for personal use as a maximum of 3 grams or one plant. However, nuisance may be punished by three months to one year in prison and/or a fine of EUR 5 000 to 500 000, and aggravating circumstances, such as possession in the presence of minors, will incur stiff sentences.

In the United Kingdom, cannabis and its derivatives were reclassified from class B and A respectively to class C under the British classification system. As a result, the maximum penalty for possession for personal use is reduced from five to two years' imprisonment, but clearly any cannabis possession remains a criminal offence. Two associated factors, the maximum penalty for possession with intent to supply and the status of cannabis possession as an arrestable offence, effectively remained unchanged as a result of a parallel legislative action. However, guidelines produced by the Association of Chief Police Officers recommended that police should make arrests for possession only in certain circumstances that include smoking in public or near minors. Under-18s should also still be arrested so that they can be referred for treatment.

Both Belgium and the United Kingdom specifically address problematic cannabis use in their laws or guidelines, an aspect discussed later in this report.

Confiscation of assets

In the last year, a number of countries have made changes to their legislation regarding confiscation of trafficker assets or management of funds set up from such assets. In Ireland, an initiative of the Criminal Assets Bureau (CAB) involves working together with the Garda National Drugs Unit (GNDU) to identify and target the assets of local drug dealers. In the United Kingdom, the Proceeds of Crime Act (2003) established an Assets Recovery Agency, and under the new legislation police and customs officers are granted the power to seize and search for money. The Act contains measures that will assist investigators in tracing the proceeds of crime and investigate money laundering.

Combating money laundering

At present, it is not possible to make an accurate estimate of the global proceeds of drug trafficking because of a lack of reliable data. However, a 'consensus' figure of 2–5 % of the world gross domestic product has been reported by Europol (2002). Narcotics trafficking still seems to be the largest single source of laundered funds. International money laundering necessarily involves illicit or unusual cross-border movement of capital or goods, such as gold, platinum or diamonds (WCO, 2003c).

Amendments to the Council Directive 91/308/EEC on money laundering give a much wider definition of money laundering based on a broader range of predicate offences and extend the obligation to report to independent legal professionals.

Europol's extended mandate from January 2002 gives the organisation competencies for all money laundering operations for which the predicate offence is listed in Annex 2 of the Europol Convention (Europol, 2002).

Interpol has put in place a network of expert contact points in each member country so that information on money laundering can be shared more quickly and efficiently (Interpol, 2002). The customs enforcement network (CEN) is an electronic information and communication system developed by the World Customs Organization, started in June 2000. As of June 2003, there were over 700 users representing 130 countries and over 700 reported currency seizures. During 2002–03 the FATF (Financial Action Task Force) made significant progress in the fight against money laundering. FATF successfully completed the revision of the 40 recommendations (FATF, 2003a). Special attention was paid to combating the abuse of alternative remittance systems (FATF, 2003b).

In Scotland, the powers of enforcement and prosecution organisations have been strengthened to enable them to increase recovery from both criminal and civil cases.

In Spain, a new law enacted in 2003 regulating the funds seized from drug-trafficking abrogates the 1995 law on this issue. The new law aims to speed up the transfer of documents that are needed to identify and locate seized goods and widens the range of beneficiaries of the funds to include international and supranational entities and foreign governments. In the Netherlands, a study of confiscation legislation, 10 years after it came into force, investigated the nature and size of the assets of 52 large criminal organisations that had been brought to justice over the period. It concluded that only 10 % of the estimated unlawfully acquired money could be confiscated, but it remains difficult to prove exactly how much money was unlawfully acquired. The investigators recommend improving expertise in the area of criminal financial investigation. In France, a circular from the Department of Criminal Affairs and Reprieves in 2002 sets out the precise rules of operation and organises the follow-up of funds seized from narcotics trafficking or money laundering, based on the finding that the drugs policy fund set up in 1995 has received no substantial income.

Drugs and driving

Three countries in the EU made significant changes to their laws addressing driving after taking drugs. In Austria, in 2003, the 21st amendment to the Road Traffic Act came into force, allowing police to ask drivers to submit a blood sample for testing if impaired ability to drive owing to drug influence is suspected. The sanctions in the event of a positive test, and the consequences if a driver refuses to be tested, are the same as for driving under the influence of alcohol. In addition, under the Act a positive test result does not result in a police report for violation of the Narcotic Substances Act, but only in a notification to the district health authorities.

In France, a new law introduced in February 2003 makes it a specific offence to drive after consumption of substances or plants classified as narcotics and makes it obligatory to test all drivers involved in a fatal road traffic accident. Much stricter punishments are imposed if drugs are combined with alcohol. In addition, drivers involved in a road traffic accident resulting in personal injury should routinely be tested if there is reason to suspect that they have used narcotics. Furthermore, the gendarmerie and police are permitted to test drivers at random.

In Finland, the revised Chapter 23 of the Penal Code states that any person found to be driving with an active narcotic substance or its metabolic derivative in the blood shall be charged with drunken driving unless the substance has been prescribed by a doctor. However, if the ability to drive is impaired, the driver will be charged with drunken driving regardless of whether or not the substance has been prescribed. If the ability to drive is impaired to the extent that the safety of others is endangered, a charge of aggravated drunken driving can lead to a minimum fine of 60 day-fine units or imprisonment for a maximum of two years.

In June 2003, the European legal database on drugs (ELDD) published a comparative study ([15]) of the legal situation regarding drugs and driving in 16 countries and reported that, although driving under the influence of drugs was an offence in all countries, there was wide variation in police powers to test drivers, the substances involved and the sanctions available. The EMCDDA presented this study at the Council of Europe's Pompidou Group seminar on road traffic and psychoactive substances in June 2003.

([15]) http://eldd-cma.emcdda.eu.int/comparative_doc/Drugs_and_driving.pdf.

Chapter 2

Drug prevention — working with communities and targeting those most at risk

The aim of drug prevention measures is to reduce the number of people who are initiated into substance use or, more often, to postpone drug use to a later age, thus at least reducing the scale of the drug problem (Rhodes et al., 2003). Drug prevention involves, but is not restricted to, education about drugs and warning about their dangers. In fact, this drug-specific element constitutes only a small part of drug prevention. Effective strategies combine information on substances with selected behavioural and cognitive (normative beliefs) techniques that have preventative effects on drug use behaviour (Flay, 2000).

Prevention is classified according to target group. Universal prevention targets general (usually young) populations, for example in schools, without considering specific risk groups, while selective prevention is aimed at vulnerable groups and indicated prevention is aimed at vulnerable individuals. However, although school-based prevention is often a political priority, it is debatable whether in reality it constitutes a main pillar of prevention. As funding for prevention is limited, and in some countries has declined (for example in France the drug prevention budget (State subventions) fell from EUR 15 million in 2001 to EUR 11 million in 2002), it becomes ever more important that drug prevention is of high quality and supported by a firm evidence base. Ideally, prevention policies planned and implemented from a public health perspective with the aim of delivering a basic and cost-effective dose of universal prevention (prêt-a-porter) to a large target population would be complemented by more intensive and tailor-made interventions targeted particularly at vulnerable groups and individuals ([16]).

Universal prevention

The principles and content of modern drug prevention strategies, especially school-based universal prevention programmes, are based on evidence. Measurable long-term effects, even if small (Stothard and Ashton, 2000), are a considerable gain if achieved over large populations. The basic principles, what works and what does not, are now well established. Effective elements are interactive teaching (involving peers) (Tobler and Stratton, 1997), the correction of normative beliefs (Flay, 2000), a strong focus on social skills and a small amount of information about substances, which must be balanced and relevant to young people's social reality (Hansen, 1992; Dusenbury and Falco, 1995; Paglia and Room, 1999; Tobler et al., 2000; Tobler, 2001). In practice, in several Member States, policy-makers and professionals continue to prioritise approaches which have been shown to be ineffective, such as affective education (e.g. raising self-esteem), information provision (increasing awareness) and reflection.

Similarly, the factors that contribute to successful delivery ([17]) of school-based prevention are also known: strict adherence to an established curriculum delivered by suitably trained teachers; clearly defined content; and provision of manuals and materials. In addition, drug prevention should form part of a comprehensive school policy on drugs and on health promotion (Paglia and Room, 1999; Chinman et al., 2004). However, in reality, three separate strategies can be discerned, and only rarely are these integrated. In the first strategy, prevention is delivered through large national programmes (Czech Republic, Ireland, Lithuania, the Netherlands) or a set of approved programmes (Greece, Spain, Hungary, Sweden). In another approach, the focus is on teacher training (French-speaking Belgium, parts of Germany, Austria, the United Kingdom), with the assumption that teachers will integrate the prevention message into daily school activities. Finally, some countries (e.g. Portugal, Finland) opt for networks of health-promoting schools. Only in Ireland and Spain are all three approaches applied cohesively across the whole country ([18]).

Universal prevention outside the school environment ([19]) generally aims to reach young people in three main ways: by providing alternative leisure pursuits such as youth work, adventure and creative activities (Greece, Spain, Latvia, Luxembourg, the United Kingdom); through youth work in sports and sport clubs, in order to engage youngsters in protective group norms, behaviours and attitudes

([16]) See Figure 1 OL: National plans specifying prevention contents and strategies.
([17]) See Figure 2 OL: Delivery modes of school-based prevention.
([18]) See Table 3 OL: Summary parameters of school-based prevention.
([19]) See Figure 3 OL: Prevention for youth outside schools.

(Germany, Italy, Finland); or using outreach techniques (Denmark, Austria, Poland, Portugal, Norway). Prevention work outside school has immense potential to identify young people at risk and to target vulnerable groups, but this potential is exploited in only some Member States (Ireland, Hungary, the Netherlands, Austria, the United Kingdom).

Selective prevention

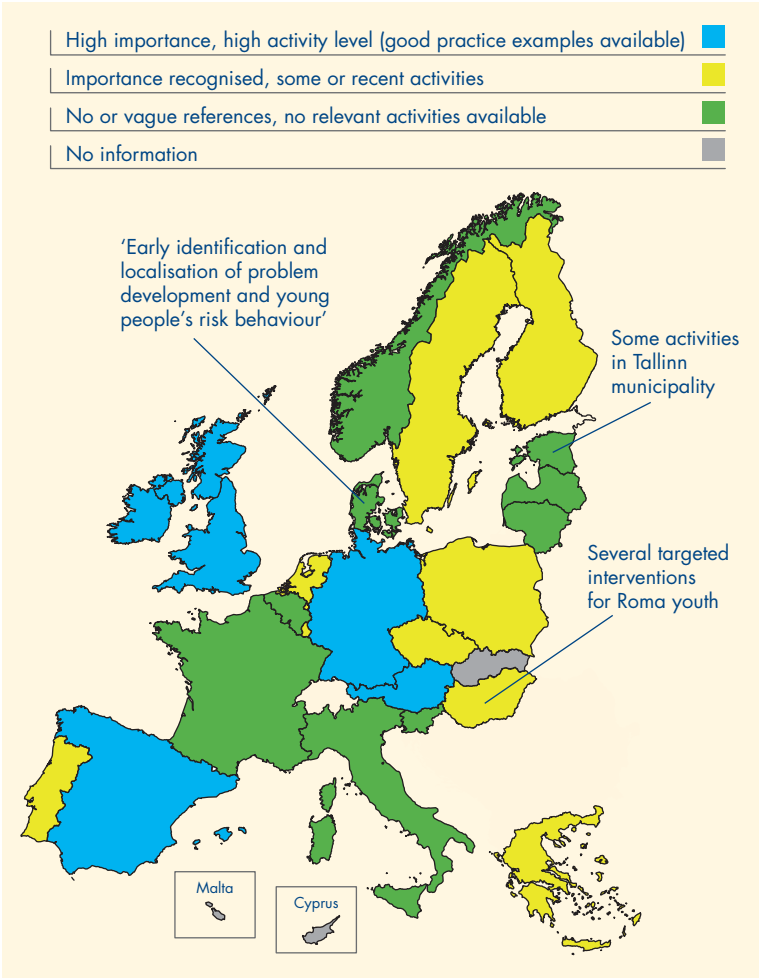
In contrast to the large-scale/low-dose focus of universal prevention, selective prevention policies concentrate on vulnerable individuals or groups. Selective prevention utilises existing (ideally local) research about risk factors, vulnerable groups and problematic neighbourhoods to target responses where the risk of sliding into drug problems is greatest. Selective prevention is receiving increasing attention in some countries, e.g. in Finland and Sweden, because of the increase in recreational cannabis and alcohol use (see Chapter 3), but is still limited to a few Member States (Figure 2), predominantly those that already have strategic policies for universal prevention. A sound theoretical base and evaluation are essential, so that selection of target groups or areas is supported by research data and the goals of interventions can be defined and interconnected. For example, in Hungary, several interventions focus on Roma populations and use peer-group approaches. Prevention in recreational settings as a specific subset of selective prevention is described in Chapter 4.

Recent progress in the enlarged European Union

In Greece, Portugal and Sweden, prevention policies have progressed towards modern concepts and clearer structures, e.g. school-based prevention is better defined than it was in the past. Programmes for younger children in kindergarten and primary school have expanded, especially in Greece and Austria.

Among Member States, prevention policies that are subject to quality control systems (Figure 3) typically also exhibit a higher level of structure (e.g. delivery by means of sophisticated programmes ([20])) and more attention to selective prevention (see Figure 2). Key factors in comparing European prevention policies are quality (evidence base of concepts), structure (how and by whom delivery is organised) and coverage (population size reached).

Figure 2: Member States in which selective prevention (i.e. targeting vulnerable populations or areas) is mentioned in strategies and implemented



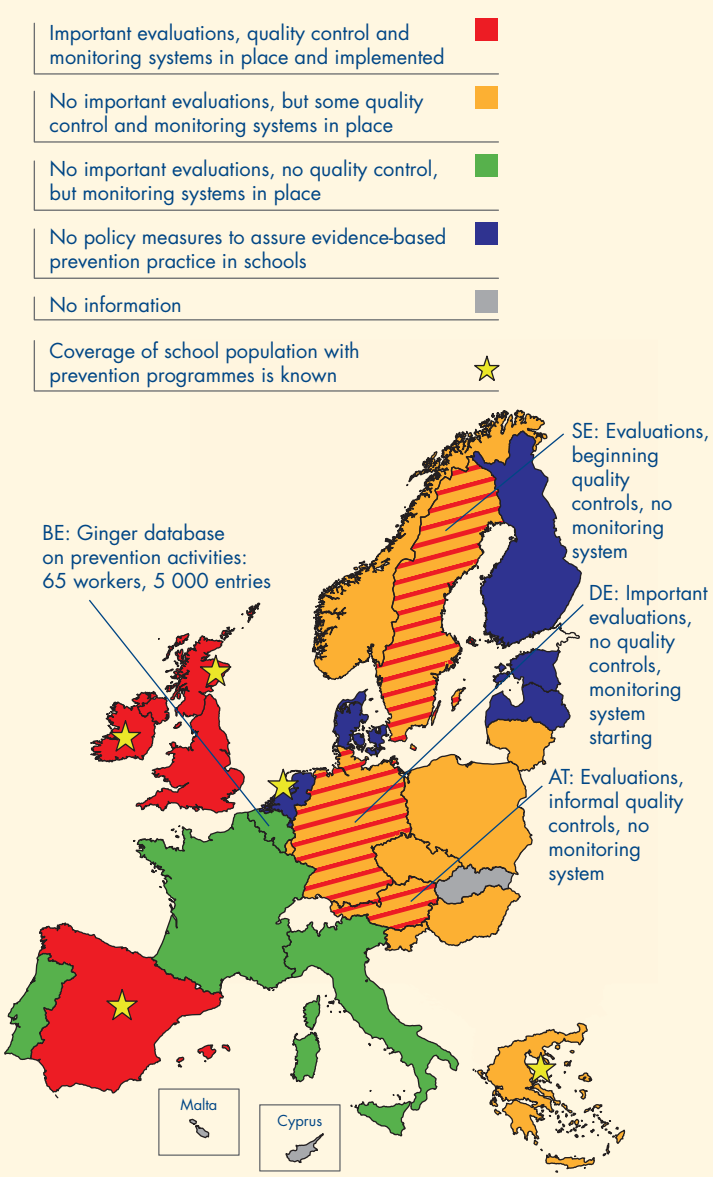
Sources: Reitox national reports and 'Report on selective prevention in the EU' (http://www.emcdda.eu.int/?nnodeid=1569).

Quality control systems and standards exist in the Czech Republic, Lithuania, Slovenia and Sweden, while in Germany and Portugal new monitoring systems for prevention interventions are now operational or under development. Increasingly, concrete components of prevention interventions are defined and recommended in national strategies, e.g. promoting social and decision-making skills and increasing self-esteem in Lithuania and Sweden.

Coverage of school-based prevention, expressed as the proportion of pupils exposed to universal prevention, can be measured only for programme-based prevention, and extensive coverage is an objective of some strategies

([20]) See Figure 1 OL: National plans specifying prevention contents and strategies.

Figure 3: Member States in which quality control, monitoring and evaluation of school-based prevention are considered a priority and are carried out



Sources: Reitox national reports.

(Spain, Ireland, United Kingdom). In all Spanish Comunidades Autónomas, the proportion of school populations exposed to approved and recommended prevention programmes has increased further, and in other Member States (the Czech Republic, Greece, Norway) coverage has recently been assessed. As a result of these developments, drug prevention effort in many Member States, previously characterised by 'low focalisation (predominantly unspecific interventions and few adequate prevention materials), low intentionality (low training level of the professionals working in the area), low pro-activity and evaluation (low level of research and lack of evaluation procedures), low continuity (frequent ad hoc interventions) and low coordination and participation (lack of coordination concerning the implemented activities)' (Portuguese national report), is slowly improving.

… and lack of progress

In some Member States, progress is slow and non-evidence-based concepts still prevail. The reasons for this include inertia, an overemphasis on medical and addiction-centred approaches, a failure to appreciate the importance of social influences and a focus on personal variables. In addition, in some countries, a lack of standards means that prevention is solely the remit of local health professionals or teachers, whose knowledge about evidence-based prevention is often low, with the result that prevention is on the level of popular opinions and beliefs. And in some Member States (e.g. Denmark, Estonia, France, Latvia, parts of Belgium, Germany and Italy), school-based prevention is still largely based on information provision through booklets, sporadic seminars, action days and exhibitions, meetings, lectures or expert visits.

There is evidence, albeit limited (Flay, 2000), that successful school-based prevention needs to be embedded in a health promotion curriculum and a school drug policy and that it must address aspects of social life and the community (Paglia and Room, 1999). However, the inflationary use of phrases such as 'promotion of healthy lifestyles', 'holistic approaches' and 'integral prevention' often conceals the absence of a sound basis for prevention policies and a limited commitment to evidence-based prevention. There has been no visible progress in family-based prevention. As a component of universal prevention, family-based prevention remains limited to parents' evenings or groups (e.g. Germany, Greece, Sweden), while it forms a constituent of selective prevention (i.e. concentrating on families at risk) only in Spain, Ireland, Poland, Sweden and the United Kingdom ([21]).

([21]) See Table 4 OL: Synopsis of key prevention parameters.

Chapter 3
Cannabis

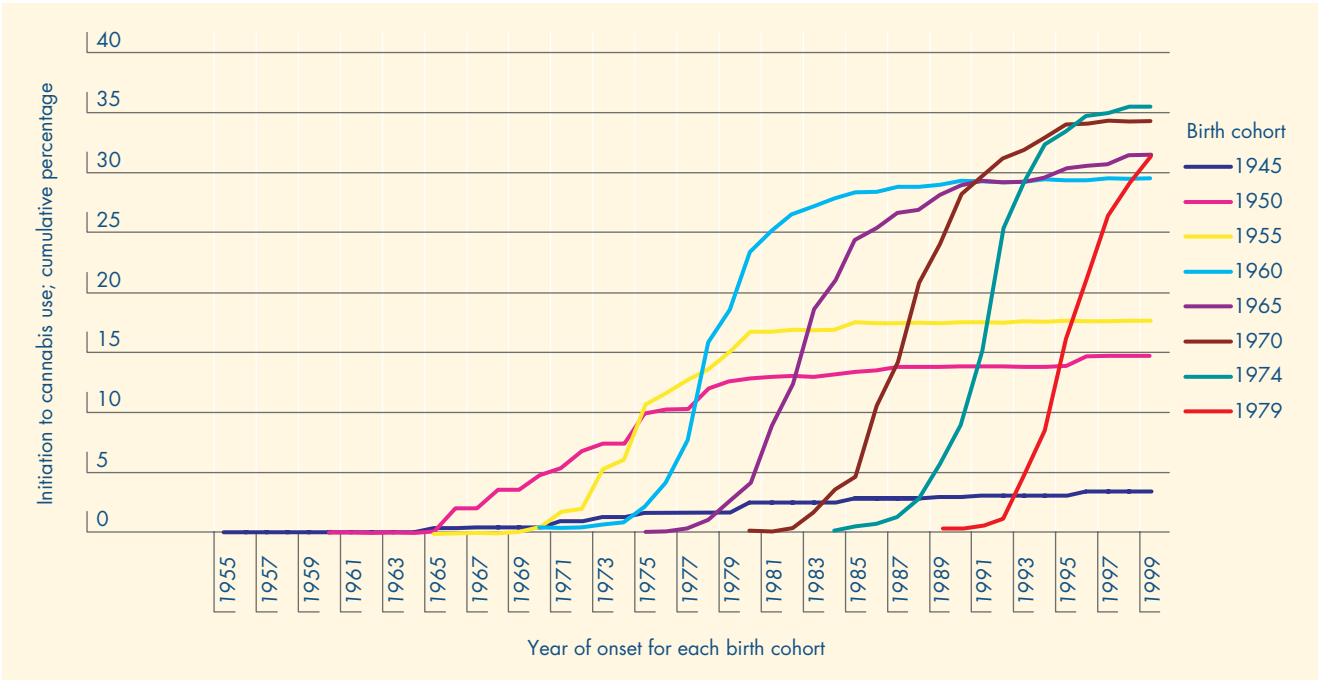
In all EU countries, cannabis is the illegal substance most commonly used, although there is considerable variation between countries. The use of cannabis by young people first became prevalent in some European countries during the 1970s, and spread to other EU countries during the 1970s and 1980s (Figure 4 — the example of Spain). Widespread drug use is a more recent phenomenon in the countries new to the EU.

Prevalence and patterns

Drug use in the general population is assessed through surveys, which provide estimates of the proportion of the population that has used drugs over defined periods of time ([22]). Recent population surveys indicate that a significant proportion of the European adult population (aged 15–64 years) have tried the substance at least once, ranging from 5–10 % in Belgium, Estonia, Hungary and Portugal to 24–31 % in Denmark, Spain, France and the United Kingdom. For comparison, in the 2002 United States national household survey on drugs, 40 % of adults (12 years and older) reported having tried cannabis or marijuana at least once, and 11 % reported having used it during the previous 12 months (SAMHSA, 2002) ([23]).

Surveys indicate that cannabis use is concentrated among young adults (aged 15–34 years), and particularly among people in their 20s. Rates of cannabis use are notably higher among males than among females. National surveys also suggest that use is more common in urban areas or

Figure 4: Changing patterns of diffusion of cannabis initiation by selected birth cohorts — the example of Spain



NB: Data based on 1997 national drug survey (n = 12 515; 15- to 64-year-olds) and 1999 national drug survey (n = 12 488; 15- to 65-year-olds). Birth cohorts selected only if there are no significant differences between surveys and samples pooled for one-year birth cohort.

Source: Kraus, L. and Augustin, R., 'Analysis of age of first cannabis use in Germany, Greece and Spain', in EMCDDA Report CT.00.EP.14, *Technical implementation and update of the EU databank on national population surveys on drug use and carrying out a joint analysis of data collected.*

([22]) See methodological notes on population surveys in the 2004 statistical bulletin.

([23]) Note that the age range in the US survey (12 years and over) is wider than the age range reported by the EMCDDA for EU surveys (15–64).

areas with a high population density. Some of the national differences noted might, in part, reflect differences in levels of urbanisation.

The numbers of 15- and 16-year-old school students who perceive cannabis to be easily or very easily available are consistently much higher than the numbers who report lifetime experience of cannabis use ([24]), but both measures show the same geographical variations. Differences between countries are considerable. Recent surveys of 15-year-old school students indicate that lifetime prevalence of cannabis use ranges from less than 10 % in Greece, Malta, Sweden and Norway to over 30 % in the Czech Republic, Spain, France and the United Kingdom ([25]). The highest prevalence rates are found among boys in England (42.5 %), with slightly lower rates (38 %) among girls in England. The difference in cannabis use between boys and girls also varies between countries and tends to be less pronounced in northern Europe. For example, in Sweden, lifetime prevalence rates are 7.7 % for boys and 6.6 % for girls, while the corresponding figures for Greece are 8 % and 2.7 %.

A large proportion of cannabis use tends to be occasional, or to be discontinued after some time. In most EU countries, only 20–40 % of all adults who have ever tried cannabis report having used it during the previous 12 months, and only 1–10 % admit to having used it during the last 30 days.

Use of cannabis during the last 12 months is higher among young adults (15–34 years) than among the overall adult population, ranging in most countries from 5 to 20 % (Figure 5).

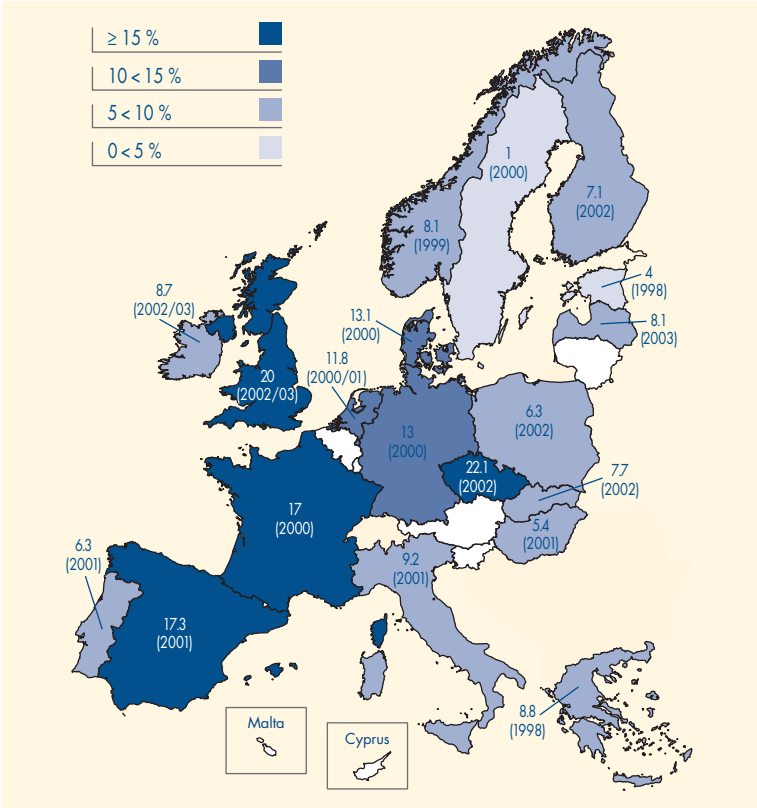
A small but important, and consistent, proportion (around 15 %) of 15-year-old school students in the EU who have used cannabis during the past year report using it on 40 or more occasions (considered to be 'heavy' use). Figure 6 shows that male students are more than twice as likely as female students to be heavy users. Among males, the proportion of 'heavy' users ranges from less than 1 % in most of the States bordering the Baltic Sea (Estonia, Latvia, Lithuania, Finland and Sweden) and Malta, to between 5 % and 10 % in Belgium, Germany, Spain, France, Ireland, Slovenia and the United Kingdom. This compares with a range of 0 % to a maximum of 4.6 % for female students. The extent to which 'heavy' patterns of cannabis use contribute to health problems and the increased demand for treatment is addressed in the selected issue 'Cannabis problems in context' (p. 82) ([26]).

Trends

The lack of long-term series of consistent surveys in most EU countries limits identification of drug trends. Nonetheless, different types of surveys (national, local, conscript and school surveys) have shown that cannabis use increased markedly during the 1990s in almost all EU countries, particularly among young people. In some cases these increases followed a decline in use during the 1980s ([27]).

Although many countries report that cannabis use has continued to increase in recent years, four other countries (the Netherlands, Finland, Sweden and Norway) report that use has levelled off among school students, conscripts or

Figure 5: Recent use (past year) of cannabis among young adults (15–34 years) as measured by national population surveys

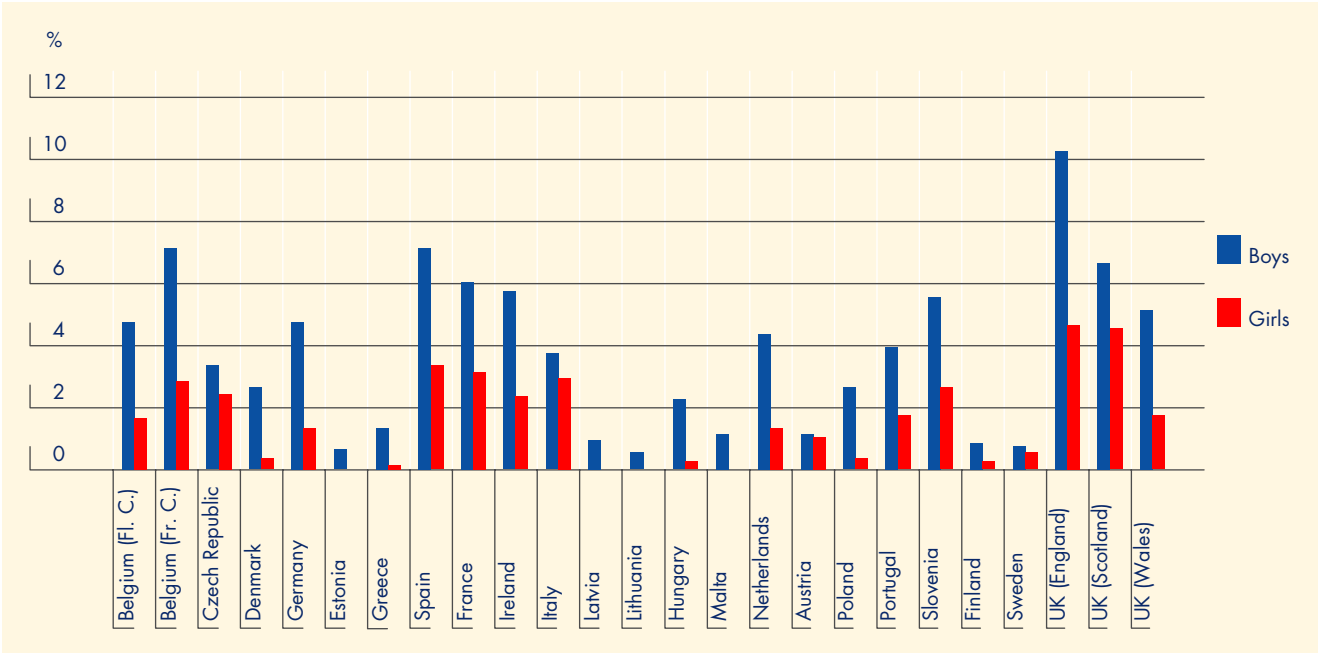


NB: Data are from the most recent national surveys available in each country except for France where small sample size precluded use of the 2002 survey so data presented here are from 2000.
For details of the number of respondents by age group, see GPSurvey_Tbl 4 in the 2004 statistical bulletin.
Not all data correspond exactly to the EMCDDA standard age range (Denmark and UK 16–34; Estonia, Hungary and Germany, 18–34). Variations in age ranges may marginally influence some national difference. In some countries the figures were recalculated at national level to reflect EMCDDA definitions.

Sources: Reitox national reports 2003, taken from survey reports or scientific articles. See also the population survey tables in the 2004 statistical bulletin.

([24]) See Prevalence_Tbl 2 in the 2004 statistical bulletin.
([25]) Ibid.
([26]) See also Figure 4 OL: Relative frequency of cannabis use among 15-year-old school students who used during the past year.
([27]) See Figure 5 OL: Evolution of cannabis use among young people in some EU countries measured by population surveys.

Figure 6: Prevalence of 'heavy' cannabis use among 15-year-old school students by gender in 2001/02



NB: 'Heavy' cannabis use is defined as use on 40 or more occasions during the past year. Germany: regional sample only. Portugal: limited comparability owing to sample size and age.
Source: Currie, C. et al. (2004), HBSC international report from the 2001/02 WHO survey.

teenagers in the last 2–4 years. Results from the forthcoming 2003 ESPAD school survey report will provide a more detailed description of trends among school students in the EU ([28]).

In conclusion, recreational and occasional cannabis use increased substantially during the 1990s in many European countries but may now be beginning to plateau, at least in some countries. Current use has probably also increased, in particular among young people.

Seizures and market information

In 2002, cannabis continued to be the most widely produced and trafficked illicit drug worldwide. However, given the global spread of cannabis production and the absence of monitoring systems, it remains difficult to estimate how much is produced (UNODC, 2003a; CND, 2004).

Production and trafficking

In recent years, Morocco has been the main worldwide source of cannabis resin, followed by Afghanistan and Pakistan, with some also coming from other countries in central Asia, Russia, Lebanon and Albania (UNODC, 2003a). In 2002, Morocco continued to be the country most cited as a source of cannabis resin, followed by Albania and India, but 31 other countries were also reported as sources, confirming that trafficking is widespread and the number of source countries large (CND, 2004). In 2003, the United Nations Office on Drugs and Crime (UNODC) and the Government of Morocco

Interpreting seizures and market data

The number of drug seizures in a country is usually considered to be an indirect indicator of the supply and availability of drugs, although it also reflects law-enforcement resources, priorities and strategies, as well as vulnerability of traffickers to enforcement. Quantities seized may fluctuate more widely from one year to the next, for example if in one year a few of the seizures are very large. For this reason, the number of seizures is considered by several countries to be a better indicator of trends. In all countries, the number of seizures includes a major proportion of small seizures at the retail level. Where known, origin and destination of drugs seized may indicate trafficking routes and producing areas. The price and purity of drugs at retail level are reported by most of the Member States. However, data come from a range of different sources which are not always comparable or reliable, making accurate comparisons between countries difficult.

([28]) See Box 3 OL: The European school survey project on alcohol and other drugs.

carried out the first survey of cannabis production in Morocco. The survey revealed that 27 % of the arable land in the Rif region was devoted to cannabis cultivation, which corresponds to a potential production of 3 080 metric tonnes of cannabis resin in 2003 (UNODC and Government of Morocco, 2003). Most cannabis resin consumed in the EU originates in Morocco; it is smuggled mainly via the Iberian Peninsula, although the Netherlands represents an important secondary distribution centre for further transportation to EU countries (Bovenkerk and Hogewind, 2002; national reports, 2003).

Source countries of herbal cannabis are spread across the world. Overall, the most mentioned source countries at global level in 2001 were Albania, Colombia, South Africa, Russia, Jamaica and the Netherlands. Except in Europe, most of the cannabis herb trafficking is intra-regional, i.e. it is produced and consumed locally or in neighbouring countries (UNODC, 2003a). Herbal cannabis seized in the EU in 2002 is reported to have originated from a variety of countries, mainly the Netherlands and Albania (CND, 2004; INCB, 2004a), but also from Asia (Thailand), Africa (Malawi, South Africa, Nigeria, Angola) and the Americas (Mexico, Jamaica, United States) (Reitox national reports, 2003).

Local cultivation and production of cannabis takes place in most of the EU Member States. Although in some cases plants seized may have been in transit from another country, seizures of cannabis plants in the EU (see Table 3) could be taken as an indicator of local cannabis cultivation. In Belgium, cannabis cultivation has become widespread throughout the country in recent years. In the Czech Republic, the first examples of large-scale hydroponic cultivation of cannabis — replacing domestic 'self-supply' outdoor growing — were discovered in 2002. In Estonia, the number of cannabis plantations discovered increased in 2002, and some large plantations were detected. In Hungary, it is reported that cannabis herb is grown in an ever larger area. Throughout the EU, most cannabis plants are seized in Italy, followed by the Netherlands, where the number of plants seized has increased since 1998. The latter is also a consequence of the successful integral multi-agency approach on the local level (i.e. close cooperation among local authorities, electricity companies, tax departments, etc.) in the Netherlands. It is estimated that, although about half to three-quarters of the cannabis consumed in the Netherlands is home-grown ('nederwiet'), the Netherlands is becoming less important as a source of cannabis for export to other countries than as a country of transit for foreign cannabis, especially as cultivation increases in other EU countries.

Table 3: Seizures of cannabis plants in the EU countries and Norway in 2001

Country	Number of seizures	Quantities seized: number of plants (in kg when number of plants not available)
Belgium	n.a.	n.a.
Czech Republic (1)	n.a.	343
Denmark (1)	n.a.	230
Germany	785	68 696
Estonia	24	6 043
Greece	n.a.	18 821
Spain	n.a.	(3 907 kg)
France	681	(41 kg)
Ireland	20	365
Italy	n.a.	3 219 414
Cyprus (1)	n.a.	274
Latvia (1)	n.a.	(72.7 kg)
Lithuania	n.a.	n.a.
Luxembourg	2	11
Hungary	n.a.	n.a.
Malta	n.a.	n.a.
Netherlands	n.a.	884 609
Austria	120	(36 kg)
Poland (1)	n.a.	2 550
Portugal	64	3 807
Slovenia	426	1 925
Slovakia (1)	n.a.	535
Finland	612	(16 kg)
Sweden	51	(3 kg)
United Kingdom (2)	1 875	71 507
Norway	n.a.	(17 kg)

n.a.: data not available.
Sources: Reitox national focal points; except:
(1) Interpol (2003), *National statistics on illicit drug production traffic and use in 2001*, Interpol, Lyon.
(2) Corkery, J. M. and Airs, J. (2003), *Seizures of drugs in the UK 2001*, Findings No 202, RDS-Home Office, London.

Seizures

Worldwide, a total of 1 039 tonnes of cannabis resin and 3 800 tonnes of herbal cannabis were seized in 2002. Europe and Asia continued to account for most cannabis resin seized, 70 % and 23 % respectively, while herbal cannabis seizures were concentrated in the Americas

(70 %) and Africa (19 %) (CND, 2004). In terms of both number of seizures and total quantities seized, cannabis is the most seized drug in all countries of the EU, except Latvia, where the number of heroin seizures is higher. Most cannabis seizures in the EU are made by the United Kingdom, followed by Spain and France ([29]). However, over the past five years, in terms of quantities, Spain has accounted for more than half of the total amount seized in the EU. At EU level, the number of cannabis seizures ([30]) has been fluctuating within an upward trend since 1997, while quantities ([31]) seized have been decreasing since 1999. After a decline in 2001, both numbers and quantities seized in the EU — based upon trends in countries from which data are available — rose again in 2002.

Some countries have invested in new technological systems to improve the efficiency of activities aimed at combating cannabis trafficking. For example, Spain recently developed the external surveillance integrated system (SIVE) — currently operational in the Algeciras region and some of the Canary Islands — intended to aid real-time detection of both cannabis smuggling and illegal immigration ([32]).

Price and potency

In 2002, the average retail price of cannabis resin in the EU varied from EUR 2.7 per gram in Spain to EUR 21.5 per gram in Norway, while the price of herbal cannabis ranged from slightly under EUR 2 per gram in Estonia and Spain to EUR 14 per gram in Latvia ([33]). During the period 1997–2002, average prices of cannabis resin remained stable or fell slightly in most of the EU — except in Luxembourg, where a slight increase during the period was reported. In 2002, a similar trend was reported in all countries except Germany, France, Latvia, Lithuania and the Netherlands, where the street price of cannabis resin increased. Over the same five-year period, the price of herbal cannabis also remained stable or declined in most countries, although Belgium, Czech Republic, Lithuania and Luxembourg reported some increase. In 2002, the price of herbal cannabis rose in Germany, Lithuania and Latvia, while remaining stable or falling in the other Member States.

The potency of cannabis products is determined by their content of Δ^9-tetrahydrocannabinol (THC), the primary active constituent (EMCDDA, 2004c). In 2002, in countries from which data are available, cannabis products — resin ([34]) and herb ([35]) — at retail level were reported to have an average THC content that varied from less than 1 % to 15 %.

([29]) Although this should be checked against missing 2002 data when available. Data on numbers of cannabis seizures in 2002 were not available for Italy, Hungary, Poland and Slovenia; data on both the number of cannabis seizures and quantities of cannabis seized in 2002 were not available for Cyprus, Malta, the Netherlands, Slovakia and the United Kingdom.

([30]) See Markets_Tbl 1 in the 2004 statistical bulletin.

([31]) See Markets_Tbl 2 in the 2004 statistical bulletin.

([32]) See http://www.guardiacivil.es/prensa/actividades/sive03/intro.jsp.

([33]) See Markets_Tbl 14 in the 2004 statistical bulletin.

([34]) See Markets_Tbl 15 in the 2004 statistical bulletin.

([35]) See Markets_Tbl 16 in the 2004 statistical bulletin.

Chapter 4

Amphetamine-type stimulants, LSD and other synthetic drugs

In this chapter, the use of a range of synthetically produced drugs is reviewed. Some of these, such as the amphetamines, have a long history of use in Europe. Others, such as the ecstasy group, have only more recently begun to be commonly used for their psychoactive properties. Also covered in this chapter are efforts to identify the emergence of any new synthetic drugs on the European scene.

Amphetamines is the generic term for amphetamine, methamphetamine and a number of other, less commonly known substances, all of which stimulate the central nervous system. Of these, amphetamine is by far the most commonly available in Europe. Globally, levels of methamphetamine use are growing and causing considerable concern, as the drug is associated with a range of severe health problems. To date, significant methamphetamine use in Europe appears to be restricted to the Czech Republic, although sporadic reports raise fears that this drug may be gaining ground elsewhere.

The ecstasy group, which is sometimes referred to as entactogens, comprises synthetic substances that are chemically related to amphetamines but which differ to some extent in their effect. The best-known member of the ecstasy group is 3,4-methylenedioxy-methamphetamine (MDMA), but other related analogues are also sometimes found in ecstasy tablets.

The overall prevalence of use of ecstasy, amphetamine and LSD in the general population is low, but closer examination reveals that prevalence among younger age groups is much higher, and the use of these drugs may be particularly high in some social settings and/or among some subcultural groups.

Prevalence and patterns of use

Traditionally, population surveys show that, after cannabis, amphetamines are the illegal substance most commonly used, albeit the overall prevalence is clearly lower (Figure 7). However, in several countries in which repeated surveys have been undertaken (e.g. Germany, Spain, the Netherlands, Finland and the United Kingdom) it has been found that ecstasy use has reached or surpassed amphetamine use in recent years ([36]). In addition, in some other countries (the Czech Republic, Ireland, Portugal), recent surveys, although not part of a series, suggest that ecstasy use is relatively high.

According to recent surveys, lifetime prevalence of amphetamine use among the general adult population (15–64 years) varies from 0.5 % to 6 % in EU Member States, except in the United Kingdom, where it is as high as 12 %. Ecstasy has been tried by about 0.5–7 % of the population.

Recent use (last 12 months prevalence) of amphetamines or ecstasy among adults is generally less than 1 %, although figures for both substances are somewhat higher in the Czech Republic, Spain, Ireland (1998 survey) and the United Kingdom; in addition, recent use of amphetamines is higher than average in Denmark and recent use of ecstasy in the Netherlands.

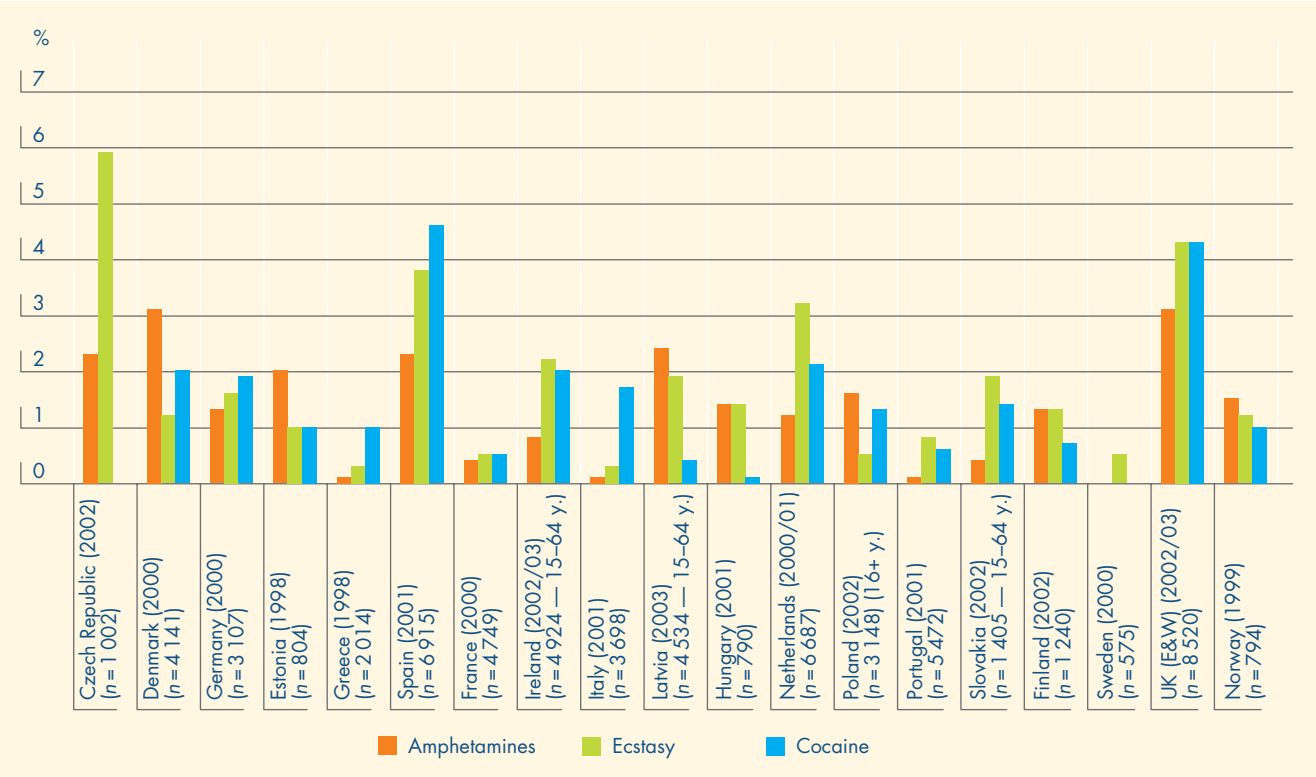
Among the population as a whole, amphetamine and ecstasy use is principally a phenomenon of young people. Lifetime prevalence among young adults (15–34 years) varies from 2 % to 11 % and recent use prevalence from 0.5 % to 6 %. National surveys report lifetime prevalence of ecstasy use among males aged 15–24 years of 11–17 % in the Czech Republic, Spain, the Netherlands and the United Kingdom, and recent use rates of 5–13 % in the Czech Republic, Spain, Ireland (1998), Latvia, the Netherlands and the United Kingdom. It is likely that these figures would be even higher if only urban populations were considered (Figure 8).

Ecstasy use generally increased during the 1990s. Although its use may be still increasing among young people, its escalation among the general population seems to be limited, at least for the time being.

For comparison, in the 2001 United States national household survey on drugs, lifetime experience of ecstasy use among adults (defined as 12 years and older) was 4.3 %, with 9 % reporting ever having used stimulants

([36]) See Figure 6 OL: Evolution of recent use (past year) of amphetamines and ecstasy among young adults (15–34 years old) in the United Kingdom (British crime survey).

Figure 7: Recent use (past year) of amphetamines, ecstasy and cocaine among young adults (aged 15–34) as measured by national population surveys



NB: Data are from the most recent national surveys available in each country, except for France where the small sample size precluded use of the 2002 survey so data presented here are from 2000 (see GPSurvey_Tbl 4 in the 2004 statistical bulletin).
Sample sizes (*n*) refer to the number of respondents for the 15–34 age group. For sample sizes with the number of respondents for the whole surveys see GPSurvey_Tbl 4 in the 2004 statistical bulletin.
Not all data correspond exactly to the EMCDDA standard age range (Denmark and the UK, 16–34; Estonia, Hungary and Germany, 18–34). Variations in age ranges may marginally influence some national differences. In some countries the figures were recalculated at national level to reflect EMCDDA definitions.

Sources: Reitox national reports 2003, taken from survey reports or scientific articles. See also population surveys tables in the 2004 statistical bulletin.

(including 5.3 % who reported having used methamphetamine). Recent use (last 12 months) of ecstasy was reported by 1.3 % and recent use of stimulants by 1.4 % (including 0.7 % reporting methamphetamine use) ([37]).

Surveys and studies of the young

Comparable data on young people are largely based on school surveys focusing on 15- and 16-year-old school students.

School survey data for 2001–02 show that lifetime prevalence of ecstasy use among 15- and 16-year-old school students is stable or declining in six Member States (Belgium, the Czech Republic, Spain, Italy, Hungary and Sweden). Lifetime ecstasy use in these countries ranged between 1 % and 4.7 % ([38]).

A 1 % increase in lifetime prevalence of ecstasy use among 15- and 16-year-old school students was reported in England (5 %). The forthcoming European School Survey Project (ESPAD) report ([39]) will provide important trend data for more EU Member States since 1995 and 1999.

With the exception of Hungary, lifetime prevalence of amphetamine use among 15- to 16-year-old school students remained stable or declined in all countries that provided new data for 2001–02 ([40]).

Both lifetime prevalence and intensive use of amphetamine-type stimulants are generally higher among males than females except in the Czech Republic, where both ESPAD and WHO school surveys have found lifetime prevalence of methamphetamine use (mainly 'pervitin') to be higher among girls. This agrees with findings among young people

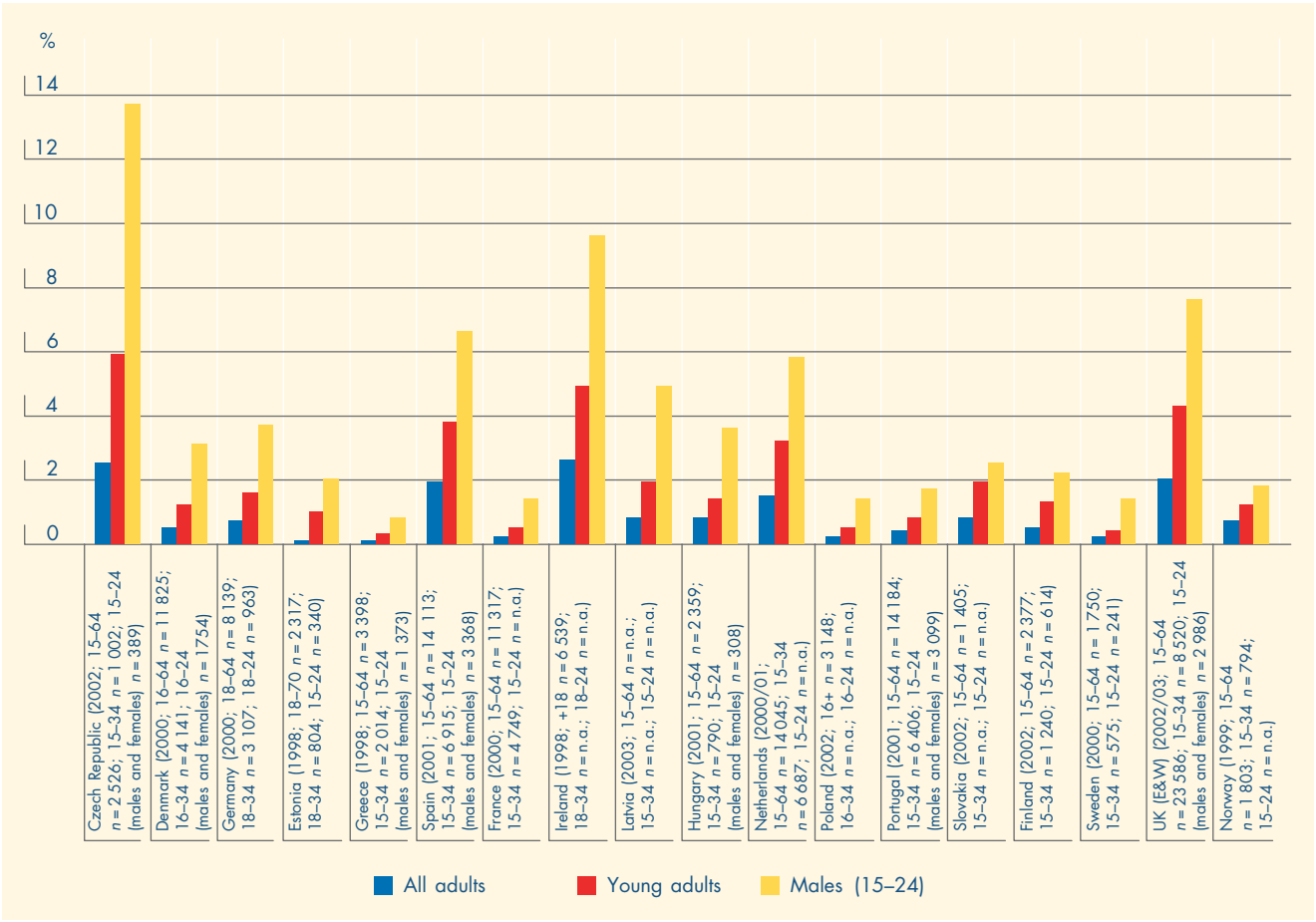
([37]) Results from the 2002 US national survey on drug use and health statistics (Substance Abuse and Mental Health Services Administration (SAMHSA) Office of Applied Studies). Available from the SAMHSA website (http://www.oas.samhsa.gov/nhsda.htm). Note that the age range in the US survey (12 years and over) is wider than the age range reported by the EMCDDA for EU surveys (15–64).

([38]) See Prevalence_Tbl 1 in the 2004 statistical bulletin.

([39]) Box 3 OL: The European school survey project on alcohol and other drugs.

([40]) See Prevalence_Tbl 1 in the 2004 statistical bulletin.

Figure 8: Recent use (past year) of ecstasy among all adults (aged 15–64), young adults (aged 15–34) and younger males (aged 15–24) as measured by national population surveys



NB: Data are from the most recent national surveys available in each country, except for France where the small sample size precluded use of the 2002 survey so data presented here are from 2000.
Not all data correspond exactly to the EMCDDA standard age range (Denmark and the UK, 16–34; Estonia, Hungary and Germany, 18–34). Variations in age ranges may marginally influence some national differences. In some countries the figures were recalculated at national level to reflect EMCDDA definitions.

Sources: Reitox national reports, taken from population survey reports or scientific articles. See GPSurvey_Tbl 3 and Tbl 4 in the 2004 statistical bulletin.

attending drug treatment centres in the Czech Republic: over half of the teenage clients seeking treatment for problems related to stimulant use (mainly 'pervitin') are female, whereas in the 20 years and over age groups there are twice as many male clients as female clients. No explanation for this teenage phenomenon has so far been put forward, but it signals the need to monitor carefully the situation with regard to women and use of amphetamine-type stimulants.

Recent studies in the Netherlands and the United Kingdom show that ecstasy use remains much more common among those who attend (dance) parties than among the general population (Deehan and Saville, 2003; Ter Bogt and Engels, 2004). Data regarding the frequency of ecstasy use and quantities consumed are limited, but available information suggests that patterns of use are very variable. For example, a 2001 survey among rave party visitors in the Netherlands found that more than half (58 %) had used ecstasy during the past month. Of these, 17 % — defined as 'current ecstasy users' — admitted using ecstasy 'a few times a week', and 22 % did so weekly. One in three (32 %) consumed ecstasy 'a few times a month'. As regards future trends, Spain has reported that the association between ecstasy use and specific types of music or events may be weakening, and that the drug may be becoming less important in identifying specific groups.

Despite widespread concern about stimulant drugs and driving, a Spanish toxicology study of road traffic deaths carried out in 2002 identified ecstasy in only 0.4 % of 1 441 drivers investigated.

Deaths related to ecstasy

Deaths involving ecstasy are rare compared with opiate deaths, but they arouse serious public concern, probably because of the young age of the victims and the totally unexpected outcome. The term 'ecstasy-related death' needs to be more clearly defined. At present, it could mean that the substance was mentioned on the death certificate or that it was found in the toxicological analysis (often in combination with opiates, alcohol, cocaine or other drugs).

Data in the 2003 Reitox reports suggest that 'ecstasy-related deaths' are very rare in most EU countries, and deaths in which ecstasy has apparently been directly involved are even rarer (two in Austria; two in France, one ecstasy alone; 19 in Germany, of which eight were attributed to ecstasy alone; one in Greece; and two in Amsterdam, one associated with alcohol), although reporting procedures are not homogeneous. The United Kingdom reported 55 deaths involving ecstasy in 2001, up from 16 in 1998. A British study based on a series of 202 cases reported to the national programme on substance abuse deaths between 1996 and 2002 also found an increase in ecstasy-related deaths between 1996–97 (12 cases) and 2001–02 (72 cases), with ecstasy being the only drug mentioned in 17 % of cases (Schifano et al., 2003). The relatively high numbers of ecstasy-related deaths in the United Kingdom might be due to a genuinely higher prevalence of ecstasy use, but also to better monitoring and analysis procedures.

Hospital emergencies can also be considered as an indicator of acute health problems related to substance use. A moderate increase in emergencies related to ecstasy and amphetamines was reported in Spain from 1996 to 2001 ([41]) ([42]); other countries do not collect systematic national data from emergency rooms, and similar increases have not been reported so far.

A British study that estimated the risk of ecstasy death, taking account of the number of users, found a very wide range (0.2–5.3 per 10 000 users), and stressed the need for better definitions of both ecstasy-related deaths and reference risk populations (Gore, 1999; Schifano et al., 2003).

Some ecstasy deaths may be avoided by relatively simple measures, such as improving ventilation, providing access to water and by encouraging safer behaviour through health education work. Other deaths appear to be due to rare idiosyncratic reactions to the drug. Such unpredictable reactions are difficult to prevent and the intervention options, other than providing medical assistance, are therefore limited.

Interventions in recreational settings

Prevention in recreational settings is probably the most established specific form of selective prevention. In some Member States ([43]), contents, guidelines and services offered have been established for some time. There has been a slight increase in prevention activities, especially in new Member States ([44]).

Interventions range from abstinence-oriented measures, such as the Swedish campaign 'There are many reasons not to try drugs' in summer 2003 (the aims of which were to strengthen the resolve of those already opposed to drugs and to persuade waverers to choose the right way), to pill-testing for users in some countries (see study below) ([45]). Recently, however, structural approaches have gained importance in an increasing number of Member States, especially the Nordic ones (mainly on alcohol) and Italy. These are based on developing joint cooperative strategies involving restaurants, clubs and bars, police, drug prevention services, restaurant workers' unions and administrations. The focus is generally on security issues, first aid, drug surveillance and prevention of emergencies and of violence. Staff are trained to identify risk situations and to intervene in a professional manner.

In Denmark, a development project on ecstasy prevention in two 'model counties' focused on prevention interventions at the municipal level (formulating local action plans and drugs policies), in schools and colleges and in the party environment. Interventions included producing a 'no tolerance guide' to drugs in nightlife venues and a website containing background material. Management and staff in restaurants received training on how to deal with drugs. First reports indicate that uptake of some ecstasy-specific services, e.g. a telephone helpline and counselling services, was low. There were few admissions to emergency wards or treatment institutions.

A recent Dutch–German–Austrian study (Benschop et al., 2002) ([46]) analysed the impact of pill-testing services on drug-taking behaviour and the risk awareness of ecstasy users in three European cities (Amsterdam, Hannover and

([41]) In Spain, hospital emergencies due to acute reactions to psychoactive substances have, for several years, been monitored in a sample of hospitals across the country, during a week selected randomly from each month. 'Mentions' of substances are recorded. For methodological details, see the Reitox national report 2003 (pp. 34–36).

([42]) See Figure 7 OL: Proportion of mentions in hospital emergency episodes due to acute reaction to drugs, Spain 1996–2001.

([43]) See Figure 8 OL: Importance given in Member States to prevention responses in recreational settings.

([44]) See Table 5 OL: Summary parameters of prevention on recreational settings.

([45]) See also Figure 8 OL: Importance given in Member States to prevention responses in recreational settings.

([46]) In EDDRA (http://eddra.emcdda.eu.int/eddra/plsql/showQuest?Prog_ID=2828).

Vienna). Respondents in the three cities were remarkably similar: differences between those who use the pill-testing service and those who do not were small. The most common source of information on ecstasy is peers, with the mass media and lifestyle magazines playing only a minor role. Users inform their friends about the test results. This informal route of dissemination is considered a hidden advantage of pill testing: it widens the net of drug prevention and lowers the threshold for contact with preventative services. Users and non-users seem to have separate social networks and do not mix, even when attending the same events (e.g. parties). The study did not find any indication that pill testing stimulates ecstasy use or that it would widen the circle of ecstasy users.

Treatment

Use of amphetamine-type stimulants (ATS) is rarely the primary reason for attending a drug treatment centre. However, there are some notable exceptions: 52 % of clients in the Czech Republic, 35.3 % in Finland and 29 % in Sweden report ATS as a primary reason for seeking treatment. In the Czech Republic, the greatest demand for treatment comes from users of 'pervitin' ([47]), of whom approximately one third are teenagers (under 20 years old), with over half of teenage users being female. In both Sweden and Finland, amphetamines have historically played an important role in defining the national drug problem, and to some extent this remains the case today.

Seizures and market information ([48])

According to the United Nations Office on Drugs and Crime (UNODC, 2003a), the production of ATS — 'synthetic drugs including the chemically related amphetamine, methamphetamine and ecstasy' — is difficult to quantify because 'it starts with readily available chemicals, in easily concealed laboratories'. However, the annual global production of ATS is estimated at about 520 tonnes (UNODC, 2003b). Global seizures of ATS peaked in 2000 at 46.2 tonnes and since then have declined to 25.7 tonnes in 2002 (CND, 2004).

Methamphetamine

At global level, the most important ATS in terms of quantities manufactured and trafficked is methamphetamine. The greatest quantities are seized in East and South-East Asia (Thailand, China), followed by North America (UNODC, 2003a). Methamphetamine production in Europe is on a much smaller scale: over the period 2000–01, only 2 % of clandestine methamphetamine laboratories dismantled worldwide were in Europe — mainly in the Czech Republic, Russia and Slovakia. Within the EU, minor methamphetamine production has also been reported in Belgium, Germany, Estonia, France, Latvia, Lithuania and the United Kingdom (UNODC, 2003a,b). In the Czech Republic, production of methamphetamine has been reported since the early 1980s; most is destined for local consumption, although some of it is smuggled to Germany and Austria (UNODC, 2003a). Although, data on methamphetamine seizures are not systematically collected by the EMCDDA, the Czech Republic, Denmark, Estonia, Lithuania, Norway and Sweden reported having made such seizures in 2002.

In 2002, except for a period early in the year when the price rose owing to a shortage of its precursor (ephedrine), the average retail price of 'pervitin' in the Czech Republic remained relatively stable at EUR 32 per gram. Average purity at retail level is reported to be 40 %.

Amphetamine

Based upon the number of laboratories dismantled, worldwide amphetamine production remains concentrated in Europe. In 2002, amphetamine laboratories were uncovered in Poland and the Netherlands, and some also in Germany, Estonia, France and Lithuania ([49]) (Reitox national reports, 2003; CND, 2004). The source countries of amphetamine seized in the EU in 2002 were mainly the Netherlands and Poland and to a lesser extent Belgium, Estonia and Lithuania.

Likewise, most amphetamine seizures are made in western Europe. This subregion accounted for 86 % of the total volume of amphetamine seized worldwide in 2002, with eastern Europe accounting for 10 % and countries in the Near and Middle East for 3 % (CND, 2004). Over the last five years, the main amphetamine-seizing country in the EU has been the United Kingdom ([50]). At EU level, the increasing trend in the number of amphetamine seizures ([51]) peaked in 1998 and quantities ([52]) peaked in 1997. Based upon trends in countries from which data are available,

([47]) 'Pervitin' is the local name for a type of methamphetamine illegally manufactured in the Czech Republic. It has a long history of use and is administered mainly by injection. Its manufacture may be linked to the legitimate ephedrine industry (UNODC, 'Ecstasy and amphetamines: a global survey', 2003).

([48]) See Chapter 3, Interpreting seizures and market data (p. 30).

([49]) Although not included in this list, several illicit amphetamine laboratories were exposed in the United Kingdom in recent years. In addition, a clandestine amphetamine laboratory was detected for the first time in Luxembourg at the beginning of 2003.

([50]) This situation should be checked against 2002 UK data when available. Data on numbers of amphetamine seizures in 2002 were not available for Belgium, Italy, Hungary, the Netherlands and Poland; data on both number of amphetamine seizures and quantities of amphetamines seized in 2002 were not available for Ireland, Cyprus, Hungary, Malta, Poland, Slovakia and the United Kingdom.

([51]) See Markets_Tbl 7 in the 2004 statistical bulletin.

([52]) See Markets_Tbl 8 in the 2004 statistical bulletin.

both quantities seized and numbers of seizures seem to have increased again since 2000 and 2001 respectively ([53]). In 2002, average amphetamine prices at user level varied from EUR 11 per gram in Hungary and Estonia to EUR 37.5 per gram in Norway ([54]). Over the last five years, prices have been stable or fallen in most of the countries able to provide such data.

The average retail purity of amphetamine in 2002 ranged from 10 % (Germany) to 52 % (Norway), with the highest purities being found, following Norway, in countries bordering the Baltic Sea — Estonia, Latvia, Lithuania and Finland. A notable exception is Portugal, where average purity in 2002 was less than 1 %. For the last five years, amphetamine purity has been stable or decreasing in all countries, although in 2002 increases were reported by Belgium, Estonia and the United Kingdom.

Ecstasy

Globally, Europe remains the main centre of ecstasy production, although its relative importance appears to be declining as ecstasy manufacture spreads to other parts of the world, notably to North America and East and South-East Asia (UNODC, 2003a; CND, 2004). Within Europe, most ecstasy production takes place in the Netherlands and Belgium. For example, within Europe, over the period 1999–2001, over 63 % of seizures of ecstasy precursors were made by the Netherlands and 21 % by Belgium while, of ecstasy-producing laboratories dismantled in the EU, 75 % were in the Netherlands, 14 % in Belgium, 6 % in the United Kingdom and 4 % in Germany. Dismantling of ecstasy laboratories (and/or ATS laboratories) was also reported by Estonia, Spain, Latvia, Lithuania, Hungary, Poland and Norway over the 1991–2001 period (UNODC, 2003a). In 2002, 54 ecstasy laboratories were detected worldwide, including 18 in the Netherlands ([55]), three in the United Kingdom and one each in France and Estonia (CND, 2004). Ecstasy seized in the EU is reported to originate mainly from Belgium and the Netherlands, although Estonia and the United Kingdom are also mentioned as producing countries in several reports (Reitox national reports, 2003).

Ecstasy trafficking is still strongly concentrated in western Europe, although, like production, it has spread throughout the world in recent years (UNODC, 2003a). In terms of volume seized, in 2002 western Europe accounted for 73 % and North America for 20 % (CND, 2004). Over the last five years, among EU Member States, the United Kingdom has consistently been the country to seize most ecstasy ([56]).

After a decline in 1997, the number of ecstasy seizures ([57]) at EU level has increased rapidly since then. Based upon trends in countries from which data are available, the number of ecstasy seizures seems to have fallen in 2002. However, this should be confirmed against missing 2002 data — in particular from the United Kingdom — once they are available. As far as quantities of ecstasy seized ([58]) are concerned, these increased rapidly between 1997 and 2000 and levelled off in 2001. In 2002, they increased again in most of the countries reporting data.

In 2002, ecstasy tablets were reported to cost, on average, between EUR 6 (Czech Republic) and EUR 20–25 (Italy, Finland) each ([59]). However, very recently (DrugScope, 2004), the price of ecstasy tablets has been reported to be as low as EUR 1.5 in some places in the United Kingdom. Over the last five years, ecstasy tablets became progressively cheaper in most EU countries. In 2002, this trend continued in all countries except Estonia, where the price of a tablet increased slightly.

Compared with five years ago, the amphetamine content of tablets sold as ecstasy seems to have decreased while ecstasy and ecstasy-like substances are increasingly found. In all EU countries in 2002, the only psychoactive substances found in most tablets sold as ecstasy and analysed were ecstasy (MDMA) and ecstasy-like substances (MDEA, MDA). In Belgium, Denmark, Germany, Lithuania, the United Kingdom and Norway such tablets accounted for more than 95 % of the total number of ecstasy tablets analysed. The MDMA content of ecstasy tablets varies greatly between batches (even between those with the same logo) within and across countries. In most EU countries in 2002, the average content of active substance (MDMA) per tablet was reported to be between 60 and 80 mg, although in Hungary and Norway the range was wider.

LSD

LSD is manufactured and trafficked to a much smaller extent than other synthetic drugs such as ATS. Worldwide LSD seizures fell by 73 % between 2000 and 2001. In 2001, the countries that seized the largest number of units were the United States, Spain and the Netherlands (UNODC,

([53]) This should be checked against missing 2002 data when available.
([54]) See Markets_Tbl 14 in the 2004 statistical bulletin.
([55]) Among a total of 43 synthetic drugs production locations uncovered in the Netherlands in 2002, 18 could be specifically related to MDMA.
([56]) This situation should be checked against 2002 UK data when available. Data on numbers of ecstasy seizures in 2002 were not available for Belgium, Hungary, the Netherlands and Poland; data on both the number of ecstasy seizures and quantities of ecstasy seized in 2002 were not available for Italy, Cyprus, Malta, Slovakia and the United Kingdom.
([57]) See Markets_Tbl 9 in the 2004 statistical bulletin.
([58]) See Markets_Tbl 10 in the 2004 statistical bulletin.
([59]) See Markets_Tbl 14 in the 2004 statistical bulletin.

2003a). Until 2000, the EU country making the greatest number of LSD seizures was the United Kingdom, but the United Kingdom has now been overtaken by Germany ([60]). In the last five years, at EU level, both the number of LSD seizures ([61]) and the quantities ([62]) seized have — except for a plateau in 2000 — steadily decreased. In the EU in 2002, the average cost to users of an LSD unit ranged from EUR 5 in the United Kingdom to over EUR 20 in Italy ([63]).

International action against synthetic drugs trafficking

The Commission, in cooperation with Europol, prepared a report in December 2003 illustrating the current status of major multilateral projects on the mapping of distribution networks and of experiences gained in this field at Union level, in the Member States and candidate countries. Key projects presented in the report include the comprehensive action against Synthetic Drugs in Europe (CASE), which combines amphetamine forensic profiling, carried out by the Swedish National Laboratory of Forensic Science (SKL), and the collation, at European Union level, of law enforcement data in order to identify synthetic drug production sites and criminal organisations engaged in production and trafficking of synthetic drugs and to initiate criminal investigations. The project is supported by Europol analysis work file CASE. Another project, called Europol illicit laboratory comparison system (EILCS), matches photographic and technical information from synthetic drug production sites across the European Union, opening the possibility of investigating links between different sites, the equipment seized and the facilitators behind the supply of equipment.

Furthermore, the Europol ecstasy logo system (EELS) produces an annual logo catalogue, which is disseminated globally to relevant law enforcement agencies. The EELS has worked in close cooperation with the central analysis programme ecstasy (CAPE) run by the German Federal Criminal Police Office.

Interpol has initiated a project focusing on the organised crime groups that produce and market synthetic drugs. The Sydrug project draws together and links operational data, allowing multinational operations ([64]). Trends show that ecstasy is smuggled from western Europe to North America, South-East Asia and Oceania (Interpol, 2002).

It is becoming increasingly apparent that there are links between the networks that smuggle drugs and those that smuggle precursors. January 2003 saw the start of operational activities under the banner of Project Prism, an international initiative designed to address diversion of the main precursors required for the illicit manufacture of ATS. Traffickers are increasingly turning to pharmaceutical preparations as a source of precursors (INCB, 2004b).

Early-warning system information

The joint action ([65]), along with its early-warning system (EWS), was established to identify new synthetic drugs ([66]), assess their risks and adopt a decision-making process through which they can be controlled. New synthetic drugs still constitute only a very small fraction of the overall market for synthetic drugs, which remains dominated by MDMA (ecstasy), amphetamines and LSD. Despite the success of the joint action in identifying new synthetic drugs, it is important to note that most of the data on new compounds come from those Member States that possess high analytical and reporting capacities in terms of both forensic and toxicological laboratories and operational networks of data providers. Consequently, the resulting description of the situation may reflect the operation of the national early-warning systems on new synthetic drugs, rather than the actual situation in the European drug market.

Drugs monitored by EWS

In 2003, all nine substances which had been subjected to risk assessment since 1998 were routinely monitored within the framework of the EWS — MBDB, 4-MTA, PMMA, GHB and ketamine — as well as the following phenethylamines: 2C-I, 2C-T-2 and 2C-T-7 and TMA-2. Furthermore, a number of substances on which the EMCDDA has obtained information were monitored — among them a group of tryptamines (5-MeO-DMT, 5-MeO-DiPT, AMT, 5-MeO-AMT and 5-MeO-tryptamine) and piperazines (BZP and TFMPP) ([67]).

([60]) This situation should be checked against 2002 UK data when available. Data on numbers of LSD seizures in 2002 were not available for Spain, Italy, Lithuania, Hungary and the Netherlands; data on both the number of LSD seizures and quantities of LSD seized in 2002 were not available for Belgium, Ireland, Cyprus, Malta, Slovakia and the United Kingdom.

([61]) See Markets_Tbl 11 in the 2004 statistical bulletin.

([62]) See Markets_Tbl 12 in the 2004 statistical bulletin.

([63]) See Markets_Tbl 14 in the 2004 statistical bulletin.

([64]) Sydrug, Interpol's global project on synthetic drugs, Lyon, April 2003.

([65]) http://www.emcdda.eu.int/?nnodeid=1346.

([66]) The 1997 joint action concerning the information exchange, risk assessment and the control of new synthetic drugs (OJ L 167, 25.6.1997) defines new synthetic drugs as: synthetic drugs which are not currently listed in any of the Schedules to the 1971 United Nations Convention on Psychotropic Substances, which pose a comparable serious threat to public health as the substances listed in Schedules I or II thereto, and which have a limited therapeutic value. It relates to end products as distinct from precursors.

([67]) Most of the new substances listed are very new on the market and do not have popular (street) names.

New synthetic drugs subjected to control under the joint action

Between 1998 and 2002, five new synthetic drugs have undergone risk assessment in the framework of the joint action (MBDB, 4-MTA, GHB, ketamine and PMMA). In 2003, the EMCDDA Scientific Committee, supplemented by experts nominated by the Member States and representatives of the European Commission, Europol and the European Agency for the Evaluation of Medicinal Products (EMEA), carried out risk assessment on four new synthetic drugs: 2C-I (2,5-dimethoxy-4-iodophenethylamine), 2C-T-2 (2,5-dimethoxy-4-ethylthiophenethylamine), 2C-T-7 (2,5-dimethoxy-4-(n)-propylthiophenethylamine) and TMA-2 (2,4,5-trimethoxyamphetamine) ([1]). As a result, on 27 November 2003, the Council adopted the decision ([2]) to submit the four compounds to control measures and criminal penalties in the 15 EU countries.

Specific scientific risk assessment of new synthetic drugs is extremely difficult, owing to limited peer-reviewed scientific data. However, information based on animal studies of toxic effects (e.g. for TMA-2), analogy to partially related compounds as well as evidence from other information sources such as individual users' reports, media and unofficial publications, provide the basis for the assessments.

([1]) The risk assessment reports are available on the EMCDDA website (http://www.emcdda.eu.int/?nnodeid=1584).

([2]) Council Decision 2003/847/JHA of 27 November 2003 concerning control measures and criminal sanctions in respect of the new synthetic drugs 2C-I, 2C-T-2, 2C-T-7 and TMA-2.

In 2003, both Spain and the United Kingdom reported that police seized small amounts of MBDB. 4-MTA, which in 1999 was made a subject of control in the framework of the joint action, seems to have disappeared from the market as no seizures have been reported in recent years. One seizure of PMMA was made in Sweden, while a seizure in Denmark involved tablets containing both PMMA and PMA. In Belgium, one laboratory reported urine samples positive for PMMA and, in addition, toxicological analysis of an intoxicated person reported by an emergency ward revealed PMA (in combination with MDA and MDMA). It seems that all three substances — MBDB, 4-MTA and PMMA — are no longer popular among users of synthetic drugs.

As far as drugs of the tryptamine group are concerned, most seizures occurred in Sweden and Finland. However, both France and Denmark reported on the acquisition of 5MeO-DiPT samples. Many tryptamine compounds are not controlled at international or national level, and therefore may be produced by commercial laboratories and sold on the Internet as 'research chemicals' (mainly by US companies). Furthermore, recipes for the synthesis of almost all new and 'old' synthetic drugs are widely available on the Internet.

BZP, which is often found in association with TFMPP, has increasingly been reported from Sweden and has also been identified in Belgium, Spain, the Netherlands and Finland.

Of the phenethylamines that were risk-assessed in 2003, 2C-I, which is often sold as tablets carrying the 'i' logo, seems to be gaining in popularity — a number of small seizures were reported from Finland, Sweden and the United Kingdom and the drug was detected in France, Spain and the Netherlands. Furthermore, 2C-H (a compound that is non-active in humans but which is a precursor of 2C-I, 2C-C and 2C-B) was seized in relatively large quantities in Finland and the Netherlands, and there is evidence that in the latter the substance was intended as a precursor for the production of 2C-I.

Synthetic drugs with potential for further spread

As anticipated by the European EWS and the risk assessment carried out by the EMCDDA's Scientific Committee in the framework of the joint action, GHB and ketamine are two synthetic drugs ([68]) with potential for significant further spread in the context of recreational settings.

GHB

The UN's decision to put GHB under control in March 2001 has been implemented by most EU Member States. In 2003, police or customs seizures of GHB (usually in liquid form) were reported in Belgium, Denmark, Estonia, Spain, France, Finland, Sweden and Norway. The reported trends in GHB were mixed. Sweden reported a decrease in GHB seizures in 2003, while Norway reported a substantial increase and the United Kingdom no change. The Netherlands also reported no change in the number of GHB samples delivered to the drug information monitoring system (DIMS), although the Netherlands National Poisons Centre reported a slight increase in the number of requests for information about GHB. Estonia reported a significant increase in the availability of GHB. The Netherlands and Belgium reported receiving a small number of GHB samples in powder form.

Norway and Sweden reported notable increases in the seizures of precursor chemicals for GHB — GBL (gamma-

([68]) Strictly, neither is a new synthetic drug under the terms of the 1997 joint action, but both are being monitored following their risk assessment.

butyrolactone) and BD (1,4-butanediol) ([69]) — which have many uses in various industrial processes and are therefore widely available (both are rapidly converted to GHB once ingested). In Norway and Sweden, GHB precursors are reported to be more readily available on the illegal market in 2003 than in previous years.

Questions relating to the use of GHB are increasingly included in drug surveys conducted in recreational nightlife and dance club settings. In Germany, the Federal Office of Criminal Investigation (BKA) reported growing consumption of GHB ([70]), while in Amsterdam, according to the 2002 panel study of Antenna Amsterdam ([71]), 'GHB was still being used in almost all club networks; trendsetters however appeared to be less keen on the drug than a year before and the spread of GHB seems to have halted'. In Austria, in the context of a pill-testing study, it was found that lifetime prevalence of GHB use among a sample of 225 young people attending raves in Vienna was 12.6 % (Benschop et al., 2002).

During 2003, GHB was detected in human samples in Belgium, Sweden and Norway and in samples taken from intoxicated subjects and hospital emergency patients in Spain (Barcelona) and the Netherlands. The number of GHB-related requests for emergency assistance in Amsterdam did not change from 2001 to 2002, i.e. just over 60 cases each year.

Ketamine

Seizures and/or detections of ketamine in human samples were reported from Belgium, Greece, Spain, France, Finland, Sweden, the United Kingdom and Norway in 2003. In Austria, Benschop et al. (2002) found a lifetime prevalence rate of ketamine use of 11.7 % among their sample of 225 young people attending raves in Vienna. An obstacle to the prevention of further spread of ketamine is that it is licensed as a veterinary medicine and therefore seems to be readily available through diversion of legitimate production.

Health risks from new patterns of use

In 2003, the EWS enabled the EU Member States to exchange valuable information on some controlled substances that may pose serious health risks through new patterns of use. For example, EU countries received early warnings about high-dose MDMA tablets based on information received from Belgium, France and Europol and about tablets sold as ecstasy but containing other dangerous substances such as DOB (2,5-dimethoxy-4-bromoamphetamine) following information provided from Ireland.

([69]) Reitox early-warning system progress reports for 2003.

([70]) Ibid.

([71]) Antenna Amsterdam is a multimethod monitoring system aiming to identify and interpret new trends and developments in legal and illicit drugs use and gambling among young people in Amsterdam, and to update and improve drug prevention.

Chapter 5

Cocaine and crack cocaine

Introduction

Cocaine users are commonly perceived as being either affluent, fashionable and socially integrated, or marginalised, deprived and socially excluded, with the smoking of cocaine being particularly associated with problematic use. It is important to note that the concentration of the use of the drug in specific sub-groups and geographical areas means that national data sets may poorly reflect trends that may be important in the communities or populations in which they occur. However, concern is now rising that cocaine use may be becoming more widespread in Europe and that the users of the drug are becoming more socially diverse.

Prevalence of cocaine use

General population surveys

According to recent national population surveys, between 0.5 % and 6 % of the adult population admit to having tried cocaine at least once (i.e. lifetime prevalence), with Spain and the United Kingdom being at the upper end of this range. Recent cocaine use (last 12 months) is, in general, reported by less than 1 % of adults, although in Spain and the United Kingdom recent prevalence rates are higher than 2 %. These figures are clearly lower than comparable figures for cannabis, although levels of use among younger adults can be considerably higher than the population average.

Among young adults (15–34 years), lifetime prevalence ranges from 1 % to 10 %. Generally, recent prevalence rates are approximately half those for lifetime use, with Spain and the United Kingdom reporting figures over 4 %.

Among the general population, cocaine use either is discontinued after a period of experimentation during young adulthood or is occasional, occurring mainly at weekends and in recreational settings (bars and discos).

Surveys have identified selected groups whose cocaine consumption is higher than in the population overall. For instance, recent surveys from five countries (Denmark, Germany, Spain, the Netherlands and the United Kingdom) have found that, among 15- to 24-year-old males, reported lifetime experience is between 5 % and 13 %, while recent use rates in Spain and the United Kingdom can be as high as 5–7 %. It is likely that in urban areas levels of use are substantially higher. In addition, focused (non-representative) surveys among dance clubbers have reported lifetime prevalence rates of cocaine use of between 40 % and 60 % (EMCDDA, 2001).

As a reference from outside Europe, in the 2002 United States national household survey on drugs, 14.4 % of adults (defined as aged 12 years or older) reported lifetime experience of cocaine use, higher than in any European country. Recent use (last 12 months) of cocaine was reported by 2.5 %, which is also higher than in all European countries except Spain (2.6 %) ([72]). Among males aged 18–25 years, lifetime prevalence of cocaine use in the United States in 2002 was 18.1 % and recent use prevalence was 8.4 %.

Trends in cocaine use

Cocaine trends are difficult to track at national level because consistent national survey series are rare and, in some cases, sample sizes are small. Consistent series will facilitate better identification of trends, in particular by focusing analysis and sampling on selected groups such as young males in urban areas.

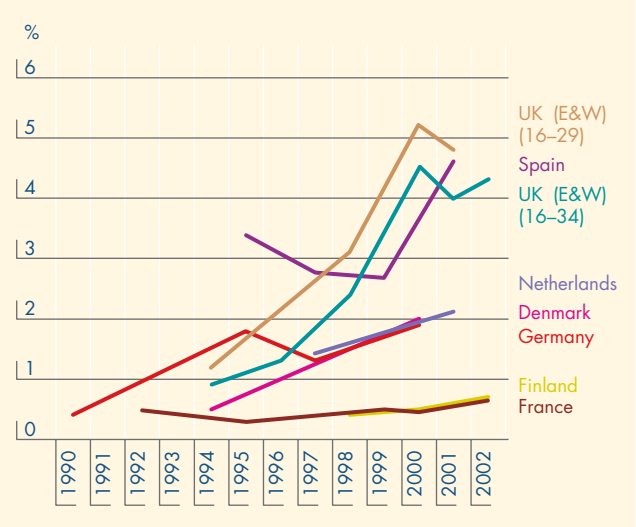
General population

Recent cocaine use among young people seems to have increased consistently in the United Kingdom until 2002 ([73]) and possibly, to a lesser extent, in Denmark, Germany, the Netherlands and Spain (Figure 9). Other countries, in their

([72]) Results from the 2002 US national survey on drug use and health statistics (Substance Abuse and Mental Health Services Administration (SAMHSA) Office of Applied Studies). Available from the SAMHSA website (http://www.oas.samhsa.gov/nhsda.htm). Note that the age range in the US survey (12 years and over) is wider than the age range reported by the EMCDDA for EU surveys (15–64). It is likely that if US data were reported for the age range 15–64 years, as in the EU, the figures would be higher.

([73]) Although the results of the 2001/02 survey suggest that this increasing trend among all adults and young adults seems to be levelling off (see Figure 7). According to the Home Office, increases in cocaine use between 1996 and 1998 and between 1998 and 2000 were significant at the 5 % level. However, there was no significant increase between 2000 and 2001–02.

Figure 9: Prevalence of cocaine use (past year) among young adults in some EU countries as measured by population surveys



NB: Data taken from national surveys available in each country. Figures and methodology for each survey can be consulted in GPSurvey_Tbl 4 in the 2004 statistical bulletin.
For young adults, the EMCDDA uses the range 15–34 years (Denmark and the UK from 16; Germany from 18; France 1992: 25–34 and 1995: 18–39). Sample sizes (respondents) for the 15–34 years group for each country and year are presented in GPSurvey_Tbl 4 in the 2004 statistical bulletin.
For Denmark, 1994's figure corresponds to 'hard drugs'.

Sources: Reitox national reports 2003, taken from survey reports or scientific articles. See individual sources in epidemiological tables on population surveys in the 2004 statistical bulletin.

recent Reitox national reports (2001–03), have reported increases based on local or qualitative information (Greece, Ireland, Italy and Austria).

School population

Spain is the only Member State to report new data showing a recent increase in lifetime prevalence of cocaine use among 15- to 16-year-old school students, rising from 4.1 % in 2000 to 5.9 % in 2002 ([74]). Although there was no increase among 15- to 16-year-old school students in Italy, an increase was reported among older Italian school students.

Other indicators

Increases in indicators of cocaine use (treatment demand ([75]), use of low-threshold drug services, number of hospital emergency episodes, police seizures, toxicological findings in fatalities) in some countries have aroused concern.

Throughout the EU, cocaine-related treatments appear to be increasing, and in some countries the increase is particularly pronounced. Cocaine is the second most commonly reported drug in treatment reports in the Netherlands and Spain (35 % and 26 % of all demands respectively). In Europe, most treatment demands appear to be associated with the use of cocaine powder (generally cocaine hydrochloride).

Globally, smokeable cocaine preparations are particularly associated with problematic use patterns. Use of crack cocaine as an emerging or growing problem in specific cities or regions was reported in Germany, Spain, France, Ireland, the Netherlands, Austria and the United Kingdom.

Patterns of use

In general, among young recreational users, cocaine consumption is light and continued use is very rare. And reports from some countries (Germany, Spain, the Netherlands, Austria and the United Kingdom) suggest that, even among problem drug users attending drug treatment and low-threshold services, patterns of cocaine and crack use are very variable between clients and over time. However, data about the frequency of cocaine and crack use and about quantities consumed are very limited. Consumption room studies show that use of smokeable cocaine is particularly high among female sex workers attending these services (Stöver, 2001; Zurhold et al., 2001).

Routes of administration

More and better information about routes of cocaine administration is needed in order to provide a better understanding of health risks and indicators of use. Cocaine hydrochloride (powder cocaine) is usually inhaled intranasally and less commonly injected, whereas crack is smoked in heated pipes and freebase cocaine is 'chased' by breathing in the vapours that are produced when the drug is heated, typically on tinfoil above a flame. There are also reports of cocaine being smoked in a cigarette or joint.

However, drug treatment workers in the United Kingdom report that, when associated with heroin use, crack cocaine is sometimes injected. 'Crack', like brown heroin, is insoluble and must be mixed with an acid before it is converted to its active, soluble salt, form ([76]).

The frequency of smoking as a usual route of administration of cocaine, in the form of either crack cocaine or freebase cocaine (different preparations which can be considered as pharmacologically equivalent), fell in 2002 compared with 2000.

([74]) See Prevalence_Tbl 1 in the 2004 statistical bulletin.
([75]) See Figure 20 and TDI_Tbl 10 in the 2004 statistical bulletin.
([76]) UK Forensic Science Service Drug Intelligence Unit (2003), *Drug abuse trends: Crack issue*, 24, p. 13.

Cocaine deaths

Deaths due to cocaine, amphetamine or ecstasy intoxication, in the absence of evidence of opiates use, appear to be infrequent in Europe.

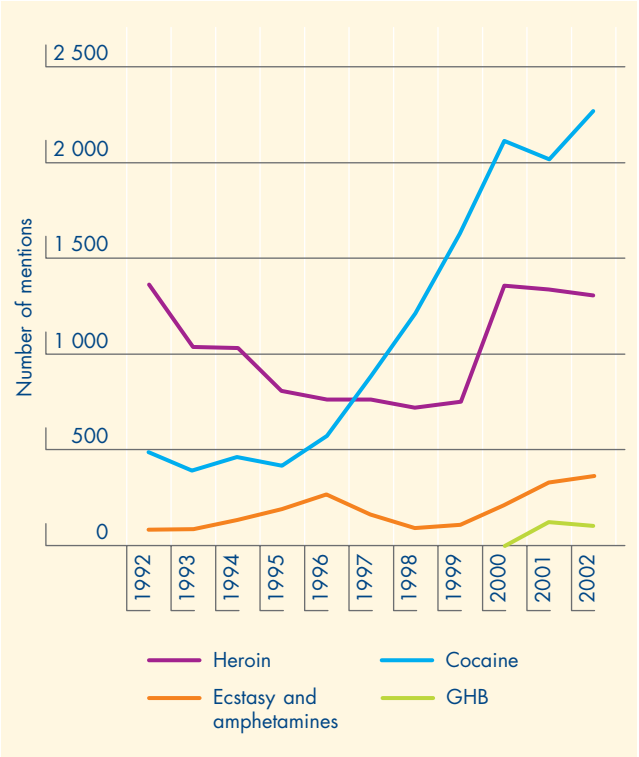
However, it is likely that current statistics inadequately record cocaine-related deaths, and information is reported in different forms. In some countries, cocaine is found in combination with opiates in a high proportion of drug-related deaths (Portugal 22 %, Spain 46 %). This figure may be just as high in other countries, but generally reporting systems attribute deaths solely to opiates when these are found to be present. In the United Kingdom, the number of 'mentions' of cocaine on death certificates increased eightfold over the period 1993–2001. And in the Netherlands the number of deaths attributed to cocaine increased from two in 1994 to 26 in 2001. The proportion of drug deaths that are attributable to cocaine alone, without opiate involvement, ranges from 1 % to 10 %, although absolute numbers are small.

Cocaine may be an important contributor to deaths due to cardiovascular problems (arrhythmias, myocardial infarction, cerebral haemorrhages), particularly in users with predisposing conditions (e.g. cerebral aneurysm or sub-clinical heart defects). Many of these cases might pass unnoticed because of a lack of awareness and/or because of differences in the social circumstances of victims compared with opiate users.

An indication of the potential dangers associated with cocaine use comes from Spain ([77]), where, during the period 1999–2001, cocaine was mentioned in 44–49 % of emergency hospital admissions resulting from acute reactions to drugs; in a high proportion of these cases cocaine had been smoked or injected. In Barcelona, the collection of data on hospital emergencies at all the main city hospitals throughout the year over a longer period enables a comprehensive picture of hospital admissions due to drug reactions to be built up (Figure 10).

In addition to the health concerns that are directly related to cocaine, there is an increasing worry that some of the cutting agents used may themselves pose a further health risk. For example, phenacetine is reported as a common adulterant in seized samples of cocaine powder. This drug has been linked to liver, kidney and blood disorders, including cancer.

Figure 10: Number of drug mentions in hospital emergency episodes, by drug type, Barcelona, 1992–2002



NB: One hospital emergency episode may include mention of several substances.
Source: Sistema d'Informació de Droges de Barcelona (2003), *La Salut a Barcelona, 2002*, Agència de Salut Pública, Consorci Sanitari de Barcelona, Barcelona.

Responses

Treatment of problem cocaine use

Problem cocaine use is typically treated in a non-drug-specific setting, i.e. alongside clients being treated for the use of other illicit (or licit) drugs. Treatment options are broadly limited to non-pharmacological interventions that aim to modify addictive behaviour regardless of the particular drug(s) consumed. Such interventions include low-intensity interventions such as counselling, hospital admissions and high-intensity interventions, such as long-term inpatient treatment. Alternative treatments, such as acupuncture, may also be offered (Seivewright et al., 2000).

As far as medically assisted treatment is concerned, there is no well-established pharmacological treatment for problem cocaine use. Only a limited selection of pharmacological treatments are available for cocaine users, and these have little, if any, proven effect. Two systematic literature reviews found that there was no evidence supporting the clinical use

([77]) In Spain, hospital emergencies due to acute reactions to psychoactive substances have, for several years, been monitored in a sample of hospitals across the country over a period of one week per year. 'Mentions' of substances are recorded. For methodological details, see the Reitox national report 2003 (pp. 34–36).

of either the anticonvulsant carbamazepine or antidepressants in the treatment of cocaine dependence (Lima et al., 2004a,b).

The limited range of treatment interventions specifically designed for problem cocaine users will be augmented by some initiatives targeting this client group. In the Netherlands, a website for cocaine abusers has recently been launched, and in the United Kingdom services were expanded in spring 2003 by the development of new agencies, along with new guidance and improved training. In Austria, treatment services are working on adapting services to the needs of problem cocaine users.

Other cocaine service implications

Observations in supervised drug consumption facilities show that cocaine-related emergencies are characterised by extreme restlessness and frequent paranoia, with staff finding it difficult to know how to respond (EMCDDA, 2004a). An increase in crack cocaine dealing has been associated with a higher level of aggression between clients and dealers (Stöver, 2001).

The extent to which problems are the direct consequence of the use of the smokeable forms of cocaine per se or are related to the frequency and amount of its use or to pre-existing social, psychological and drug problems is not clear. Responses include specifically developed information materials about risks and safer use, supervised consumption rooms, 'chill-out rooms' and 'day-shelters' where users can retreat and calm down, but also outpatient treatment (Stöver, 2001).

Concern has been expressed about the potential risk of exposing young drug users attending treatment settings primarily for cannabis-related problems to the behaviours and problems of cocaine users (Neale and Robertson, 2004).

Seizures and market information ([78])

Production and trafficking

Colombia is by far the largest source of illicit coca in the world, followed by Peru and Bolivia (UNODC, 2003a). Global production of cocaine in 2002 has been estimated at 800 metric tonnes, to which Colombia contributed 72 %, Peru 20 % and Bolivia 8 %. Most of the cocaine seized in Europe comes directly from South America (especially Colombia) or via Central America and the Caribbean. However, in 2002, some of the cocaine trafficked in Europe passed through Brazil (and from there to Portugal) or the United States (and thence to Italy). The main points of entry in the EU are Spain, Portugal and the Netherlands, and to a lesser extent France and the United Kingdom (Reitox national reports, 2003; UNODC, 2003a; INCB, 2004a).

Seizures

According to the Commission on Narcotic Drugs (CND, 2004), cocaine is the third most trafficked drug in the world after cannabis herb and cannabis resin. In terms of volume seized, in 2002 most trafficking in cocaine continued to be in the Americas and Europe. The latter accounted for 13.5 % of cocaine quantities seized worldwide (CND, 2004). Within Europe, most cocaine seizures occur in western States. Between 1997 and 2002 Spain was consistently the EU country with the highest level of cocaine seizures. In 2001 and 2002 ([79]), it accounted for more than half of the EU total of both number of seizures and quantities seized.

Over the period 1997–2002, the number of cocaine seizures ([80]) increased in all countries except Germany and Italy. Based upon trends in countries from which data are available, an increase in cocaine seizures at EU level seems likely to be confirmed in 2002.

Over the same five-year period, quantities of cocaine seized ([81]) fluctuated but with an upward trend. After a record volume of cocaine seizures in 2001, quantities of cocaine seized at EU level decreased substantially in 2002 ([82]) — mainly because of a reduction in the amount seized by Spain (and Portugal) in comparison with 2001, although some countries (Germany, France, Italy, Norway) reported large increases in the quantities of cocaine seized. The decline in the quantities of cocaine seized in 2002 in Spain, the Netherlands and Portugal, together with the increase reported by France, Germany and Italy, might indicate a change in the relative importance of the points of entry traditionally used by traffickers for cocaine destined for Europe (CND, 2004). In relation to this, it should be noted that since early 2002 the Netherlands has taken radical measures to reduce the increasing flow of cocaine couriers travelling from the Caribbean to Schiphol Airport, and as a result the number of arrested cocaine couriers has decreased dramatically.

([78]) See Chapter 3, Interpreting seizures and market data (p. 30).

([79]) Although this should be checked against missing 2002 data when available. Data on numbers of cocaine seizures in 2002 were not available for Belgium, Italy, the Netherlands and Slovenia; data on both number of cocaine seizures and quantities of cocaine seized in 2002 were not available for Ireland, Cyprus, Hungary, Malta, Poland, Slovakia and the United Kingdom.

([80]) See Markets_Tbl 5 in the 2004 statistical bulletin.

([81]) See Markets_Tbl 6 in the 2004 statistical bulletin.

([82]) This should be checked against missing 2002 data when available.

Although seizures of crack cocaine have been reported by some EU countries, they are sometimes not distinguishable from cocaine seizures. Thus, trends in cocaine seizures reported above might include crack.

International action against cocaine trafficking

Cocaine trafficking continues to be controlled largely by Colombian criminals. However, groups from Albania and Africa are also involved in the distribution of this substance. Interpol's Operation Trampoline revealed cocaine smuggling from Venezuela and Colombia to Curaçao. This operation resulted in the identification of several major trafficking organisations operating from the Caribbean to practically every region in the world (Interpol, 2002). During 2003, a number of very important maritime operations to combat cocaine smuggling took place along the Atlantic coast of Europe. Up to 29 tonnes were seized. Most of these operations were carried out by the Spanish authorities.

Operation Purple, an international programme launched in 1999 to track potassium permanganate (used in the illegal manufacture of cocaine), continued to achieve successes. During 2003, nearly 900 tonnes of this chemical were prevented from being diverted into illicit drug production.

In 2002, WCO and Interpol launched a joint initiative, Operation Andes, to enable national customs and police authorities to exchange and analyse information that would help to identify illegal consignments of precursor chemicals in Chile, Bolivia, Colombia, Argentina and Peru (WCO, 2003).

Price and purity

The average price ([83]) of cocaine at retail level varied widely across the EU in 2002, from EUR 38 per gram in Portugal to EUR 175 per gram in Norway. Between 1997 and 2002, the average retail price of cocaine was stable or fell in all EU countries. Similar findings were reported in 2002, except in the Czech Republic and Lithuania, where prices increased in comparison with the previous year.

Compared with heroin, the average purity of cocaine at user level is high, varying in 2002 from 28 % in Estonia to 68 % in the Czech Republic and Norway. Between 1997 and 2002, the average purity of cocaine decreased in most of the EU countries reporting time trend data. In 2002, cocaine purity continued to decrease in most countries, except in those reporting the highest average purities, such as Belgium, the Czech Republic, Luxembourg and Norway, where a rise in cocaine average purity was recorded.

([83]) See Markets_Tbl 14 in the 2004 statistical bulletin.

Chapter 6
Heroin and injecting drug use

Problem drug use

The regular and sustained use of heroin, drug injecting and, in some countries, the intensive use of stimulants account for a substantial proportion of drug-related health and social problems in Europe. The number of individuals exhibiting this kind of behaviour is low relative to the population overall, but the impact of problem drug use is considerable. To help understand the scale of this problem and to allow trends to be monitored over time, the EMCDDA is working with Member States to redefine the concept of 'problem drug use' and to develop strategies to measure both its scale and its impact.

Problem drug use is defined operationally as 'injecting drug use or long duration/regular use of opiates, cocaine and/or amphetamines' ([84]). Variations in definitions and methodological uncertainties mean that obtaining reliable estimates in this area is difficult, and caution should be used when interpreting differences between countries or over time.

Prevalence

Estimates of the prevalence of problem drug use range between 2 and 10 cases per 1 000 of the population aged 15–64 (based on midpoints of estimates), or up to 1 % of the adult population ([85]). Problem drug use disproportionately affects some geographical areas, such as deprived inner cities, and some specific groups, notably young males, making problematic use appear to be particularly intense in some communities. Higher estimates are reported by Denmark, Italy, Luxembourg, Portugal and the United Kingdom (6 to 10 cases per 1 000 inhabitants aged 15–64), and lower rates are reported by Germany, Greece, the Netherlands, Poland and Finland (less than four cases per 1 000 inhabitants aged 15–64; see Figure 11). Among the new countries of the EU, well-documented estimates are available only from the Czech Republic, Poland and Slovenia, where figures are in the low to mid-range, at 4.9, 1.9 and 5.3 per 1 000 population aged 15–64 respectively.

Although there have been considerable improvements in estimation techniques, lack of reliable and consistent historical data complicates the assessment of trends in problem drug use. Reports from some countries of changes in estimates, supported by other indicator data, suggest that there has been an increase in problem drug use since the mid-1990s. Estimates are available from 19 countries, of which nine report an increase in problem drug use since the mid- or late 1990s: Belgium, Denmark, Germany, Italy, Luxembourg, Finland, Sweden (between 1992 and 1998), the United Kingdom and Norway. Increases in Belgium and Norway are based on estimates of injecting use. Although no time series of national estimates are available from the new Member States, other evidence suggests that trends vary. In the Czech Republic, several indicators suggest that problem drug use has stabilised since the late 1990s, whereas in Estonia strong increases in some indicators of problem drug use have been observed. In view of the potential vulnerability to drug problems of countries in social and economic transition, there is an urgent need to develop surveillance capacity in the new Member States.

Patterns and scale of use

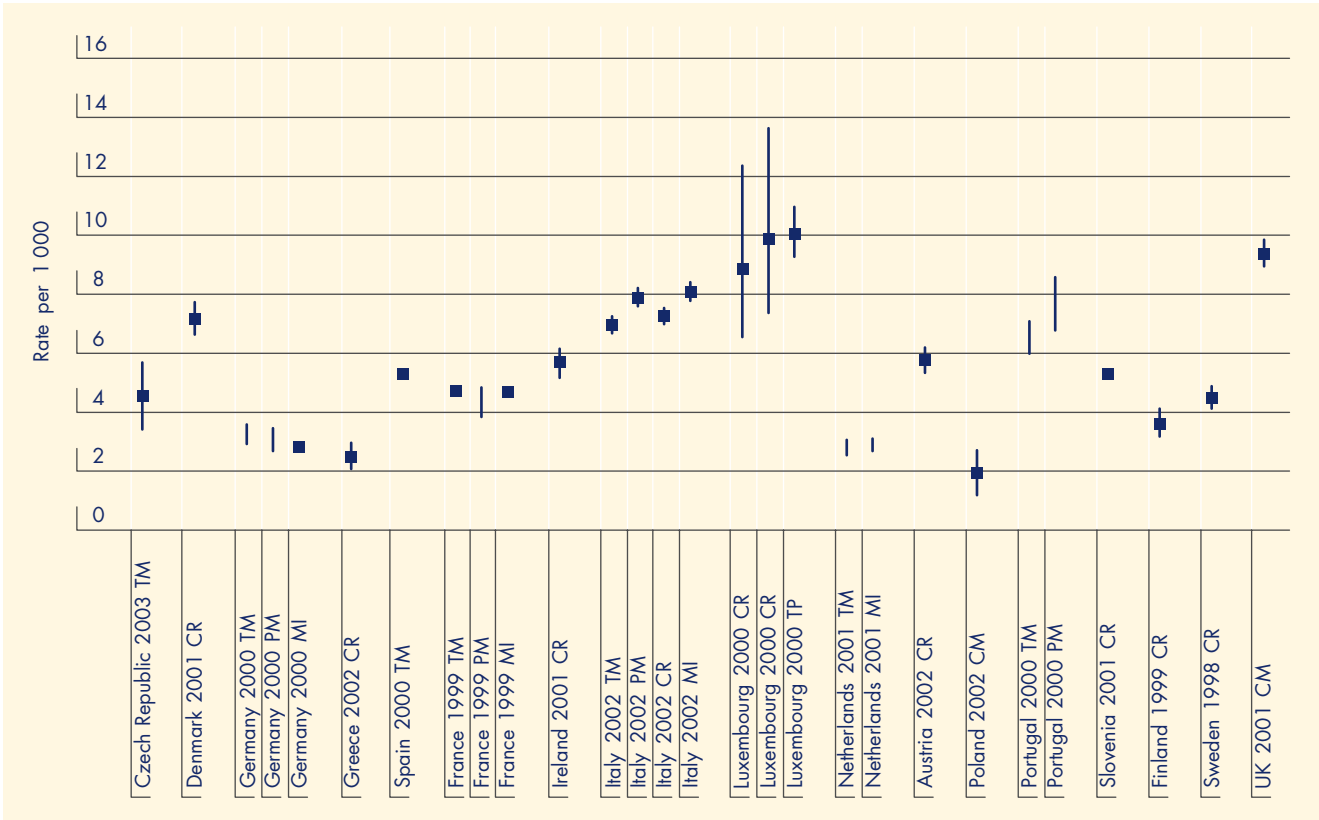
Problem drug use can be subdivided into important groupings. A general distinction can be made between heroin use, which historically has accounted for most problem drug use in the majority of EU countries, and problem use of stimulants, which predominates in Finland and Sweden, where the majority of problem drug users are primary amphetamine users. Similarly, in the Czech Republic, methamphetamine users have traditionally formed a significant proportion of problem drug users.

Increasingly, problem drug use appears to be becoming more diverse, and the EMCDDA is currently reviewing if the European operational definition needs to be refined in the light of the changing drug phenomenon. For example, polydrug use problems have become progressively more important in most countries, while some countries where opiate problems have historically predominated now report changes towards other drugs. In Spain, estimates of

([84]) For more detail see the methodological notes on problem drug use in the 2004 statistical bulletin.

([85]) See Prevalence_Tbl 3 and Prevalence_Tbl 4 in the 2004 statistical bulletin.

Figure 11: Estimated rate of problem drug use (rate per 1 000 aged 15–64)



NB: CR = Capture–recapture; TM = Treatment multiplier; PM = Police multiplier; MI = Multivariate indicator; TP = Truncated Poisson; CM = Combined methods. Target groups may vary slightly owing to different methods and data sources; therefore comparisons should be made with caution. For more details see Prevalence_Tbl 3 and Tbl 4 in the 2004 statistical bulletin. The Swedish estimate has been adjusted to fit the EMCDDA definition of problem drug use. The Spanish estimate does not include problem cocaine use; a higher estimate is available in Prevalence_Tbl 3 and Tbl 4, which takes this group into account but which may not be as reliable.

Sources: National focal points. See also EMCDDA project (2003), *National prevalence estimates of problem drug use in the European Union, 1995–2000*, CT.00.RTX.23, EMCDDA, Lisbon, coordinated by the Institut für Therapieforschung, Munich (http://www.emcdda.eu.int/? nnodeid=1372).

problem opiate users are declining and an increase is observed in cocaine-related drug problems, although, reliable time trends of problem drug use that include problematic cocaine use are not available. Germany and the Netherlands report an increasing proportion of crack cocaine users among their problem drug populations, although the overall estimate of problem drug users in the Netherlands remains unchanged.

The weighted-average rate of problem drug use in the EU is probably between four and seven cases per 1 000 population aged 15–64, which works out as 1.2–2.1 million problem drug users in the EU after enlargement, of whom some 850 000 to 1.3 million are active injectors. However, these estimates are far from robust and will need to be refined as more data become available from the new Member States.

Drug injecting

Drug injectors are at very high risk of experiencing adverse consequences, and it is therefore important to consider drug injection separately, as a core category of problem drug use.

Estimates of injecting drug use are made using indirect (technically, multiplier) methods from mortality data or data on human immunodeficiency virus (HIV) or hepatitis C virus (HCV) infection. Again, data quality and methodological issues give rise to interpretational questions; for example, in these estimates it is difficult to distinguish current injection from lifetime injection, and comparisons between countries should be made with caution. Available national-level estimates of injecting drug use range between two and six cases per 1 000 of the population aged 15–64 (Figure 12).

Figure 12: Estimated rate of injecting drug use (rate per 1 000 aged 15–64)

NB: MM = Mortality multiplier; HM = HIV multiplier; CM = Combined methods for IDU (injecting drug use) estimation.
Target groups may vary slightly owing to different methods and data sources; therefore comparisons should be made with caution. Mortality and HIV multipliers are assumed to give estimates of (mainly current) injecting drug use, which is only part of problem drug use. The other methods are assumed to result in estimates of problem drug use. For more details see Prevalence_Tbl 3 and Tbl 4 in the 2004 statistical bulletin.

Sources: National focal points. See also EMCDDA project (2003), *National prevalence estimates of problem drug use in the European Union, 1995–2000*, CT.00.RTX.23, EMCDDA, Lisbon, coordinated by the Institut für Therapieforschung, Munich (http://www.emcdda.eu.int/?nnodeid=1372).

Analysis of injecting rates among heroin users in treatment suggests marked differences between countries in the prevalence of current injecting drug use as well as varying trends over time ([86]). The data that are available show that less than half (43 %) of those being treated for heroin use for the first time report current injecting compared with two out of three (62 %) of all those treated (weighted averages). In some countries (Spain, the Netherlands, Portugal), a relatively small proportion of heroin users appear to inject, whereas in other countries (Czech Republic, Slovenia, Finland) injection of heroin is still the norm. In several long-standing EU countries from which data are available, injecting drug use seems to have fallen during the 1990s. However, it is worrying that in some other (Germany, Ireland, Finland) countries injecting drug use seems not to decrease and may even show signs of increasing, while in the new Member States, at least where data exist, almost all heroin users seem to inject.

Seizures and market information ([87])

Production, trafficking and seizures of opiates

Most of the world's illicit opium and heroin comes from a few countries (UNODC, 2003a). Global production of illicit opium in 2002 was estimated to be about 4 500 metric tonnes, to which Afghanistan contributed 76 %; most of the rest came from South-East Asia, with about 18 % from Myanmar and 3 % from Laos. Global opium production has remained stable over the last five years, except in 2001, when a ban on opium poppy cultivation enforced by the Taliban regime in Afghanistan resulted in a dramatic but short-lived decline.

Heroin consumed in the EU is predominantly produced in Afghanistan or along trafficking routes for opium, notably in Turkey (UNODC, 2003a), and enters Europe by two major trafficking routes. The historically important Balkan

([86]) See Figure 9 OL: Trends in injecting drug use.

([87]) See Chapter 3, Interpreting seizures and market data (p. 30).

route continues to play a crucial role in heroin smuggling. Following transit through Pakistan, Iran and Turkey, the route then diverges into a southern branch through the Former Yugoslav Republic of Macedonia (FYROM), Albania, part of Italy, Serbia, Montenegro and Bosnia-Herzegovina and a northern branch through Bulgaria, Romania, Hungary and Austria. Since the mid-1990s, heroin has been increasingly smuggled to Europe through the 'silk route' via central Asia, the Caspian Sea and Russia (Reitox national reports, 2003; UNODC, 2003a; CND, 2004; INCB, 2004a). Although these routes are the most important, seizures have occasionally been made elsewhere, including in some African countries and Colombia.

In addition to imported heroin, some opiate drugs are produced within the EU. This is mainly confined to the limited production of home-made poppy products (e.g. poppy concentrate from crushed poppy stalks or heads) in a number of east EU countries such as the Czech Republic, Estonia, Lithuania and Poland. There is some evidence that these home-produced products are being displaced in the illicit market by imported heroin.

In volume terms, in 2002, Asia (52.5 %) and Europe (28.1 %) continued to account for the majority of heroin seized worldwide (CND, 2004), with European heroin seizures being concentrated in western countries. Since 1998, the EU country accounting for the greatest number and quantity of heroin seizures has been the United Kingdom, followed by Spain ([88]). In 2001, the United Kingdom was responsible for one third of the total number of heroin seizures and 40 % of the total amount of heroin seized in the EU.

Quantities of heroin seized ([89]) in the EU were stable until 1998, and then increased in 1999 and 2000. Based upon trends in countries from which data are available, the total amount of heroin seized in the EU seems to have remained stable since 2000 ([90]), although the number of heroin seizures in 2002 decreased in all countries from which data are available ([91]).

A worrying development is the recent reports of trafficking in fentanyl, a synthetic opiate that is up to 100 times more potent than heroin ([92]). Recently, seizures have been reported in a few countries bordering the Baltic Sea and in Russia. Sweden made two seizures of fentanyl in 2002 and 23 in 2003. In Estonia, fentanyl and methylfentanyl appeared on drug markets as substitutes for heroin at the end of 2001, leading to 68 seizures of fentanyl and 11 of methylfentanyl in 2002. In Finland, a major wholesale consignment of 3-methylfentanyl was seized in 2002. In Lithuania, fentanyl was found in six seizures in 2002. The INCB (2004a) reported a recent seizure of 41 kg of fentanyl in the Ukraine and the dismantling of three laboratories where it was being synthesised. A substantial increase in fentanyl on the European drug market would be very worrying as its potential to cause problems is high. This is emphasised by reports from the Baltic countries in the past two years of drug overdose deaths in which fentanyl was found in the toxicology analysis, often together with heroin. Vigilance is required as the drug may go unreported, especially if it is being mixed with illicit heroin to increase its overall potency. In addition, there are some anecdotal reports of the use of diverted fentanyl products; for example, in Greece there have been reports of drug users extracting fentanyl from analgesic Durogesic® patches.

Buprenorphine — a pharmaceutical opioid — seems to be emerging on the black market in some EU countries, such as the Czech Republic, where Subutex® appeared in 2002, and the United Kingdom, where seizures have been reported for the last three years. Finland reported significant seizures of Subutex® in 2001 and 2002, and Norway reported a large seizure of Temgesic® in 2002. To some extent this is not surprising, as buprenorphine prescribing has increased considerably in many countries. However, the drug is formulated to have a low abuse potential so these reports merit further investigation.

International action against heroin trafficking

Global cooperation has been increasing to help meet the challenge of increased heroin production from Afghanistan (Europol, 2003). Since 2002, the Interpol project NEHRO ([93]) has focused on a new heroin trafficking route between central Asia and western Europe (Interpol, 2002; Europol, 2003). The World Customs Organisation (WCO) has also launched Operation Tamerlane, which aims to integrate enforcement involving customs, police and border guards from all nations through which the 'silk route' passes or which it borders upon (WCO, 2003a).

([88]) Although this should be checked against missing 2002 data when available. Data on the number of heroin seizures in 2002 were not available for Belgium, Italy, Hungary, the Netherlands and Poland; data on both number of heroin seizures and quantities of heroin seized in 2002 were not available for Ireland, Cyprus, Malta, Slovakia and the United Kingdom.

([89]) See Markets_Tbl 4 in the 2004 statistical bulletin.

([90]) This should be checked against missing 2002 data when available.

([91]) Ibid.

([92]) If fentanyl were accidentally consumed, being mistaken for heroin, the risk of toxicity would be very high.

([93]) North European heroin route.

During 2003, Operation Topaz, the international programme to prevent the diversion of acetic anhydride, an important chemical used in the manufacture of heroin, identified trafficking networks and front companies diverting this product in Europe. Afghanistan and other Asian countries joined the operation. Operation Topaz is one of a number of internationally coordinated activities that represent a trend towards targeting the precursor chemicals necessary for illicit drug production as well as the substances themselves.

Price and purity of heroin

In Europe, heroin occurs in two forms: the commonly available brown heroin (its chemical base form) and the less common and more expensive white heroin (a salt form), which typically originates from South-East Asia. In 2002, in the EU, the average street price of brown heroin was reported to vary between EUR 29 per gram in Hungary and EUR 161 per gram in Sweden, while the price of white heroin ranged from EUR 32 (Hungary) to EUR 213 (Sweden) per gram ([94]). This price differential is likely to reflect the purity of the drug being sold. In the last five years, the average retail prices of both brown and white heroin have been stable or decreasing in those countries from which data were reported, except in the Czech Republic, where prices are reported to have increased. In 2002, the average street price of brown heroin decreased in six out of a total of nine EU countries that provided data, while for white heroin a majority (four out of six) of countries reported an increase in the average price.

In 2002, the average purity of brown heroin at street level in the EU varied from 10 % in Luxembourg to 43 % in Spain, while the average purity of white heroin ranged from 7 % in Estonia and Finland to 75 % in Norway. Over the last five years, heroin purity has fallen or remained the same in most EU countries. In 2001, the purity of brown heroin increased in most countries reporting such data (7 out of 10), but this trend was reversed in 2002 when substantial declines in average purity were reported by five (out of seven) countries: Denmark, Luxembourg, Portugal, the United Kingdom and Norway. The average purity of white heroin at street level declined in both 2001 and 2002, but time trend data are available from only three countries (Denmark, Estonia, Finland).

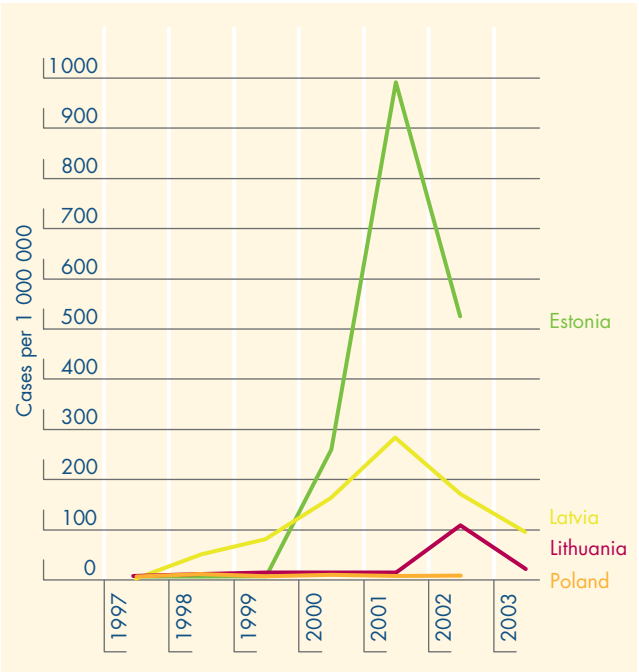
Drug-related infectious diseases

HIV

The HIV epidemic is spreading rapidly in some of the new EU countries and their neighbours. Estonia, Latvia, Russia and the Ukraine are among the countries with the fastest growing HIV epidemics in the world. Prevalence rates vary widely in the other new EU countries, and several are still at risk for similar outbreaks. Among the 'old' EU countries, some that have so far avoided large HIV epidemics among injecting drug users (IDUs) are now showing signs of increased risk.

Analysis of case reporting data for IDUs suggests that HIV incidence peaked in Estonia and Latvia in 2001, at rates of 991 and 281 cases per million population respectively, being followed by a decline in 2002 to what are still very high rates of 525 and 170 per million per year (Figure 13) (EuroHIV, 2004). Possible reasons for the observed decline are reporting artefacts, saturation of the IDUs at highest risk and/or behaviour change. Of the new EU countries, Estonia (6.2–13 %), Latvia (6.6–14.6 %) and Poland (6.8–9.1 %) reported the highest prevalence in different national samples of IDUs tested in 2001–03, while in those years local highs of 41 % (out of 964), 22 % (out of 205) and 29.7 % (out of 165) were found in these three countries respectively. In Estonia, HIV prevalence data from multiple sources seem to confirm a recent decline in prevalence among tested IDUs (6.2 % in 2002 among 1186 IDUs

Figure 13: Reported newly diagnosed cases of HIV infection among IDUs per million population in some new EU Member States



Source: European Centre for the Epidemiological Monitoring of AIDS (EuroHIV).

([94]) See Markets_Tbl 14 in the 2004 statistical bulletin.

sampled at national level, down from 13 % of 2 078 in 2001). In Latvia, national data from drug treatment centres also show declining prevalence in tested IDUs (13.7 % in 2001 to 6.6 % in 2003); however, data from other national sources (hospitals and arrests data: 7.8 % in 2000 to 14.6 % in 2002) and local sources (multiple settings in the Riga region and in Tukums: 18.3 % in 2000 to 22.0 % in 2003) suggest a continued increase in prevalence in other samples of tested IDUs. In Lithuania, a large increase in newly reported HIV cases occurred as recently as 2002, due to a major outbreak in a prison; however, prevalence among IDUs remains low (in 2002 and 2003: 1.0 % of 2 831 and 2.4 % of 1 112 IDUs from multiple settings at national level, and 0.6 % of 641 IDUs and 0.4 % of 235 IDUs attending a needle exchange programme in Vilnius respectively). The prison outbreak exemplifies both the urgency of implementing prevention measures in this country and other regions where prevalence among IDUs is still low and the important role that prisons can play in the spread of HIV among IDUs (Dolan, 1997–98; Dolan et al., 2003).

In Poland, national prevalence data from public health laboratories suggest a decline in prevalence among tested IDUs, from 10.7 % (of 3 106) in 2000 to 6.8 % (of 2 626) in 2002. This decline is consistent with the trend in newly reported cases in IDUs, which declined from a high of 8.6 per million population in 2000 to rates of 5.1 and 6.9 in 2001 and 2002 respectively. Local prevalence data however suggest high prevalence in the region of Pomorskie in 2002 (30 % of 165 IDUs recruited in drug treatment and on the street; 15 % of 69 in the street sample only), although it should be noted that prevalence among IDUs in drug treatment may overestimate prevalence in the IDU population as a whole. In the other new EU countries HIV prevalence among IDUs was still very low in 2000–01, although more recent data are mostly lacking. HIV prevalence was on average less than 1 % in the Czech Republic, Slovenia and Slovakia, similar to the findings in neighbouring EU candidate countries Romania and Bulgaria (EMCDDA, 2003a). Although these countries have so far avoided HIV epidemics among IDUs, increases in injecting drug use may lead to increases in the prevalence of HIV infection and hepatitis in the near future if prevention measures are not sufficient (see section 'Reducing drug-related infections' in this chapter).

In the 'old' 15 EU Member States, the HIV epidemic among IDUs seems mostly to have stabilised or to be in decline according to HIV case reporting data, with rates in 2002 ranging from 1.3 new cases per million population in Greece to 115.7 in Portugal (the latter declining to 88.4 in 2003) (EuroHIV, 2004). However, as national case reporting is not established in the countries with the largest IDU-related epidemics, time trends from case reporting can be misleading at EU level and seroprevalence data from IDUs are an important complement. Available national-level prevalence data suggest great variation between, as well as within, countries: from 0–1 % in Finland (data from needle exchanges) to 9.7–35 % in drug users in different national samples in Spain (2001–03) (Figure 14). Prevalence in tested IDUs is in general stable or declining ([95]), although stable prevalence does not mean that transmission is no longer occurring, and in some countries increases in prevalence since the mid-1990s have occurred at local or regional level. In addition, in some areas where rises have previously been reported more recent data are lacking. The increases in prevalence suggest that prevention measures in those areas may be insufficient, even in some areas with long-established epidemics. Ongoing transmission among IDUs in several areas is further evidenced by a high prevalence in young (under 25) and new IDUs (who have been injecting less than two years) (EMCDDA, 2003b) ([96]). Where HIV prevalence has remained high among IDUs, sustained prevention efforts are important to prevent transmission to new IDUs, sexual partners of IDUs and from mother to child.

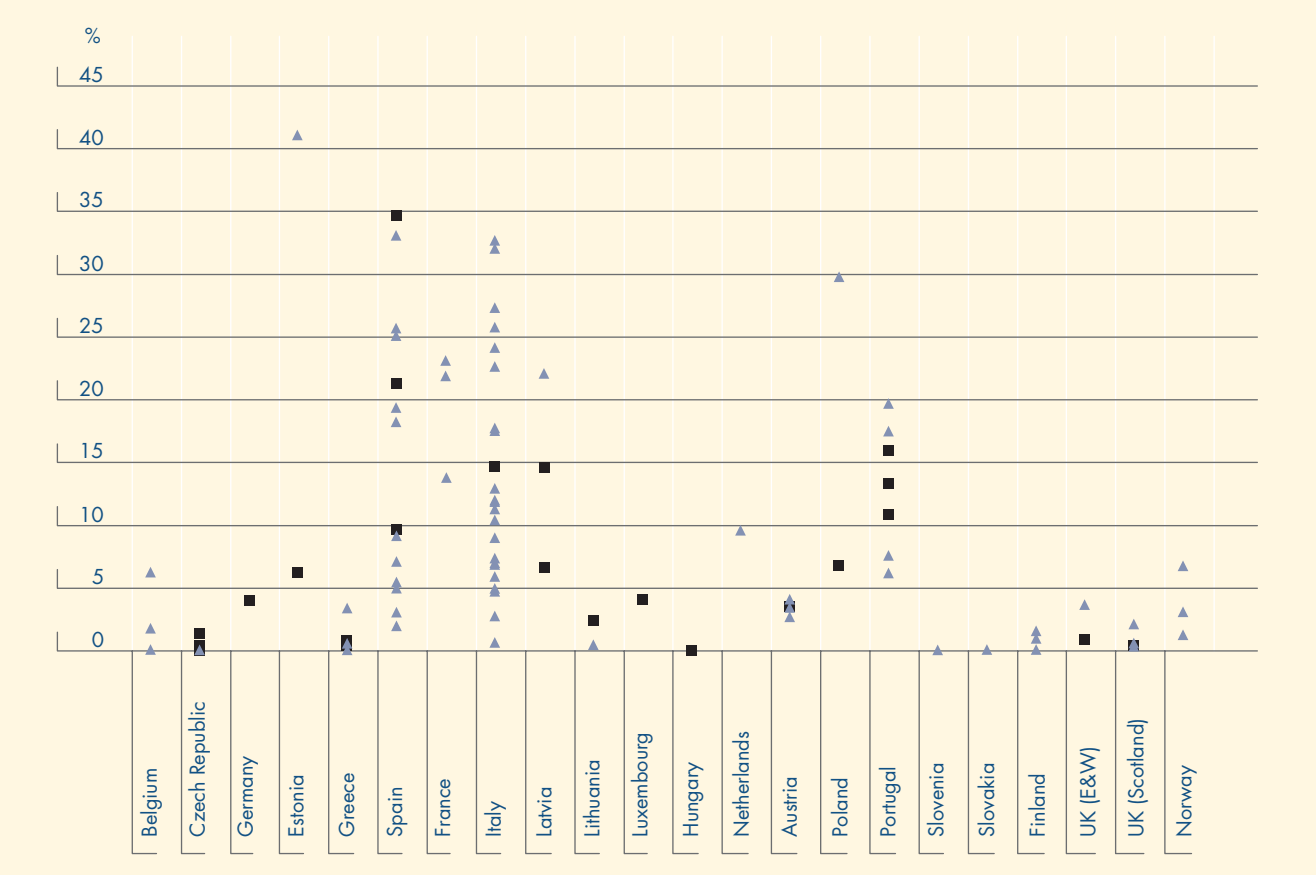
Hepatitis B and C and other infections

The prevalence of hepatitis B virus (HBV) antibody (6–85 %) and hepatitis C virus (HCV) antibody (17–95 %) among IDUs in the EU is generally extremely high, indicating a substantial need for treatment and prevention (Figure 15). The prevalence of HCV is lower (25–33 %) in some of the countries where HIV prevalence is also low (notably some new EU countries: Hungary, Slovenia, Slovakia), suggesting that high-risk behaviour is these countries is still not widespread. This implies that preventing the spread of these diseases through harm reduction interventions may still be possible (see below).

Injecting drug use can be a route for the transmission of a range of other infectious diseases; for example, in recent years outbreaks of IDU-related tetanus and wound botulism have occurred in the United Kingdom, possibly related to contamination of heroin and/or specific injection practices (Hope et al., 2004). The prevalence of tuberculosis (TB) among IDUs in the EU seems to be generally low and is not increasing, except perhaps in the Baltic countries (Migliori and Centis, 2002). However, in the neighbouring countries of eastern Europe it is increasingly becoming a problem because of its increasing resistance to treatment and because of its very high prevalence among prisoners, many

([95]) For more detail on these data and for original sources, see IDisease_Tbl 1 and IDisease_Tbl 8 in the 2004 statistical bulletin.
([96]) Ibid.

Figure 14: HIV prevalence among injecting drug users — studies with national and local coverage 2001–03



NB: ■ = samples with national coverage; ▲ = samples with local/regional coverage.
Differences between countries have to be interpreted with caution owing to different types of settings and/or study methods; national sampling strategies vary.
Data for Portugal and Italy include non-IDUs and therefore may underestimate prevalence among IDUs (proportion of non-IDUs in the samples: Italy 5–10 %, Portugal not known). For France, this is the case in some of the samples.
Data for Germany, Italy, Hungary, Portugal and Slovakia are limited to HIV prevalence among IDUs in treatment and may not be representative of HIV prevalence among IDUs who are not in treatment.
Data for Germany and Luxembourg, and part of the data for Belgium and France, are based on self-reported test results, which are less reliable than clinically documented tests.

Sources: Reitox national focal points. For primary sources, study details and data before 2001, see IDisease_Tbl 8 in the 2004 statistical bulletin.

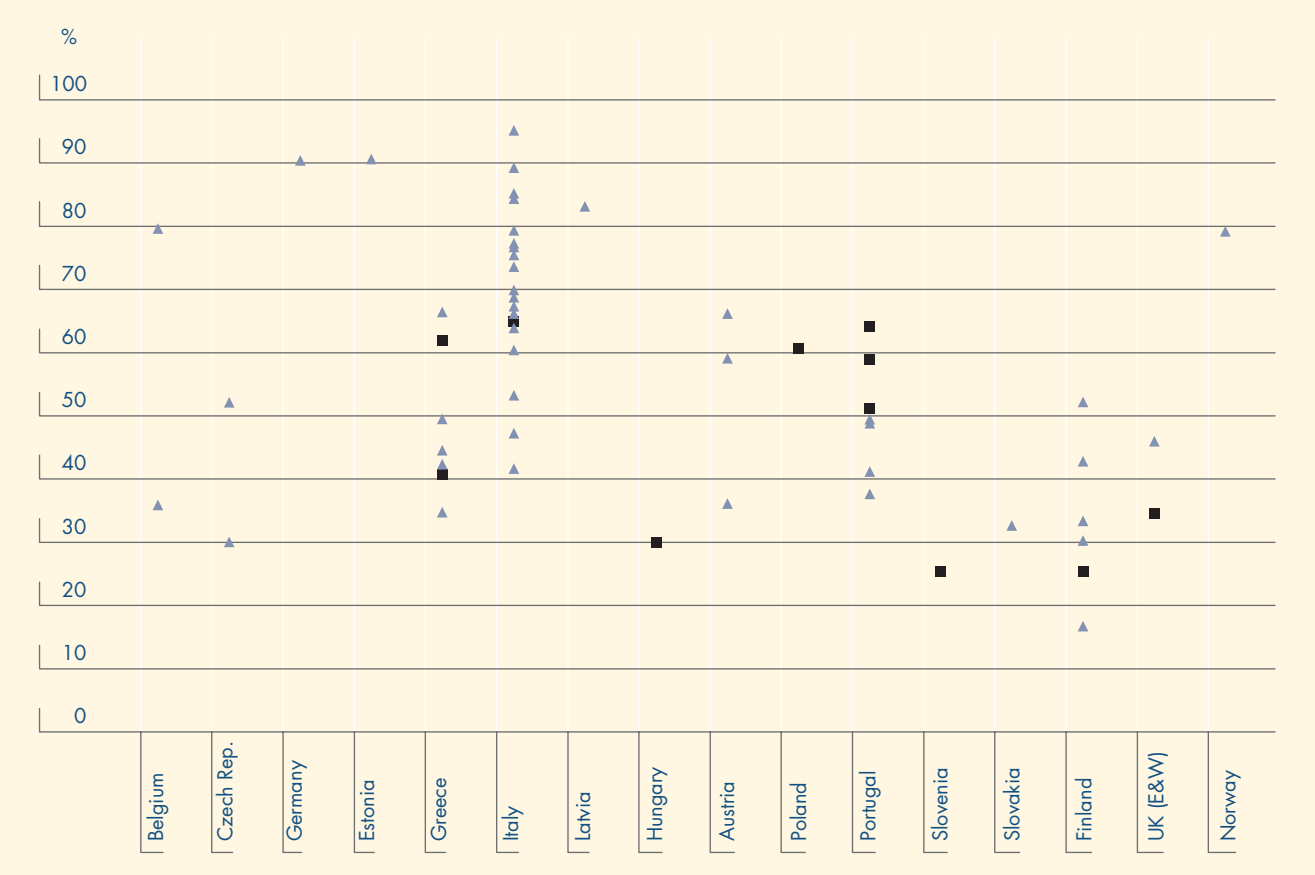
of whom are drug users. Sexually transmitted infections (STIs) can be both an indicator of high-risk sexual behaviour and a risk factor for HIV infection (Estebanez et al., 2001). Currently, the prevalence of STIs is increasing rapidly in several EU countries, mainly among homosexual men. Among drug users, STIs are very common in some countries, e.g. Ireland and Italy (Giuliani and Suligoi, 2004), but in others (e.g. Sweden and Norway) are rarely reported; however, in most countries surveillance data specific for drug users seem to be lacking. If STI surveillance data are to be useful as an indicator of high-risk sexual behaviour among IDUs, to gauge the potential for sexual transmission of HIV (Wiessing and Kretzschmar, 2003), it is important that they distinguish IDUs and thus enable trends, specifically among IDUs, to be followed. Overall, the epidemiological situation of infectious diseases among IDUs is serious. This calls for systematic screening of drug users at any time they get in contact with health services as well as ensuring sufficient resources for prevention and treatment.

Reducing drug-related infections

Since 2001, there has been a further increase in the number and geographical coverage of needle and syringe programmes (NSPs) in several Member States ([97]). In particular, in Estonia and Latvia, a rapid expansion of new services is taking place, supported by local, national and international grants in response to significant HIV epidemics. In Scotland, the number of syringes exchanged increased almost threefold between 1997 and 2002, and further increases are expected after the maximum number of syringes was raised to 60 per client visit, facilitating peer exchange. Closing the remaining geographical gaps in west European countries, NSPs have now also been

([97]) See Table 6 OL: Provision and types of needle and syringe programmes (NSPs), pharmacy involvement, numbers of syringes distributed/sold.

Figure 15: HCV prevalence among injecting drug users — studies with national and local coverage 2001–02



NB: ■ = samples with national coverage; ▲ = samples with local/regional coverage.
Differences between countries have to be interpreted with caution owing to different types of settings and/or study methods; national sampling strategies vary.
Data for Portugal and Italy include non-IDUs and therefore may underestimate prevalence among IDUs (proportion of non-IDUs in the samples: Italy 5–10 %, Portugal not known). For the Czech Republic this is the case in one of the samples.
Data for England and Wales and part of the data for Finland are based on saliva tests, which underestimate HCV prevalence.
Data for Belgium, Italy, Hungary, Portugal, Slovenia and Slovakia are limited to HCV prevalence among IDUs in treatment and may not be representative of HCV prevalence among IDUs who are not in treatment.
Sources: Reitox national focal points. For primary sources, study details and data before 2001 see IDisease_Tbl 11 in the 2004 statistical bulletin.

established in Northern Ireland (pharmacy based) and in Flanders (Belgium). However, in Sweden, discussions about an expansion of NSPs are still in progress.

Where studies on syringe access have been conducted, the results show that purchase from pharmacies is the most common source of injecting equipment (e.g. 30–45 % of NSP clients in Belgium, 32 % in Luxembourg and 30–40 % in Hungary). In four countries pharmacies play a significant role in syringe exchange or provision: in Spain, Portugal and the United Kingdom, pharmacies replace syringes for free, and in France, State-subsidised 'stérikits' are sold mainly in pharmacies. As a result of the involvement of pharmacies, these four countries have achieved a good geographical coverage of needle exchange points. In the other countries, drug users have to purchase syringes (and other paraphernalia), and the high price in some countries is a matter of concern ([98]).

France and Portugal report that the numbers of syringes being obtained from pharmacies is decreasing. In France, the sale of syringes decreased by 45 % between 1999 and 2002, falling from 16.5 million to 9 million. These reductions were not offset by increased activity in NSPs. Possible explanations include an increase in non-injecting modes of consumption, increased access of injectors to substitution treatment or even increased levels of needle sharing (Emmanuelli, 2003).

NSPs may be implemented by a range of different methods: through low-threshold drug agencies, pharmacies and general health and social service facilities as well as via mobile exchange points (an equipped bus or outreach workers) and special machines. In several new Member States (the Czech Republic, Poland, Slovenia and Bulgaria) in particular, but also in Belgium, Ireland and the United Kingdom, peer outreach workers play an increasingly

([98]) See Table 7 OL: Prices for commonly used syringe-types (with needle) in euros.

important role in supplying sterile equipment to drug users (McVeigh et al., 2003).

Developments in the treatment of drug-related infections

High rates of hepatitis C virus (HCV) infection among drug users are causing increasing concern among healthcare professionals. Between 60 % and 80 % of people who contract the virus become chronically infected, leading to end-stage liver disease in up to 20 % of cases, but access of drug users to treatment for hepatitis C is low. A policy briefing and a scientific monograph on hepatitis C produced by the EMCDDA are available online (EMCDDA, 2003c; EMCDDA, 2004d) ([99]).

The situation of drug users with regard to access to liver treatment remains in most countries to be improved. As treatment guidelines are considered an important tool for steering the provision of medical treatment, the EMCDDA carried out an analysis of guidelines for the treatment of HCV infection in drug users in the 15 'old' EU countries and Norway in 2003–04 ([100]). The study found that in many countries a review of national guidance was under way, taking improved treatment options and considerably enhanced outcomes into account. Some new guidance documents referred explicitly to research that had documented the benefits for drug users if treatment was provided by interdisciplinary teams of hepatologists and drug use specialists.

Special funding is to be made available by the Global Fund against AIDS, Tuberculosis and Malaria (GFATM) to provide anti-retroviral treatment to patients in Estonia and the candidate country Bulgaria: the projected number of persons who will receive anti-retroviral treatment is 500 in Estonia and 200 in Bulgaria (GFATM Secretariat, 2004).

New trends in service provision

The main trends in the provision of low-threshold service for drug users, originally centred on needle and syringe exchange, include increased integration with other survival-orientated services, for example shelters, and healthcare and medical services, and the extension of opening hours into evenings, nights and weekends.

Faced with an increasing number of chaotic drug users with little inclination of contacting services, Dutch drug services revert to 'friendly' persuasion to get normally out-of-reach drug users into care. This approach — called 'interferential' care — provides an outreaching and assertive health service to a vulnerable group of people with multiple problems who despite an alarming situation that seriously threatens their quality of life do not make use of regular healthcare facilities (Roeg et al., 2004).

Contact with drug users and those at risk is essential for the transmission of health education messages and the prevention of drug-related health damage. This has been achieved to a high degree in the Czech Republic, where a dense network of 93 services spread across the country reached more than 22 000 individual problem drug users in 2002 — more than half of the estimated population of problem drug users (Czech Republic national report, 2003, p. 35).

Several other countries acknowledge the role of low-threshold drugs services as a platform for offering basic medical care, such as wound and abscess treatments, for example the Norwegian 'field nursing stations'. In Finland, low-threshold medical services, called 'health counselling centres', successfully conduct testing and vaccination campaigns. The opportunity to receive medical care is attractive even to drug users who are otherwise difficult to reach, and contact with medical staff provides a chance, over and above the occasions afforded by needle and syringe exchange, to obtain resources and referrals to services such as HIV counselling and testing, medical care and drug treatment (EMCDDA, 2004a).

The need for low-threshold services is greater in countries with 'older' epidemics, where long-term injectors have considerable health problems and are more marginalised and socially excluded: the increasing range of services offered might also reflect an increasing service dependency of this group.

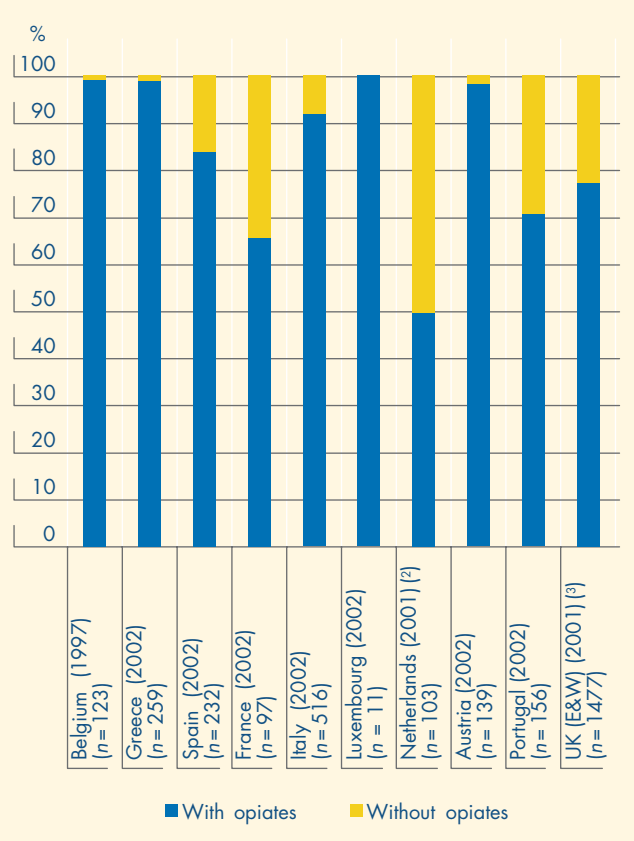
Drug-related deaths ([101])

Opiates are present in most cases of 'drug-related deaths' ([102]) due to illegal substances reported in the EU, although in many cases other substances are also identified during the toxicological examination (Figure 16) ([103]).

Between 1995 and 2001, there were 8 000–9 000 overdose deaths reported each year by the EU countries ([104]). These figures can be considered as minimum estimates as it is likely that, in most countries, there is some level of under-reporting. The majority of overdose victims are young men (70–93 %) in their late 20s or 30s, with a mean age

([99]) Box 4 OL: Hepatitis C key issues presents the findings of three recent EMCDDA publications on hepatitis C.
([100]) Analysis of guidelines for the treatment of hepatitis C virus infection with regard to treatment accessibility for drug users.
([101]) For an overview of drug-related death see 'Drug-related deaths and mortality among drug users' in last year's annual report (EMCDDA, 2003b).
([102]) See methodological notes 'Drug-related deaths EMCDDA definition' in the 2004 statistical bulletin. See the EMCDDA protocol for drug-related death (http://www.emcdda.eu.int/?nnodeid=1419).
([103]) See DRDeaths_Tbl 1 in the 2004 statistical bulletin.
([104]) See DRDeaths_Tbl 2 and DRDeaths_Tbl 3 in the 2004 statistical bulletin.

Figure 16: Proportion of drug-related deaths with or without the presence of opiates in some EU countries in 2001–02 ([1])

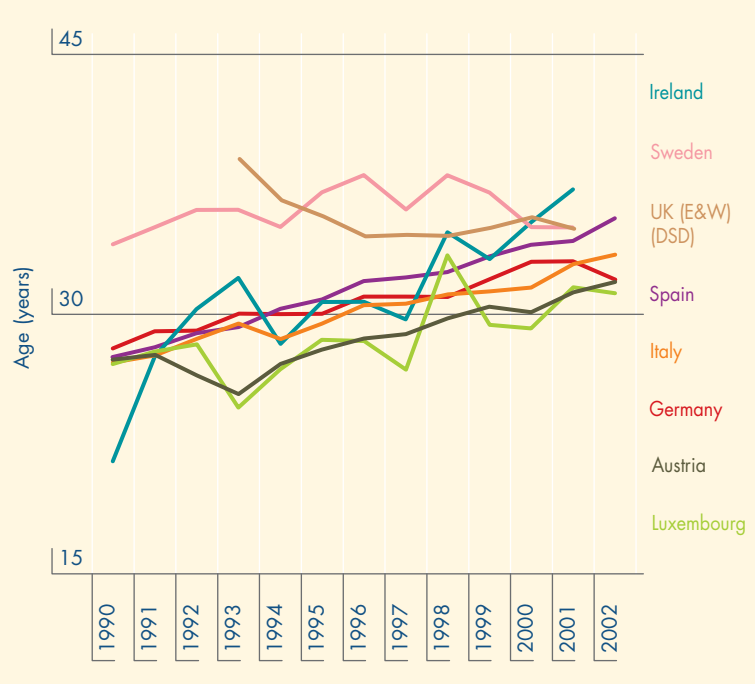


([1]) Or latest year for which information is available.
([2]) In the Netherlands, some cases 'without opiates' refer to 'other and unspecified narcotics' or 'other and unspecified psychodysleptics', which might include cases with opiates and cases due to cocaine.
([3]) In the United Kingdom, the toxicological information is based on np-SAD (St George's Hospital Medical School) based on coroners' reports. Cases with at least one opioid mention are included; there may be some overlap and the total proportion may be lower.
NB: In some countries, the 'national definitions' of drug-related death include a limited number of cases of deaths indirectly related to drug use.
Sources: Reitox national reports 2003, taken from national mortality registries or special registries (forensic or police). Based on national definitions as presented in the methodological notes 'Definition of acute drug-related deaths in the Member States'. See also DRDeaths_Tbl 1 in the 2004 statistical bulletin.

between 31 and 40 years. In most EU countries, victims exhibit an ageing trend, suggesting an 'ageing cohort effect' ([105]). In Finland and, to a lesser extent, Greece and the United Kingdom, such a trend is not apparent, a finding that deserves attention as it might indicate an increased incidence of injection or opiate use in recent years (Figure 17).

There are regular reports from various EU countries about victims of drug-related death in whom methadone can be identified. Like any opiate, methadone is a potentially toxic substance, but research clearly shows that substitution treatment reduces the risk of overdose mortality among programme participants. Several studies have indicated that

Figure 17: Mean age of drug-related death victims in some EU countries, 1990–2002



NB: The figure presents countries that reported mean age of victims in most of the years of the reported period.
See also Figure 10 OL: Evolution of the proportion of people over 35 years among drug-related deaths in the EU countries from 1990 until 2001–02.
Information based on national definitions as presented in the methodological notes on national definitions of acute drug-related deaths. In England and Wales, the 'drugs strategy definition' is used (2004 statistical bulletin).
Sources: Reitox national reports 2003, taken from national mortality registries or special registries (forensic or police).

deaths in which methadone are implicated are more likely to be the result of illicit rather than prescribed use, and others have found a higher risk during the initial phases of methadone maintenance treatment. These findings suggest the need to assure quality standards of substitution programmes.

Trends in acute drug-related deaths

Trends in drug-related deaths vary from country to country, although some general trends can be outlined for the EU countries. An overall marked increase in drug-related deaths was observed during the 1980s and early 1990s ([106]). During the period 1990–2000, and despite decreases in some countries, the overall increasing trend continued, although at a lower rate. In 2000, 8 838 deaths were reported, compared with 6 284 in 1990 (a 40 % increase).

Between 2000 and 2001–02, many EU countries reported a decrease in the numbers of drug-related deaths, which in some cases (Germany, Greece, Ireland, Italy and Portugal) reached statistical significance. In Norway, police also

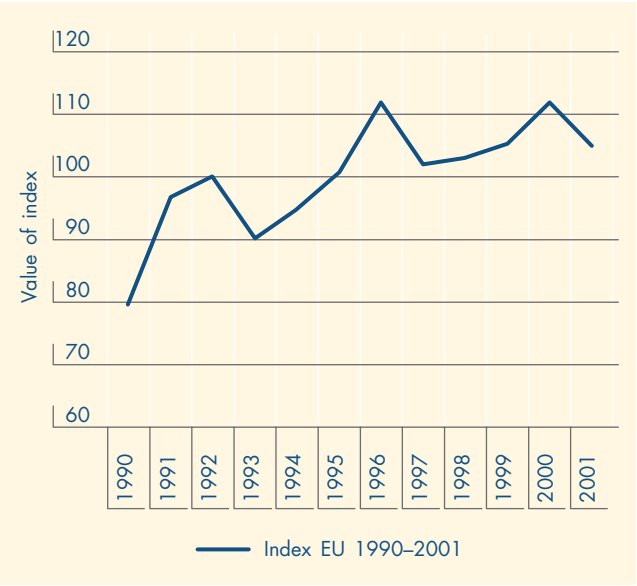
([105]) See Figure 10 OL: Evolution of the proportion of people over 35 years among victims of acute drug-related deaths in the EU countries from 1990 until 2001–02.
([106]) See Figure 11 OL: Long-term EU trend in acute deaths directly related to drug use (1985–2001).

reported a significant decrease in drug-related deaths in 2002. At EU level there was an overall decrease between 2000 (8 838 cases) and 2001 (8 306 cases), which represents a modest, although statistically significant, reduction (6 %) (Figure 18) ([107]).

An increasing trend in drug-related deaths might be expected in the new Member States or in the candidate countries. At present, the quality of information on drug-related deaths in some of these countries is limited and trends observed should be interpreted with caution. Estonia and Slovenia show an increasing trend, whereas in Bulgaria and the Czech Republic there is no discernible trend.

Despite favourable factors such as a shift away from injection among opiate users in a number of countries and increased treatment provision, the decrease in drug-related deaths observed in the last two years is low (non-existent in some countries), and current figures remain high from a longer-term perspective.

Figure 18: Changes in the number of acute drug-related deaths — EU and Norway total 1990–2001 (indexed to 100 for the average over the period 1990–2001)



NB: Due to insufficient data 2002 index not computed.
Individual country trends are available in Figure 11 OL. Data on the number of cases per country can be found in DRDeaths_Tbl 2 and Tbl 3 (2004 statistical bulletin).
In the United Kingdom, data from the Office of National Statistics (ONS) have been selected because they are available for a longer time period.

Sources: Reitox national reports 2003, taken from general mortality registries or special registries (forensic or police). Based on national definitions as presented in the methodological notes on national definitions of acute drug-related deaths (2004 statistical bulletin).

Overall mortality among opiate users

Mortality cohort studies have shown that mortality among opiate users is up to 20 times higher than in the general population of the same age. The EMCDDA is coordinating a cooperative project of mortality cohorts in eight countries, and preliminary results have been presented in previous EMCDDA reports. Further analysis is being conducted, with the addition of cohorts from France and Scotland. It is expected that the results will be presented in future annual reports.

Reduction in drug-related deaths

Knowledge of social and personal risk factors, risks for drug-related deaths and the circumstances in which they are likely to occur, especially fatal heroin overdose, has grown since the mid-1990s (e.g. Best et al., 2000, 2001; Origer and Delucci, 2002), and the findings indicate a considerable potential for medical and educational approaches to reduce the number of deaths. The reductions in overdose deaths recently observed in several countries (France, Spain) have been attributed to increased availability of substitution treatment (e.g. in France: national report, 2002, 2003) as well as to changes in the mode of administration, with a reduction in injecting (EMCDDA, 2004b).

Reducing the number of drug-related deaths is a target at European level (EU drugs strategy 2000–04 Target 2) and reiterated in a growing number of national drugs strategies in the Member States ([108]).

The dissemination to drug users and their social networks of information and educational materials on overdose risks and management (leaflets, posters, brochures or videos) is common practice in most of the old Member States, but is not usual in the new ones. Other evidence-based responses, such as peer intervention in the case of drug emergencies and the encouragement of ambulance calls among drug users who might witness overdoses, are reported from several countries, but systematic knowledge about the level of provision of such courses is still not available. The distribution of an opiate antagonist (naloxone) to drug

([107]) See also Figure 12 OL: Trends in acute drug-related deaths in the different EU countries and the EU as a whole 1985–2001. For the United Kingdom see also in the 'Methodological notes on national definitions of drug-related deaths' (statistical bulletin): 'drugs strategy definition' and 'ONS traditional definition'. The drugs strategy definition produces estimates very closely related to EMCDDA standard European definition ('Selection B').
([108]) See Table 8 OL: Strategies and selected measures to reduce drug-related deaths in the 25 EU Member States and Norway.
([109]) Ibid.

users is one measure taken, or being considered, in some countries to reduce overdose deaths ([109]) (EMCDDA, 2003a).

In some countries, supervised drug consumption facilities are available for drug users in open drug scenes who are at high overdose risk: such services exist in Germany, Spain and the Netherlands, and are being prepared in Luxembourg, Slovenia and Norway. If coverage is adequate, these rooms may help to reduce drug-related deaths at city level.

A project based in emergency departments in Austria addresses drug users who overdose frequently ([110]).

Consumption rooms

'Drug consumption rooms', facilities where confirmed drug users are allowed to consume their drugs in hygienic conditions, under supervision by qualified staff and without fear of arrest, operate in 39 European cities. The *European report on drug consumption rooms* (EMCDDA, 2004a) describes what consumption rooms are and why and how they came about; it describes the specific target groups of these facilities, their objectives and functioning; and it summarises the available evidence.

As highly specialised services, integrated in a wider network of services to drug users, drug consumption rooms are based on consensus and active cooperation between health workers, police, local authorities and local communities. The report shows that they are successful in establishing contact with a highly problematic group of drug users and in promoting their access to much needed primary healthcare as well as social and treatment services. In providing access to clean injecting equipment and a supervised environment for drug consumption, morbidity and mortality risks as well as nuisance due to public drug use are reduced.

([110]) See the Austrian EDDRA project contact in the EDDRA database (http://eddra.emcdda.eu.int/eddra/plsql/ShowQuest?Prog_ID=2066).

Chapter 7
Treatment — meeting the needs of those with problems

Many of those who have developed a problem with drug use will benefit from contact with a treatment agency. A range of different treatment options is available across the European Community, reflecting both national and historic contexts as well as the differing characteristics of the population in need of help. These are summarised below. The availability of treatment varies between countries and is, in general, less developed in the new Member States. However, overall there appears to be an ongoing investment in increasing capacity in this sector with evidence of an improvement in the opportunities available for those with drug problems.

A new development in this area is the use of the communication potential of new technology, like the Internet, to enhance the services available to drug users. Considerable attention has been given to the role of the Internet in the promotion of illegal drug use. It is therefore a positive finding that some countries, such as the Netherlands and Finland, have taken initiatives to explore the potential of this medium to improve the information and care options available. Activities have included exploiting the direct communication links provided by e-mail and mobile phones, and also looking at how e-counselling services and SMS (text) services can benefit drug users.

A general trend across the EU is that drug-related treatment has moved away from hospitals and into treatment centres in community settings. This development is less evident in the new Member States, where psychiatric hospitals remain the primary treatment providers (Estonia, Latvia, Lithuania, Slovenia), although this may be changing in some countries; for example, in the Czech Republic care is provided in both settings.

Characteristics of treatment services

Drug-free treatment

Drug-free treatment involves the application of psychosocial and educational techniques to achieve long-term abstinence from drugs. Traditionally, drug-free treatment has been residential and long-term, e.g. in therapeutic communities. Today, it is often also community-based. Medication may be used to alleviate withdrawal symptoms. This is usually restricted to antidepressants and/or benzodiazepines, although in some therapeutic communities no such drugs are provided ([111]).

As medically assisted treatment is usually available only for opioid users, some form of drug-free treatment is generally the only therapeutic option available for those experiencing problems with non-opioid drugs.

Medically assisted treatment

Medically assisted drug treatment includes both substitution treatment with agonists and treatment with antagonists. Typically this sort of pharmacological intervention makes use of naltrexone (an antagonist) or one of the following opioid agonists: methadone, buprenorphine, dihydrocodeine, heroin, slow-release morphine.

Methadone continues to be the most commonly prescribed substitution substance in the enlarged EU. However, in recent years treatment options have widened. By 2002 all of the 'old' 15 Member States except the Netherlands and Ireland (where it is only used for detoxification) ([112]) reported the use of buprenorphine. Other substitution substances, such as dihydrocodeine (Belgium, Germany, Luxembourg, Austria), slow-release morphine (Austria) and heroin (Germany, the Netherlands, the United Kingdom), are used less frequently or as part of a medical trial (Springer, 2003a) ([113]).

In terms of absolute numbers, substitution treatment has become the most commonly available form of specialised drug treatment for opiate users in the EU, with over 400 000 individuals receiving treatment of this kind. However, with the exception of Slovenia, this form of intervention is far less available within the new Member States of the EU, where drug-free treatment options dominate ([114]).

([111]) See Figure 13 OL: Inpatient drug-free treatment modes.
([112]) In Ireland, buprenorphine is used for treatment of withdrawal symptoms only.
([113]) See Table 9 OL: Applied substitution substances in the EU Member States.
([114]) See Figure 14 OL: Substitution treatment or drug-free treatment predominance for opiate use.

Accessibility and admission criteria to substitution treatment

The trend towards making admission criteria for substitution treatment less restrictive continues. Historically, admission criteria were often highly selective, limiting this kind of treatment to those who were regarded as having particularly chronic problems. Today, admission to substitution treatment is generally restricted to those aged 18 years or over with a history of 1–2 years of problematic drug use (e.g. Belgium, Ireland, the Netherlands). Most new Member States report higher thresholds, e.g. a minimum age of 20 years and a history of problematic use of at least five years (e.g. Estonia and Latvia), although Slovenia allows drug users to receive substitution treatment from the age of 16. Relatively strict inclusion criteria are also found in Greece, Finland, Sweden and Norway, with the minimum age for treatment ranging from 20 to 25, and a requirement of 4–5 years of problematic use.

Despite the increase in availability of substitution treatment, a number of countries report that demand still exceeds supply, and waiting lists are reported from Belgium, the Czech Republic, Greece, Estonia, Hungary, Ireland, Sweden and Norway. Access can also be limited by the way in which drug services are organised; for example, in Lithuania patients have to pay for their medication, and this reduces service uptake.

Introduction of substitution treatment

There is considerable variation between Member States regarding the timing of the implementation of substitution treatment. Some Member States introduced methadone substitution programmes as long ago as the late 1960s and early 1970s, whereas some countries did not introduce this form of treatment on a widespread basis until the 1990s (Belgium, Greece, France, Norway). Substitution treatment is a relatively recent development in most of the new Member States, with most countries launching substitution treatment during the 1990s and Estonia introducing its first programme only in 2001. The exception is Slovenia, which has had established programmes since 1990 ([115]).

Psychosocial support in substitution treatment

Although it is widely acknowledged that substitution treatment should be accompanied by psychosocial support, this is far from being a routine component of treatment. In the Czech Republic, Germany and the Netherlands, a shortage of resources limits the delivery of adequate psychosocial support. And in Norway, although, in theory, every client of substitution treatment should be allocated a social consultant, in practice there is not always sufficient capacity to achieve this. One Danish study found that methadone clients who do not receive any psychosocial support use a secondary drug significantly more often than those who do receive such support. Further research is currently investigating whether expanded psychosocial support can improve treatment outcomes (Pedersen, 2001). The Irish College of General Practitioners has endorsed evidence-based substitution treatment guidelines (2003) stressing the need for a psychosocial component.

The usefulness of psychosocial support depends also, however, on clients' perceived value of this kind of therapeutic option. In Greece, it is reported that patients in methadone treatment programmes make frequent use of psychosocial counselling, whereas in Latvia only a few patients are willing to receive this kind of intervention.

Quality assurance

Quality assurance of treatment can be defined as a 'systematic attempt to monitor, document and improve the quality of services provided'. Five quality assurance mechanisms are generally accepted in the EU: accreditation of treatment services, standards for treatment, training of staff, monitoring of clients and outcomes and, finally, evaluation of retention rates, outcomes, satisfaction, discharge, etc. (Figure 19).

New developments regarding quality assurance in drug treatment services are its inclusion in national drugs strategies (Greece, Spain, France, Ireland, Sweden) or the setting-out of minimum requirements for such services (Belgium, the Czech Republic, Germany, the Netherlands, Poland, Slovenia and the United Kingdom). Accreditation of treatment services is a quality assurance mechanism in a number of countries (Germany, Spain, France, Ireland, Luxembourg, the Netherlands, Poland, Portugal and the United Kingdom), although some admit that further implementation is still required (the Czech Republic, the Netherlands). Many countries report increased training of staff, although the actual extent and coverage is not always systematically monitored. Systematic, large-scale evaluation of drug treatment services is relatively rare, occurring only in Denmark, Italy, Latvia, Luxembourg, Poland, the United Kingdom and Norway.

Social reintegration

There are three 'pillars' of social reintegration: (1) housing; (2) education; and (3) employment and vocational training. Housing is a prerequisite for a stable life, and interventions

([115]) See Figure 15 OL: Introduction of methadone treatment in the EU.

aim at providing drug users (former or current) with a place to live and/or subsidising the rent. Most drug users have received relatively little formal education and would benefit from upgrading of their literacy, numeric or other skills. Finally, employment and vocational training initiatives aim to achieve social independence by integrating the client into the labour market either by finding, or even subsidising, a job or through specific skills training.

Social reintegration is a less well-established response to problem drug use than is treatment and, consequently, monitoring and reporting in this field are also more patchy. Some Member States report that this area needs much more attention and financial resource (Germany, Estonia, Finland). However, in some countries social reintegration is receiving increased political attention through its inclusion in national drugs strategies as well as in the form of financial support (Greece, Ireland, England and Wales) ([116]).

Treatment demand data

Information on the number of people seeking treatment for a drug problem provides a useful insight into general trends in problem drug use and also offers a perspective on the organisation and uptake of treatment facilities in Europe. The EMCDDA's treatment demand indicator (TDI) provides a uniform structure for reporting on the number and the characteristics of clients referred to drug treatment facilities. Although TDI data can be regarded as providing a reasonably robust and useful representation of the characteristics of clients referred to specialised drug services, for a number of technical reasons caution should be exercised in extrapolating findings to the clientele across the overall provision of services.

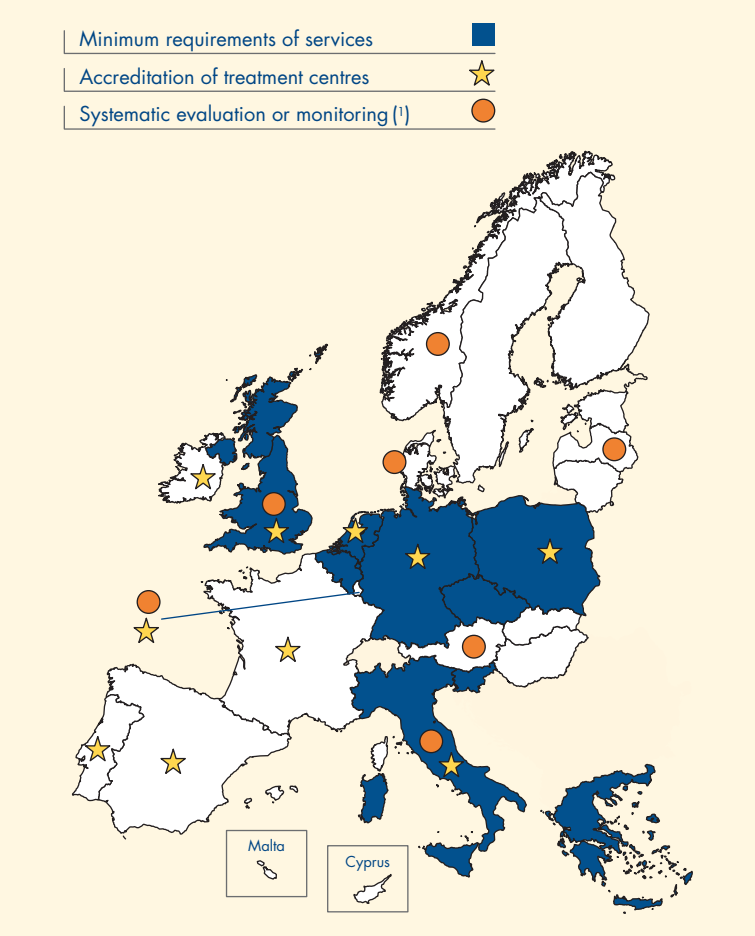
The general picture revealed by the most recent TDI data and national reports continues to reflect the trend reported in recent years of an increase in the total number of individuals entering treatment services. Despite the overall increase in treatment numbers, the number of new treatment demands, that is individuals entering treatment for the first time, appears to be fairly stable ([117]). The increase in overall demand can be explained by a combination of factors, including, in particular, improvements in the coverage of the reporting system itself and some expansion in the availability of treatment ([118]).

Characteristics of clients demanding drug treatment

Both drug services and their clients tend to be concentrated in inner cities and urban areas, where drug problems occur in combination with a range of other social and health problems, all of which are more common within marginalised and disadvantaged communities.

Most clients enter specialised drug treatment in their 20s or early 30s, with the mean age of clients entering treatment for the first time being 26 years. However, the age distribution observed across the European data set is not uniform and shows peaks among those aged over 39 and under 20. The main reason for this is that the age distribution reflects the fact that problem users of opiates or cocaine tend to be older than average, while those demanding treatment for the use of cannabis or stimulant drugs other than cocaine are typically younger ([119]). Thus, in the countries that have seen a marked increase in the number of clients referred for cannabis problems, such as Denmark, Germany and Finland, clients are typically younger than in countries such as Greece, Spain and the Netherlands, where heroin or cocaine problems

Figure 19: Quality assurance of drug-related treatment



(1) A centrally situated register or database keeping track of clients and/or treatment provision.
Sources: Reitox national reports.

([116]) See Figure 16 OL: Overview of social reintegration provision.
([117]) See Figure 17 OL: New clients in treatment by year in some EU countries.
([118]) See TDI_Tbl 1 and TDI_Tbl 2 in the 2004 statistical bulletin.
([119]) See TDI_Tbl 5 in the 2004 statistical bulletin.

predominate. The historical development of the drug problem also plays a role in determining the age of the treatment population; for example, in Finland clients are relatively young, reflecting the fact that the drug problem is a comparatively new one. Similar results could be expected for many of the new Member States, where again drug problems are often a relatively new historical phenomenon, although for the most part heroin problems predominate within those seeking drug treatment ([120]).

Although male drug users predominate in all European countries, the male to female ratio varies considerably between countries, ranging from 3:1 to 6:1. Differences between countries again reflect the type of drug problem as well as region (the highest proportions of female drug users are found in northern European countries and the new Member States) and client age.

It is interesting to note that most clients seeking treatment for heroin, cocaine and hypnotics or sedatives consume these drugs daily, whereas for other drugs frequency of use shows a wider distribution. This issue is explored in more detail in the selected issue on cannabis problems in context (p. 82).

Most treatment clients report starting drug use during adolescence — most commonly between the ages of 15 and 19. However, a marked difference is reported for first heroin and cocaine use, with 20–30 % of clients beginning at age 25 or older ([121]).

Social demographics

Demographic information suggests that treatment clients are disproportionately likely to be socially and economically disadvantaged. More than half of clients fail to complete their secondary education ([122]). The proportion without regular employment is high compared with the general unemployment rate: in some countries more than half of drug users in treatment are unemployed ([123]). Housing conditions are often also precarious: around 15 % of people in treatment live in social institutions or in unstable accommodation ([124]). In addition, it should be remembered that homelessness itself might limit the ability of individuals to take advantage of treatment options — and that homelessness may aggravate both drug problems and their consequences (EMCDDA, 2003b, p. 65).

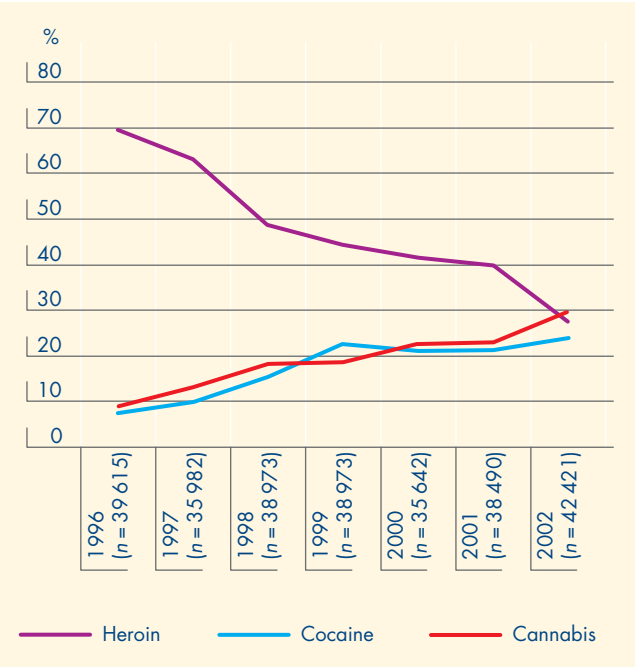
Among clients living in stable accommodation, one third live alone, another one third with parents and the remainder with a partner or other people. More than 10 % are living with children; evidence suggests that the children of drug users may face a range of difficulties. Drug problems also make parenting particularly challenging (Murphy-Lawless, 2002).

Drug of use

In the TDI, both the primary drug for which treatment is sought and the secondary substance of use, if any, are recorded. The three substances most frequently recorded as either the primary reason for treatment or a secondary drug are opiates, cocaine and cannabis (Figure 20).

Producing a clear picture of the drugs that are responsible for individuals seeking drug treatment is complicated by the fact that drug users commonly consume a range of psychoactive substances. It is often difficult to identify to what extent an individual's problems are related to any one substance in particular. In all countries, polydrug use is common among treatment clients, and between 40 % and 80 % of all clients report using at least one additional

Figure 20: Proportion of new clients attending drug treatment services who report primary drug to be heroin, cocaine and cannabis, 1996–2002



NB: Countries providing data are: CZ, DK, DE, EL, ES, NL, SL, SK, FI and SE (except FI data missing 1996/97, SE data missing 2000).
Figures are summed over contributing countries for each year.
Sources: Reitox national reports 2003.

([120]) See TDI_Tbl 4 in the 2004 statistical bulletin.
([121]) See Figure 18 OL: Age at first use by main drug and TDI_Tbl 5 in the 2004 statistical bulletin.
([122]) See Figure 19 OL: All clients by level of education and TDI_Tbl 6 in the 2004 statistical bulletin.
([123]) See Figure 20 OL: All clients by labour status and TDI_Tbl 7 in the 2004 statistical bulletin.
([124]) See Figure 21 OL: Living conditions (where) among all clients and living conditions (with whom) among all clients.

secondary drug. For many individuals multiple drug use is common, and coexisting alcohol problems often further complicate treatment. A worrying trend is that in many countries the number of those found to have problems with multiple substances appears to be growing.

Opiates

In most countries, opiates (largely heroin) remain the main drug for which clients seek treatment and typically account for between 40 and 90 % of all demands for treatment. However, EU countries can be broadly divided into three groups depending on the extent to which the treatment population is characterised by those with heroin problems:

- below 40 % — Czech Republic, Hungary, Finland, Sweden;
- 40–70 % — Denmark, Germany, Spain, the Netherlands, Slovakia;
- over 70 % — Greece, Italy, Lithuania, Luxembourg, Slovenia, the United Kingdom.

Cannabis

Cannabis is in overall terms the second most frequently cited drug in reports on those entering treatment. This is especially true for new clients (Figure 21), of whom nearly one third (29.5 %) are recorded as having a primary cannabis problem. The proportion of people seeking treatment for cannabis varies widely between countries ([125]). Cannabis treatment demands are discussed in depth elsewhere (p. 82) in this report.

Cocaine

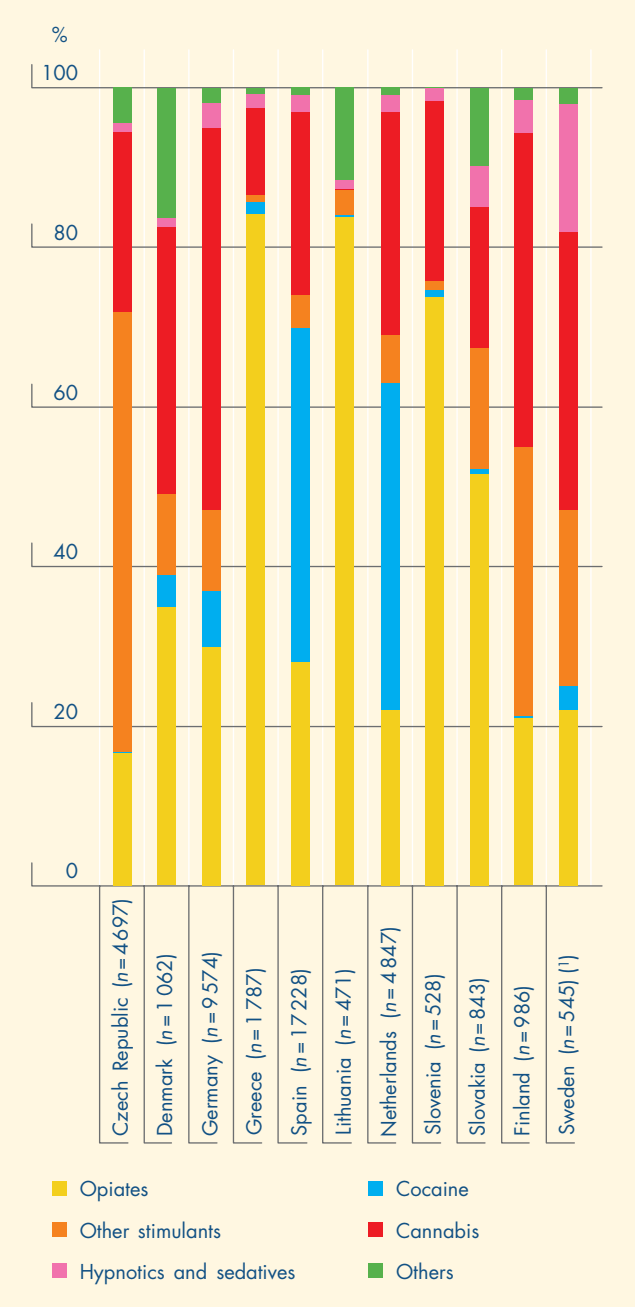
Cocaine is the third most common drug reported by those entering drug treatment, but with marked differences between countries. For example, demands related to cocaine use are extremely low or even completely absent in the new Member States. In most other countries, cocaine as the primary drug accounts for less than 10 % of all treatment demands, although the percentage is higher, around 25 %, among new clients.

Less than 8 % of clients seeking treatment for cocaine use reported drug injection as a usual route of administration.

Other stimulants

Stimulants other than cocaine are infrequently reported as the primary reason for attending drug treatment except in the Czech Republic, Finland and Sweden, where they account for between a quarter and more than half of all primary treatment demands. In the Czech Republic, more than 50 % of reported treatment demands relate to a primary methamphetamine problem. Elsewhere, use of stimulant drugs as a reason for treatment attendance is less common but is reported by nearly 10 % of those entering treatment in Slovakia, 7 % in Germany, 6 % in Denmark, and 5 % in Hungary. In all other countries the proportion is

Figure 21: New clients attending drug treatment in 2002: distribution by different primary drugs

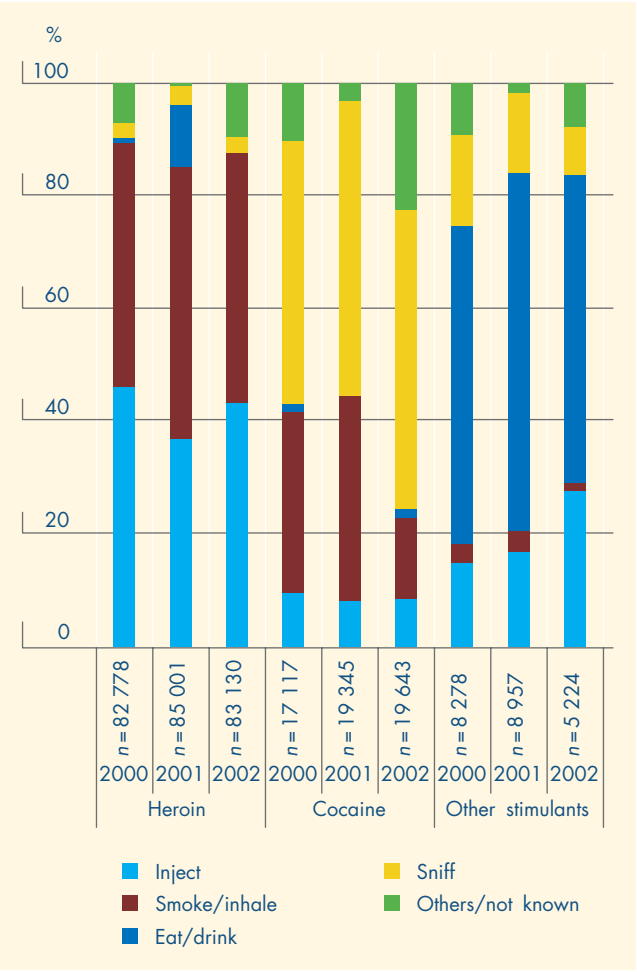


NB: Total number of cases: 42 568.
(1) Outpatient treatment only.
Sources: Reitox national reports 2003.

([125]) See TDI_Tbl 10 and TDI_Tbl 11 in the 2004 statistical bulletin.

even lower. Data from 2002 also revealed an increase in the number of stimulant users who reported injecting, from 14 % in 2000 to 27 % in 2002, although this group remains relatively small in terms of absolute numbers (Figure 22).

Figure 22: Distribution of route of administration for heroin, cocaine and other stimulants among attendees at outpatient treatment services: 2000–02



NB: Data available for DK, DE, EL, ES, IE, NL, FI, SE and UK (2002 data from Ireland were not available).
Base numbers of total numbers reporting route of administration are shown.

Sources: Reitox national reports (2001, 2002, 2003); TDI data (2000, 2001, 2002) from outpatient treatment centres.

Chapter 8
Crime and prison issues

Drug-related crime

Drug-related crime can be considered to encompass the following four categories:

- Psychopharmacological crimes: crimes committed under the influence of a psychoactive substance;
- Economic compulsive crimes: crimes committed in order to obtain money (or drugs) to support a drug habit;
- Systemic crimes: crimes committed within the functioning of illicit drug markets, as part of the business of illicit drug distribution and supply;
- Drug law offences: crimes committed against drug (and other related) legislations.

Data on the first three categories of crime are rare in the EU, and those that are available come from ad hoc local studies that are generally not routinely conducted and difficult to extrapolate from.

'Reports' ([126]) of drug law offences (use, possession, dealing, trafficking, etc.) reflect differences in national legislations, but also different ways in which the laws are applied and enforced, and differences in the priorities and resources allocated by criminal justice agencies to specific crimes. In addition, information systems on drug law offences vary considerably between countries, especially in relation to reporting and recording practices, i.e. what is recorded and when and how. These differences make comparisons between EU countries rather difficult.

Over the period 1997–2002, the number of 'reports' of drug law offences increased in most EU countries. Increases were particularly marked (twofold or more) in the Czech Republic, Estonia, Lithuania, Hungary, Poland, Slovenia and Norway. However, 'reports' of drug law offences decreased in 2001 and 2002 in Italy and Portugal ([127]) and in 2002 in Estonia ([128]), Ireland, Latvia, Slovenia and Finland.

In most EU Member States the majority of reported drug law offences are related to drug use or possession for use ([129]), ranging from 52 % of all drug law offences in Finland to 90 % in Austria. In the Czech Republic, 90 % of reported drug law offences relate to dealing or trafficking, while in Italy and Spain — where drug use and possession for use are not criminal offences — all drug offences relate to dealing or trafficking. Finally, in Luxembourg, Portugal and Norway ([130]), a majority of offences relate to both drug use/dealing and drug trafficking.

In all countries for which data were available, with the exception of Portugal, the proportion of all drug law offences accounted for by offences related to drug use/possession for use increased over the five-year period 1997–2002 ([131]). The rate of increase was generally slow, but more marked upward trends were evident in Belgium, Luxembourg and Slovenia, and in Ireland until 2001. In Portugal, the proportion of use-related offences started to decrease in 2000, one year before drug use and possession for use were decriminalised (in July 2001) ([132]).

In most of the Member States, cannabis is the illicit drug most often involved in reported drug law offences (Table 4). In the countries where this is the case, cannabis-related offences account for 34 % (Sweden) to 87 % (France) of all drug law offences. Heroin is the drug most frequently involved in Lithuania and Luxembourg, where it accounts for 15 % and 51 %, respectively, of all drug offences, while in the Netherlands offences involving 'hard drugs' ([133])

([126]) The term 'reports' for drug law offences is given in quotation marks because it describes different concepts in different countries (police reports of suspected drug law offenders, charges for drug law offences, etc.). For an exact definition for each country, refer to the methodological notes on definitions of 'reports' for drug law offences in the 2004 statistical bulletin. (The term 'arrests' was used in annual reports until 2001.)

([127]) The decrease in 'reports' for drug law offences in Portugal is due to the decriminalisation, in July 2001, of drug use/possession for use.

([128]) The decrease in 'reports' for drug law offences in Estonia is due to the decriminalisation, in September 2002, of repeated drug use and of possession of small amounts of drugs for personal use.

([129]) See DRCrime_Tbl 2 in the 2004 statistical bulletin.

([130]) In Norway, no distinction is drawn between 'drug dealing/trafficking' alone and 'drug use/dealing and trafficking'. The remaining drug law offences are related to 'drug use' alone.

([131]) See DRCrime_Tbl 4 in the 2004 statistical bulletin.

([132]) The law to decriminalise drug use and possession for use was passed in November 2000 and came into effect in July 2001.

([133]) In the Netherlands 'hard drugs' are defined as drugs which pose unacceptable public health risks, such as heroin, cocaine, ecstasy and LSD.

Table 4: Drug mostly involved in 'reports' for drug offences in the EU countries and Norway

Country	Notes	Year	Proportion (%)		
			Cannabis	Heroin	Cocaine
Belgium		2002	67	8	7
Czech Republic	(2)	2002	37	8	1
Denmark			n.a.	n.a.	n.a.
Germany	(2) (3)	2002	56	17	9
Estonia			n.a.	n.a.	n.a.
Greece			n.a.	n.a.	n.a.
Spain	(1) (4)	2002	52	7	33
France	(2)	2002	87	5	3
Ireland	(2)	2002	65	9	6
Italy	(1) (4)	2002	42	27	28
Cyprus			n.a.	n.a.	n.a.
Latvia			n.a.	n.a.	n.a.
Lithuania	(1)	2002	10	15	1
Luxembourg	(1)	2002	28	51	21
Hungary	(2)	2002	66	16	2
Malta			n.a.	n.a.	n.a.
Netherlands	(2) (5)	2002	37	58	
Austria	(1)	2002	58	11	11
Poland			n.a.	n.a.	n.a.
Portugal	(3) (4) (6)	2002	36	17	8
Slovenia	(1)	2002	82	10	2
Slovakia			n.a.	n.a.	n.a.
Finland			n.a.	n.a.	n.a.
Sweden	(1) (7)	2001	34	7	2
United Kingdom	(1)	2000	69	12	5
Norway			n.a.	n.a.	n.a.

NB: For an exact definition for each country, refer to the methodological notes on definitions of 'reports' for drug law offences in the 2004 statistical bulletin.
n.a.: data not available.
(1) Among all drugs mentioned (alone or not).
(2) Among main drugs.
(3) Among all offences broken down by drug (for some offences, a breakdown by drug is not available).
(4) Among offences for drug dealing/trafficking (since offences for drug use/possession for use are not criminalised).
(5) Data under 'heroin' refer to 'hard drugs' (defined as drugs which pose unacceptable public health risks, such as heroin, cocaine, ecstasy, LSD). Some offences involve both cannabis and 'hard drugs' and have not been included here, which explains why the total is less than 100 %.
(6) This proportion is underestimated as it represents offences for each drug alone, e.g. offences for cannabis only (it does not include offences for 'cannabis + other drug(s)').
(7) Among persons given a summary fine by the prosecutor or sentenced by a court.
Sources: National focal points.

predominate. The relative proportion of drug-law offences related to any specific drug is influenced by a number of factors including the operational priorities of law enforcement officials and explicit or implicit strategic decisions to differentially target different types of drug-law offences.

Since 1997, the proportion of drug offences involving cannabis has been increasing in Germany, Spain, France, Luxembourg, Hungary and Portugal, while it has remained stable in Belgium, Italy, Lithuania, the Netherlands, Slovenia and Sweden. In Austria, the share of cannabis-related offences among all drug offences increased until 1999 but has been decreasing since then ([134]).

Over the same period, the proportion of heroin-related offences decreased in all EU countries from which data were available ([135]), except Hungary and the United Kingdom, where it increased ([136]), and Lithuania, where it has fluctuated since 2000 ([137]). The opposite trend can be observed for cocaine-related offences, which as a proportion of all drug offences have increased since 1997 in all countries providing data, except Germany, Lithuania, Luxembourg and Hungary, which reported downward trends ([138]).

Drug users and prison

Drug users in prison

National routine information on the type and pattern of drug use among prisoners is rare. Much of the data available in the EU come from ad hoc studies carried out at local level using samples of prisoners that vary considerably in size and in terms of selection processes. In addition, prisons studied are sometimes not representative of the prison system as a whole, and a lack of repeat surveys prevents analysis of trends in most countries. These factors make extrapolation of results very difficult.

Compared with the general population, among the prison population drug users are over-represented. Lifetime prevalence of drug use among prisoners varies widely, from 22 % to 86 %, between prison populations, detention centres and countries ([139]). As in the general population, cannabis is the most frequently reported illicit drug, with lifetime prevalence rates among inmates of between 11 % and 86 %. Prisoners' lifetime prevalence of cocaine (and crack) use is 5–57 % and that of heroin 5–66 %.

([134]) See DRCrime_Tbl 5 in the 2004 statistical bulletin.
([135]) The following countries provided breakdowns by drug of drug offences over time: Belgium, Germany, Spain, France, Ireland, Italy, Lithuania, Luxembourg, Hungary, the Netherlands (only cannabis and 'hard drugs'), Austria, Portugal, Slovenia, Sweden and the United Kingdom (until 2000 only).
([136]) Data for the United Kingdom were available until 2000 only.
([137]) See DRCrime_Tbl 6 in the 2004 statistical bulletin.
([138]) See DRCrime_Tbl 7 in the 2004 statistical bulletin.
([139]) See Prison_Tbl 1 in the 2004 statistical bulletin.

In the EU, the prevalence of regular drug use or dependence prior to imprisonment ranges from 8 % to 73 % ([140]).

Prisons: a challenge to public health

Although some prisoners may view incarceration as an opportunity to address their drug problems, this may be difficult to achieve in practice (Long et al., 2004). The majority of drug users reduce or stop their drug use on admission to prison. However, some prisoners continue their pattern of drug use and others start using drugs in prison. Studies available show that between 8 % and 60 % of inmates report having used drugs while in prison, and 10–36 % report regular drug use ([141]).

Many prisoners have restricted access to health services. Health professionals working in prisons have little contact with the regular health system; in addition, they are often unable to access further training, which aggravates the isolation of prison health services. These problems are difficult to overcome, as seen in Ireland, where, despite efforts by prison authorities and healthcare staff to improve access to treatment and healthcare services for drug users, there is little evidence of improvement.

A trend is emerging for responsibility for prison health services to be transferred from the penal service to the national health system. In Spain, a recently enacted law, 'Ley 16/2003, de 28 de mayo, de cohesión y calidad del Sistema Nacional de Salud' (Law concerning the cohesion of the national health system), aims to address demands for integration of prison and public health systems. In Estonia, the Ministry of Justice in cooperation with the Ministry of Social Affairs aims to integrate healthcare in prisons into the general healthcare system before 2006. In France, this responsibility was transferred to the Ministry of Health as long ago as 1994. In Italy, local health services have been responsible for the care and treatment of inmates since 2000. In England and Wales, healthcare in prisons is within the remit of the Department of Health and the National Assembly for Wales respectively (in private sector prisons, it is within the remit of the Home Office for both regions). Before 2006 healthcare in all non-private prisons in England will become part of the National Health Service ([142]).

Infectious diseases in prisons and their prevention

Lifetime prevalence of injecting drug use among prisoners is generally reported to be between 15 % and 50 %; however, some studies have reported values as low as 1 % or as high as 69 %.

Where comparable data are available, they show that young offenders are less likely to inject than adults and that among the prison population women are more likely to inject than men ([143]). Based on several studies in the EU, Bird and Rotily (2002) have shown that around one third of adult male prisoners are drug injectors. According to available data provided by the Reitox focal points, between 0.2 % and 34 % of inmates ([144]) have injected drugs while in prison. This raises issues of access to sterile injection equipment and hygienic sharing practices among the prison population and the potential spread of infectious diseases if these matters are not addressed.

Prisons are a high-risk setting for the spread of such diseases. Among the practices that have proven to be able to reduce infectious diseases are the treatment of sexually transmitted diseases and the provision of condoms, substitution treatment, vaccination programmes and needle and syringe exchange programmes.

Substitution treatment is increasingly provided in prisons. In Belgium, Denmark, Spain, Austria and Slovenia substitution treatment is available in all prisons. Belgium, Denmark, Luxembourg and Norway allow prisoners to start substitution treatment while incarcerated. In Italy initiation of substitution treatment usually targets remand prisoners. Prescriptions for progressively reducing substitution treatment until abstinence is achieved are available in most German *Länder*, the Netherlands, Slovenia and in prisons serving larger cities in Italy. In the United Kingdom maintenance programmes are considered appropriate mainly for prisoners on remand or serving short sentences.

A specific scheme for hepatitis B vaccination, adapted for prisoners, was recommended in 2002 by the National Immunisation Committee of Ireland. It comprises three consecutive weekly injections with a booster after 12 months and results in 99 % protection at 13 months (Zuckerman, 2003).

A review of 14 international studies examining the effectiveness of needle and syringe exchange programmes in prison settings concluded that such programmes are feasible and result in a reduction in both high-risk behaviours and transmission of blood-borne viruses without any negative consequences such as accidental needlestick injuries or deliberate use of needles as a weapon against prison staff or other inmates (Dolan et al., 2003). During

([140]) See Prison_Annex in the 2004 statistical bulletin.
([141]) See Prison_Tbl 3 in the 2004 statistical bulletin.
([142]) See Table 10 OL: More recent prison drugs strategies, ministerial directives and service standards in the EU and Norway.
([143]) See Prison_Tbl 2 in the 2004 statistical bulletin.
([144]) See Prison_Tbl 4 in the 2004 statistical bulletin.

2002, needle and syringe exchange programmes were implemented in 27 penitentiary centres in Spain and 12 970 syringes were distributed with no incidents reported.

Although in Spain an increasing number of prisons are providing facilities for needle and syringe exchange, such programmes have been discontinued in the German *Länder* of Hamburg and Lower Saxony (Stöver and Nelles, 2003). However, there is still a needle and syringe exchange programme in one women's prison in Germany (Berlin) (Weilandt, personal communication, 2004). In Josefstadt Prison, Vienna, a pilot project is in preparation, and in Luxembourg it is intended to provide injection equipment for drug addicts in prisons under the healthcare programme ([145]).

Alternatives to prison targeting drug-using offenders

Alternatives to prison will be the subject of a selected issue in next year's annual report, when a thorough and detailed overview of such measures in the EU will be provided. This year's annual report will therefore deal with a specific aspect of alternative punishments for drug users.

Emerging initiatives: drug courts and mediation between victim and offender

Drug courts are part of new structures developed in some countries to deal with drug users who have committed a non-violent offence. They act by delaying the sentence and involving persons traditionally not involved in drug treatment (judge, prosecutor, other law enforcement staff) in the process. The idea is to prevent the offender from returning to the criminal justice system and to drug use by virtue of treatment and the pressure exerted by the criminal justice system. Drug courts have been established in Ireland and Scotland, where penal systems are based on common law. In other EU countries with a civil law code, drug courts, strictly speaking, do not exist, but similar initiatives have developed.

In the German *Land* Baden-Wurttemberg, a project to deal with juvenile offenders (Way out), similar to drug courts, was instituted in 2003 as a result of an alliance between police, public attorneys, judges, probation and drug advice services and key stakeholders of three court districts (Baudis, 2004). Similarly, in Milan, 'The cure is worth the effort' is a programme involving the central court in close collaboration with the local addiction and health services. Here, drug-addicted offenders are referred to treatment on the same day that sentence is pronounced.

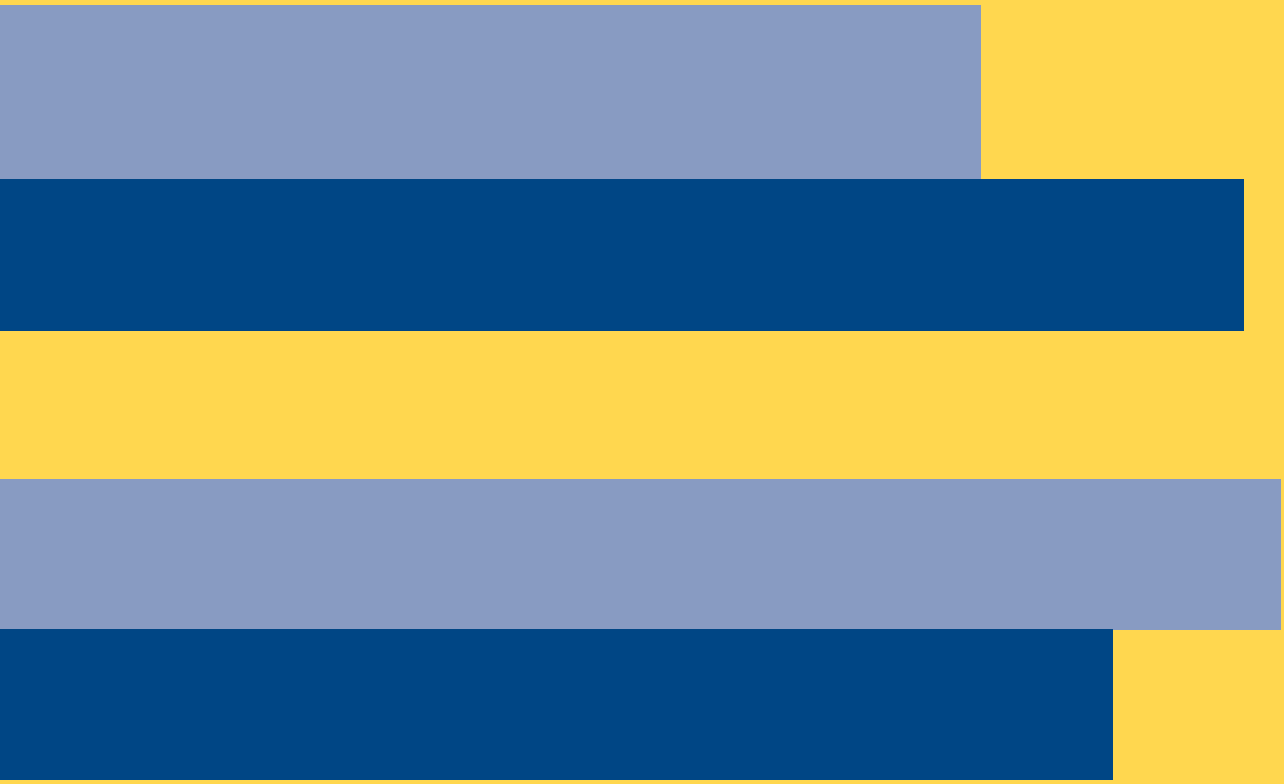
The evaluation of the Dublin drug court (Farrell, 2002) concluded that that there were strong indications that the drug court would result in cost savings to the criminal justice system over time. The Ministry of Justice has extended the area of Dublin over which the drug court has jurisdiction.

A review of international drug court developments and their effectiveness carried out by the Pompidou Group in 2003 concluded that the introduction of a therapeutic drug court should be based on demonstrated need and requires political support, mechanisms for inter-agency cooperation and appropriate structural/financial support for a guaranteed minimum period of five years (Moyle, 2003).

Restorative justice is increasingly used to accelerate penal proceedings against non-violent offenders (among whom drug users are highly represented). This is in alignment with the public interest by reducing the costs associated with dealing with petty crime cases in overburdened criminal justice systems. One of the more significant developments is out-of-court mediation. This system aims to resolve disputes between victims and offenders and to settle conflicts in connection with penal proceedings.

In the Netherlands, the police offer first-time offenders between the ages of 12 and 18 the option of making reparations for their crimes through mediation. In the Czech Republic, a probation and mediation service was established in 2000, with juveniles and drug users as key targets. It recorded 29 291 cases in 2002, 765 of which involved drug-related offences.

([145]) See Table 11 OL: Socio-health services targeting drug users in EU prisons in 2002.



Selected issue 1

Evaluation of 'national drugs strategies' in Europe

Approaches to measuring national drugs strategies

Many countries have recently adopted a 'national drugs strategy' ([146]). This section focuses on plans for the evaluation of these strategies, which for the first time has been enabled on a European scale by work undertaken this year by the national focal points. This work has helped to clarify references to evaluation in 'national drugs strategies', which are not always self-explanatory or clear-cut.

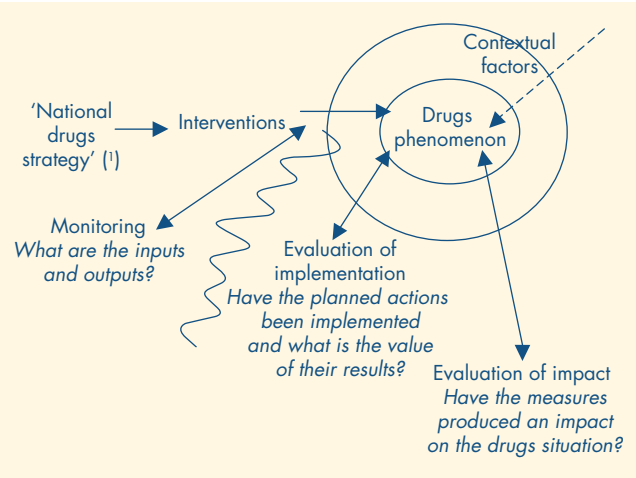
Measures to evaluate European 'national drugs strategies' can be divided into three main activities: (1) monitoring, meaning the routine collection of data regarding the drug phenomenon as well as responses and interventions; (2) evaluation of implementation, i.e. assessment of the value added by the implementation of initiatives and by the allocation of resources envisaged in the drugs strategy; and (3) evaluation of impact (generally called assessment of effectiveness), a judgment on the outcomes (short-term effects) and the impacts ([147]) (long-term effects) on the drugs phenomenon brought about (at least in part) as a result of the national drugs strategy (Figure 23) ([148]).

The main distinction between countries in terms of the approach taken to evaluate national drugs strategies is between countries that monitor the drugs strategy and those that envisage an evaluation of the implementation and/or impact.

The concepts of monitoring and evaluation are not always clearly distinguished in national drugs strategies, so it is important to be aware of the difference. Monitoring is a continuous and systematic process that generates routine quantitative and qualitative data on the drug phenomenon and the interventions put in place to tackle it. It can provide regular feedback on the implementation of activities (i.e. on inputs: what resources have been spent; and on outputs: what measures have been implemented, over what time period and by whom). However, monitoring does not usually provide information about the impacts of a strategy or provide answers as to why an activity does or does not achieve its objectives. Although a monitoring system is often able to provide information on the evolution of the different aspects of the drug phenomenon and on the measures implemented to combat it, it is generally unable to determine whether or not those changes are the direct consequences of the implemented measures (causality imputation).

The issue of causality and other complex scientific questions are addressed through evaluation (Table 5), which means a 'judgment on the value of a public intervention' (in this case a national drugs strategy) 'with references to criteria' (relevance, efficiency, impact) 'and explicit standards' (quality, quantity) (definition extracted from European Commission, 1999), and which, generally, requires in-depth studies to be carried out. The constitutive element of evaluation is therefore twofold: (1) proof, based on good-quality data, i.e. collected through scientific methodologies (monitoring and in-depth studies), of the existence of

Figure 23: Levels of evaluation in 'national drugs strategies'



(1) The term 'drugs strategy' also includes any equivalent action plans arising from the strategy.

([146]) Defined in Chapter 1, p. 17.

([147]) For simplicity, here we will use the expression 'evaluation of the impact' to mean evaluations of both outcomes and impacts, two quite different scientific exercises that are generally distinguished in the relevant literature.

([148]) A comprehensive evaluation would include also the assessment of efficiency, which broadly measures the cost at which the outcomes and impacts were achieved. However, data on this aspect were available only for Spain (see below).

Table 5: Evaluation terms commonly used (evaluation methods for action of a structural nature)

Overall evaluation	Evaluation of an intervention in its totality
Coherence	The extent to which the intervention logic is non-contradictory/the intervention does not contradict other interventions with similar objectives
Relevance	The extent to which an intervention's objectives are pertinent to the needs, problems and issues to be addressed
Consistency	The extent to which positive/negative spillovers onto other economic, social or environmental policy areas are being maximised/minimised
Utility	The extent to which effects correspond with the needs, problems and issues to be addressed
Effectiveness	The extent to which objectives set are achieved
Efficiency	The extent to which the desired effects are achieved at a reasonable cost
Cost-effectiveness analysis	Evaluation tool for making a judgment in terms of efficiency
Cost–benefit analysis	Evaluation tool for judging the advantages of the intervention from the point of view of all the group concerned, and on the basis of a monetary value attributed to all consequences of the intervention
Output	That which is financed and accomplished (or concretised) with the money allocated to an intervention
Impact	A consequence affecting direct addressees following the end of their participation in an intervention, or after completion of a public facility, or else an indirect consequence affecting other addressees who may be winners or losers

Source: European Commission, 1999.

causality between the implementation of a policy and a change in the phenomenon under study; and (2) a value judgment of the impact achieved, which eventually has to be linked to decision-making.

In practice, the concept of 'evaluation' is inextricably linked with 'monitoring', but, although some documents treat the two terms as synonymous, it should be borne in mind that monitoring is not the same as evaluation (although monitoring is certainly part of it).

In the United Kingdom, the updated national drugs strategy was published in 2002 following a wide-ranging review that took account of the evidence base, including evaluations of its supply and demand components. The national drugs strategy is 'monitored', 'tracked' and 'performance managed' but not 'evaluated' (United Kingdom national report, p. 106). In Norway, an aim of the new drugs and alcohol action plan is to develop a system for measuring the extent to which the plan's goals and sub-goals are achieved (Norwegian national report, p. 65). In the Czech Republic, the 2001–04 national drug policy strategy defines goals, objectives, aims, targets, indicators of success and tools for efficiency evaluation for each pillar of the strategy. The fulfilment of tasks is regularly monitored; however, the strategy has not yet been systematically evaluated according to the determined indicators of success and defined evaluation tools. One reason for this may be the considerable cost of external evaluations (Czech Republic national report, p. 114). The new Danish action plan envisages that a number of specific activities will be 'evaluated' on an ongoing basis (Danish national report, p. 67). In Hungary and Poland, the national drugs strategies suggest a system for following up on the fulfilment of tasks (Reitox national reports), while in Slovenia, although the new national strategy 'envisages the regular evaluation of implementation', no evaluation has so far been carried out (Slovenian national report, p. 61). In Lithuania, the implementation of the national drugs strategy (2004–08) will be carried out 'according to the financial possibilities of the country' (Lithuanian national report, p. 35). And in Estonia, the new national drugs strategy 'includes monitoring and evaluation components and defines the performance indicators' (Estonian national report, p. 86).

In Finland and Sweden (Finnish national report, p. 113; Swedish national report, pp. 75–76), the national drugs strategies place greater emphasis on monitoring the implementation of the strategy than on the evaluation of its impact. In Sweden, the drugs coordinator, appointed in 2002, has the responsibility of ensuring that the national action plan is followed up (in annual reports). In Finland, too, research is planned to lay down some benchmarks by which the drug administration will monitor and evaluate its activities. Luxembourg's national focal point reports that the output of the 2000–04 plan will be evaluated in 2005 in order to elaborate further and future strategies (Luxembourg national report, p. 94). In Germany, the 2002 drug and addiction action plan for the first time includes an attempt to set operational targets and criteria that can be used to determine the success or failure of interventions (German national report, p. 101), while in Italy, the three-

year programme 2002–04 promotes evaluation in the field of prevention and social reintegration.

Among the countries that present an evaluation either of the implementation of the national drugs strategy or of its effectiveness are Greece, Spain, France, Ireland and Portugal (Table 6). The Spanish and Greek strategies refer to the 'evaluation of effectiveness'. In Spain, the nine-year national strategy calls for the evaluation of its overall and sectorial implementation at mid-term, in 2003, and in 2008. The aim is 'to improve the effectiveness and efficiency of the public policies' (Spanish national report, p. 85), measuring the quantity and the quality of the service provided. Similarly, in Greece, the new action plan on drugs 2002 refers to external evaluation of the overall effectiveness of the policies implemented, which might take place in the future, having as its basis EU and international indicators (Greek national report, p. 110).

In France, Ireland and Portugal the national drugs strategies call for an overall ([149]) and sectorial evaluation, in some cases of effectiveness (Irish national report). However, data received show that, in fact, evaluations conducted so far have been a judgment more of the level of implementation than of the effectiveness of the strategy. In France, the evaluation of the three-year action plan 1999–2002 (carried out by the Observatoire Français des Drogues et des Toxicomanies (OFDT) from 2000 to 2003) included both an 'overall evaluation' and the evaluation of five priority programmes ([150]). The evaluation stopped short of judging the impact of measures taken on the overall drug situation. It was, therefore, essentially an assessment of progress, against which the achievement of operational objectives has been assessed. In Ireland, the national drugs strategy calls for 'an independent evaluation on the effectiveness of the overall framework by end of 2004' (national drugs strategy 2001–08: 'Building on experience', p. 111). However, it seems that the evaluation will comprise an examination of the extent to which the drugs strategy has been implemented and whether it has met its strategic aims, rather than a complete assessment of the impact of the strategy on drug use. In Portugal, the drugs strategy foresees 'an external independent evaluation of its global and sectorial implementation' (Portuguese national report, p. 65). An internal process of evaluation is also reported.

In those Member States that do not have, *sensu stricto*, a 'national drugs strategy', overall evaluation has attracted little interest in recent years, even in countries with a culture of evaluation of specific drugs projects. For example, in the Netherlands, where research, monitoring and evaluation are traditionally part of drug policy, a new (2002) 'governmental steering strategy' aims to provide guidance on performance for public administrative bodies (including those involved with healthcare and drugs) (Dutch national report, pp. 83–84). And in Austria, although drug-related monitoring has improved substantially in recent years, neither provincial plans (other than preliminary evaluations in Vorarlberg) nor the overall drug policy have been the subject of evaluation (Austrian national report, p. 63). In the remaining countries (Cyprus, Latvia, Malta and Slovakia, as well as Bulgaria, Romania and Turkey), there is insufficient information to report on evaluation of national drugs strategies (where they exist at all).

Evaluations: *'ex ante'*, 'mid-term' and *'ex post'*

The guide to the evaluation of EU activities (European Commission, 2003) identifies four main reasons for carrying out evaluations: (1) to contribute to the design of

Table 6: Characteristics of some national strategies' evaluations

	'National drugs strategy'	Scope of the evaluation	Aim of the evaluation	Evaluation terms
Greece	Action plan, 2002–06	Overall and specific	Effectiveness	None
Spain	National drugs strategy, 2000–08	Overall and specific	Effectiveness and efficiency	2003–08
France	Three-year plan against drugs and for the prevention of dependencies, 1999–2001	Overall and specific	Implementation	2002
Ireland	National drugs strategy, 2001–08: 'Building on experience'	Overall and specific	Implementation	2004–08
Portugal	The national strategy for the fight against drugs 1999; action plan, 2000–04	Overall and specific	Implementation	2004

([149]) Overall evaluation: evaluation of an intervention in its totality (Table 5).

([150]) (1) The regional agreements on objectives in health and justice, (2) the interministerial policy on professional training, (3) the regional policy programmes for the prevention of addiction, (4) outreach experiments by specialised facilities to provide general care for people exhibiting addictive behaviour and (5) risk reduction programmes in the 18th district of Paris.

interventions; (2) to improve the quality of the intervention; (3) to aid the efficient allocation of resources (i.e. efficiency); and (4) to report on the achievements of the intervention (i.e. accountability). The same guide describes three stages of evaluation: *ex ante*, mid-term and *ex post*.

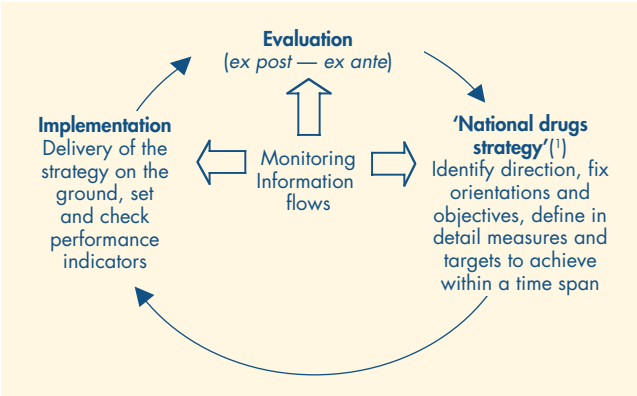
Ex ante evaluation is carried out before the implementation, supposedly to assess the need for action or to establish a baseline. *Ex ante* evaluation is reported in national drugs strategies as revision processes, conducted by parliamentary commissions, government commissions or by government departments, which are stated to be the basis of several national drugs strategies (Belgium, Germany, Spain, Ireland, Portugal, Sweden).

Mid-term evaluation is reported in the Spanish, Irish and Portuguese 'national drugs strategies' as a tool to adjust interventions and objectives 'along the way'. The approach of adjusting 'along the way' is not confined to countries that are engaged in a proper evaluation process. Its use is also reported in those countries that set up monitoring systems, where it is used to contribute reliable information to help adjust and reshape future actions. This would imply an assessment of value more typical of evaluative activities. Again, monitoring and evaluation are used interchangeably.

Ex post evaluation embraces the entire intervention period, usually with particular focus on the final results of the intervention, with the aim of providing input for future ones. Such activity is reported in France, where the final evaluation of the French action plan had the aim of revising interventions and objectives for a new drugs plan, and is proposed for 2008 in Spain, Ireland and Portugal.

In the field of drugs, the aim of the evaluation process is always to improve the quality of existing interventions and the design of new ones. However, it may be assumed that when one drugs strategy succeeds another the *ex ante* and *ex post* evaluations merge, resulting in a cyclical process in which the final results of the past strategy provide input for the future strategy (Figure 24).

Figure 24: Evaluation as a cyclical process



(1) The term 'drugs strategy' also includes any equivalent action plans arising from the strategy.

Actors in the evaluation

Another key issue covered in 'national drugs strategies' is whether those in charge of evaluation should be 'internal' to the organisation or 'external'. Examples of both kinds can be found, and each type has advantages and disadvantages.

Internal evaluators can offer a broader knowledge of the structures and the communication mechanisms, are familiar with the organisation and with the subject under review and have ready access to data sources. However, they might tend to justify failures to meet objectives and are less willing to make observations or suggest changes that could be seen as a threat to the organisation. External evaluators, in contrast, should provide a more objective and reliable view as they are not involved with the organisation, but they might have more difficulties in accessing information sources, and they run the risk of trying to satisfy the client by providing results as good as can be expected. Moreover, external evaluators are usually costly. There is, then, a choice to make between, on the one hand, a better understanding of the situation and the ability to obtain information objectivity and, on the other hand, greater objectivity and expertise in evaluation.

Most Member States seem to favour a mixed approach: in Ireland, the mid-term evaluation of the national drugs strategy will be carried out in 2005 by external consultants under the guidance of a cross-sectorial steering group; in Portugal, internal staff and external consultants will run the evaluation of the 2000–04 action plan; and in France, external evaluators and internal staff of the OFDT have carried out different aspects of the evaluation on the three-year action plan. In Spain, the mid-term evaluation (2004) is currently being undertaken by the staff of the national plan on drugs (PNSD), whereas the Greek plan demands an external evaluation. In Sweden, the National Institute of Public Health will evaluate public health policy through measurement of several lifestyle variables. One objective of the policy (No 11) aims to reduce tobacco and alcohol use, achieve a society free from illicit drugs and doping and reduce the harmful effects of excessive gambling.

In all countries in which an evaluation process is carried out, the national coordination agency appears to be the authority responsible for organising and delivering the

evaluation process: the Inter-ministerial Mission (MILDT) in France, the PNSD in Spain, the Institute for Drugs and Drug Addiction (IDT) in Portugal, the Drugs Directorate in Ireland, the Drug Coordinator Office in Sweden and, as announced in the 2001 Belgian 'strategy', the General Drug Cell in Belgium, when it comes into operation. Within these agencies, the drugs monitoring centres, which are usually the same as the Reitox national focal points, are responsible for providing the information and data necessary for the evaluation, and sometimes are also technically responsible for the evaluation.

Targets and indicators

The question of the extent to which the effects of actions implemented as the result of a 'national drugs strategy' can be measured is often raised. Indeed, both 'international' and 'national' drugs strategies refer to very 'general objectives', such as 'reducing the risks for drug users' or 'aim of a drug-free society', as well as to 'operational objectives', such as 'increasing the number of treatment slots' or 'establishing a drug coordination agency'. Both 'general' and 'operational' objectives could benefit from the setting out of specific aims. The former are important as a basis of national drugs policy, identifying a direction but are difficult to measure; the latter indicate the delivery of qualitative and quantitative initiatives, implying that they should be easier to measure.

Experts and professionals warn that, in order to evaluate a strategy scientifically, the objectives must be spelled out in a clear, unambiguous, measurable way, distinguishing, but linking, 'general' and 'operational objectives'. Indeed, 'operational objectives' must be seen as a way of firming up 'general objectives'. Performance indicators should then be set to measure the achievement of the objectives. Currently, only a few national drugs strategies can be included in this category.

Efficiency

Few national strategies make much mention of cost–benefit or cost-effectiveness analysis, with the exception of the Spanish strategy, which states that the evaluation of the national strategy will also try to measure the efficiency of the public policy. Although budgets and costs are a concern for public administrations, in the field of drugs (as identified in the last annual report, EMCDDA, 2003b) there is a general lack of knowledge of the global cost of public interventions in this area. This kind of analysis is regarded generally as marginal and is included in only a few research activities.

Constraints on evaluation

Within the scientific community it is acknowledged that it is very difficult to determine whether or not a drug policy is effective. Experts and professionals warn of the difficulties posed by impact evaluation of a public policy: 'layers of complexity' and a 'multitude of cause and effect linkages' must be considered. Indeed, it can be difficult to detect a causal link between a drugs policy and its outcome and impact because of the variety of interventions and effects to be measured and the possible external factors (confounding factors) influencing the reality (for example socioeconomic conditions, subcultures). Some research suggests that drugs phenomena might depend more on behavioural and societal factors than on policy interventions.

Moreover, the illicit nature of drug use can be a serious obstacle to data collection, which is an essential tool to any evaluation process, leaving many important aspects of the drug phenomenon unidentified. Thus, evaluation in the field of drug intervention must be carefully thought out and its results must be interpreted with caution.

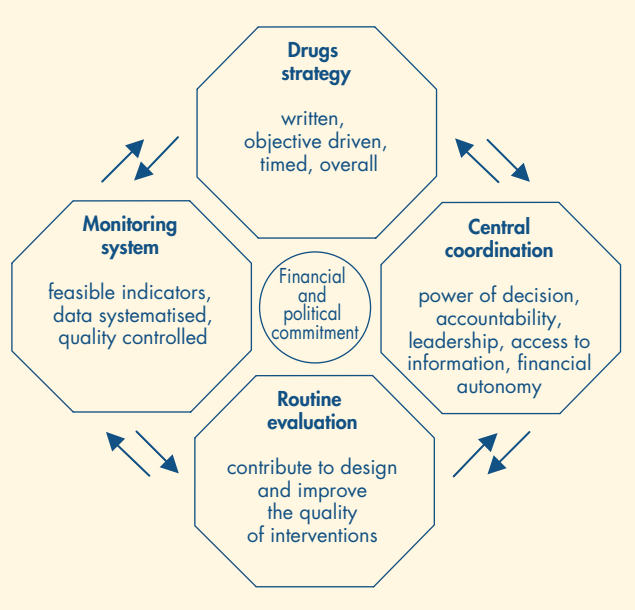
Conclusion

From the data reviewed, it appears that 'national drugs strategies' generally take evaluation to mean measuring implementation — progress, achievements, even failures — and eventually making some judgment of it, rather than evaluating the impact on the overall drug situation. This is an important conclusion. Most countries that have faced the drug problem for many decades are now able (or willing) to put in place, through monitoring systems, a basis for measuring the drugs phenomenon and the effects of their efforts. Thus, drugs policies can be considered to be more accountable than ever before, which itself is an important achievement.

A few countries have gone further, announcing that, in addition to the development of monitoring systems, they will conduct an evaluation of the implementation of the 'national drugs strategy', by which they mean a scientific study to assess the worthiness or otherwise of all or part of the strategy. However, so far no signs of scientific evaluation of impact associated with overall national drugs strategies are apparent.

Generally, countries that take a more structured approach to drug policy, i.e. which have a written, objective-driven, overall 'national drugs strategy', a central coordination mechanism with, ultimately, a national coordinator and a solid monitoring system, report the existence of a more sophisticated evaluation process (Figure 25). It seems that

Figure 25: Main characteristics of a structured drug policy approach



the existence of a more structured approach, in itself a sign of a financial and political commitment, is a prerequisite for a more developed evaluation approach to a national drugs strategy. This hypothesis should, of course, be confirmed by further research.

The spread of a culture of monitoring and assessment has added to the knowledge of the drugs problem in the EU, and consequently the scene is set for more informed decisions. Evaluation is now firmly recognised in current drugs strategies as a critical element of accountability, performance and financial prudence. Many projects and specific interventions in the field of drugs already contain an element of evaluation and, if extended to all major drug policy interventions, this will gradually contribute to the measurement of the effectiveness of European national drugs strategies.

Selected issue 2

Cannabis problems in context — understanding the increase in European treatment demands

Introduction

The term 'cannabis' is used to define various products that are obtained from the cannabis or hemp plant (*Cannabis sativa* L.), an annual species native to central Asia that now grows in many temperate and tropical parts of the world. The numerous varieties of *Cannabis sativa* exhibit a correspondingly wide range of different biological and chemical characteristics. Three forms of illicit cannabis are found on the European drug market: 'herbal cannabis', consisting of the dried flowering tops, stems and leaves of the plant; 'cannabis resin', the dried brown or black resinous secretions of the flowering tops, usually sold in the form of compressed blocks but sometimes also found as a powder; and, by far the least common, 'cannabis oil', which is a sticky viscous liquid.

Cannabis has a long history of use by man, and at times has been used by different societies as an important source of fibre for cloth and rope, an aid to religious ritual, a herbal medicine and an intoxicant. Worldwide, cannabis is now the most commonly produced, trafficked and consumed illicit drug (UNODC, 2003a). Despite both its long history of use and its current popularity, our understanding of the public health impact of cannabis use remains limited. Recently, evidence of a potential association between cannabis use, and especially intensive cannabis use, and a range of health and social problems has been growing. There is also increased concern about an apparent rise in the number of cannabis users who are seeking help from specialist drug services. However, the extent and nature of problems found within populations of European cannabis consumers remain unclear. Also unclear is the extent to which statistical information on increasing demands for treatment reflects changes in reporting and referral practice as opposed to increases in the number of individuals requiring help. To answer these questions we have to place cannabis treatment demands in the broader perspective of changing consumption patterns in Europe, the evolution and development of reporting systems and even a consideration of the changing nature of the drug itself. These matters are addressed in this selected issue on cannabis problems in context, the aim of which is to facilitate a more informed debate on the potential public health impact of this most common of all forms of illicit drug use.

The legislative context: legal status of cannabis in Europe

The legal penalties that should apply to those who use cannabis remain an issue of some controversy in the EU ([151]), and the Member States diverge considerably in their approach to this question.

Cannabis extracts are classified as narcotic drugs under Schedules I and IV of the 1961 United Nations Single Convention on Narcotic Drugs ([152]). The convention requires measures to be adopted to ensure that a wide range of activities — including the possession of narcotic drugs — are punishable. However, Member States have to interpret and apply the convention taking into account their own circumstances, and Article 36.1.b allows for the possibility for options of 'treatment, education, after-care, rehabilitation and social reintegration'.

What this means in practice is that, across the EU, handling of cannabis offences is heterogeneous. Some countries have issued prosecutorial guidelines or legal codes that direct how certain types of cannabis offence should be dealt with, often recommending different legal pathways for what are considered minor or more serious offences. And in some countries a trend is emerging for therapeutic measures to be implemented as an alternative to criminal prosecution for cases of use and possession of small quantities of drugs without aggravating circumstances. In addition, penal codes may address problematic use by allowing (discretionary or compulsory) suspension of prosecution provided the offender undergoes counselling or treatment. Although these alternatives usually apply to users of all drugs, as a result of changes in the last year, the laws or guidelines in Belgium and the United Kingdom now make specific mention of problematic cannabis users with the aim of directing them towards assistance.

([151]) See European legal database on drugs (ELDD) website (http://eldd.emcdda.eu.int/trends/trends_cannabis.shtml).

([152]) See: http://www.incb.org/e/conv/1961/index.htm.

Physical, psychological and developmental problems associated with cannabis use ([153])

The national reports of the Member States point out that a rise in the number of cannabis treatment demands probably reflects an increased level of problems particularly associated with intensive cannabis use. It should be noted, however, that systematic and comparable data on the problems experienced by cannabis users are largely lacking. The scientific knowledge base in this area is still developing but does provide increasingly convincing evidence of an association between cannabis use and a range of problems, although the nature of the causal linkage is not always clear. An overview of the literature on the problems associated with cannabis use is available online (http://www.emcdda.eu.int/?nnodeid=4811).

It is important to distinguish between the acute (short-term) effects of cannabis and the long-term or chronic impact of the drug. A range of both positive and negative acute effects have been reported. Negative effects include deficits in attention and concentration difficulties, adverse effects on motor function (reflexes, coordination), short-term memory problems, anxiety and panic attacks and depression. Positive effects include euphoria, relaxation and increased sociability. The acute effects of the drug which arouse the greatest concern are short-term drug-induced psychosis or severe panic attacks, an increased risk of accidents, particularly when driving or in hazardous work environments, and, among young people, a negative impact on school performance (Hall et al., 2001).

Understanding the chronic effects of cannabis is more complex for a number of reasons, not least because it is difficult to separate the effects of cannabis from the effects of chronic use of other illicit drugs, tobacco and alcohol. However, among the key concerns in this area are an increased risk of lung cancer and other respiratory diseases and an association with the development of long-term psychiatric health problems, including depressive illness, psychosis and schizophrenia. An additional concern with chronic use is the possible development of dependent behaviour. The extent to which the evidence suggests that cannabis use is a risk factor, a causal factor or simply associated through some more complex relationship with these problems is explored in the review available online.

In most Member States, cannabis is the illicit drug most often involved in reported drug law offences, which is unsurprising given that it is also the drug most commonly used ([154]). However, in contrast to other drugs, such as heroin, there appears to be no strong association between cannabis use and other types of offending.

Cannabis use and the measurement of problems

Although the agreed international diagnostic criteria provide useful guidance on the definitions of harmful drug use, abuse and dependent use, problems arise when cannabis is considered in the light of available European evidence ([155]). In particular, there is considerable variation in key measurement issues. For example, there is little consensus regarding the definition of terms such as 'intensive use', 'regular use' and 'problematic use', and this makes comparing the findings of different studies difficult. Additionally, it is mostly in survey work that attempts have been made to measure 'dependence' or 'abuse' according to the ICD or DSM definitions at the population level; here again standardised tools that would allow convincing comparison of data from different studies or across populations are currently lacking.

However, some work in this area is under way. For example, a current French study aims to better define problematic use and develop specific instruments to measure frequency of use, perceived risk and psychological and physical effects (Beck, 2003).

To date, the most commonly used measure of intensity of use is the number of days on which the drug has been used over a defined period. Daily or almost daily use of cannabis is usually taken as an indicator of 'intensive use'. Although daily cannabis use does not necessarily imply dependence, it is likely that a substantial proportion of daily users would rate positive for dependence or abuse in terms of the standard diagnostic criteria (ICD-10, DSM-IV). As frequency of use is relatively easy to measure and to harmonise in questionnaires, this measure is included in the EMCDDA guidelines for the European model questionnaire. Nine countries currently report frequency of cannabis use data in this form ([156]).

([153]) A specific monograph on cannabis use and related problems will be published in the first half of 2005. Specific information on the health and physical effects of cannabis use can be found on the EMCDDA website.

([154]) See DRCrime_Tbl 5 in the 2004 statistical bulletin.

([155]) For a definition of 'dependence' and 'harmful use', see International Classification of Diseases, 10th edition (ICD-10, World Health Organisation), Codes F10 to F19: mental and behavioural disorders due to psychoactive substance use. Also frequently used is the *Diagnostic and statistical manual of mental disorders* (IV edition) (DSM-IV, American Psychiatric Association), which uses the concepts 'dependence' and 'abuse'.

([156]) Greece, Spain, France, Ireland, Italy, Latvia, the Netherlands and Portugal. Data for Finland are not presented owing to the small number of last month's users in their survey (35). The number of cases and percentages for each country are presented in GPSurvey_Tbl 7 in the 2004 statistical bulletin.

Trends in treatment demands for cannabis problems

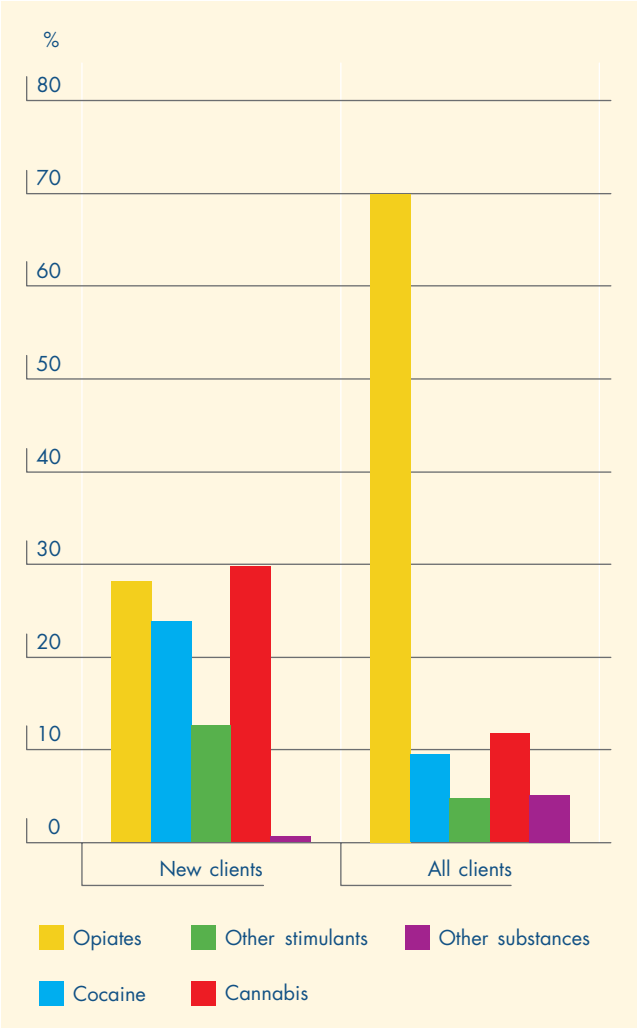
Cannabis is the illicit drug most used in Europe, but only a small proportion of people who have used the drug seek treatment. Despite this, in many countries cannabis is now the second most frequently reported primary drug for which people receive specialised drug treatment. According to TDI (treatment demand indicator) data (see p. 65), collected from all types of specialised treatment services, around 12 % of all clients and 30 % of those new to treatment are now recorded as having a primary cannabis problem (Figure 26).

The proportion of new clients (i.e. those with no previous treatment history) seeking treatment for cannabis use varies considerably between countries, from almost zero in Lithuania to nearly half (48 %) in Germany, but in general is in excess of one fifth (20 %) (Figure 27). However, not all countries can provide data on new treatment demands and within the larger data set of all treatment demands cannabis problems are less evident.

Between 1996 and 2002, according to TDI data from countries for which trend data are available, the number of new clients demanding treatment for cannabis as the primary drug increased from 3 713 to 12 493. In 2002, averaged across the 11 countries for which data are available, such clients represented 29 % of all new clients, up from 9 % in 1996 (see Figure 20 for data sources). Although all these countries, with the exceptions of Greece and the United Kingdom ([157]), report an increase in new cannabis clients as a proportion of all new clients, the magnitude of the increase varied from 6 % in the Netherlands to 31 % in Germany. Information provided in the Reitox national reports suggests that the number of people receiving treatment for primary cannabis use is also increasing in some of the new Member States (Figure 28). A recent review of cannabis treatment demands conducted by the Dutch national alcohol and drugs information system (LADIS) noted that 29 % of new clients entering treatment in 2002 were reported as having cannabis problems and that cannabis clients represented a small yet annually increasing number of individuals. The report also noted that, given the scale of cannabis use in the Netherlands, the proportion of those seeking treatment although growing remained relatively small.

A note of caution must be sounded regarding the extent to which generalisations can be drawn from the consolidated European data set. Longitudinal data on new treatment demands are available from only 11 countries. It is also important to note here that the increase in cannabis treatment demands reflected by TDI data is strongly influenced by data from Spain and Germany, countries that have seen particularly large increases in reports of primary cannabis problems; furthermore, in terms of overall numbers, Spain accounts for around 50 % of all reported treatment demands.

Figure 26: Reported primary drug among new and all clients attending drug treatment services in 2002



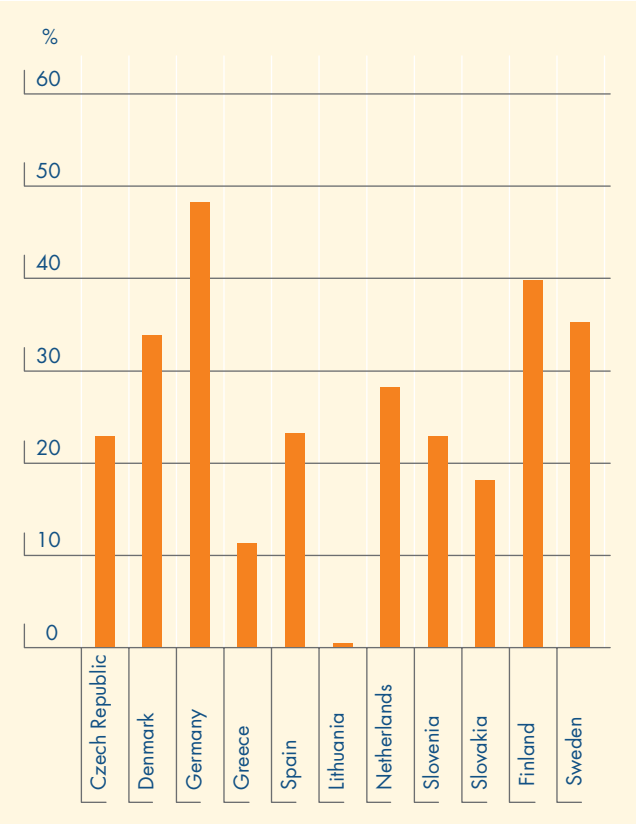
NB: *n* = 42 568 (new clients), 351 372 (all clients).
Countries providing data (new clients): CZ, DK, DE, EL, ES, LT, NL, SL, SK, FI, SE.
Countries providing data (all clients): CZ, DK, DE, EL, ES, IT, LT, LU, HU, NL, SK, SL, FI, SE, UK.
Weighted on the number of clients by country.
Sources: Reitox national reports 2003.

An increase in cannabis treatment demands is not restricted to Europe. In the United States, where a different drug treatment registration system is used ([158]), treatment admissions for marijuana increased from around 20 000 in 1992 to nearly 90 000 in 2000 (SAMHSA, 2001; EMCDDA, 2003d).

([157]) Data on new clients are not available for the United Kingdom and information is reported in the national reports.

([158]) In the United States, admissions to treatment, rather than individuals, are registered. In addition, in contrast to Europe, alcohol is included among the substances of abuse. See the SAMHSA website (http://www.samhsa.gov); note that in the United States, Canada and Australia the term 'marijuana' is used because the term 'hashish' (cannabis resin) is not common.

Figure 27: Cannabis as reported primary drug among new clients attending treatment in 2002



NB: Total number of cases: 42 421.
Sources: Reitox national reports 2003.

In considering the implications of increased treatment demands for cannabis the following key questions arise:

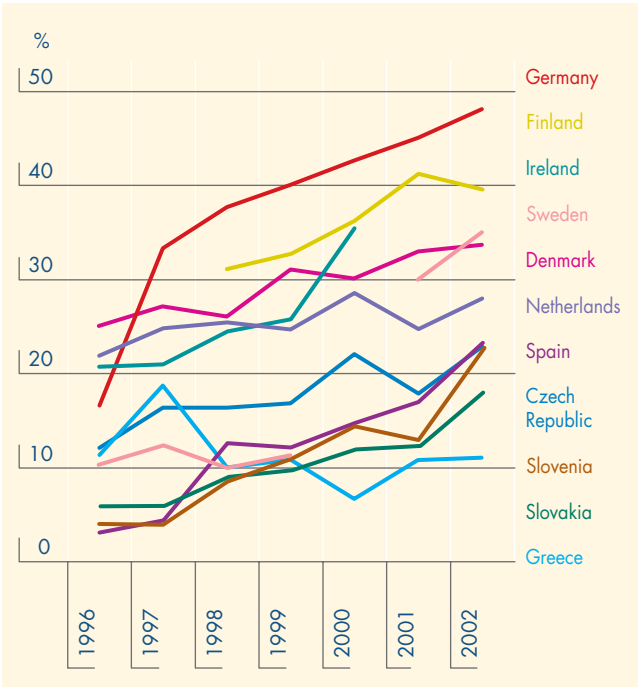
- Does this finding represent an increase in the number of people with physical and psychological problems relating to their use of cannabis? If so,
  - — Does it result from an increase in the regular intensive use of cannabis?
  - — Does it reflect other factors such as a possible increase in cannabis potency?
- Can this increase be explained by factors independent of an increased need for help, such as:
  - — improvements in the coverage of the treatment reporting system;
  - — expansion of the types of treatment facilities available, and in particular specific treatment services targeting adolescents and young people (Reitox national reports, 2003);
  - — changes to the way cannabis use is dealt with by the criminal justice system, within schools or by agencies working with young people, with an increase in referrals to treatment of individuals who would not otherwise have sought help spontaneously.

Understanding the extent to which each of these factors affects treatment attendance is important. A first step is to consider the characteristics of those entering treatment and recorded as having a primary cannabis problem. This analysis is based on those attending outpatient/ambulatory treatment facilities.

Cannabis clients: characteristics and patterns of use

A number of standard options are available for recording the source of referral for drug users entering treatment. These distinguish drug users who have referred themselves from those who have been referred through other agencies, such as social or criminal justice agencies. Most cannabis clients are referred to treatment by family and friends, social services or the criminal justice system. In comparison

Figure 28: Trends in cannabis as reported primary drug among new clients attending treatment: 1996–2002



NB: Treatment in overall numbers (% of all clients).
Average of trends (%) within countries.
Countries providing data: CZ, DK, DE, EL, ES, NL, SL, SK, FI, SE.
In Sweden, data for 1996–99 are from hospital treatment: the number of cannabis cases is thus relatively low compared with other years.
Sources: Reitox national reports 2003.

with users of other drugs, a smaller proportion of cannabis clients are self-referred for treatment ([159]). A similar picture is also seen in the United States and Canada, where treatment demand for marijuana as primary substance is largely found to be not self-initiated (EMCDDA, 2003d).

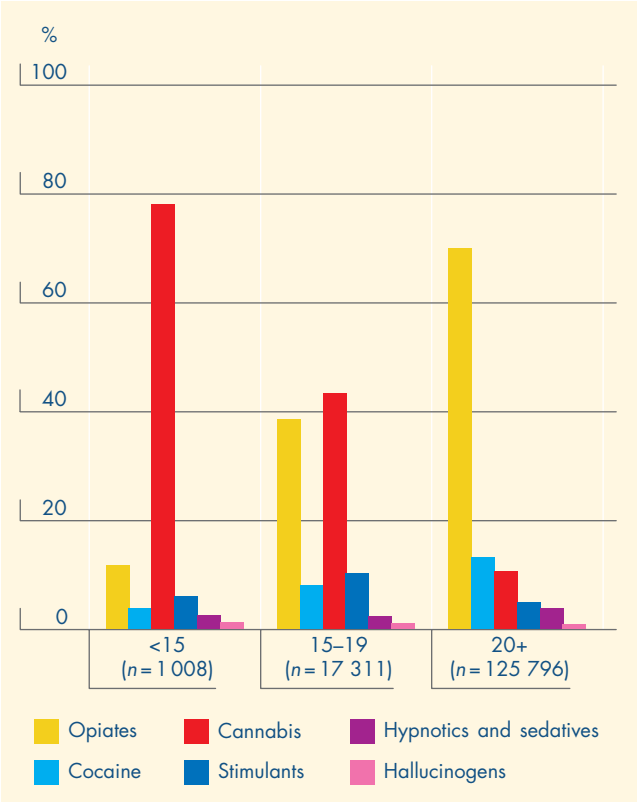
One important difference between referral routes is that those referred by family members or social services (often schools) are typically younger, less likely to be using any other drugs in addition to cannabis and more socially integrated, whereas clients referred by legal authorities or classified as self-referrals tend to be older and often use other drugs as well as cannabis (Reitox national reports, 2003). In Germany and Finland, which have the highest percentages of primary cannabis clients, legal authorities and schools play an important role in referring cannabis clients.

Cannabis clients new to treatment are predominantly young, males (83 %), with a mean age of 22–23 years, whereas, in the case of other drugs, the proportion of clients who are males is marginally lower and the mean age higher. In the case of almost 80 % of new clients classified as 'very young' (under 15 years of age) and 40 % of those aged 15–19, the primary drug for which treatment is sought is cannabis (Figure 29) ([160]). These groups are still predominantly male but include a higher proportion of women than the client group overall. Differences in age and gender distribution by country broadly reflect the same patterns found among all clients.

The relatively young age of cannabis clients is reflected by the large proportion, 45 %, who are still in education, compared with only 8 % of clients being treated for problems with other drugs. A further 24 % of those being treated for cannabis problems are in regular employment, equal to the number who are unemployed ([161]), which is in stark contrast to clients using drugs such as heroin. In addition, cannabis clients more often report living in stable accommodation than those being treated for problems with other drugs ([162]), reflecting the fact that many are young people, students and living with their parents.

Patterns of use among clients receiving outpatient treatment for primary cannabis use vary considerably and are quite different from those found for other drug types, particularly the opiates (Figure 30). Among clients in treatment for a primary cannabis problem in 2002, only 36 % were daily consumers of the drug and only 17 % used cannabis more

Figure 29: Distribution of reported primary drug among outpatient treatment attendees, by age group: 2002



NB: All clients. Countries providing data: DK, DE, EL, ES, LU, HU, SE, FI, UK. Males from Denmark and the United Kingdom account for 56 % of all clients in cannabis treatment under 20 years, with a further 17 % from Spain.
Sources: Reitox national reports 2003; TDI outpatient treatment centres.

frequently than once a week (2–6 times per week); 15 % used the drug once a week or less often and 28 % were occasional users or had not used cannabis in the last month. In contrast, 84 % of opiate users in treatment are daily users.

The proportion of outpatient treatment clients who use cannabis daily varies between countries. The highest proportions of daily cannabis users are reported in the Netherlands (80 %) and Denmark (76 %), while the highest proportion of occasional users is reported in Germany (41 %) ([163]).

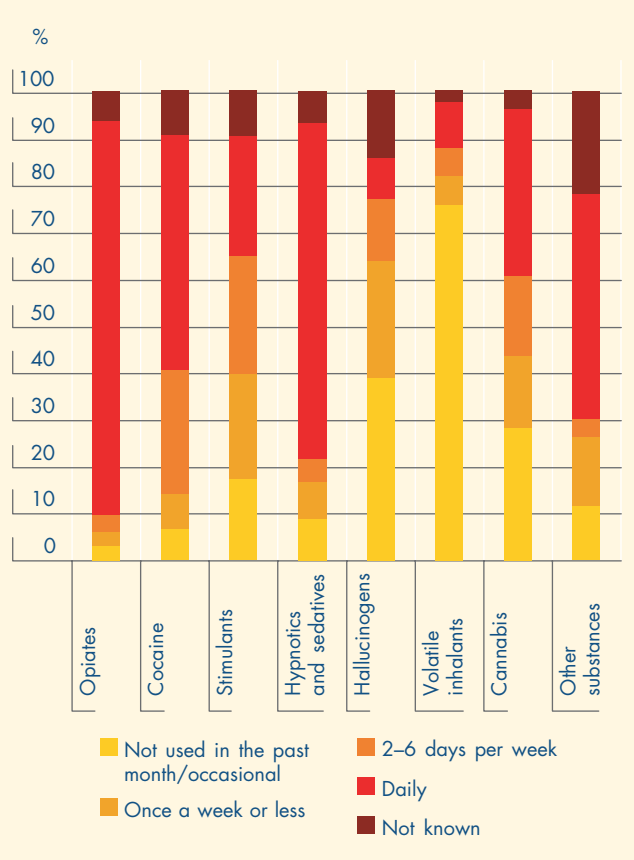
The younger the age at which users first consume cannabis, the higher is the risk of developing drug problems in the future (Kraus et al., 2003). In Europe, 28 % of all cannabis

([159]) See Figure 22 OL: Source of referral among all clients: for all drugs and for cannabis.
([160]) See also TDI_Tbl 4 in the 2004 statistical bulletin.
([161]) See Figure 23 OL: Labour status among cannabis clients and all clients.
([162]) See Figure 24 OL: Living conditions among cannabis clients and all clients.
([163]) See Figure 25 OL: Frequency of cannabis use by country.

clients in treatment in 2002 started using the drug before the age of 15, and the majority (80 %) before 20 years of age. The corresponding figures for opiates are 9 % and 42.8 % and for cocaine 6 % and 26.5 %.

Most countries report that clients in treatment who have primary cannabis problems often show a pattern of polydrug use. This may indicate a reporting artefact, for example if clients with polydrug problems were, for convenience, to be recorded as primary cannabis users. However, quantitative data on the proportion of polydrug users among clients in general are not available. There are differences between clients who use only cannabis and those who use cannabis in combination with another drug (Reitox national reports, 2003): the former are usually younger and better socially integrated (more likely to be in employment and have achieved a higher educational level and less likely to drop out or have dropped out of school)

Figure 30: Distribution of frequency of use of reported primary drug among all outpatient treatment attendees in 2002



NB: n = 109 699 (all clients). Countries providing data: CZ, DK, DE, EL, LU, HU, SE, FI, UK (CZ — all types of treatment centres).
Sources: Reitox national reports 2003; TDI outpatient treatment centres.

than the latter. The most commonly reported secondary substances used by primary cannabis clients are alcohol (32.9 %) and stimulants (25 %) ([164]), although the distribution varies from country to country.

Some cannabis clients in treatment also admit to injecting other drugs, and some report lifetime experience of injecting despite currently using no drugs other than cannabis. For example, in Greece in 2002, although 14.7 % of cannabis clients with recorded secondary drug use had injected in the previous 30 days, 25.4 % of all cannabis clients reported lifetime experience of injecting another substance (Greek national report, 2003). Similarly, information from the Czech Republic (national report) suggests that in some treatment settings up to half of cannabis clients are also injecting.

Trends in treatment demand: changing factors

The increase in demand for treatment for primary cannabis problems should be viewed in the context of changes that have occurred in the characteristics and patterns of use. Between 2000 and 2002, in those countries reporting data, the total number of referrals by legal authorities, family and friends and social services increased exceptionally, by 103 %, 81 % and 136 % respectively ([165]). No relevant differences were found between countries, except that in Germany the proportion of referrals accounted for by the criminal justice system also increased (from 21.7 % to 26.7 %).

No hard data on trends in the sociodemographic characteristics of cannabis clients are available, although some national reports (Czech Republic, France and Luxembourg) describe an increase in the number of clients with educational, social and psychological problems. Between 2001 and 2002 the proportion of daily users among cannabis clients increased from 31.7 % to 39.2 % ([166]); some countries report that the proportion of daily users is higher among older clients (more than 20 years old).

Cannabis in the general population: from experimental to daily use

As described above, although cannabis use increased markedly in almost all countries during the 1990s and is the most commonly used drug, most use still remains occasional or of short duration. It is likely that those most at risk of developing problems or becoming dependent are those that use the drug intensively, but it is in this area that information sources are weakest, although it is known that

([164]) See Figure 26 OL: Most used secondary drug among all cannabis clients by country and TDI_Tbl 9 in the 2004 statistical bulletin.
([165]) See Figure 27 OL: Source of referrals among all clients, 2000–02.
([166]) See Figure 28 OL: Frequency of use among all cannabis clients and TDI_Tbl 8 in the 2004 statistical bulletin.

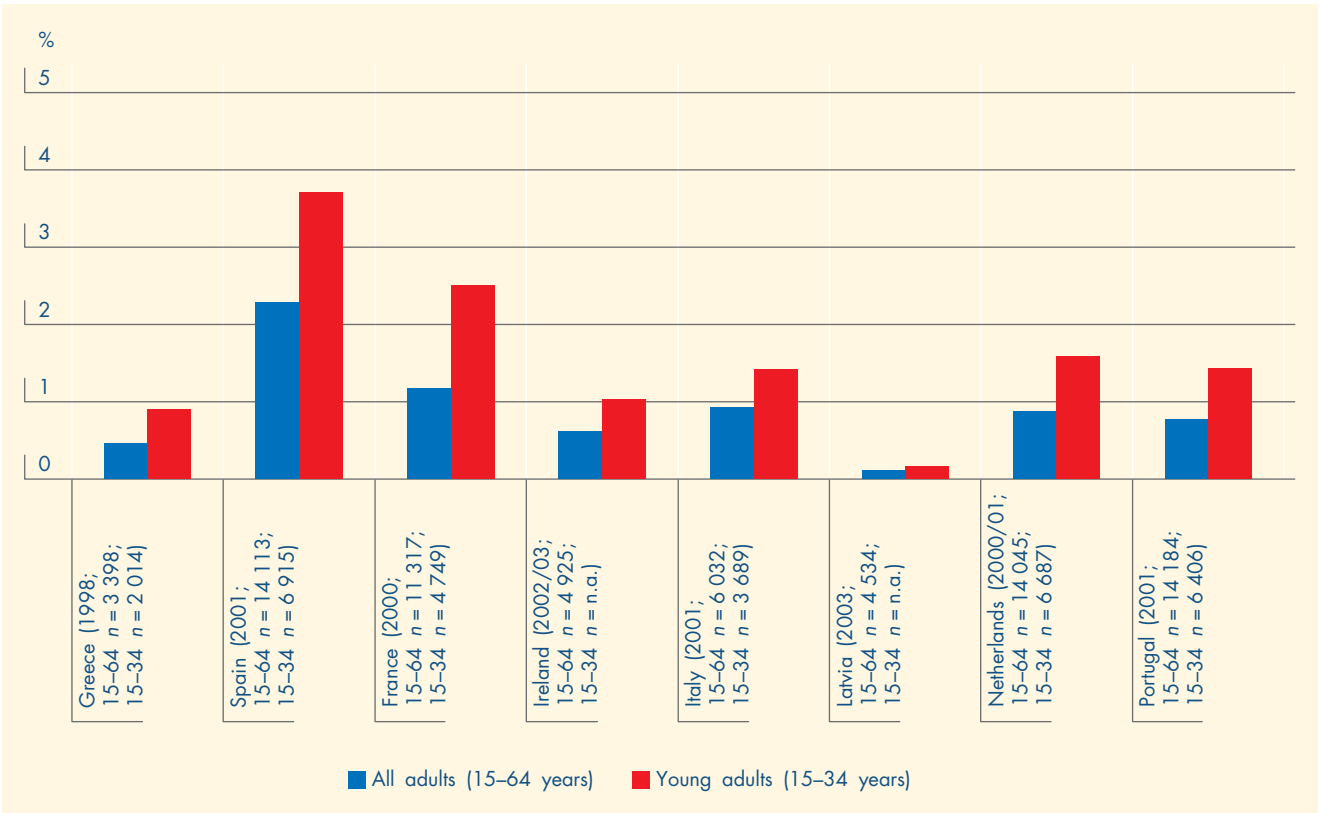
recent users (use in the last 30 days) are typically young males living in urban areas.

'Use in the last 30 days' is an indicator of current use and includes those who are using the drug intensively. In recent surveys, if Sweden (0.1 %) is excluded, 1–7 % of all adults and 3–12 % of young adults report having used the drug in the last 30 days. There are differences between countries, however, and current use is most common in the Czech Republic, Spain, France, Ireland and the United Kingdom. In countries where it is possible to analyse trends in recent use over time, an increase is found, although not a dramatic one.

Data enabling frequency of cannabis use in the last 30 days to be examined in detail are available from nine countries — Greece, Spain, France, Ireland, Italy, Latvia, the Netherlands, Portugal and Finland (not presented). With one exception (Latvia), approximately one quarter (19–33 %) of those who had used cannabis in the last month were doing so on a daily or almost daily basis ([167]) ([168]). In these countries, daily users represented 0.5–2.3 % of the total population ([169]) and 0.9–3.7 % of young adults (15–34 years) (Figure 31). Most people (76–92 %) who admitted having used cannabis in the previous month were between 15 and 34 years old, and consequently daily users were also concentrated in this age range. In addition, daily users are predominantly male, although the proportion varies from 62 % in the Netherlands to 92 % in Greece.

From these data, a crude estimate can be made of the number of people using cannabis intensively in Europe. Assuming that roughly 1 % of the population uses cannabis on a daily basis, then, in a country with 25 million inhabitants (age 15–64 years), there would be 250 000 daily cannabis users. In the EU as a whole,

Figure 31: Proportion of 'daily users or almost daily users' of cannabis among all adults and young adults in some EU countries, measured by national population surveys



NB: Daily or almost daily users = use on 20 days or more during the month previous to the interview.
Data are from the most recent national surveys available in each country.
The age range for all adults is 15–64 years (Italy 44 years) and for young adults 15–34 years. Variations in age ranges may result in small disparities between countries.

Sources: Reitox national reports 2003, taken from population survey reports or scientific articles. See also standard epidemiological tables in the 2004 statistical bulletin.

([167]) In this section, the information will refer to 'use on 20 days or more during the past 30 days', expressed also as 'daily or almost daily use'. The European model questionnaire foresees collection of the exact number of days of use, but for reporting of national figures, the frequency of use was grouped into four discrete categories, the highest one being '20 days or more'.

([168]) See Figure 29 OL: Proportion of daily (or almost daily) users among adults (15–64 years old) who used cannabis in the previous month.

([169]) Proportion of 'last month's users' multiplied by proportion of 'daily or almost daily users', i.e. 6 % (last month prevalence) × 25 % (proportion using '20 times or more') = 1.5 %.

with a total population of 302 million people aged 15–64 years, the prevalence would be around 3 million.

Even among young adults, intensive cannabis use varies among age cohorts, and is generally higher among younger groups. In the 2002 Spanish school survey, 3.6 % of 14- to 18-year-old students reported daily or almost daily use (i.e. at the top end of the range found in young adults aged 15–34). And in the annual French survey of 17- to 19-year-olds (Escapad), daily use of cannabis in the past 30 days was higher still, being reported by 9.2 % of boys and 3.3 % of girls (Beck and Legleye, 2003).

The effects of cannabis dependence or abuse appear to be less severe than those of other drugs. Most intensive cannabis users seem to be relatively integrated young people, who are at greater risk of other social problems (driving accidents, failure to complete their education or family disruption) than other criminal activities, and the interventions should accordingly be appropriate and not create further problems or exclusion.

Cannabis potency and dose issues

It has been speculated that an increase in the potency of cannabis is in part responsible for increased problems and, consequently, more treatment admissions. Understanding the issues associated with cannabis potency, the dose that individual users receive and its likely impact on acute and chronic problems raises a number of complex issues. To explore the scientific evidence available on cannabis potency a special study was conducted by the EMCDDA, the key results of which can be found on page 90.

Cannabis potency is only one factor in calculating the dose an individual will receive over any given period (Hall et al., 2001). Mode of administration, smoking technique, the amount of cannabis used in any session and the number of smoking sessions an individual engages in are all equally, or even more, important in terms of calculating individual exposure levels. High-potency cannabis has always been available to some extent, and concern about this topic is not new. It is also important to note that it is not understood if cannabis users modify their behaviour to reach a desired dose effect. Therefore, the extent to which high potency cannabis necessarily results in high doses requires further investigation.

Responding to the needs of those with cannabis-related problems

Understanding the needs of those seeking help for cannabis problems is fundamental to the development of effective responses. Analysis of treatment demand and other indicator data suggests that both cannabis users referred for treatment and users as a whole constitute a heterogeneous population with correspondingly heterogeneous needs. This suggests that a continuum of responses is necessary, ranging from prevention and risk reduction activities through to formal treatment activity. One possible concern is whether it is appropriate to refer young people whose use of cannabis is only occasional to specialised drug centres. The answer to this question very much depends on how services are configured and the extent to which clients mix with chronic users of other substances. Nonetheless, the identification of appropriate referral routes for those with differing patterns of cannabis consumption remains an important topic for further consideration.

On the prevention side, few initiatives have been designed specifically to respond to the increase in cannabis consumption among young people, as prevention is rarely substance specific. However, some Member States report new developments in this area, adopting two main strategies: (1) stressing the danger that young people who use cannabis will become involved in the criminal justice system; and (2) attempting to reverse the social perception of cannabis use as normative behaviour through mass or targeted media campaigns.

In Germany, Greece, Ireland, Finland and the United Kingdom, measures to reduce the psychosocial consequences of first offences for cannabis consumption among adolescents have been introduced. A recent example of this (2000 onwards) is the FRED programme in Germany, which is now operational in eight *Länder* and offers young drug users early intervention of short duration on a voluntary basis ([170]). In the United Kingdom, youth offending teams work on a similar basis. Following a change to the way in which some aspects of cannabis use were dealt with by the criminal justice system and reclassification of the drug (from class B to class C), possession, not consumption, is the offence; possession gets a warning. There is a specific process for formally warning young persons (i.e. those under 18). The United Kingdom also introduced a mass media campaign to reaffirm the negative and illegal nature of cannabis.

Another recent initiative is to take the prevention campaign to 'coffee shops' where small amounts of cannabis are available. This intervention takes the form of a course and manual for coffee-shop owners in order to prevent drug-related problems in these establishments. The handbook provides information on cannabis, drug legislation, psychiatric disorders, first aid, entrepreneurship and

([170]) Further information on this and other prevention programmes is available from the EMCDDA EDDRA database (http://eddra.emcdda.eu.int/eddra/plsql/showQuest?Prog_ID=2091).

Cannabis potency (*source:* EMCDDA, 2004c)

1. EU countries fall into two distinct groups depending on whether herbal cannabis or cannabis resin is the most commonly consumed product. Of the countries for which information was available, cannabis resin was more common in Germany, Ireland, Portugal and the United Kingdom, whereas herbal cannabis was more common in Belgium, the Czech Republic, Estonia, the Netherlands and Austria.

2. There has been no long-term marked upward trend in the potency of herbal cannabis or cannabis resin imported into Europe. In all EU countries, with the possible exception of the Netherlands, most cannabis consumed is imported, although systematic data on the availability of home-produced herbal cannabis are currently lacking.

3. Indoor cultivation of cannabis occurs to some extent in all European countries. In the Netherlands, it is estimated that this product represents over half of the cannabis consumed, but in most countries imported products are more important.

4. Herbal cannabis grown indoors using intensive methods (e.g. hydroponic systems with artificial lighting, propagation by cuttings and control of day length) usually has a higher THC content than the imported drug. Although the potency range of home-grown herbal cannabis may overlap with that of imported cannabis, the average potency of home-grown cannabis can be two or three times greater.

5. The overall increases in cannabis potency that have been reported in some countries can be almost entirely attributed to an increase in the proportion of home-grown cannabis consumed.

6. Taking into account the market share of different cannabis products, the effective potency has remained relatively stable in nearly all countries for many years, at around 6–8 %. The only exception is the Netherlands, where, by 2001, it had reached 16 %.

7. In the Netherlands, locally produced cannabis resin has a particularly high THC content, but this material is still uncommon in that country and almost unknown elsewhere.

8. Statements in the popular media that the potency of cannabis has increased by 10 times or more in recent decades are not supported by the limited data that are available from either the United States or Europe. The greatest long-term changes in potency appear to have occurred in the United States, but it has to be borne in mind that before 1980 cannabis potency in the United States was low by European standards.

9. The overall conclusion of the study is that there have been some modest changes in THC levels that are largely confined to the relatively recent appearance on the market of intensively cultivated domestically grown cannabis in the EU. In addition, it is noted that the THC content of cannabis products is extremely variable. A clear information need exists to develop monitoring systems that can assess the market share of different cannabis products and track changes over time. Currently, this information is to a great extent lacking.

10. The study identifies a number of important areas that require attention if cannabis potency issues are to be properly evaluated. These include: consensus on the nomenclature of cannabis products; improved monitoring of market information, improvement in laboratory analytical standards, data collection and presentation at European level; studies to explore the relationship between potency, smoking behaviour and blood THC/metabolite levels in Europe; and the need to investigate the extent to which high-potency cannabis results in increased dose exposure and any possible relationship to health problems. It is noted that the costs and benefits of responding differently to different cannabis products merits consideration.

educational skills. In the Netherlands, there is a tradition of personalised and direct approaches towards cannabis consumption, as illustrated by Hash and Weed Week ([171]), when heavy cannabis users hold group meetings at which the consequences of intense use and the potential for behavioural change are discussed.

To some extent, these approaches take a harm-reduction as well as a prevention-orientated approach. However, despite the well-known link between smoking and respiratory problems and increasing concern regarding the negative health impact of intensive cannabis use, interventions aimed at reducing harm associated with cannabis use remain poorly developed in comparison with those aimed at users of other drugs.

Treatment options available to those with cannabis problems are mostly to be found in treatment centres offering care for clients addicted to licit or illicit drugs or with other kinds of addictive behaviours. Services that are

([171]) http://eddra.emcdda.eu.int/eddra/plsql/showQuest?Prog_ID=385.

designed for cannabis users are reported by some countries (Denmark, Germany, Greece, France, the Netherlands, Austria, Sweden and Norway), but, in general, specialist care of this sort appears to be extremely limited. In many countries, treatment services for problem cannabis users are integrated with facilities for the treatment of generic drug problems (Belgium, the Czech Republic, Denmark, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Slovenia and Norway).

For the most part, those with a cannabis-related problem are treated alongside clients being treated for problem use of other illicit drugs, typically opioids. As many of these specialised drug treatment centres are configured to meet the needs of an often chaotic and marginalised population, their suitability for those with less acute needs, such as most cannabis users, is debatable. Treatment services in Member States are aware of these issues, and a number of countries, in their Reitox national reports, observed that it could be counterproductive and disadvantageous to mix problem cannabis users with problem heroin users or polydrug users and cited this as one reason why cannabis users should not receive inpatient care. It is easier to design programmes specifically for cannabis users on an outpatient basis. The Austrian national report suggests that inpatient care, if required, should preferably take place within a generic adolescent psychiatry department rather than a specialist drug unit. Recent innovations reported by Member States in responding to the needs of cannabis users include a 'cognitive treatment manual' for chronic cannabis users produced in Sweden, an Internet self-help site for problem cannabis use established in the Netherlands and the introduction of acupuncture treatment in Finland.

Conclusions

The objective of this review is to place the observed increase in reported cannabis treatment demands in a broader analytical context. In doing so it is apparent that many important questions that are fundamental to an informed policy debate on this controversial topic remain unanswered. What is also apparent is that the available evidence does not justify an alarmist position but nor is it cause for complacency.

People with cannabis-related problems constitute a non-trivial proportion of treatment demands in specialised facilities in some countries and form an important sub-group within the larger treatment population. Most are young males, typically around 20 years old, and most started using the drug at 16 or 17 years of age.

Cannabis clients have different patterns of drug use than those consuming other substances; moreover, there are important differences among cannabis clients. The profiles of different sub-groups of cannabis users in treatment is likely to be directly relevant to understanding their needs and thus to the provision of appropriate responses. Important dimensions here are frequency of use, current and past use of other drugs and referral source. In broad terms, summarising national reports and TDI data, two clear client profiles can be discerned:

- younger users, often students, referred to treatment services by family or school and consuming cannabis alone or sometimes together with alcohol or stimulants;
- polydrug users, who are typically older and less socially integrated, referred to treatment more often by legal authorities or health and social services, and overlapping with the chronic drug-using population.

In addition, there is some evidence of a further group referred to treatment by legal authorities who are not using other drugs and appear to be only occasional users of cannabis.

In reflecting on changes in the characteristics of primary cannabis treatment demands over time, the available information suggests:

- increased numbers referred from the criminal justice system in some countries;
- increased referrals from family and other social support networks (family, friend, social services, school);
- an increased proportion of intensive (daily) cannabis use, although daily users remain in the minority;
- increasing levels of social and educational problems in some countries, although data in this area are weak.

In considering the increase in treatment demands, it appears that changes in referral practice have an impact, and a substantial proportion of those referred appear not to be intensive drug users. Nonetheless, in some countries at least, a significant number of treatment demands come from individuals whose use of cannabis is intensive. The problems experienced by this group remain poorly understood and research in this area is urgently needed. The observation that a majority of treatment demands made by the very young are for cannabis suggests that special consideration of the needs, referral pathways and responses of this group is required.

It is also important to recognise that treatment demand is not a direct indicator of the scale and nature of cannabis

problems. General population survey data suggest that, compared with occasional use, intensive cannabis use is relatively uncommon. However, the widespread use of cannabis means that considerable numbers of people may be using the drug intensively — at least for some part of their life.

Estimates would suggest that intensive use may affect between 0.5 % and 2 % of the adult population and between 1 % and 3 % of young adults. The prevalence among young males is likely to be substantially higher. It is difficult to draw from the survey evidence a clear picture of the number of users experiencing problems with or becoming dependent on cannabis. Although the effects of cannabis dependence or abuse are less severe than those of other drugs, this may nevertheless have a considerable public health impact because of the scale of use and the fact that many of those most affected are young and may be using the drug intensively during important developmental stages or when they are particularly vulnerable. Among socially disadvantaged families or communities, cannabis dependence or abuse may compound individuals' problems by harming education or employment opportunities.

In summary, there remains a critical need for research to provide an understanding of the relationship between different patterns of cannabis use and the development of problems. The extent to which cannabis users experience problems and the nature of the problems that may be found still remain poorly understood. Methodological tools are required to assess problems at the population level. Such information is a prerequisite to the development, targeting and implementation of effective public health responses to cannabis use in Europe.

Selected issue 3

Co-morbidity

Introduction

The co-occurrence of psychiatric illness and substance disorders, commonly termed co-morbidity or dual diagnosis, is not a new phenomenon. However, in recent years the issue has gained momentum in the political and professional discussion as it has become apparent that a large and probably growing number of people are affected. In this chapter the focus will be on the coexistence of psychiatric and personality disorders and the use of illicit drugs. In fact, it is often appropriate to speak about multimorbidity, as affected individuals often also suffer from somatic illnesses, e.g. human immunodeficiency virus (HIV) or hepatitis C virus infection, as well as social disorders, such as family problems, unemployment, incarceration or homelessness. Care and treatment services are usually inadequately equipped to deal with the diagnostic and treatment needs of this client group, disregarding and/or being incapable of coping with the totality of the client's problems. The result is frequently a 'revolving door' situation, with individuals in great need of treatment being referred from one service to another while all the time their situation deteriorates.

Note that the specific relationship between cannabis use and psychiatric disorders is considered in more depth in the selected issue on cannabis (p. 82).

Definition

Co-morbidity, or dual diagnosis, is defined by the World Health Organization (WHO) as the 'co-occurrence in the same individual of a psychoactive substance use disorder and another psychiatric disorder' (WHO, 1995). According to the United Nations Office on Drugs and Crime (UNODC), a person with dual diagnosis is a 'person diagnosed as having an alcohol or drug abuse problem in addition to some other diagnosis, usually psychiatric, e.g. mood disorder, schizophrenia' (UNODCCP, 2000). In other words, co-morbidity in this context refers to the temporal coexistence of two or more psychiatric or personality disorders, one of which is problematic substance use.

Aetiology

Determining the aetiology of co-morbidity results in a chicken and egg discussion: what came first? Existing research about the causal relations between psychiatric and substance disorders is inconclusive. The symptoms of mental disorder and addiction problems interact and mutually influence each other.

Research evidence indicates that psychiatric and personality disorders usually occur before substance use disorders, i.e. they increase individuals' susceptibility to such problems (e.g. Kessler et al., 2001; Bakken et al., 2003); however, psychiatric disorders may also be aggravated by drug use (e.g. for depression: McIntosh and Ritson, 2001) or occur in parallel.

Drug use can also be perceived as a component or symptom of a psychiatric or personality disorder and as an attempt to self-medicate (e.g. Williams et al., 1990; Murray et al., 2003). The fact that substance use alleviates distressing symptoms encourages the development of addiction. Once the drug use is discontinued, e.g. through withdrawal or substitution treatment, the symptoms may reappear. Acute drug-induced psychoses occur particularly in users of cocaine, amphetamines and hallucinogens and usually subside relatively quickly. It may, however, be very difficult to differentiate between symptoms due to substance intoxication and unrelated psychotic episodes.

Krausz (1996) suggests four categories of dual diagnosis:

- a primary diagnosis of a mental illness, with a subsequent (dual) diagnosis of substance misuse that adversely affects mental health;
- a primary diagnosis of drug dependence with psychiatric complications leading to mental illness;
- concurrent diagnoses of substance misuse and psychiatric disorders;
- a dual diagnosis of substance misuse and mood disorder, both resulting from an underlying traumatic experience, for example post-traumatic stress disorder.

Similarly, the Swedish national report differentiates between psychiatric patients suffering from co-morbidity and drug-dependent clients with personality disorders that are aggravated by drug use and which are not always adequately diagnosed.

Morel (1999) distinguishes non-specific psychiatric disorders found among drug addicts from complications specifically connected with drug use. Disorders often found among drug users include:

- anxiety–depressive disorders;
- sleep disorders, resulting from depression, anxiety disorder or psychosis;
- aggressive and violent behaviour, indicating antisocial, psychopathic, schizophrenic or paranoid personality disorders.

Problems specifically linked to drug use include:

- pharmaco-psychoses induced by hallucinogenic drugs or amphetamines;
- confusion syndromes.

Recent neuropsychological and neurobiological studies and the advent of techniques that enable brain processes to be visualised have made it possible to hypothesise about the interactions between mental and physical trauma, brain development, drug effects, stress and mental development. The reward system is essential in the development of addiction, and addiction is linked to structural changes and adaptation of the brain at micro and macro levels (Nestler, 2001).

Other theories link specific drugs to specific mental disorders, e.g. it has been postulated that heroin could reduce stress, alleviate pain and abolish menacing voices in schizophrenic and borderline schizophrenic patients; however, patients with severe mental illnesses do not use heroin. Cocaine, it is suggested, could lighten depressive states, allow behavioural disinhibition and permit narcissistic personalities to act out grandiosity. Cannabis could relieve tension and ecstasy ease social inhibitions (Verheul, 2001; Berthel, 2003).

The 2002 Irish national report specifically examined depression among drug users, based on the results of several studies, and concluded that there is a strong association between problem drug use, in particular use of opiates and benzodiazepines, and high rates of depression. German research into the relationship between substance disorders, depression and suicide concluded that the risk of suicide is greatly increased in those with a depressive disorder (Bronisch and Wittchen, 1998). It is possible that some individuals with depression may self-medicate with opiates and benzodiazepines: clients in treatment programmes have lower depression scores than clients in low-threshold services (Rooney et al., 1999) or at initiation of treatment (McIntosh and Ritson, 2001).

A survey in Norway (sample size = 2 359) found that a high proportion of drug users have experienced severe family problems during childhood and youth. Some 70 % had experienced learning and behavioural problems in school, 38 % had been the victim of bullying and 21 % had received psychiatric treatment during childhood and adolescence (Lauritzen et al., 1997). Female drug users with psychiatric co-morbidity have often been the victims of traumatic sexual abuse (e.g. Beutel, 1999).

Diagnosis

Routine assessment for psychiatric and personality disorders does not always form part of the standard diagnostic procedures performed at the commencement of treatment in drug services. Except in some particularly aware and/or specialised services, mental symptoms and disorders are rarely explored in drug treatment services.

In any case, co-morbidity is notoriously difficult to diagnose. Drug addiction and the disruptive behaviour it causes often dominates the clinical picture and disguises psychiatric symptoms. In addition, substance abuse can cause psychiatric symptoms that are barely distinguishable from those of psychiatric disorders (Berthel, 2003), while substance withdrawal or acute intoxication can also mimic almost any such disorder (Liappas, 2001). Furthermore, depression and anxiety can be viewed as inherent symptoms of the intoxication–withdrawal cycle; symptoms that used to be alleviated by drugs become manifest in the course of abstinence or substitution treatment.

Methodological advances have also improved the diagnosis of both psychiatric and substance use disorders. A wide range of standardised and validated instruments are now available to measure psychiatric symptoms and personality disorder, as are various instruments that assess the level of drug use patterns and addiction. The addiction severity index (ASI) is a multifunctional instrument that can be used in diagnosis, treatment planning and follow-up, and research. The ASI has the advantage of being multidimensional, measuring past and current problems in seven areas: health status, employment and self-support, alcohol use, drug use, legal status, family and social relationships and psychiatric symptoms (Krausz, 1999a; Öjehagen and Schaar, 2003). It is standardised and has been translated from English into

most other European languages (EuroASI) ([172]). The Trimbos Institute has developed and tested protocols for the diagnosis and treatment of addicted clients with attention deficit/hyperactivity disorder (ADHD) (Eland and Van de Glint, 2001).

Prevalence

Numerous studies have been carried out to measure the prevalence of psychiatric and personality disorders as well as drug use patterns in the general population as well as among psychiatric patients and drug users in and outside treatment services. The results, in terms of both numbers and diagnoses, vary greatly, depending on population availability and selection, sampling methods, diagnostic skills and competence, the validity and reliability of the diagnostic instruments used and the period of the study.

In a review of different studies, Uchtenhagen and Zeiglgänsberger (2000) concluded that the most common psychiatric diagnosis among drug users is personality disorder, affecting 50–90 %, followed by affective disorder (20–60 %) and psychotic disorders (20 %). Between 10 and 50 % of patients exhibit more than one psychiatric or personality co-morbidity disorder.

In a review of international studies on psychopathology in drug-dependent subjects, Fridell (1991, 1996) outlined a clinical picture of co-morbidity in drug addiction that has been confirmed by his own studies in Lund, Sweden. Three main groups of disorders could be identified: personality disorders (65–85 %), depression and anxiety states (30–50 %), and psychoses (15 %). Verheul (2001), in his overview of six studies of treated addicts, found that antisocial (23 %), borderline (18 %) and paranoid (10 %) personality disorders were particularly prevalent.

Many drug professionals believe that the prevalence of drug dependence in combination with mental disorders is increasing, although some argue that this is due to a greater awareness of this issue and/or changes in the diagnosis and the classification of psychiatric diseases and/or restructuring of healthcare systems. In Finland, according to the hospital discharge register, the number of treatment periods associated with simultaneous drug-related and other mental health problems increased from 441 in 1987 to 2 130 to 2001. Treatment periods for opiate use combined with psychiatric disorders have tripled since 1996. This is consistent with the increase in drug use, although no direct causality is suggested. In Ireland, the rate of first admissions of drug users to inpatient psychiatric services increased almost fourfold between 1990 and 2001.

The Spanish national report notes that the observed increase in co-morbidity might partly be due to an increase in dependence on psychostimulants.

Prevalence of co-morbidity in treatment settings

Table 7 gives details of some studies of co-morbidity in different drug treatment and psychiatric settings in Member States as presented in the national reports. Data on substance disorders in psychiatric settings are not as readily available as data on psychiatric disorders in drug treatment settings. Although the studies presented in this review are not comparable, they do give an indication of the situation in EU countries. There is considerable divergence in the populations studied, the diagnostic criteria selected, the instruments used and the time of diagnosis. For reasons discussed above, under-diagnosis is likely in many cases.

A comparative study in Greece and France found that, although the overall rates of psychopathology in opiate users under treatment were quite similar in the two countries, the psychopathological patterns varied: the prevalence of affective disorders was higher in French than in Greek drug users (19 % vs. 7 %), whereas antisocial personality patterns were more prevalent in the Greek sample (20 % vs. 7 %). The authors attributed these differences to the lower prevalence of drug use in Greece: 'the more limited the extent of socially unacceptable behaviour, the more likely it is that socially deviant individuals are involved in it' (Kokkevi and Facy, 1995).

A Norwegian study examined gender differences between poly-substance abusers (of whom 85 % were heroin users) and pure alcoholics. The sample included a very high proportion of subjects with psychiatric and personality disorders (93 %). Overall, women had significantly higher levels of major depression, simple phobia and borderline personality disorder than men. The co-occurrence of an antisocial personality disorder was highest in male poly-substance abusers (Landheim et al., 2003).

Prevalence — prisons and compulsory treatment

The prison population deserves particular attention. The prevalence of psychiatric disturbances, like the prevalence of drug use, is much higher in the prison population than among the population overall. Irish data suggest that 48 % of male and 75 % of female prisoners are mentally disturbed, while 72 % of men and 83 % of women in prison report lifetime experience of drug use (Hannon et al., 2000). In 1999, 23 % of problem drug users held at the Vienna Police Detention Centre had psychiatric problems (Dialog, 2000). The relapse rate among drug users who

([172]) See EMCDDA Evaluation Instrument Bank (http://eib.emcdda.eu.int).

Table 7: Prevalence of co-morbidity in treatment settings in various countries of the EU

Country	Setting	Population	Sample size	Prevalence of co-morbidity (%)	Diagnoses	Source
Belgium	Psychiatric hospitals and psychiatric services in general hospitals	Admissions for drug problems (1996–99)	18 920	86	Schizoid, paranoid, schizotypal: 86 % Depression: 50 % Personality disorders: 43 %	Minimum psychiatric database (1)
Czech Republic	Therapeutic communities	Residential clients (2001–02)	200	35	Personality disorders: 14 % Depression: 7 % Neurotic disorders: 6 % Eating disorders: 5 %	Czech national report (1)
Germany	Treatment centres	Opiate addicts	272	55	Stress and somatoform disorders: 43 % Affective disorders: 32 % Phobias: 32 % Depressive episodes: 16 %	Krausz (1999b) (1)
Greece	Prison and treatment services	Opioid-dependent men	176	86	Anxiety: 32 % Affective disorders: 25 % Schizophrenia: 6 %	Kokkevi and Stefanis (1995) (1)
Spain	Methadone service	Opiate-dependent persons	150	n.a.	Borderline: 7 % Antisocial disorders: 6 % Social phobia: 6 % Depression: 5 %	Spanish national report (1)
France	Methadone service	Opiate-dependent persons	3 936	n.a.	Anxiety: 4 % Depression: 3 % Behavioural disorders: 3 % Eating disorders: 2 %	Facy (1999) (1)
Ireland	Inpatient acute psychiatric services	First admissions with a diagnosis of drug dependency (1996–2001)	1 874	26	Depression: 21 % Schizophrenia and other psychoses: 11 % Personality disorders: 19 %	National psychiatric inpatient reporting system (1)
Italy	Mental health services	Lifelong drug users	58	> 22	Mood disorders: 22 % Anxiety: 21 % Schizophrenia: 16 %	Siliquini et al. (2002) (1)
Luxembourg	Specialised drug treatment services	Patients previously in contact with psychiatric services excluding detoxification (1996–2002)	380	32	n.a.	AST/RELIS (2002) (1)
Netherlands	Dutch population	Drug-dependent persons aged 18–64 (1996)	n.a.	n.a.	Depression: 29 % Social phobia: 29 % Bipolar disorders: 24 % Dysthymia: 22 %	Ravelli et al. (1998) (1)
Austria	Different treatment services (review)	Drug clients	n.a.	41–96	Personality disorders, antisocial disorders, borderline, narcissism	Austrian national report (1)
Portugal	Xabregas CAT Treatment Centre	Drug clients	596	> 73	Obsessive–compulsive disorders: 73 % Depression: 72 % Somatisation: 60 % Paranoid ideation: 58 %	Portuguese national report (1)
Finland	Hospitals	Drug-related hospital treatment periods (2002)	2 180	29	Paranoid ideation: 58 % Psychotic disorders: 32 % Mood disorders: 28 % Neurotic disorders: 10 % Personality disorders: 29 %	Hospital patient discharge register
Sweden	University Hospital, Lund	Patients on detoxication ward (1977–95)	1 052	83	Antisocial disorders: 23 % Any psychosis: 14 % Depressive disorders: 11 %	Fridell (1996) (1)
United Kingdom	Community and residential addiction treatment services	Drug-dependent patients, 90 % opiate-addicted	1 075	> 33	Psychoticism Anxiety Depression Paranoia	Marsden et al. (2000) (1)

NB: Data in this table refer to different timeframes (e.g. lifetime or last year's diagnoses).
n.a.: data not available.
(1) More details on this study can be found in the online version of the annual report in Table 12 OL: Co-morbidity country tables.

have served prison sentences is high, and there is increasing recognition that incarceration can contribute to a worsening of mental health problems. The situation is even more dramatic in long-term and high-security prisons.

In Sweden, between 72 % and 84 % of adults in compulsory drug treatment were found to suffer from psychiatric problems in addition to being substance abusers (Gerdner, 2004). Of 46 substance-dependent girls in compulsory care for children and young people, two thirds had psychiatric diagnoses or personality disorders (Jansson and Fridell, 2003).

Obstacles to the treatment of co-morbidity

One of the main obstacles to the diagnosis and treatment of co-morbidity is the fact that psychiatric staff generally have little knowledge of drug treatment and drug-treatment staff generally know little about psychiatry. The paradigms of the two specialties are quite different: one is based on the disciplines of medicine and science, the other on psychosocial methods and theories. Additionally, the philosophy of mental health services is usually concerned principally with preserving the safety of individuals and the public, whereas addiction services expect clients to be motivated, to some degree, to attend treatment. These different points of departure often prevent a global, integrated perception.

As discussed above, both psychiatric teams and substance services regularly fail to identify significant numbers of patients with co-morbidity. When patients with dual diagnosis seek treatment, their acute psychiatric syndromes are often mistaken for substance-induced symptoms or, conversely, withdrawal or intoxication phenomena are misinterpreted as psychiatric illness. Too often, mental-health workers are inclined to send people with co-morbidity to addiction care and workers in addiction care promptly send them back — or vice versa. Continuity of care is impossible under such circumstances. Even when co-morbidity is diagnosed, it is often considered no further in the subsequent treatment interventions (Krausz et al., 1999). The same is true of patients diagnosed with substance use problems in psychiatric care, who normally do not receive any substance-related interventions (Weaver et al., 2003). These generalisations do not, of course, exclude the fact that some psychiatric and drug services achieve very good results with patients with co-morbidity.

In addition, when identified, drug users are often met with suspicion in psychiatric services, and may be refused admission, as may happen to users who are stable on substitution treatment. Similarly, clients may be excluded from drug treatment because of their mental problems. In Spain, for example, most psychiatric services exclude clients with substance disorders and their staff members have no appropriate training. A survey among Austrian psychotherapists revealed that only some are willing to admit drug-addicted patients as clients (Springer, 2003). From Italy it is reported that there are no clear rules for the referral of clients from drug treatment services to mental health services and that there is resistance in mental health services because of lack of expertise. In Norway, referral from low-threshold drug services to psychiatric treatment is reported to be difficult.

In Greece, 54 % of drug-treatment programmes do not admit drug users with psychiatric disorders. In drug-free residential treatment in Slovenia, and also in other countries, treatment programmes require patients to be drug-free as a condition for admission. In the case of dual diagnosis patients, this presents a serious obstacle, as complete abstinence would require the termination of other treatments, which is not always possible.

Treatment structures

The international literature describes three service delivery models for the treatment of co-morbidity:

1. *Sequential or serial treatment.* Psychiatric and substance disorders are treated consecutively and there is little communication between the services. Patients usually receive treatment for the most serious problems first, and, once this treatment is completed, they are treated for their other problems. However, this model may also lead to patients being passed between services, with no service being able to meet their needs.
2. *Parallel treatment.* Treatment of the two different disorders is undertaken at the same time, with drug and mental health services liaising to provide services concurrently. The two treatment needs are often met with different therapeutic approaches and the medical model of psychiatry may conflict with the psychosocial orientation of drug services.
3. *Integrated treatment.* Treatment is provided within a psychiatric or a drug treatment service or a special co-morbidity programme or service. Cross-referral to other agencies is avoided. Treatments include motivational and behavioural interventions, relapse prevention, pharmacotherapy and social approaches (Abdulrahim, 2001).

The actuality of co-morbidity treatment in the EU, as described in the national reports, is not easily categorised

into these three groups. Integrated treatment is seen as the model of excellence, but it is a standard that is difficult to achieve. Relevant research usually comes from outside Europe. The Australian national co-morbidity project (Commonwealth Department for Health and Ageing, 2003) has concluded from a literature review that approaches to the management and care of co-morbidity clients have not been studied systematically or evaluated rigorously, partly because of the difficulty of studying people with coexisting mental illness and substance abuse disorder, among other reasons because of their irregular lifestyle. Another review concluded that there is evidence that integrated treatment for people with dual diagnosis is beneficial to both mental health and substance use outcomes (Drake et al., 1998). Only one study compared integrated with parallel approaches, but did not find any significant difference, and no study compared integrated and sequential approaches.

Sequential treatment

Some experts, for example in Denmark (Andreason, 2002), the United Kingdom (Department of Health, 2002a) and Norway (Sosial- og helsedepartementet, 1999), believe that the treatment services, at least for the seriously mentally ill with substance use problems, should be based in psychiatry, possibly involving external drug therapists. In Denmark, formalised bridges have been set up between psychiatric hospitals and local drug services. In Luxembourg and in Norway, specific measures have been initiated by psychiatric services to reach individuals in the early stages of schizophrenia, many of whom have serious substance abuse problems, as research indicates that early treatment improves the prognosis.

The Czech national report suggests that addiction problems should usually be considered more urgent than mental problems, as it is more difficult to treat psychiatric disorders when addiction distorts the clinical picture. However, currently, 10–20 % of Czech drug-treatment clients take medication prescribed by a psychiatrist, something that would have been unimaginable some years ago. In Greece, too, medication for psychiatric symptoms is extremely rare in drug-treatment clients. However, in the Greek criminal justice system, mental disorders are considered to prevail over addiction and co-morbid offenders are admitted to a psychiatric hospital either in a prison or in the community (K. Matsa, personal communication, 2004). In Spain, drug users are normally cared for within the drug treatment system and referrals to psychiatric services are made only when disorders are so severe that hospitalisation is necessary.

It has long been the view of some professionals that all pharmacotherapy should be avoided in drug-addicted persons because of the risk of combined addiction, e.g. to heroin and benzodiazepines, but this view is beginning to be reconsidered (e.g. Popov, 2003). In some cases, there is a tendency to prescribe psychopharmacological medication indiscriminately to drug users, partly because of a lack of time to conduct the necessary investigations. The Austrian national report points out that low compliance among drug users makes pharmacological treatment of psychiatric conditions difficult and, in addition, the combined used of narcotic substances and medicines may, if not properly supervised, lead to interactions between illicit and prescribed medicines or to neutralisation of the prescribed medicine.

Parallel treatment

Shared responsibility for one client between a mental health and a drug service in a parallel treatment model appears to be rare in practice. However, local working groups involving representatives of both drug services and mental health services are often an important medium of exchange, cooperation and networking. In France, Italy and the Netherlands official regulations or protocols oblige drug services to maintain close liaison and preferably establish formal regional agreements with the psychiatric services concerning procedures for referrals and clinical information exchange (Olin and Plaisait, 2003). However, more than half of Dutch dual diagnosis patients believe that such agreements do not result in improved care (Van Rooijen, 2001).

In Luxembourg and Austria, drug treatment staff may follow up their clients who have been referred to psychiatric hospitals. United Kingdom guidelines stress that professionals from both addiction and mental care services should be involved in planning the care of a dual diagnosis client in order to prioritise care pathways (Department of Health, 2002a).

Integrated treatment

Under this model, one team handles the treatment of both disorders. This has the advantage that the client is not confronted with two contradictory messages. In some countries, separate administrative systems (e.g. Spain) or different finance systems (e.g. Germany) complicate such integration.

In most countries there are only a few specialised integrated programmes or units for co-morbidity patients and the availability is far from meeting the demand, as Table 8, which shows available information, demonstrates.

The most common implementation of an integrated treatment model is the employment of psychiatrists in drug

Table 8: Integrated treatment services in various European countries

Country	Integrated treatment services
Belgium	Development of integrated services in the feasibility phase
Germany	First initiatives 20 years ago. The availability of integrated treatment is still inadequate
Greece	One integrated programme started in 1995 and provides two different treatment options, according to the severity of the psychiatric disorder. Results have been positive
Spain	185 centres cared for 4 803 co-morbidity clients in 2002. One specialised integrated unit in Catalonia and one therapeutic community in Cantabria for co-morbidity patients needing residential treatment
Netherlands	Two specialised integrated inpatient treatment wards. Process evaluation to develop best practice is ongoing
Austria	Cooperation between drug service and a nearby psychiatric hospital; some of the hospital psychologists work in the drug treatment facility. Clients stay in drug treatment and are referred to the hospital only if psychiatric symptoms become too severe
United Kingdom	Several integrated services in different community settings. Several dual diagnosis practitioners appointed, based in addiction services or in mental health teams
Norway	One integrated project attached to a psychiatric centre in Oslo. Follow-up and evaluation for up to two years, focusing on basic needs such as housing, work, social benefits and social relations

treatment services and/or drug workers in mental health services. This might be the most practical solution in smaller regions where specialised, integrated clinics are not a viable solution. In Spain, since 2002, general practitioners working in drug treatment have been able to obtain the title 'specialist in psychiatry' if they pass an exam and have documented experience of working with patients with mental disorders. In Portugal, it is mandatory for accreditation and certification for a treatment centre to have at least one psychiatrist on the staff. However, not all psychiatrists working in drug treatment services have the specialist knowledge and training necessary to treat drug users and further specific training may be necessary.

Case management

Case management as a method of coordinating clients' treatment to ensure individualised sequential or simultaneous care as well as helping clients find their way through the treatment system appears to be infrequent in the EU. From France it is reported that cooperation between drug treatment and psychiatric services is being established with a view to organising joint admissions and case management for patients with psychiatric disturbances and addictions; however, such collaboration is often limited to a particular case. In Luxembourg as well as in the Netherlands, professionals have come to recognise that case management is the most effective method of dealing with dual diagnosis patients, but it is costly and time-consuming and requires specific professional skills. However, in some countries, a type of case management known as 'assertive community treatment' is being implemented (see below).

Treatment methods and best practice

The treatment of clients with co-morbidity is characterised by many problems and is extremely demanding on staff and often unrewarding. Clients are often difficult to manage because of their disruptive and aggressive social behaviour, especially those with the more 'dramatic' type of personality disorders, and their emotional instability. Resistance to or failure to comply with treatment rules and requirements, for example keeping appointments or taking medication, is common and the disillusion this causes is made worse by unrewarding personal relationships. Success is generally low and drop-out rates high, which makes treatment time-consuming and costly, as well as frustrating for staff, who, not surprisingly, often experience impatience, suppressed aggression and symptoms of burn-out. A lack of follow-up procedures and aftercare leads to high relapse rates, and both mental and substance disorders frequently become chronic. On the other hand, clients have often had many negative encounters with the support services and may therefore be reluctant or unwilling to undergo treatment.

In spite of this difficult situation, professionals are constantly searching for and developing more effective approaches. Regular, interdisciplinary case discussions and intensive cooperation could remedy the mutual lack of understanding among staff. Such endeavours provide everyone involved with more detailed information about clients and facilitate the development of best practice or strategies for care. The quality of treatment is the most important factor in achieving positive results.

As in so many drug-related areas, documentation, evaluation and research in the area of co-morbidity

treatment is deplorable. The evidence base is far from clear regarding which type of treatment is most successful. The Cochrane collaboration reviewed psychosocial treatment programmes (Ley et al., 2003). The review material was limited: six studies, four of which were small, and all of which were generally of low quality in terms of design and reporting. The main finding was that 'there is no clear evidence supporting an advantage of any type of substance misuse programme for those with serious mental illness over the value of standard care'. The conclusion was that 'implementation of new specialist substance misuse services for those with serious mental illnesses should be within the context of simple, well-designed controlled clinical trials.'

A large overview of international alcohol and drug treatment research found only eight randomised studies on the treatment of drug addicts with severe psychiatric disorders (Jansson and Fridell, 2003). The drop-out rate was extremely high even before the start of treatment. Short-term follow-up revealed that residential treatment, specifically in therapeutic communities, produced better results in terms of living conditions and substance use, but not psychiatric symptoms.

Some features are relevant to all treatment situations. The recommendations presented below are taken from reviews and meta-analyses of internationally published randomised controlled studies of drug treatment (Berglund et al., 2003):

1. There should be a constant focus on changing the drug habit(s).
2. Interventions should have a high level of structure.
3. Interventions should continue long enough to have an impact.
4. Intervention should continue for at least three months, preferably longer.

In the United Kingdom, Department of Health guidelines (Department of Health, 2002b) and research projects and literature reviews (e.g. Crawford, 2001) have moved dual diagnosis up the agenda. However, the evidence base is mainly North American, with less than 10 % of Crawford's abstracts coming from studies in the United Kingdom.

According to a Dutch review of international studies, a potentially effective case management model is assertive community treatment, which includes structural (caseload, teamwork, cooperation with other health professionals), organisational (explicit inclusion criteria, limited admittance of new clients, 24-hour crisis intervention) and content (support and care provided in daily situations, an active approach, frequent contacts) aspects (Wolf et al., 2002). In Birmingham, United Kingdom, assertive community treatment teams receive training using a manual-based approach, cognitive behavioural integrated treatment. Teams are offered ongoing support to deliver the intervention and are evaluated regarding both process and outcome (Joint Meeting of the Faculty of Substance Misuse of the Royal College of Psychiatrists and the World Psychiatric Association, 2003). In Norway, a few integrated teams based on assertive community treatment are being tested.

The following overview contains evidence of best practice reported by the Reitox national focal points:

- A follow-up study of 219 opiate addicts in treatment in the Hamburg drug services showed a decrease in the use of heroin and cocaine over two years. Some 47 % showed a positive change in psychiatric disorders (Krausz et al., 1999).
- An Italian study found that the results of methadone maintenance treatment were not substantially different in patients with severe or mild psychiatric symptoms, in terms of either retention or heroin use. However, it seems that clients with more severe psychiatric disorders needed higher mean methadone dosages (Pani et al., 2003).
- Dialectical behaviour therapy ([173]) is a treatment option that seems to be particularly suitable for women substance users with severe borderline personality disorders and/or suicidal tendencies. However, evidence is limited to few studies. A Dutch controlled trial of dialectical behavioural therapy found that both the experimental and the 'treatment-as-usual' group benefited in terms of exhibiting reductions in self-destructive behaviour. The experimental group showed significantly larger reductions in alcohol use but no differences in drug use were found (Van den Bosch et al., 2001).
- In a Swedish study, repeated administration of the ASI questionnaire throughout the treatment period within a sustainable quality management model revealed that in a two-year follow-up from discharge 46 % of patients had been abstinent. Patients with a dual diagnosis exhibited a more severe problem profile on ASI than patients without a psychosis. In general, there were small changes in personality profiles and symptoms, but for many patients quality of life was higher and life situation more stable at follow-up (Jonsson, 2001).
- In the United Kingdom, Barrowclough et al. (2001) found that the combination of motivational interviewing,

([173]) Dialectical behaviour therapy (DBT) is the application of a broad array of cognitive and behavioural therapeutic strategies to the problems of borderline personality disorder (BPD), including suicidal behaviour.

cognitive behavioural therapy and family interventions produced improvements in patients with schizophrenia and substance misuse disorders.

- An overview of Norwegian treatment studies on clients with co-morbidity concluded that aggressive, impulsive behaviour was best treated with confrontational, structured group therapy combined with family therapy. Depressed or anxious patients benefited more from individual psychotherapy and supportive group therapy (Vaglum, 1996).

Research

A research project on dual diagnosis within the fifth framework research and development programme of the European Commission has recently begun. This prospective multicentre study, including Denmark, France, Poland, Scotland, England and Finland, is designed to describe service provision for patients with dual diagnosis in seven European psychiatric settings and to compare, over a period of 12 months, morbidity and service use between dual-diagnosis and single-diagnosis patients. The outcomes studied will comprise severity of addiction, psychiatric symptoms, treatment compliance, psychosocial functioning, social network, relapse and mortality. The results are expected in 2005 ([174]).

Training

In most countries, doctors and nurses in training receive very little instruction about drug addiction and even less about the issue of co-morbidity. In Italy, joint training of mental health and drug treatment staff has increased. In the Netherlands, the Trimbos Institute organises training courses for both addiction and mental healthcare professionals involved in the treatment of dual diagnosis patients. Other countries report in-service training and courses, but implementation is random and patchy.

In the United Kingdom, the Royal College of Psychiatry undertook a training needs analysis (Mears et al., 2001) with a variety of professional groups, from both mental health and drug services. Some 55 % of the sample reported that they felt inadequately prepared to work with clients with co-morbidity and expressed a need for further training.

([174]) See http://www.entermentalhealth.net/papers/kbm02.pdf.

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