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European Monitoring Centre
for Drugs and Drug Addiction

ANNUAL REPORT 2007

THE STATE OF THE DRUGS PROBLEM IN EUROPE

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Foreword

This is the 12th annual report of the European Monitoring Centre for Drugs and Drug Addiction. Like previous reports, it provides a comprehensive update on the current situation regarding drug use in Europe. It also demonstrates Europe's achievement in implementing a methodologically sound, sustainable and comprehensive information system to monitor drug use.

The report addresses two fundamental questions. What is known about drug use in Europe and the problems it causes? And what has been learned about responding effectively to drug-related problems? These questions are important because, regardless of political persuasion or ideological position, policymakers across Europe have come to recognise that the drugs problem presents a complex set of issues for which there is no simple solution. They recognise that the way forward lies in analysing the available evidence regarding both the size and nature of the problem and the costs and benefits of different intervention approaches. In this respect, the report also demonstrates Europe's commitment to balanced and evidence-based policymaking and to sustained effort over time rather than relying on 'quick-fix' solutions. As a result, Europe can be proud that its response to this difficult and often emotive issue is both rational and humane.

In this report we also reflect on the progress that has been made in responding to the drugs problem in Europe. This is particularly pertinent this year, as both in Europe and internationally we will soon be reflecting on achievements in this area. In 2008, the European Commission will begin its task of assessing the impact of the current European action plan on drugs and the United Nations Commission on Narcotic Drugs (CND) will debate the progress made in meeting the goals set at the United Nations General Assembly Special Session in 1998.

In Europe, the drugs situation still represents a serious challenge for health and social policy and for law enforcement. It is not hard to find areas that arouse special concern. Nonetheless, we feel strongly that it is also important to acknowledge progress where it has been made. In Europe, more and more Member States are adopting strategic and planned approaches to tackling the drugs problem. There has also been a dramatic increase in investment in prevention, treatment and harm-reduction activities and improved cooperation and increased focus in supply reduction. Drug use in general remains at historically high levels, but it has stabilised in most areas, and in some areas there are even signs that merit cautious optimism. The European Union and its Member States give considerable support to international programmes and, in a global context, it is satisfying to observe that, in a number of important areas, the European situation looks relatively positive.

As a monitoring agency, we deal in facts and figures; we are committed to being scientifically rigorous and impartial, interpreting the information available without prejudice or prior position. This is our role, and as Chairman of the Management Board and Director we accept no compromise on this position and take pride in the high standards we maintain. But while scientific rigour is essential to our work, we must never forget that behind the figures we report are real human beings whose lives have been affected and sometimes ruined by drug problems. Behind the dry statistics on treatment demand, drug-related deaths and criminal behaviour are the grieving families, lost potential and children growing up in unsafe communities. To develop effective responses to the drugs problem requires us to be dispassionate about our data, but we must never become dispassionate about the topic.

Marcel Reimen
Chairman, EMCDDA Management Board

Wolfgang Götz
Director, EMCDDA

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Reitox national focal points

Reitox is the European information network on drugs and drug addiction. The network is made up of national focal points in the EU Member States, Norway, the candidate countries and at the European Commission. Under the responsibility of their governments, the focal points are the national authorities providing drug information to the EMCDDA.

The contact details of the national focal points may be found at: http://www.emcdda.europa.eu/?nnodeid=1596

Introductory note

This annual report is based on information provided to the EMCDDA by the EU Member States and candidate countries 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 2005 (or the last year available). Graphics and tables in this report may reflect a subset of EU countries: the selection is made on the basis of those countries from which data are available for the period of interest.

An online version of the annual report is available in 23 languages and may be found at http://annualreport.emcdda.europa.eu

The 2007 statistical bulletin (http://stats07.emcdda.europa.eu) presents the full set of source tables on which the statistical analysis in the annual report is based. It also provides further detail on the methodology used and over 100 additional statistical graphs.

Country data profiles (http://dataprofiles07.emcdda.europa.eu) provide a top-level, graphical summary of key aspects of the drug situation for each country.

Three in-depth reviews accompany this report and explore the following issues:

- Drugs and driving;
- Drug use among minors;
- Cocaine and crack cocaine: a growing public health issue.

The selected issues are available in print and online (http://issues07.emcdda.europa.eu) in English only.

The national reports of the Reitox focal points give a detailed description and analysis of the drugs problem in each country and are available on the EMCDDA website (http://www.emcdda.europa.eu/?nnodeid=435).

Commentary — the drug situation in Europe

Europe plays an increasingly important role in supporting global actions to reduce drug problems

Neither trends in the use of drugs nor those who are involved in drug production and trafficking respect national or geographic boundaries. It is therefore important to recognise that the European drug problem is part of a broader global phenomenon, with patterns of drug use in Europe both affected by and affecting the problem elsewhere. This is recognised in the current EU action plan on drugs, which addresses the need for greater European coordination on international affairs and the need to support programmes to reduce drug demand and supply in neighbouring and producer countries. European investment in support of international actions is now considerable, with a recent European Commission audit suggesting that the European Union is now funding demand and supply reduction measures in third countries to the tune of at least EUR 750 million. Moreover, the EU is now the major international donor supporting the work of the United Nations Office on Drugs and Crime (UNODC).

In addition to financial support, there is also evidence that European countries have taken seriously the commitments made at international level to develop appropriate responses to drug problems. In 2008, the international community will evaluate the global progress made in respect of the goals set in the 1998 special session of the United Nations on combating the world drug problem. To complement the data available at international level, the EMCDDA will support the review process by providing a more detailed assessment of the European situation. As can be seen in the data presented in this report, over the last 10 years EU Member States have developed increasingly comprehensive national and EU-level coordination mechanisms, usually based around strategies and action plans. In addition, they have dramatically improved the information available on the drug situation and increased investment in both supply-side and demand-side interventions. While acknowledging that the use of drugs remains a major challenge for public health and social policy within Europe, it is also important to recognise these positive developments.

Putting Europe in a global context

Drug use is a global problem, and a useful insight into the relative size of the drug problem in Europe can be gained by comparing European data with information from other countries. The difficulty here is that only in a few other parts of the world is relatively comprehensive and robust information available. The USA, Canada and Australia can provide meaningful comparison points on estimates for last year drug prevalence. UNODC estimates show that the prevalence of opioid use in these countries is broadly similar to that in the European Union, ranging between 0.4% and 0.6% of the adult population, with Canada slightly lower and the USA slightly higher. Estimated cannabis use is, on average, considerably lower in the European Union than in the USA, Canada or Australia. As regards stimulant drugs, levels of ecstasy use are broadly similar worldwide, although Australia reports high prevalence levels, and, in the case of amphetamine, prevalence is higher in Australia and the USA than in Europe and Canada. The prevalence of cocaine use is higher in the USA and Canada than in the European Union and Australia. A lack of comparable data makes it difficult to assess the health impact of drug use across countries, although a cautious comparison of estimated rates of newly diagnosed HIV infections related to drug injecting in 2005 suggests rates in Australia, Canada and the European Union at below 10 cases per million population, and around 36 cases per million in the USA.

Quantifying complexity: setting meaningful targets and developing useful summary measures

The objective of all European drug strategies is to reduce drug use and the damage that drugs can cause, both to those who use them and the communities in which they live. This policy objective can be simply stated, but it is important to recognise that drug use is a multifaceted and complex phenomenon and any attempt to evaluate the impact of policies in this area has to reflect this underlying reality. A positive conclusion of this report is that European drug policies are becoming more sensitive to the need to focus on specific activities and develop meaningful targets. This is reflected in the general shift in Europe towards national drug strategies being accompanied by more specific and time-limited action plans, and, at the level of European coordination, in the annual review of the current EU action plan on drugs, with indicators being dropped or modified following review of their performance.

For evaluating actions, moving to a more focused approach is clearly helpful. However, it is also useful to be able to have some summary measures that allow complex issues to be more easily described. Although constructing such scales and measures is difficult, a number of recent developments

in this area show promise. In this report, we provide a new analysis of data on European public expenditure on drugs. While the data are partial, they do illustrate the considerable sums of money spent each year in Europe on reducing drug demand and supply: somewhere between EUR 13 billion and EUR 36 billion. Moreover, it should be borne in mind that these figures do not reflect the social costs of drug use.

Among the advances that may be helpful in this direction is the development of indexes that try to capture the different costs and harms of using illicit drugs, such as the drug harm index developed recently in the United Kingdom. Harm is also one of the key concepts included in the UNODC's recently proposed illicit drug index (IDI). These sorts of approaches may prove useful in the future for policy analysis purposes, but they are dependent on the quality of data on which the composite measure is based and on the extent to which these data can encompass the target concept.

Harm reduction is now an explicit component of the European approach

There are still considerable differences between European countries in the nature and scale of their national drug problems and also in the range and configuration of response. Despite this, there is considerable agreement on more general fundamentals: that drug policies should be balanced, comprehensive and evidence based. In the area of demand reduction, the need for prevention, treatment and social rehabilitation activities is accepted by all. But, historically, the topic of harm reduction has been more controversial. This is changing, and harm reduction as part of a comprehensive package of demand reduction measures now appears to have become a more explicit part of the European approach. This is evident in the fact that both opioid substitution treatment and needle and syringe exchange programmes are now found in virtually all EU Member States, although the level of service provision varies considerably. It is also evident in a recent report from the European Commission, which found that the Council recommendation of 18 June 2003 had played a role in encouraging Member States to develop and expand harm-reduction activities.

Prison: services for drug users remain underdeveloped

An important conclusion drawn from the review of the progress made in implementing the Council recommendation of 18 June 2003 was that, despite advances made in other areas, services of all types were usually poorly developed in prison settings. Although some Member States have introduced schemes to divert offenders with drug problems into treatment as an alternative to criminal sanctions, those with drug problems continue to account for a significant proportion of the prison population in virtually all countries. The EMCDDA is currently collaborating with the World Health Organisation (WHO) to establish a database for the collection of prison health indicators. The general principle that those in prison should have access to the same healthcare options as are available in the wider community is not achieved in many areas for those with drug problems. Not only do many of those entering prison have drug problems, but studies show that drug use often continues in prison. The lack of services for drug users in prison raises the serious concern that not only is an opportunity being lost to intervene to reduce future drug use and offending behaviour but also that health gains achieved elsewhere may be undermined by a lack of services in this setting.

Identifying and sharing knowledge on what works

Increasingly, the focus of the debate on demand reduction activities of all types is on identifying those interventions for which there is evidence of effectiveness and which do not deliver unintended negative consequences. As any intervention, if badly delivered, is unlikely to be effective or may even be counterproductive, a second plank of this work is to identify good practice and quality control measures. The new regulation of the EMCDDA emphasises the importance of identifying and disseminating good practice. A key difficulty here is the real world settings in which demand reduction interventions are applied. Credible controlled studies, the gold standard for most medical interventions, are often difficult to design or simply impracticable. The complexities of assessing evidence for effectiveness and identifying quality control standards are addressed in this report.

Cannabis: popularity may have peaked — as recognition of public health issues grows

Nearly a quarter of all adults have tried cannabis at some time in their lives, and one in 14 will have used it in the last year, making it the most commonly consumed illicit drug in Europe. But, even more so than among the population in general, it is by far the most commonly consumed illicit drug by young and very young people. Drug use among those who are developing both physically and socially can be a particular problem, and this issue is dealt with in detail in the accompanying selected issue on drug use in minors. The importance of understanding the implications of early onset of cannabis use and what might constitute appropriate responses is one of the complex set of issues that widespread cannabis use is now posing for public health and drug control policies in Europe.

A general trend in policy in Europe has been to move away from criminal justice responses to the possession and use

At a glance — estimates of drug use in Europe

(Note that these estimates relate to the adult population and are the most recent estimates available. For complete data and full methodological notes see the 2007 statistical bulletin.)

Cannabis

Lifetime prevalence: at least 70 million, or one in five European adults

Last year use: about 23 million European adults or one third of lifetime users

Use in the past 30 days: over 13 million Europeans

Country variation in last year use: 1.0% to 11.2%

Cocaine

Lifetime prevalence: at least 12 million, or around 4% of European adults

Last year use: 4.5 million European adults or one third of lifetime users

Use in the past 30 days: around 2 million

Country variation in last year use: 0.1% to 3%

Ecstasy

Lifetime prevalence: about 9.5 million European adults (3% of European adults)

Last year use: 3 million or one third of lifetime users

Use in the past 30 days: more than 1 million

Country variation in last year use: 0.2% to 3.5%

Amphetamines

Lifetime prevalence: almost 11 million or around 3.5% of European adults

Last year use: 2 million, one fifth of lifetime users

Use in the past 30 days: less than 1 million

Country variation in last year use: 0.0% to 1.3%

Opioids

Problem opioids use: between one and eight cases per 1 000 adult population (aged 15–64)

Over 7 500 acute drug deaths, with opioids being found in around 70% of them (2004 data)

Principal drug in about 50% of all drug treatment requests

More than 585 000 opioid users received substitution treatment in 2005

of small amounts of cannabis and towards approaches orientated towards prevention or treatment. Despite this, over the period 2000–05, recorded cannabis offences increased considerably (36%) and, in most countries, cannabis is the drug most likely to be involved in charges for drug use or possession. This situation may be changing as a majority of countries now report some fall in reported cannabis offences — perhaps indicating that law enforcement bodies are shifting away from targeting cannabis use.

Despite considerable public and media debate on the topic, it is hard to see any direct or simple relationship between law enforcement policies and overall prevalence of cannabis use. Although there were differences in timing and scale between countries, Europe saw a substantial increase in the use of cannabis during the 1990s, followed by a more stable but generally still increasing trend after 2000. This has produced a more homogeneous European picture now than has historically been the case. In addition, the most recent data suggest that, particularly in the high-prevalence countries, cannabis use is moving into a more stable phase or even decreasing. And, although the data are still relatively weak, there is some evidence that the popularity of the drug among the younger age groups is decreasing in some countries. Although national trends vary overall, it is possible to be cautiously optimistic that the escalation of cannabis use that has been seen in Europe since the 1990s may now have reached its peak.

If Europe is entering a period of more stable cannabis use, it is also clear that current levels are by historical standards very high; and, although only a relatively small proportion of cannabis users are using the drug on a regular and intensive basis this still represents a significant number of individuals. A growing body of research evidence and clinical experience now provides a better understanding of the needs of those with cannabis-related problems, although the extent to which cannabis users in general develop problems with their drug use remains poorly elaborated. Treatment data compiled by the EMCDDA show that the number of reported new cannabis treatment demands has almost trebled since 1999, although this trend now appears to be stabilising. Interpretation of this trend is complicated for a number of reasons that include an increase in both services for, and awareness of, cannabis-related problems, and because a significant proportion of referrals are directive, from either criminal justice or social services. It also appears that the needs of cannabis users coming into contact with treatment services are varied, as indeed are the responses that are being provided — which range from brief and prevention-orientated interventions to more formal treatment approaches.

The European cannabis situation is also complicated by market factors, and this problem is confounded by the lack of good data on the relative share and availability of different cannabis products in the EU. Europe remains the main global market for cannabis resin, most of which is produced in North Africa. Herbal cannabis is also available in Europe,

although the volume of resin seized is over 10 times that of herbal cannabis. This picture may be changing however: cannabis resin seizures fell slightly in 2005, while herbal seizures continue to increase, as did seizures of cannabis plants. Half of European countries reported some domestic cannabis production in 2005. Some forms of home-produced cannabis can be of relatively high potency, and domestic production also has implications for drug control activities.

Cannabis use raises a complex set of issues for drug, public health and social policy in Europe. One positive development is that Member States now appear to be beginning to develop a better understanding of the implications of the widespread use of this drug and the debate is becoming more focused and less prone to either under- or overstatement of the problem.

Cocaine: estimates of use rise again

The EMCDDA has revised its estimate of cocaine use in this report to 4.5 million Europeans having used the drug in the last year, up from 3.5 million in the 2006 annual report. The general picture reported last year of a stabilising situation is also called into question by the new data, which point to an overall increase in use. The new data confirm cocaine's place in Europe as overall the second most commonly used illicit drug, after cannabis and ahead of both ecstasy and amphetamine on all measures, and estimates of last month use of cocaine are now more than double those for ecstasy. Although recent increases mean that more countries now report a significant cocaine-using population, inter-country variation remains high, with low rates of cocaine use reported in most countries in eastern Europe.

Increased prevalence rates are also reported in the new data available from both Spain and the United Kingdom, the two countries with the highest prevalence in Europe — although in neither case are the increases dramatic. In both countries, last year prevalence rates among young adults are similar to or greater than those found in the USA. Worryingly, in both countries, cocaine use among the young is relatively high (4–6% in 15- to 16-year-olds). In Spain, analysis suggests that the recent increase has been driven by use in the 15–24 age group. It is important to note that estimates of those experiencing serious problems with cocaine are far lower. Although estimates of problem cocaine use are available for only three countries (Spain, Italy, the United Kingdom), the figure ranges between 0.3% and 0.6% of the adult population. Crack cocaine use remains rare across Europe, but does cause severe localised problems where it occurs.

Other indicators also demonstrate an upward trend, confirming the growing importance of cocaine in Europe's drug problem. Both quantities and numbers of seizures have increased, perhaps reflecting increased targeting of the European market but possibly increased interdiction activities. Coordinated actions against cocaine trafficking are growing in Europe, and a new intergovernmental task force is to be located in Portugal, which appears appropriate given the country's growing importance in cocaine interdiction. Although record seizures do not appear to have affected price trends, which are still downwards, they may have had an influence on purity levels.

To date, increased levels of cocaine consumption have had only a modest impact on health-related indicators, but this may be changing. Each year, around 400 cocaine-related deaths are reported in Europe, and there is a suspicion that cardiovascular deaths in which cocaine has been an aggravating factor may go largely undetected. Requests for drug treatment for those with cocaine problems are rising. In 2005, cocaine was the primary drug of about 13% of clients demanding treatment, and in an even higher proportion of those new to treatment (22%). The number of new treatment demands reported has roughly tripled over the last five years, and now stands at over 33 000. Cocaine was also reported as a secondary drug in around 15% of cases, and there is a growing awareness that concurrent cocaine use is complicating the treatment of opioid problems in some countries. However, overall cocaine treatment requests are lower than those related to cannabis and considerably lower than for opioid problems.

HIV: overall assessment positive, but new infections underline the need for continued efforts

During the 1990s, the experience, or potential threat, of a widespread HIV epidemic among drug injectors was a catalyst for the development of services for this group. With the expansion of services, the HIV epidemics seen earlier in Europe have largely been avoided, although localised problems have been observed in some countries, notably the Baltic States, and in some countries affected by earlier epidemics, HIV prevalence rates among injectors have remained quite high. Overall, while injecting drug use has declined as a route of HIV transmission, the EMCDDA estimates that, in 2005, it accounted for around 3 500 newly diagnosed cases of HIV in the European Union. This figure may be low by historical standards, but it still represents a considerable public health problem.

Analysis of the most recent data suggests that, in most countries, rates of new infection related to injecting are low and that, in most EU regions, HIV prevalence among injectors fell between 2001 and 2005. As a result, especially in areas where prevalence has been high, the burden of infection resulting from injecting drug use is likely to be decreasing. The situation in Estonia, Latvia and Lithuania remains a

concern, but here again most of the recent data point to a relative decrease in new infections.

Important caveats to this assessment are that data in some important areas are weak and that studies of time trends over the last five years have reported increases in some areas or samples in about one third of countries. In addition, there is cause for concern in a few countries either because of relatively high levels of new infections or because there has been some small recent increase in prevalence even though overall rates remain low. Given that recent history demonstrates how quickly HIV problems can spread in vulnerable populations, this underlines the need to continue to target and develop services to engage with those who are at risk.

Hepatitis C remains Europe's hidden epidemic

The EMCDDA estimates that there could be as many as 200 000 Europeans living with HIV infection who are current or past drug injectors. While there is good public awareness of the HIV risks posed by injecting, it is important to remember that there are also an estimated 1 million some-time injectors who are infected with hepatitis C virus (HCV) — including a significant proportion who are no longer using drugs.

Hepatitis C can have serious health consequences, including cancer and death, and meeting the needs of people infected with HCV is likely to put an increasing strain on health budgets. Across Europe, HCV rates are high among injecting populations, and studies show that young injectors continue to acquire this disease early in their drug-using careers, limiting the opportunities for intervention. Unlike hepatitis B, where interventions appear to be delivering benefits, no clear trend is evident in the HCV data, although differences between countries may provide some clues as to what might constitute effective actions in this area.

Heroin use is stable but there are concerns about increasing problems with synthetic opioids

It is estimated that potential global heroin production, mostly in Afghanistan, increased again in 2006, to over 600 tonnes. This raises the question for Europe: what effect will this increase have on the drug problem? Increasing heroin production has not thus far become evident in most indicators of heroin use — which overall have been stable for some time. Evidence from the analysis

Afghanistan — can alternative development measures have an impact?

The sustainability of the general stable or improving situation seen in heroin use in Europe is called into question by increasing opium production in Afghanistan. Estimates for 2006 suggest that production increased by 43 % as a result of a substantial increase in the area under cultivation.

Opioid seizures and laboratories dismantled seem to indicate that opium produced in Afghanistan is increasingly being transformed into morphine or heroin in the country itself, before being exported (CND, 2007). Heroin then enters Europe by two major traffic routes: the old Balkan route, which is still the most important in terms of heroin smuggling, and the more recent 'silk' route (see Chapter 6).

Regional differences inside Afghanistan point to the potential for economic growth to reduce poppy cultivation but also show how it can be undermined by the lack of political security, corruption and infrastructure problems. Reductions in cultivation can be achieved quickly but are reversed equally quickly. For example, in Nangarhar province, in the east of the country, the level of opium poppy cultivation fell by 96 % in 2004/05, but there, as in many other districts, it has since returned to previous levels, in part driven by the economic needs of densely populated areas that have been unable to diversify to other high-value crops and non-farm income opportunities (Mansfield, personal communication and 2007).

In contrast, in other parts of the eastern region, levels of cultivation are likely to remain negligible, and even in the southern provinces of Kandahar and Helmand reductions in cultivation can be expected in areas close to the provincial centre. The supporting factors here appear to be greater governmental control and more diversification in agricultural production, factors which have allowed relatively high-value crops to be established together with the introduction of a transportation and marketing infrastructure. In the north and north-east of the country, not only have increasing wage rates and falling opium prices deterred poppy planting, but also some high-value vegetables actually generate greater returns than poppies. In these areas, crop diversification has been supported by counter-narcotics efforts and greater governmental involvement — leading to a general perception that opium prohibition measures will be enforced.

Rising labour costs and falling prices now mean that returns on opium poppy are not unassailable and, in some areas, higher incomes can be generated from alternative products, particularly where other non-farm income opportunities also exist. These legal income opportunities are, however, not open to all and, in many areas, farmers' options are limited by high transport costs, poor roads and problems arising from lack of security. In these areas, corruption and insecurity are reducing the opportunities for trading in legal goods and impeding economic growth and efforts to encourage crop diversification, even in areas relatively close to the provincial centres.

of drug treatment data and drug overdoses suggests that the heroin-using population in Europe continues to age, although the picture in eastern European countries is less clear. Overall estimates of problem drug use also generally point to a stable situation. Nonetheless, the falling price of the drug and the increase in the number of young heroin users in treatment in some countries underlines the need for continued vigilance.

Although there is currently no clear-cut evidence that heroin use is gaining popularity with young people, there are indications from a variety of reports that the use of synthetic opioids may be a growing problem in some parts of Europe, and that synthetic opioids may even be replacing heroin in some countries. In Austria, a growing proportion of treatment demand clients are under 25 and are seeking help for problems due to the use of opioids diverted from legitimate uses. Similarly, Belgium reports some increase in the illicit use of methadone; and in Denmark, methadone is commonly mentioned in reports on drug-related deaths. Buprenorphine, a drug regarded by some as having a low appeal on the illicit market, is also reported to be increasingly used and injected in the Czech Republic; it may have replaced heroin in Finland; and monitoring in France raises concerns about the illicit use of this drug, including injecting use by young people, who have initiated their opioid use with buprenorphine rather than heroin.

Downward trend in drug overdose deaths tails off

The EMCDDA reports regularly on acute drug-related deaths in Europe — these are principally overdose deaths, usually involving heroin or other opioids, although in most cases a range of substances will have been consumed. Overdose deaths constitute a significant cause of avoidable mortality among young adults.

Since 2000, many EU countries have reported decreases in the numbers of drug-related deaths, possibly reflecting increased service provision or changes in the numbers of injecting heroin users. However, this trend has not continued in 2004 and 2005. Particularly of concern is the fact that in a few countries the proportion of younger people among those dying has been growing. Reducing drug-related deaths is an important public health target and the reasons for the faltering in the downward trend needs to be identified.

Death by overdose is not the only health risk facing those with drug problems. Studies reveal that excess mortality from all causes is considerable among problem drug users: as much as 10 times what would be expected in the general population. There is therefore a need to develop a more comprehensive approach to addressing both the physical and mental health needs of this group if the morbidity and mortality associated with chronic drug use is to be significantly reduced.

Chapter 1
Policies and laws

In this chapter, drug policies in the EU as a whole and in individual Member States, as well as the relationship between these two levels of policymaking, are described. A data collection exercise brought forward by the EMCDDA in the reporting period permits an overview of current national drug strategies and institutional frameworks across Europe. Estimating the cost of drugs to society is discussed in a section on drug-related public expenditure. Based on data on national public expenditure reported by Member States, a first approximation is made of the total amount spent by European governments on the drugs phenomenon. Legislative changes focusing on supply reduction and on legal approaches to drug testing are described in a section on recent changes in national laws. An overview of the latest statistics on drug law offences and trends in offences involving opioids and cannabis are presented in a section on drug-related crime. The chapter concludes with a section on drug-related research in Europe.

National drug strategies

General situation and new developments

In early 2007, all EU Member States, except Italy, Malta and Austria, had a national drug strategy, sometimes accompanied by an action plan. At that time, a total of more than 35 different national drug planning documents were in force in Europe, covering a time period ranging from as little as two years (Czech action plan) to more than 10 years (Dutch national drug strategy).

A noticeable trend in recent years has been the shift from a single national planning document to the adoption of two complementary instruments: a strategic framework and an action plan. This approach, which allows a better conceptualisation of short-, mid- and long-term objectives, is now used in almost half of EU Member States, and is even more common in those that joined the EU in 2004 and 2007: eight of these 12 countries have both a drug strategy and an action plan.

The policy of combining a drug strategy with action plans facilitates more detailed definitions of objectives, actions, responsibilities and deadlines. Some countries, for example Cyprus, Latvia and Romania, have incorporated detailed implementation processes in their drug strategies and action plans. This approach, which has been in place in other Member States (e.g. Spain, Ireland, the United Kingdom) for some time, is becoming more widespread and has also been implemented in the current EU action plan on drugs.

In 2006, new drug strategies or action plans were adopted by four Member States (Greece, Poland, Portugal, Sweden) and Turkey, as well as Northern Ireland in the United Kingdom. In none of these cases was this the first such exercise, and in each of these cases the national reports mentioned that the new drug policy documents had benefited from the experience of earlier ones. In 2007, two Member States, Malta and Austria, as well as Norway, are due to adopt new drug strategies, while the Czech Republic, Estonia, France and Hungary will implement new action plans.

Content

Reducing drug use in general and problem drug use in particular is a key objective of the national drug strategies and action plans of all EU Member States, candidate countries and Norway. The objective of preventing and reducing the individual and collective harm resulting from the use of drugs is also shared by all countries. Another common feature is the 'comprehensive' approach, whereby interventions aimed at drug supply reduction and those aimed at drug demand reduction are linked. The 'balanced' approach, which aims to give priority both to supply reduction and to demand reduction, is also very widespread. All these elements are also part of the EU drugs strategy.

The range of psychoactive substances included in national drug strategies is an area in which notable differences are found among European countries. This can be seen in the new documents adopted in 2006. Of these, two mainly address illicit drugs (Poland, Portugal), albeit with some links between the drug and the alcohol/tobacco strategies, two address both illicit drugs and alcohol (Greece, Northern Ireland in the United Kingdom) and one (Turkey) addresses all addictive substances. In addition, Sweden has simultaneously adopted two interlinked action plans,

New regulation of the EMCDDA

On 12 December 2006, the European Parliament and the Council of the European Union signed the recasted regulation of the EMCDDA, which came into force in January 2007.

The new regulation underlines the importance of the key indicators, and notes that their implementation is a prerequisite for the Centre to perform its duties. Emphasis is also given to the need to develop an information system that is sensitive to new and emerging trends.

The new document broadens the scope of the EMCDDA's remit. Particular reference is now made to providing information on the combined use of licit and illicit psychoactive substances and on best practice in Member States. The EMCDDA can also develop tools and instruments to help Member States monitor and evaluate national drug policies and to help the European Commission do the same at EU level. All these new elements will enable the agency to provide a more complete picture of the drug phenomenon.

The new regulation places stronger emphasis on collaboration with partner agencies, particularly Europol in the case of monitoring new psychoactive substances, and other partners such as the WHO, the UN or relevant statistical authorities to attain maximum efficiency. The new regulation clarifies the countries to which the EMCDDA can transfer its know-how, at the request of the European Commission and with the approval of the Management Board.

The role of the Reitox network of national focal points is more clearly defined in the new document. The recast also modifies the regulation regarding the Scientific Committee. This will provide the agency with a cohesive, independent body of eminent scientists. In addition to helping to ensure the quality of the work of the EMCDDA, it will also provide a bridge to the wider scientific and research community.

one for alcohol and one for illicit drugs. Moves towards the integration of licit and illicit drugs policies have been evident in some countries for several years (e.g. Germany, France) ([1]). The scope of future drug strategies and their possible integration with other public health strategies is likely to remain an important theme during the coming years.

National drug strategies and action plans generally include interventions in the areas of prevention, treatment and rehabilitation, harm reduction and supply reduction. The extent of the different interventions and the importance given to each of them varies, however, between countries ([2]). This can be explained by differences regarding the size and characteristics of the drug problem but also by the diversity of social and health policies in Europe. Financial resources, public opinion and political culture are also important factors, and it can be shown that countries having certain common features adopt similar drug policies (Kouvonen et al., 2006).

Evaluation

Having in the EU a diversity of national drug strategies with common objectives can be viewed as a strength because it allows comparative analysis of different types of approach. The evaluation of national drug strategies and action plans is therefore important not only for assessing the efforts at national level but also for improving the overall understanding of the effectiveness of drug strategies. The EU and its Member States have already invested significant resources in this field.

Almost all European countries mention the objective of evaluating their national drug strategy. Governments want to know if their policies are implemented and if the expected outcomes are achieved. In two Member States (Belgium, Slovenia), the scope of the evaluation has been limited to a number of selected projects. In most other countries, and at EU level, the implementation of the actions set out in the national drug strategy is systematically monitored. This enables progress reviews to be carried out, the findings of which may be used to improve or renew existing drug strategies or action plans.

Global evaluations, covering process, output, outcome and impact, are less frequent in Europe. Some countries (Estonia, Greece, Spain, Poland, Sweden) report on the planning of an internal evaluation based on implementation progress reviews and other available epidemiological and criminological data. In some cases (Luxembourg, Portugal) such an evaluation will be performed by an external body.

In summary, progress reviews on the implementation of national drug strategies and action plans are becoming standard in Europe. The next step, which is developing outcome and impact evaluations, is still in its early stages, and the future impact assessment of the EU drug action plan 2005–08, for which the European Commission has commissioned a study aimed at designing a methodology, could become an example. There is also some activity in the area of developing indexes designed to assess the impact of national drug strategies or the overall drug situation. Both the United Kingdom and the United Nations Office on Drugs and Crime (UNODC) have invested considerable effort in this field.

([1]) See the 2006 selected issue 'European drug policies: extended beyond illicit drugs?'.

([2]) See Chapter 2.

Drug policy indexes

The United Kingdom's drug harm index (DHI) is designed to capture the social costs of harms generated by the problematic use of any illegal drug. It covers four types of harms: health impacts, community harms, domestic drug-related crime and commercial drug-related crime. However, it is not intended to be a full summary of the country's drug situation, as the indicators are limited to those for which robust data already exist, and the outcome figures and trends are being used as a baseline against which to assess future progress (MacDonald et al., 2005). The UNODC's illicit drug index (IDI) combines three dimensions of the drug phenomenon: drug production, drug trafficking and drug abuse. The outcome is an overall score, based on a 'harm/risk factor per capita', which should reflect the magnitude of all drug problems which arise in a given country (UNODC, 2005).

The conceptualisation of both instruments has involved interesting methodological developments and has allowed a first insight into the use of overall indexes to evaluate drug strategies and monitor overall drug situations. A first observation is that such instruments can be useful for a longitudinal follow-up of the national situation but that, to understand what is really going on, the result should be contextualised with the analysis of individual indicators within the indexes. The use of an overall index for inter-country comparison could be more difficult given the limitations of existing data sets and the absence of contextual variables (e.g. geographical situation) from the analysis.

Coordination mechanisms

While formal drug coordination mechanisms now exist in almost all EU Member States and Norway, there is considerable diversity in the existing systems, reflecting differences in the political structures between countries. Nevertheless, some general features can be described.

Most countries have drug coordination mechanisms at both national level and regional or local level. At the national level, there is usually an interministerial committee on drugs, which is often supplemented by a national drug coordination agency and/or a national drug coordinator who is responsible for the day-to-day coordination activities. At the regional or local level, drug coordination agencies and/or drug coordinators exist in most countries.

European countries differ in how coordination mechanisms at the national level are linked to those at regional or local level. In some countries, in particular those with a federal structure (e.g. Belgium, Germany), vertical coordination systems are used to allow cooperation between the different coordination bodies that are acting independently. In other countries (e.g. Finland, Portugal), coordination at regional or local level is directly supervised by the national coordination bodies.

Comparative analysis of drug coordination mechanisms in the EU is made difficult by the diversity of existing systems. However, a study commissioned by the EMCDDA has shown that it is possible to assess coordination systems by focusing on their 'implementation quality', a concept for studying their capacity to produce coordination outcomes (Kenis, 2006). This approach will be further developed to enable it to be used in the evaluation of national drug coordination systems.

Drug-related public expenditure

Public expenditure on the drug problem reported by the European countries ranges from EUR 200 000 to EUR 2 290 million ([3]). The high variability is partly explained by the different sizes of the Member States and partly by differences between countries in the types of expenditure reported and the completeness of the data. Most countries reported only expenditures incurred in connection with the implementation of national drug policy programmes, and did not detail other expenditures in the field of supply and demand reduction. Furthermore, not all the main areas of State spending on the drug phenomenon were always included, with only 15 out of 23 countries providing detailed information on expenditure on 'health and social care' activities (treatment, harm reduction, health research, educational, prevention and social activities) and only 14 countries reporting on 'law enforcement' expenditure (police, army, law courts, prisons, customs and finance guard activities). Information about expenditure in other areas (e.g. administration, coordination, monitoring and international cooperation) was even more scarce (seven countries), as was information on regional and municipal budgets (six countries).

Six countries provided detailed information of expenditure associated with tackling drugs (Table 1). In these countries, drug-related public expenditure represented between 0.11 % and 0.96 % of the total general government expenditure in the year (median 0.32 %) or between 0.05 % and 0.46 % of the national gross domestic product (GDP) (median 0.15 %). 'Law enforcement' activities accounted for 24–77 % of the total expenditure, while the remainder was spent on 'health and social care' activities.

European countries together reported a total drug-related public expenditure of EUR 8.1 billion. This figure is likely to underestimate the full extent of drug-related public expenditure, given the high level of under-reporting. The six countries included in Table 1 account for 76 % of the total public expenditure reported by EU Member States

([3]) Overall figures on drug-related public expenditures in 2005 in the EU Member States and Norway were identified by the corresponding national focal points.

The costs of drug use

Studies on the costs of drug use can be an important source of information for the development and management of drug policies.

Drug-related costs can be divided into two major categories: direct and indirect. Direct costs are those for which payments are made, and typically include expenditure in the areas of prevention, treatment, harm reduction and law enforcement. Indirect costs are the value of productive services not performed because of drug use, and typically consist of lost productivity due to drug-related morbidity and mortality. Drug-related costs may also include the intangible costs of pain and suffering, usually in the form of quality of life measures, but this category of costs is often omitted because of the difficulty in accurately quantifying it in monetary terms.

A cost study may be conducted from several different perspectives, each of which might include different costs, for example costs to society as a whole, the government, the healthcare system, third-party payers, and drug users and their families.

The societal perspective

Drug-related social costs are the total of all the costs to society, direct and indirect, caused by drug use. The output, expressed in monetary terms, is an estimate of the total burden that drug use places on society (Single et al., 2001).

Determining the social cost of drug use has several benefits. First, it reveals how much society is spending on drug-related issues and, implicitly, the amount that would be saved if drug use were completely abolished. Second, it identifies the different components of cost and the size of the contribution of each sector in society. Such information can help to determine funding priorities by highlighting areas where inefficiencies may exist and savings can be made.

The public expenditure perspective

The term 'public expenditure' refers to the value of goods and services bought by the government of the State (i.e. central, regional, local) in order to execute each of its functions (i.e. healthcare, justice, public order, education, social services). The analysis of a State's public expenditure provides useful information regarding the ability of its government to spend effectively and efficiently.

The estimation of drug-related public expenditure is a different exercise from that of estimating social costs. Public expenditure represents only a proportion of social costs, mainly in the form of direct costs; indirect costs are explicitly excluded, as there are costs from private stakeholders (e.g. private health insurance companies). Direct public expenditures explicitly labelled as 'drug-related' can be initially traced back by exhaustively reviewing official financial reporting documents (e.g. budgets or year-end reports). Estimations are complicated when drug-related expenditures are not labelled as such but embedded in programmes with broader goals (e.g. overall police operations budget). In this case, direct non-labelled drug-related expenses must be calculated through modelling approaches.

The primary aim of social cost calculations is to weigh the burden that drug problems pose on society against the cost to society of addressing these problems (including possible indirect effects). Ultimately, this leads to the question of effectiveness and efficiency: do governments spend their money wisely on the right problems? However, some authors (Reuter, 2006) have proposed that, for policy purposes, public expenditures are more relevant than social costs. The drugs budget helps to describe what policies a government is using to reduce drug use and related problems, which is the first step towards deciding whether the level and content of such policies is adequate.

and Norway. Based on the data supplied by these six countries, the total drug-related public expenditure by European countries is calculated to lie somewhere between EUR 13 billion and EUR 36 billion ([4]). These figures represent between 0.12% and 0.33% of the GDP of the EU (25 countries) in 2005.

At EU level, considerable funding will be provided by the European Commission to tackle the drugs issue under the new 2007–13 budget. A new funding instrument for drugs prevention and information of EUR 21 million is under negotiation and may be adopted by the end of 2007, making EUR 3 million available for transnational projects this year. Other new financial instruments, such as the prevention of and fight against crime programme, the public health programme 2007–13 and the seventh RTD framework programme 2007–13, also provide funding opportunities for organisations working in different aspects of the drugs field. In addition, as of 2005, the EC and the Member States had co-financed drug-related assistance projects in third countries to the value of over EUR 750 million.

In response to the EU drugs action plan 2005–08, the EMCDDA is currently working towards developing a methodology that will enable the Member States, candidate countries and Norway to compile standardised data on drug-related expenditure. This will help the EMCDDA to estimate both the total public expenditure allocated to drugs and how this is divided between different activities.

([4]) Of the six countries, four (Hungary, the Netherlands, Finland and Sweden) provided detailed modelled approaches of their figures. Applying to the remaining countries the value of the first and third quartiles of the distribution of the percentage of total general government expenditure (0.18% and 0.69% respectively), and of the percentage of GDP (0.08% and 0.37% respectively) publicly spent by the six selected countries, provides an interval of the overall total accumulated expenditure.

Table 1: Comparison of selected countries with complete data and further details on the composition of their drug-related public expenditure

Country	Overall expenditure reported			Proportion of overall expenditure devoted to	
	amount (EUR million)	as a proportion of total public expenditure (1) (%)	as a proportion of GDP (2) (%)	health and social care (3) (%)	law enforcement (4) (%)
Belgium (5)	185.9	0.14	0.07	43	54
Hungary	43.5	0.11	0.05	23	77
Netherlands	2 185.5	0.96	0.43	25	75
Finland	272.0	0.36	0.18	76	24
Sweden (2002)	1 200.0	0.80	0.46	60	40
United Kingdom	2 290.0	0.29	0.13	51	49

(1) Total general government expenditure in the year (source: Eurostat).
(2) Gross domestic product in the year (source: Eurostat).
(3) Health and social care expenditures include treatment, harm reduction, health research and education, prevention and social affairs interventions. For Finland, in addition to 'substance abuse prevention', the amount given also includes property damage, monitoring and research.
(4) Law enforcement expenditures include expenditure on police, army, law courts, prisons, customs and finance guards.
(5) Belgium also allocated 3 % of the overall expenditure reported to 'policy management activities'.
Sources: National focal points and Eurostat.

EU legal and policy developments

At the end of 2006, the European Commission presented its first progress review (5) on the implementation of the EU drugs action plan (2005–08). This assessed the extent to which the activities planned for 2006 were achieved and whether the plan's objectives for 2006 have been fulfilled. The EMCDDA contributed to this exercise by producing a set of reports. A similar exercise will take place in 2007, prior to the final impact assessment of the EU drug action plan that will be presented by the European Commission in 2008.

In June 2006, the European Commission issued a Green Paper on the role of civil society in drugs policy in the European Union (6), as laid down in the drugs action plan. The aim of the Green Paper is to explore how best to organise a continuous dialogue with civil society organisations active in the drugs field. Stakeholders were invited to comment on two options for a structured dialogue: a civil society forum on drugs as a platform for regular informal consultations or a thematic linking of existing networks.

The involvement of civil society in drug policy in the EU is also one of the main objectives of the specific programme for drugs prevention and information 2007–13 (7), which has been proposed by the European Commission within the general programme for fundamental rights and justice. The general objectives of the drug programme are to help make Europe a free, secure and just area by improving information on the effects of drug use and by preventing and reducing drug use, dependence and drug-related harm. For the period 2007–13 this programme has an overall budget of EUR 21 million. The drug programme is still being discussed in the European Parliament and in the Council, in view of its adoption under the co-decision procedure.

Reports on the social cost of drug use

Data on the social cost of drug use are reported by only a small number of countries. In Finland (data from 2004), the indirect cost related to the use of drugs, including misuse of pharmaceuticals, was calculated to be in the region of EUR 400 to 800 million, of which EUR 306 to 701 million was attributed to the cost of life lost due to premature death while production losses amounted to EUR 61 to 102 million. The social cost of illicit drug use was estimated at EUR 907 million in France in 2003 and at EUR 29.7 million in Luxembourg in 2004.

(5) http://ec.europa.eu/justice_home/doc_centre/drugs/strategy/doc/sec_2006_1803_en.pdf
(6) http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0316en01.pdf
(7) COM (2006) 230 final.

New national laws

Supply reduction

In the past year, Member States have made numerous legislative changes in the field of demand reduction, but 2006 also saw a number of countries undertake measures to improve the legal frameworks that address drug trafficking and issues related to supply reduction.

In Ireland, substantive changes included the introduction of the Criminal Justice Act 2006, which sets out new offences of supplying drugs to prisoners, provisions to deal with antisocial behaviour and proposals to strengthen imposition of the 10-year mandatory minimum sentence for trafficking drugs with a street value of EUR 13 000 or more. Membership or facilitation of a 'criminal organisation' (as defined in the law) is penalised, and a drug offenders register has been established, which requires those convicted of drug trafficking to inform the police of their address upon their release from prison. Procedural changes, by contrast, were introduced in Hungary, where the national police headquarters' provision aimed to codify all police activities related to drugs and precursors in one single, comprehensive law, to help fight drug-related crime.

Procedures regarding the use of certain tools to combat drug trafficking were also established or improved. In Estonia, the Narcotic Drugs and Psychotropic Substances Act and Associated Acts was amended in May 2005 to widen the scope of surveillance. In Romania, a law implemented in June 2006 introduced the European arrest warrant and set out procedures for its use, as well as measures to improve judicial cooperation, surveillance and cross-border pursuit and transfer of legal procedures. In Bulgaria, the new Penal Procedure Code introduced in October 2005 regulates controlled delivery, confidential transactions and undercover investigations. There are also provisions for the temporary protection of witnesses in drugs cases and, in some circumstances, for protecting the identity of witnesses, as well as special rules for the questioning of such witnesses and use of undercover officers.

Similar tools are available to prosecutors in other countries. In the Czech Republic, the prosecution of drug offences often invokes the provisions of the Code of Criminal Procedure, which enables protection of witnesses' identity and surveillance of persons. The Law for the Protection of Witnesses has also been widely applied in drugs cases in Cyprus.

The recent increase in cocaine trafficking has focused attention on the Caribbean area. In the Netherlands, since early 2003, a special law court with prison facilities has been operational at Schiphol airport. Since the beginning of 2005, there has been 100 % control of all flights from key countries in the Caribbean. In 2004, an average 290 drug couriers per month were arrested, decreasing to 80 per month by early 2006. In France, a law enacted in October 2005 strengthens cooperation with the Caribbean region, with the aim of intercepting illicit drug trafficking by air and sea.

Drug testing regulation

A number of countries have reported the introduction of legislation that permits, defines or regulates drug testing of drivers, arrestees, prisoners or employees in different situations.

Random roadside checks on drivers, using on-site rapid testing devices, are now allowed for in Lithuania, according to the resolution approving the national programme on safe road traffic 2005–10, and in Luxembourg under a draft law of 2004 modifying the law on traffic control. In Latvia, the amended criminal law now penalises drivers believed to be operating a vehicle while intoxicated and who refuse to take a test, with the option of imposing a prison sentence in the event of repeated refusal within a year. Also in Latvia, the modified law 'on police' now states that a person may be transferred to a medical establishment to determine whether he or she has used alcohol or narcotic, psychotropic or toxic substances, and refers to the cabinet regulations that detail the procedure. Procedures regarding the drug testing of drivers are further described in the 2007 selected issue on drugs and driving.

Particular groups of arrestees may be now drug tested in Scotland, in line with the position in England and Wales, and new draft prison rules published in Ireland in June 2005 by the Department for Justice, Equality and Law Reform introduce the possibility of mandatory drug testing of prisoners. This is stated to be in the interest of good order, safety, health and security, and would be carried out on samples of urine, oral fluids and/or hair.

In Norway, it is no longer the case that drug testing in the workplace can be carried out provided an employee or job applicant gives consent. Since section 9-4 of the Working Environment Act 2005 came into force, an employer can require an employee or job applicant to undergo a drugs test only in the circumstances set out in statutes and regulations, or if performing the job while intoxicated carries particularly high risks, or if the employer deems that testing is necessary to protect the life and health of employees or a third party. The new Finnish government decree on drug testing at work lays down a comprehensive list of provisions addressing consent, as well as the quality requirements of the test laboratories, samples and test results.

In the Czech Republic, rules covering drug testing by the police, prison staff or employers are now defined by Act 379/2005 Coll. on 'Measures for protection from harm caused by tobacco products, alcohol, and other addictive substances'. A professional examination is mandatory when it is reasonable to assume that the use of substances puts the person in a condition in which they or others could be harmed. It also specifies when the police, prison staff or employers are entitled to carry out a breath test or take a saliva sample. Medical examinations, by breath test and samples of biological material, can be carried only out in healthcare facilities with adequate professional and operational competence.

Drug-related crime

The need to prevent drug-related crime is high on the European policy agenda, as illustrated by the fact that the current EU drug strategy identifies this objective as a key area of action for achieving its aim of ensuring a high level of security for the general public.

Among the tasks scheduled for 2007 in the EU drug action plan 2005–08 is the adoption of a common definition of 'drug-related crime', on the basis of a European Commission proposal based on studies brought forward by the EMCDDA. What is meant by 'drug-related crime' varies across disciplines and professionals, but it can be considered to include four broad categories: psychopharmacological crimes (those committed under the influence of a psychoactive substance), economic compulsive crimes (those committed in order to obtain money/goods/drugs to support a drug habit), systemic crimes (those committed within the functioning of illicit drug markets) and drug law offences (including use, possession, dealing, trafficking, etc.) (see also EMCDDA, 2007a).

Definitions of the first three of these aspects of drug-related crime are sometimes difficult to apply in practice, and data are rare and patchy. Data on 'reports' ([8]) of drug law offences are routinely available in all the European countries analysed in this report. However, these data also reflect differences in national legislation and the different ways in which the laws are applied and enforced as well as differences in priorities set and resources allocated by criminal justice agencies to specific offences. In addition, there are variations between national information systems on drug law offences, especially in relation to reporting and recording practices, i.e. what is recorded, when and how. As a result, it can be difficult to make comparisons between countries; therefore, it is more appropriate to compare trends rather than absolute numbers, and to take into account national population sizes when analysing European average trends. Overall, at EU level, the number of 'reports' of drug law offences increased by an average of 47% between 2000 and 2005 (Figure 1). The data reveal increasing trends in all reporting countries except Latvia, Portugal and Slovenia, which reported an overall decline over the five-year period ([9]).

The balance between offences related to use and those related to trafficking varies, with most European countries reporting that the majority of offences are related to drug use or possession for use, figures in 2005 ranging up to 91% in Spain ([10]). However, in the Czech Republic, Luxembourg, the Netherlands, Turkey and Norway, drug law offences related to dealing and trafficking are predominant, with these offences accounting for up to 92% (the Czech Republic) of all drug law offences reported in 2005.

In most European countries, cannabis is the illicit drug most often involved in reported drug law offences ([11]). In the countries where this is the case, cannabis-related offences in 2005 accounted for 42–74% of all drug law offences. In the Czech Republic, methamphetamine-related offences predominated, accounting for 53% of all drug law offences, while in Luxembourg cocaine was the most reported substance (implicated in 35% of drug law offences).

In the five-year period 2000–05, the number of 'reports' of drug law offences involving cannabis remained stable or increased in the majority of reporting countries, resulting in an overall average increase of 36% at EU level (Figure 1). Downward trends were, however, reported by the Czech Republic (2002–05) and Slovenia (2001–05).

In all reporting countries except Luxembourg and the Netherlands, cannabis is the drug most often involved in offences for use/possession for use. However, the proportion of use-related offences involving cannabis has been decreasing since 2000 in several countries (Greece, Italy, Cyprus, Austria, Slovenia and Turkey) and in the most recent year for which data are available (2004–05) in a majority of reporting countries, possibly indicating that in these countries

([8]) 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 drug law offences in the 2007 statistical bulletin.

([9]) See Table DLO-1 in the 2007 statistical bulletin.

([10]) See Table DLO-2 in the 2007 statistical bulletin.

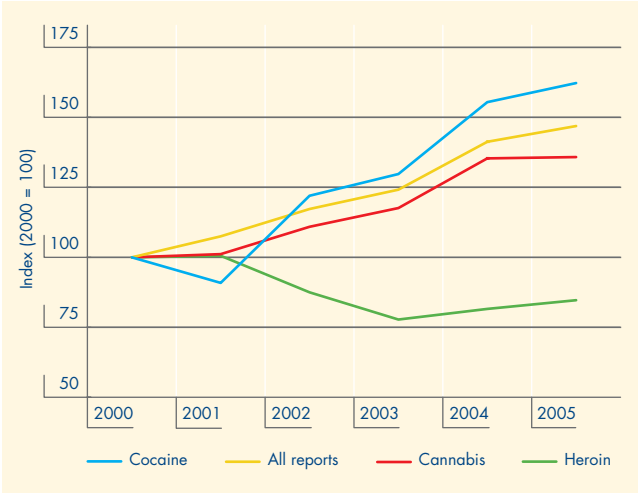
([11]) See Table DLO-3 in the 2007 statistical bulletin.

law enforcement agencies may target cannabis to a lesser extent than other drugs ([12]).

Cocaine-related offences increased over the period 2000–05 in all European countries except Germany, where the number remained relatively stable. The EU average increased by 62% over the same period (Figure 1).

'Reports' of drug law offences related to heroin between 2000 and 2005 show a different picture to those related to cannabis or cocaine, dropping on the whole by an averaged 15% in the European Union, mainly between 2001 and 2003. However, national trends in heroin offences have been diverging over the period with a third of the countries reporting upward trends ([13]).

Figure 1: Indexed trends in reports for drug law offences in EU Member States, 2000–05



NB: The trends represent the available information on national number of reports for drug law offences (criminal and non-criminal) reported by all law enforcement agencies in the EU Member States; all series are indexed to a base of 100 in 2000 and weighted by country population sizes to form an overall EU trend.
Because definitions and study units differ widely between countries, the general term 'reports for drug law offences' is used; for more information, see 'Drug law offences: methods and definitions' in the 2007 statistical bulletin.
Countries lacking data for two or more consecutive years are not included in the trend calculations: the overall trend is based on 24 countries; the trend for heroin is based on 14 countries, cocaine on 14, and cannabis on 15.
See Figure DLO-6 in the statistical bulletin for further information.
Sources: Reitox national focal points and, for population data, http://epp.eurostat.ec.europa.eu/

Research on the drugs problem

Funding

Drug-related research in Europe, as reported by national focal points, is financed through national and European public funds. Several Member States report that research on drugs is financed by general national research funds (Germany, the Netherlands, Finland, the United Kingdom), Ministry of Health research funds (Italy) or by funds controlled by the national drug coordinating body (France, Sweden). In Romania, research is funded through international organisations, such as the Global Fund.

Research activity

Taking peer-reviewed scientific publications as an indicator of scientific activity, an analysis of such publications during 2005 and 2006 and quoted in the national reports reveals a pattern of thematic research priorities that varies between countries.

Addiction treatment appears to be an important subject of research, with the majority of studies examining different aspects of substitution treatment. Research on prevention accounts for a much smaller proportion of the scientific literature cited in the national reports. Of the EMCDDA's five key indicators, publications on infectious diseases are the most numerous, followed by publications on the prevalence of drug use among young people.

The scientific publications quoted in the national reports vary between countries. Treatment research, particularly treatment of hepatitis C-positive drug users, is quoted particularly often in the German report, whereas the Dutch report focuses on new treatment methodologies. Research studies quoted from the United Kingdom deal mainly with problem drug use, crime and market issues. The few references to neuroscientific research are primarily Dutch; however, the French MILDT has also financed a series of research projects in this area.

Recently launched research programmes provide evidence of similar national research priorities among Member States. Current national research funding in Germany is allocated to optimising treatment services to meet treatment demand, including basic research. In 2006, the Netherlands launched the research programme 'Risk behaviour and dependence'. In the United Kingdom, studies on the quality of treatment systems and on very young problem drug users have recently been initiated. The new Member States are mainly concentrating on building up the scientific base for their monitoring systems, for example through youth surveys.

([12]) In some of the countries where the proportion of use-related offences involving cannabis has been decreasing, it is worth noting that absolute numbers of use-related offences involving cannabis are on the increase.

([13]) The fact that the European average does not reflect the increase in heroin offences found in half of the reporting countries is mainly because countries for which data are missing for two consecutive years are not included in the European average but also because the European average takes into account national population sizes (thus giving more weight to figures from some countries than to others).

EU research

EU funding for drug-related research is provided through research framework programmes, the most recent of which, the seventh framework programme (2007–13), was launched at the end of 2006. Research projects reporting on their results in 2005/06 emerged from the 'Life quality' theme in the fifth EU research framework programme (1998–2002). Among these are 'quasi-compulsory treatment of drug dependent offenders in Europe' (QCT), 'Support needs for cocaine and crack users in Europe' (Cocineu) and 'integrated services aimed at dual diagnosis and optimal recovery from addiction' (Isadora).

Drugs and driving — EMCDDA 2007 selected issue

Psychoactive substances can impair a person's ability to drive a car to the extent that the risk of accidents and injuries is increased. A selected issue on drugs and driving gives an overview on the outcomes of different types of studies on this topic, focusing on cannabis and benzodiazepines, as well as on preventive and legal approaches towards this problem behaviour.

This selected issue is available in print and on the Internet in English only (http://issues07.emcdda.europa.eu).

Chapter 2
Responding to drug problems in Europe — an overview

The EU drugs action plan 2005–08 specifically calls on Member States to increase the provision of effective and diversified methods of prevention, treatment, harm reduction and social reintegration that are easily accessible. These facets of the drug problem in Europe will be discussed in more detail in this chapter.

Prevention strategies can be targeted at different groups — ranging from total populations to specific risk groups — and the methods applied vary accordingly. Treatment and harm-reduction measures are also available to drug users and drug addicts, and in a considerable number of countries their effectiveness has been evaluated through outcome studies. Harm-reduction measures aim to prevent drug-related deaths and to reduce health-related harm, for example HIV or hepatitis C infections. Heroin dependence is usually treated with substitution therapy, and special programmes have been developed for cannabis, amphetamine and cocaine dependence. And, in the event of successful treatment, the next step is social reintegration. As will be described below, the living conditions of many drug users are poor and social reintegration strategies often have to overcome considerable problems.

For each type of intervention, examples are given from different countries and research results in support of their effectiveness, or otherwise, are discussed.

Prevention

The effects of individual prevention strategies cannot, in general, be measured by changes in population-level prevalences of drug use. However, every prevention strategy can be compared against the accumulated body of evidence, to determine whether or not it is an evidence-based intervention. This requires good information on the content, coverage and number of prevention interventions.

Improving the available information: monitoring, quality control and evaluation

Member States are increasingly monitoring prevention interventions and, as a result, are delivering data on the content and availability of interventions. Germany, the Netherlands and Norway have extended information coverage. Greece, Cyprus, Lithuania and Italy monitor school-based prevention, while in Greece, Poland, Sweden and Finland, community-based prevention services are under study, and France has set up a centralised system to monitor drug prevention. Some countries (the Czech Republic, the autonomous region of Galicia in Spain, Hungary and Norway) are already focusing on the evidence base when funding for interventions is applied for, and are considering introducing accreditation systems. Portugal, Finland and Romania have minimum quality criteria for prevention programmes.

Information from Hungary and the Netherlands would suggest that the existence of prevention monitoring systems and quality criteria leads to better reporting on projects and evaluations and a higher quality of interventions.

Most prevention programmes are not evaluated. Those that are evaluated are usually assessed in terms of the 'scope and the acceptance of the intervention' rather than 'the extent to which the objectives have been achieved' (Greek national report).

In the past few years, reviews on the effectiveness of prevention have been carried out in Germany (Bühler and Kröger, 2006) and the United Kingdom (Canning et al., 2004; Jones et al., 2006), and by the World Health Organisation (WHO) (Hawks et al., 2002). These are helpful in defining good practice in prevention strategies. The most recent and comprehensive study (Bühler and Kröger, 2006) evaluated 49 high-quality overviews, such as reviews and meta-analyses, on the prevention of substance abuse and drew conclusions regarding efficient strategies of drug prevention. In the sections below, the effectiveness of different types of prevention strategy is discussed, based on the results of this study and others.

Mass media campaigns

Hawks et al. (2002), in line with the HDA (2004), conclude that 'the use of the mass media on its own, particularly in the presence of other countervailing influences, has not been

Evidence-based practice

Evidence-based practices are interventions (e.g. drug treatment) that have been consistently proven, based on scientific investigations (e.g. research studies), to result in preferred client outcomes (e.g. reduction in drug use). Criteria commonly used to determine whether an intervention can be considered an evidence-based practice are efficacy and effectiveness (Brown et al., 2000; Flay et al., 2005).

Efficacy is a measure of how well an intervention works under ideal research conditions. Efficacy is ideally determined by carrying out a controlled trial, in which some participants receive the intervention under test while a control group receives another intervention or no intervention, or, better still, in a randomised controlled trial, in which participants are randomly allocated to receive one of the two interventions (Cochrane Collaboration, 2007). It is generally believed that only randomised controlled trials or controlled trials, preferably combined with process evaluation, can establish the efficacy of an intervention and so provide a basis for future practice and policy.

Unfortunately, however, the random allocation of participants to either an intervention or control group is not always feasible.

Effectiveness is a measure of how well an intervention works in ordinary circumstances. Frequently, interventions that have shown promise in controlled trials are implemented in the community to investigate how well they work under routine conditions. Effectiveness studies, e.g. national treatment outcome studies, are primarily concerned with the impact of the intervention on health or other relevant outcomes as a means to establish evidence for what works.

The process of establishing evidence is, however, complicated by the fact that there are divergent views on how to judge the quality of the research studies investigating efficacy or effectiveness and on which type of research method (e.g. quantitative or qualitative) is the most appropriate to establish evidence of what works. As a consequence, conclusions about what works can differ. It remains a challenge to determine how to evaluate and weigh the different sources of evidence in the decision-making process. This will be even more difficult in the case of interventions for which a comprehensive evidence base has not yet been established but the experience of which would suggest may be effective.

Despite these difficulties, the guiding assumption remains that evidence can help to improve healthcare practice and policy, and that discussion of evidence-based practices needs to be fostered, accompanied by clear criteria for evaluating evidence.

To contribute to this exchange and further the dissemination of evidence-based practices, the EMCDDA is developing an online portal that will provide an overview of the latest available evidence regarding the effectiveness of different interventions as well as tools available to improve the quality of interventions and concrete best-practice examples implemented in Member States of the EU. The Cochrane Collaboration will be an important source of information to the portal.

found to be an effective way of reducing different types of psychoactive substance use. It has, however, been found to raise information levels and to lend support to policy initiatives'. However, other evidence suggests that mass media campaigns can have positive effects if used as a supporting measure to reinforce other strategies (Bühler and Kröger, 2006).

In an evaluation of Scotland's 'Know the score' cocaine campaign, Binnie et al. (2006) found that 30 % of users were less likely to take cocaine after seeing advertisements, although 56 % reported that the campaign did not alter their intentions to use cocaine and 11 % claimed that they were more likely to use. In addition, the recent re-evaluation of the US government's cannabis campaign confirmed previous findings that while the campaign (despite positive recall rates and differentiation by target groups) had no effect on the attitudes of young non-users towards cannabis use, exposure to the campaign was associated with unfavourable effects on youths' perceptions of others' use of marijuana (GAO, 2006).

In a few isolated cases, however, there has been a shift in emphasis from knowledge enhancement (the aim of most mass media campaigns) to the provision of social–emotional information (trying to change perceptions about, for example, cannabis use). For example, in the Netherlands a campaign put across the message 'You are not mad if you are not smoking cannabis, because 80 % of all young people do not smoke either' ([14]). In addition, some elements of the national drug prevention campaign in Ireland seek to dispel some of the myths that surround cannabis, such as claims that it is 'organic' and 'natural'.

Environmental strategies on licit substances

Increasing the price of a substance and/or the legal age limit for its consumption have been shown to have a positive effect in reducing use, but are available only in the case of licit substances such as alcohol and tobacco (Bühler and Kröger, 2006). Such environmental strategies have until now been something of a Nordic or US phenomenon, focusing predominantly on alcohol, and with promising results (Lohrmann et al., 2005; Stafström et al., 2006). Increasingly, however, comprehensive community approaches that treat alcohol and tobacco similarly to illicit substances are emerging. Belgium, Bulgaria, Denmark, Lithuania, Luxembourg, the Netherlands, Poland,

([14]) See http://www.drugsinfo.nl

Slovakia and Norway all now report the existence of community-based strategies or discussions about additional taxes or laws regulating alcohol and tobacco availability. Such strategies are aimed at reducing consumption among young people, creating alcohol-free zones or increasing security in nightlife settings. As far as schools are concerned, recent studies from Europe (Kuntsche and Jordan, 2006) and elsewhere (Aveyard et al., 2004) confirm that the normative climate and informal networks strongly influence consumption behaviour of legal drugs and cannabis. The introduction of school norms is now receiving greater consideration in Germany, Ireland and Italy ([15]).

Universal prevention

Interactive programmes based on the model of social influence or life skill competence have been shown to be effective in schools, but individual measures carried out in isolation (for example, only communication of information, affective education or other non-interactive measures) have been negatively evaluated (Bühler and Kröger, 2006). For organisational reasons, school-based prevention is usually the responsibility of local authorities, especially in the Nordic countries, France and Poland.

Some commentators have suggested that complementary general health/life skills programmes produce greater change than skills-based education programmes alone, suggesting that interventions are best integrated within a well-founded health curriculum (Hawks et al., 2002). This seems to have been achieved in almost all Member States. Furthermore, several Member States (e.g. Italy, Lithuania, the Netherlands, Slovakia, the United Kingdom) address drugs prevention together with health and social aspects such as violence, mental health problems, social exclusion, academic underachievement and tobacco and alcohol use under the umbrella of public health prevention, which also gives greater focus on responding specifically to the needs of vulnerable groups.

A reason frequently given for not implementing model programmes is that they would not be adaptable to local conditions and would not address individual communities' needs (Ives, 2006). However, a counter argument is that the advantages of standardised prevention programmes are that protocols provide clear guidelines to enable stable delivery infrastructures and teacher training systems to be created; and this facilitates common implementation standards, even where schools and community conditions are very disparate.

In many Member States (Bulgaria, Italy, Latvia, Lithuania, Luxembourg, Austria, Romania) the content of prevention programmes focuses on raising awareness, providing information and organising isolated events (such as expert visits) ([16]), despite evidence which suggests that other methods may be more effective.

Social influence programmes in schools are widespread, particularly in the United Kingdom and in countries offering standardised programmes, such as Germany, Ireland, Greece, Spain, Norway and, soon, Denmark.

As regards universal community-based prevention, 12 Member States report that drug plans are available in most or all municipalities, and in 10 countries they are a political priority. Such schemes principally take the form of information events and, to a lesser extent, the provision of alternative leisure-time pursuits. Universal family-based prevention mostly consists of parents' evenings or information approaches, and infrequently in intensive training for parents.

Selective prevention

Member States are increasingly devoting attention to prevention strategies targeted at entire vulnerable communities ([17]). This means that such communities need to be identified, for example using standardised assessment tools, such as the United Kingdom's Index of Multiple Deprivation, or by socio-economic indicators, such as standards of accommodation or education (number of pupils behind in their schooling or number of subsidised pupils).

Once target communities have been identified (e.g. France recognises 'sensitive urban zones' or, in the case of schools, 'educational priority zones'), supplementary funds can be directed towards these underprivileged groups. In Ireland, Cyprus and the United Kingdom, selective prevention projects are already delivered to most of these areas, and Portugal is in the process of implementing such a strategy. Types of provision range from counselling services in Estonia, Greece, France and Slovakia to outreach projects in Luxembourg and Austria, sometimes aimed specifically at ethnic groups. Furthermore, some new Member States (Bulgaria, Hungary, Lithuania, Poland and Romania) report much on interventions aimed at vulnerable families. The focus in most Member States is on substance use in the family, although a few countries (Greece, Lithuania, Hungary, the United Kingdom) have adopted a broader focus aimed at all socially disadvantaged families.

While also used in universal prevention, peer-based approaches are increasingly being reported for the delivery of selective prevention (Ireland, the Netherlands, Austria, Poland and Norway). Parkin and McKeganey (2000), in

([15]) See also http://www.emcdda.europa.eu/?nnodeid=19197

([16]) Data from SQ 22 and 25.

([17]) For more information on selective prevention, especially risk groups and factors, see previous annual reports and the 2007 selected issue on drug use among minors.

their review of peer-based approaches, concluded that the greatest impact of such schemes is on peer educators themselves, rather than the target group. It seems that such approaches may be more effective at changing knowledge and attitudes than in changing behaviour. Peer projects are rarely evaluated at all, but when they are (e.g. Free Style in Norway) they typically assess only success in recruiting young leaders in schools and whether the peer leaders' knowledge or attitudes were strengthened.

Although selective prevention is gaining in popularity, caution is required, especially when involving young people at risk in peer-to-peer programmes (Cho et al., 2005; Dishion and Dodge, 2005), because negative 'contagion effects' can occur among vulnerable groups. These unintended effects, which are caused by the intervention itself, can lead to increased substance use or risk behaviour. However, such undesirable outcomes are not unique to selective prevention but are also observed in the case of mass media information provision as well as individual prevention events (see above).

Treatment and harm-reduction responses

Recent developments in treatment systems

Most treatment of drug users takes place in outpatient settings, including general practice. The enlargement of outpatient treatment networks has continued in recent years, and a further geographical expansion took place in several countries, including Bulgaria, Estonia, Greece, Lithuania, Romania and Finland; in contrast, the number of inpatient facilities has remained stable in most countries.

Countries in which national geographical coverage of specialised drug treatment facilities is very patchy include Latvia, Hungary, Slovakia and Romania. Despite recent expansions of the network of service providers, waiting lists for substitution treatment continue to exist in Greece as well as in Hungary and Poland.

Treatment in residential facilities, formerly the predominant approach to the treatment of heroin use in many European countries, is relatively less common nowadays, and the majority of opioid users are treated in outpatient settings. Residential services are, however, of growing importance in the care of elderly and long-term drug users with complex treatment needs because of the coexistence of serious somatic and psychological co-morbidity. The philosophy of inpatient facilities and the way they work have changed considerably over the years, in response to changing needs. The co-location of treatment and medical care, including psychiatric treatments, highly active antiretroviral treatment and treatment of liver disease, has become more common, and the use of drug maintenance treatment to stabilise clients has increased.

Characteristics of drug users attending outpatient treatment

Data from the treatment demand indicator can be used to characterise the socio-economic status of patients attending treatment centres and, to some extent, all drug users ([18]). As access to outpatient treatment is easier and less selective in most countries, it is appropriate to extrapolate from this group of clients to drug users as a whole.

In 2005, 20 out of 29 European countries reported information on 315 000 drug clients attending outpatient treatment centres. The data came from about 4 000 treatment units. Approximately half (53%) of the outpatient clients are treated for primary opioid use and the other half for primary use of other drugs, in particular cannabis (22%) and cocaine (16%). The drug that is most commonly the primary drug of consumption varies between countries.

About 80% of outpatient treatment clients are male, with a mean age of around 30 years (28 years among those new to treatment), and their living conditions are generally poor compared with the general population of the same age. Around 60% of outpatient clients have not achieved a level of education beyond primary, and about one tenth of those clients have not even completed primary education. Around half of the clients were in regular employment before entering outpatient treatment and the other half were unemployed; most outpatient clients are in stable accommodation (85%), of whom 40% live with their parents and 19% live alone. A significant minority of drug outpatient clients (15%) live with children, either alone or with their partner, representing a complicating aspect in the drug user's life and representing a risk factor for the children.

Information on the socio-economic situation of drug clients in treatment is complemented by national information from some countries broken down by main substance used. For example, in Germany, 67% of heroin users are unemployed or economically inactive, compared with 53% of cocaine clients and 35% of cannabis clients, and 74% of opioid clients have limited school education, compared with 63% of cocaine clients (Sonntag et al., 2006).

New developments

Specialised facilities targeting specific groups of drug users, e.g. female drug users, homeless street injectors, sex workers, or young and very young drug users (see the 2007 selected issue on drug use among minors), have been newly established in several countries. In other countries,

([18]) See the TDI tables and graphs in the 2007 statistical bulletin for more details on the figures quoted in this section.

pharmacological treatment options have been expanded to meet the needs of specific user groups with the aim of increasing treatment coverage. For example, buprenorphine maintenance treatment is now licensed in Malta ([19]).

Treatment of different groups of drug users

Member States are increasingly acknowledging the importance of providing adequate treatment services for problematic cannabis and cocaine users. In the case of cannabis, treatment, counselling and prevention programmes in Europe are often intertwined in order to reach a large number of users. New communication strategies, for example making use of the Internet, are being implemented in an attempt to reach cannabis users whose drug use falls somewhere between experimental and problematic. Specific cannabis treatment services and programmes, which to date have not been widely provided in Europe, are under development at the moment (see Chapter 3).

Moreover, Member States facing a high level of demand for cocaine treatment are starting to commission research in this field, the issue being complicated by the fact that users of powder cocaine and crack cocaine are usually members of quite distinct social groups (see Chapter 5). At present, however, because of the current lack of specific services, the large majority of psychostimulant users, including amphetamine users, are being treated within traditional, opioid-orientated treatment services, with an identified training need for treatment staff and clinicians across Europe.

Treatment of heroin dependence

After political endorsement as a response to heroin use in the second half of the 1980s, substitution treatment has gone on to become the predominant option for the treatment of opioid dependence in most countries (Figure 2).

The main substitution drugs used are methadone and buprenorphine. Ideally, pharmacological treatment should be combined with psychological counselling and social support. Substitution treatment is usually delivered in outpatient settings at specialised drug treatment units but increasingly also by doctors in private practice. In some countries, e.g. Germany, France and the United Kingdom, general practitioners are heavily involved in treating drug users. In others, the level of involvement of community-based medical doctors is still limited, either for legal reasons or because of a lack of interest in addiction treatment ([20]). Quality control has also been on the agenda in several countries, resulting in regulations being tightened, training requirements increased or higher levels of supervision and monitoring introduced ([21]). The treatment of opioid addiction is explored in more detail in Chapter 6.

Legal frameworks of substitution treatment

In 2006, a survey was carried out among the specialised network of legal correspondents to obtain further information about laws and official regulations regarding admission criteria for substitution treatment as well as about prescribing and dispensing practice. Results were obtained from 17 countries and complemented a 2003 report from the European legal database on drugs ([1]).

The scope of the legal framework varies considerably between Member States. In some countries, e.g. Belgium, substitution treatment is covered by a specific parliamentary law, while in others, e.g. Cyprus, its implementation is subject to interpretation of the laws on controlled substances. There is a trade-off between strength of the framework and flexibility.

The substances that can be used for substitution treatment are normally designated by law. In most cases, only methadone and buprenorphine or only methadone can be prescribed, although in a few countries other drugs such as morphine or codeine are permitted. Similarly, in almost all countries national admission criteria are laid down either in laws or in ministerial decrees or guidelines. The most common criteria are diagnosis of addiction and minimum age, although the need for previous unsuccessful drug-free treatment also features. In some countries, sanctions for violating treatment rules are set out in national laws while in others the issue is at the discretion of each individual treatment centre.

The laws usually also define who is permitted to prescribe. This is primarily doctors in treatment centres, though in some countries any doctor or certain trained or accredited doctors may prescribe. In practice, it is rare for doctors outside treatment centres to initiate substitution treatment ([2]). Maximum doses are rarely defined in law. To prevent duplicate prescriptions, most countries use special prescription forms, though a central register is found in several countries and a few issue special ID cards. Authorised dispensaries are usually also specified in the legislation, mostly pharmacies or treatment centres, though some countries also allow doctors to dispense. Finally, in most countries, a system for taking doses home has been established by law, guidelines or simply tolerance, but occasionally this is specifically forbidden.

([1]) Further details are available at http://eldd.emcdda.europa.eu/?nnodeid=5036

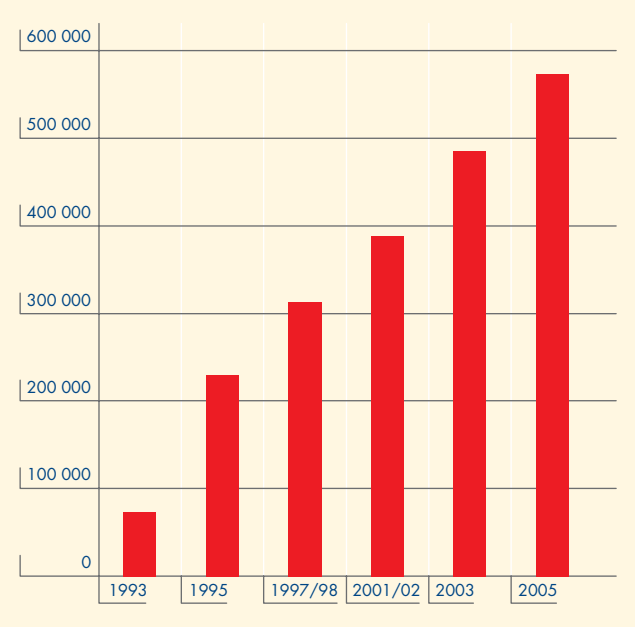
([2]) See Table HSR-6 in the 2007 statistical bulletin.

([19]) See 'Prescribing practice for substitution treatment in Europe', p. 66.

([20]) See 'Legal frameworks of substitution treatment' and http://eldd.emcdda.europa.eu/?nnodeid=5036

([21]) See also p. 67.

Figure 2: Estimated availability of opioid substitution treatment in the EU-15 Member States, 1993–2005



NB: For further information see Tables HSR-7 and HSR-8 and Figures HSR-1 and HSR-5 in the 2007 statistical bulletin.
Sources: National focal points and reports; see Figure HSR-5 in the 2007 statistical bulletin for a detailed list of sources.

Harm-reduction responses

Prevention of infectious diseases and a reduction in drug-related deaths are central targets of the EU response to drugs, and the current action plan sets the objective of increasing the availability and accessibility of services and facilities to prevent and reduce health-related harm.

In April 2007, the European Commission submitted a report to the Council and the European Parliament regarding the implementation of the Council recommendation of 18 June 2003 on the prevention and reduction of health-related harm associated with drug dependence ([22]). This report documents that harm reduction is a defined public health objective at national level in all Member States. The background document commissioned to support the report of the Commission provides a comprehensive European picture of harm-reduction policies and interventions. It is based on information provided mainly by policymakers, Reitox experts and grass-root organisations. Extensive country-by-country inventories are included in this background document ([23]).

The Council recommendation has led to more countries aligning their national policies with the European strategy, placing more emphasis on expanding the provision of harm-reduction services. It appears to be particularly influential among the countries that joined the EU in 2004.

Social reintegration

Precarious housing, irregular employment and a history of imprisonment are indicators of social exclusion that characterise the life of numerous drug users. In many European countries the number of problem drug users being reached, retained in treatment and undergoing drug substitution treatment is greater than ever, with the result that demand for housing, education, employment and legal assistance has significantly increased. Care systems are therefore challenged to find novel responses to new client profiles, often characterised by multiple needs. Social reintegration is now established as an important determinant of long-term treatment success.

In some countries, the reintegration sector is receiving increasing political attention and investment, and in several countries standards for drug maintenance treatment envisage that social care and reintegration services should be made available to clients. For example, the mid-term review of the Irish drugs strategy recommended the inclusion of rehabilitation as the fifth pillar of the strategy, while in Denmark new programmes for vulnerable groups ('shared responsibility') were launched by the Ministries of Employment and of Social Affairs. Another example is the Norwegian government's strategy for preventing and combating homelessness, which sets measurable targets, such as reducing evictions and increasing access to permanent housing so that temporary accommodation becomes the exception. Also in Norway, an action plan to combat poverty includes a grant scheme that in 2006 distributed EUR 6.5 million for the provision of residential follow-up services for homeless people and alcohol and drug users. In addition, Greece, France, Italy, Lithuania, Austria, Portugal and Slovakia participate in the Commission's EQUAL initiative in the area of employment and social inclusion ([24]).

The EU also encouraged the creation of a framework called 'Open method of coordination' (OMC), in which Member States coordinate their policies for combating poverty and social exclusion through a process of policy exchanges and mutual learning.

Reintegration measures reflect different national sociocultural and economic realities in Europe, but they also show some diversity with regard to objectives, target groups and conditions. For example, Bulgaria and Romania are the only

([22]) Council recommendation of 18 June 2003 on the prevention and reduction of health-related harm associated with drug dependence (OJ L 165, 3.7.2003, p.31).
([23]) Both documents are available at: http://ec.europa.eu/health/ph_determinants/life_style/drug/drug_rec_en.htm#1
([24]) http://ec.europa.eu/employment_social/equal/index_en.cfm

countries that mention specific social reintegration projects for street children.

Programmes and actions in many countries are not specifically aimed at drug users but address vulnerable social groups in general and are typically implemented at local or regional level. Thus, the '*plans de prévention de proximité*' (PPP) established by the Walloon government in 2003 address locally poverty and addiction as two intertwined issues, while in Denmark, the Social Services Act obliges municipalities to offer a social action plan to all drug users. Similarly, local governments in Poland have a legal obligation to socially reintegrate drug users, and in the Netherlands most new social reintegration services are initiated by municipalities. Finally, in Germany, shelter, schooling and housing are taken care of at the *Länder* level or by municipalities, while federal programmes for people with disabilities are available to support the vocational integration of drug users.

Housing assistance ranges from emergency day shelters, hostels and short-term residential facilities to half-way flats, assisted accommodation and rent subsidies. To avoid 'locking' clients into longer-term service dependence, innovative approaches in the area of supported housing or financial management are being explored. For example, in Denmark, clients in reintegration flats are offered accommodation training to reduce possible future problems when they have to manage their own flats, and in the United Kingdom clients receive advice about shopping, cooking and the management of the household budget.

While the creation of new opportunities for training and access to education is reported as common in many countries, paid work is harder to obtain for these groups. However, it is of particular importance for the target group as it provides not only economic stability but also self-esteem, status and a regular rhythm of life. New ways of getting clients into paid work include forming partnerships with private enterprises, mentoring schemes and providing incentives such as subsidising trainees' wages or giving business start-up loans. In several countries, drug treatment facilities have started their own socio-economic enterprises, gainfully employing their clients. Other initiatives focus on improving the employment situation through better matching of profiles, expectations and skills with the realities of work life. For example, the Vienna Job Exchange acts as an intermediary between clients, drugs agencies and the public employment services, carrying out specific counselling to increase success rates on the job. It also helps to identify solutions for clients for whom occupational reintegration is no longer an option.

National treatment outcome studies

Three Member States (Ireland, Italy, the United Kingdom) have conducted national treatment outcome studies aimed at investigating treatment outcome by following a cohort of problem drug users over time in different treatment modalities and settings. An important feature of the studies is that they investigate treatment outcomes in existing services under day-to-day clinical circumstances. Common treatment modalities examined include methadone maintenance, methadone reduction, detoxification and drug-free interventions such as therapeutic communities and counselling. Drug use, physical and psychological health, retention in treatment and criminal behaviour are the main outcome variables used.

In Italy, the Vedette study (1998–2001) aimed to evaluate the effectiveness of treatment offered in public treatment centres across the country. Retention in treatment and mortality among heroin users were the main outcome variables. To date, three treatment outcome studies have been instituted in the United Kingdom. The first was the National Treatment Outcome Research Study (NTORS), carried out by the National Addiction Centre in England and Wales between 1995 and 2000. It investigated treatment outcomes in residential or community treatment programmes. There were some positive findings, such as increased rates of abstinence from illicit drug use, a reduction in the frequency of drug use, a reduction in crime and improved health. However, some longer-term outcomes over the five-year period were less satisfactory, for example early improvement in the use of crack was partly reversed after four to five years and many drug users continued to drink heavily (Gossop et al., 2001).

An update of the NTORS study will be provided by the Drug Treatment Outcomes Research Study (DTORS) being carried out at the University of Manchester. The study started in 2006 and will follow drug users from across England for an initial 12 months. It aims to evaluate the impact of drug treatment on a range of outcome measures and focuses on the analysis of which types of treatment pathways produce the best outcomes for particular subgroups of drug users. In Scotland, the Drug Outcome Research Study (DORIS), being carried out by the University of Glasgow, started in 2001. This study examines the impact and effectiveness of drug treatment services based at treatment agencies, including prison-based services. Drug users were followed up for up to 33 months.

In Ireland, the Research Outcome Study (ROSIE) conducted by the National University of Ireland, Maynooth commenced in 2003 and evaluates drug treatment effectiveness through follow-up of opioid users entering treatment over a period of up to three years, documenting the changes observed (Cox et al., 2006). At one-year follow-up, the study found marked reductions in drug use and criminal activity, a low mortality rate and some positive outcomes in terms of participants' physical and mental health complaints.

The reintegration of marginalised, ageing heroin users with high levels of somatic and mental illness poses a particular challenge. In Belgium, drug users with psychiatric problems may be cared for in specialised substance abuse units at psychiatric or general hospitals, or in other psychiatric care facilities; Denmark reports that drug users with psychiatric problems are taken care of in psychiatric care facilities and that alternative care homes accommodate elderly drug users who cannot manage alone because of drug use, dementia or problem behaviour. In the Netherlands, a new Social Support Act was adopted in 2007, including drug addiction under the same regulations as (other) chronic psychiatric problems. However, a large centralised residential facility to accommodate 120 homeless drug users with psychiatric problems met with local objections. For those with mental health problems, professional help to re-establish a network of support and contact persons is identified as an important component of the social reintegration process.

In some countries (e.g. Bulgaria, the Czech Republic, Greece, Slovenia), structured reintegration programmes are provided only as a follow-on from successfully completed abstinence-based drug dependence treatment, and specific reintegration measures for clients in drug maintenance treatment are currently not available.

Chapter 3
Cannabis

Introduction: the changing picture of cannabis use in Europe

Cannabis is the world's most commonly used illicit drug and a substance that has been at the centre of the drugs debate in Europe since the 1960s when its use became virtually synonymous with a growing youth counterculture. Despite this familiarity, understanding the patterns of cannabis use in Europe is a complicated task. One important element in this picture is the different cannabis products now available on the European market. Historically, three main forms of cannabis have been common in Europe: cannabis resin; herbal cannabis; and, far less frequently, cannabis oil. For many, the smoking of cannabis resin with tobacco remains the usual route of administration for the drug, though, elsewhere in the world, this pattern of use is relatively uncommon. While Europe remains the dominant global market for cannabis resin, herbal cannabis products appear to be becoming more common and predominate in some markets. In recent years, this picture has grown more complicated still with the increasing availability of cannabis produced within Europe; some of which is grown under controlled conditions and can be of relatively high potency. This kind of cannabis has become a specific product in its own right in many countries and complicates the assessment of the public health impact of changing patterns of cannabis consumption.

Interpreting seizures and other market data

Drug seizures in a country are usually considered an indirect indicator of the supply and availability of drugs, although they also reflect law enforcement resources, priorities and strategies, as well as the vulnerability of traffickers to national and international supply reduction activities, and reporting practices. Quantities seized may fluctuate 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 sometimes a better indicator of trends. In all countries, the number of seizures includes a major proportion of small seizures at the retail (street) level. Where known, origin and destination of drugs seized may indicate trafficking routes and producing areas. The price and purity/potency 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, making accurate comparisons between countries difficult.

In order to view European drug seizures in a wider context, in this report summary information is presented on the global situation. The United Nations Office on Drugs and Crime produce an annual report on the international drug situation and this is the principal source used for the world estimates included here. The reader should note that there are difficulties in compiling information of this sort and, in many parts of the world, information systems are poorly developed. Therefore, these data should be viewed as the best approximations possible from the information resources currently available.

Supply and availability

Production and trafficking

Because cannabis can be grown in a range of different environments and grows wild in many parts of the world, it is extremely difficult to produce convincing estimates of global production. Following an upward trend over several years, taking into account information on the diversification of cannabis production, the UNODC has reduced its global estimates of herbal cannabis production from 45 000 tonnes in 2004 to 42 000 tonnes in 2005, mainly due to falling production estimates from North America following intensified cannabis eradication efforts. It is now estimated that about half of all cannabis is grown in the Americas (46 %), followed by Africa (26 %) and then Asia (22 %) (UNODC, 2007).

Morocco remains the main international producer of cannabis resin, and although recent survey work suggests that the area under cannabis cultivation decreased by around 40 % between 2004 and 2005, it is still estimated that the country produces some 70 % of the cannabis resin consumed in Europe. Based on estimates of the total area under cultivation, Morocco had a potential production of 1 066 tonnes in 2005, with most Moroccan cannabis bound for the European and North African markets (CND, 2007;

UNODC and Government of Morocco, 2007). Cannabis resin is smuggled to Europe via the Iberian peninsula. Although Morocco is by far the major resin producer for the European market, resin from other countries (Moldova and India) is reported to be available, particularly in central European countries.

If cannabis resin in Europe tends to be a fairly uniform product, the same cannot be said of herbal cannabis. The origin of seizures reported in 2005 includes Albania, the Netherlands, countries of the former Yugoslavia, Angola and South Africa. Although domestic production of herbal cannabis is difficult to monitor systematically, in 2005, it was noted in half of the reporting countries. Some cannabis produced in Europe is grown outdoors and can be considered virtually indistinguishable from imported herbal cannabis. However, relatively high-potency cannabis grown under intensive conditions seems to be becoming an important and possibly growing part of the market in many countries and equipment that allows users to produce cannabis at home is now widely available through the Internet or, in some countries, from specialist suppliers. The fact that this form of the drug is grown inside and often in close proximity to the intended market may mean that it is less commonly intercepted and, therefore, less visible in the available data.

Seizures

In 2005, global seizures of cannabis resin totalled 1 302 tonnes as compared to 4 644 tonnes of herbal cannabis; both totals were down on the 2004 figures. Western and central Europe continued to account for the bulk of resin seized (70%), while quantities of herbal cannabis seized remained concentrated in North America (64%) (UNODC, 2007).

An estimated 303 000 seizures of cannabis resin amounting to 909 tonnes were made in Europe in 2005 ([25]), with Spain accounting for about half of all seizures and for around three-quarters of the total quantity seized ([26]). A slight increase in the number of reported resin seizures in 2005 continued the upward trend observed since 2000. However, this was not true for the quantity of resin intercepted, which fell in 2005, after increasing in the period 2000–04.

The relative position of resin and herbal cannabis can be seen by the fact that in 2005 there were only about half as many herbal cannabis seizures (152 000) and less than one tenth of the volume seized (66 tonnes). The numbers of herbal cannabis seizures in Europe have steadily increased over the last five years, although the picture for quantities seized appears less clear, with a possible increase in 2005

Cannabis for personal use: the legal status

Despite the different legal approaches towards cannabis across the Member States ([1]), a general trend in Europe can be seen in the development of alternative measures to criminal conviction, for cases of use and possession of small quantities of cannabis for personal use without aggravating circumstances. Cannabis is now frequently distinguished from other illicit substances either in the law, by prosecutorial directive, or by the judiciary practice. In most European countries, the move has been away from custodial sentences and towards fines, cautions, probation, exemption from punishment and counselling. Examples of this trend can be found in a number of recent measures, including the removal of custodial penalties in Luxembourg in 2001 and Belgium in 2003, and reduction of custodial penalties in Greece in 2003 and the United Kingdom in 2004. Directives to police or prosecutors were issued in: Belgium in 2003 and 2005, France in 2005, and the United Kingdom in 2004 and 2006. In 2006, the Czech Republic almost established different classes for non-medicinal drugs, but that draft of the Penal Code was rejected for unrelated reasons. Despite this, the number of reported cannabis offences continues to rise in Europe (see Chapter 1).

The cannabis debate remains contentious and considerable disagreement remains over the relative costs and benefits of different public health and criminal justice responses. This is reflected in the fact that not all measures have gone in the direction of easing penalties and, in some countries, penalties have been made more severe or the current situation is under critical review. In 2004, a directive to prosecutors in Denmark called for fines to be issued instead of warnings and in Italy, in 2006, the legal distinction between non-medicinal drugs was removed, discouraging the notion of a distinction between 'soft' and 'hard' drugs. Other countries have been reviewing their current response to cannabis; for example the Netherlands published a specific cannabis strategy in 2005 and Germany carried out an evaluation of the implementation of penalties for simple cannabis possession.

Cannabis policy remains an issue that generates considerable public discussion and disagreement. This can be seen in the findings of the recent Eurobarometer survey (2006), which asked European citizens if they agreed with the statement that personal consumption of cannabis should be legalised throughout Europe. Just over two thirds (68%) of those asked disagreed and around a quarter (26%) agreed with this proposition. In all countries, although the proportion of those sampled that favoured continued prohibition varied, it was always the majority view.

([1]) For a fuller discussion see the ELDD topic overview: http://eldd.emcdda.europa.eu/?nnodeid=5036

([25]) The data on European drug seizures that this section is based on can be found in Tables SZR-1, SZR-2, SZR-3 and SZR-4 in the 2007 statistical bulletin.

([26]) This should be checked against missing 2005 data when available. For estimating purposes, 2005 missing data were replaced by 2004 data.

after a period of falling quantities between 2001 and 2004. Conclusions here are necessarily preliminary as the United Kingdom, a country responsible for most herbal cannabis seizures in terms of both numbers and quantities, has not yet reported data for 2005.

In 2005, an estimated 13 500 seizures in Europe resulted in the interception of about 24 million cannabis plants (most of them in Turkey) and 13.6 tonnes of cannabis plants (most of it in Spain). Overall, the number of seizures of cannabis plants in Europe shows a continuous upward trend since 2000. If we look at the EU Member States, the number of cannabis plants seized peaked in 2001 and increased again since 2003, whereas in Turkey after an increase in the period 2001–03, the number of cannabis plants seized decreased in 2004 and increased again in 2005.

Price and potency

In 2005, the average retail price of both cannabis resin and herbal cannabis varied, both between and within countries, with the majority of countries reporting prices for cannabis products in the range EUR 4–10 per gram ([27]). However, reported average or typical prices for both types of cannabis ranged from EUR 2 per gram to over EUR 15. Mean prices of cannabis resin, corrected for inflation, fell over the period 2000–05 in all reporting countries except Poland, where prices remained stable. Mean prices of herbal cannabis, corrected for inflation also decreased or remained stable over the same period in all reporting countries except Slovenia ([28]).

The potency of cannabis products is determined by their content of delta-9-tetrahydrocannabinol (THC), the primary active constituent (EMCDDA, 2004). In 2005, the reported average or typical THC content of cannabis resin at retail level was reported to vary from less than 1% to 17%; such a range of variation is difficult to explain given the common source of most European resin. Herbal cannabis potency was reported to range from less than 1% to just over 15%. It is not possible to distinguish between domestically produced herbal cannabis and imported in the data available; however, the Netherlands was able to produce an estimate of 17.7% for locally produced herbal cannabis ([29]).

Prevalence and patterns of cannabis use

Among the general population

The more recent survey data confirm the picture of cannabis use as the most frequently used illicit substance in Europe. During the 1990s, the use of the drug, particularly among young people increased in virtually all countries. However, some of the more recent data suggest that the upward trend is levelling off, albeit at historically high levels. An important secondary question is to explore trends among those using the drug intensively and for long periods of time. Here, the data is less good but concern exists that more young people

Surveys: an important tool for understanding patterns and trends of drug use in Europe

Drug use in the general or school population is assessed through surveys, which provide estimates of the proportion of people that declare having used drugs over defined periods of time: lifetime, last year or last month.

The EMCDDA, in association with national experts, has developed a set of common core items (the 'European Model Questionnaire', EMQ) for use in adult surveys, and this has been implemented in most EU Member States. Details of the EMQ are included in 'Handbook for surveys about drug use among the general population' (http://www.emcdda.europa.eu/?nnodeid=1380). However, there are still differences between countries in methodology and year of data collection, and small differences between countries should be interpreted with caution ([1]).

As surveys are expensive to conduct, few countries collect information annually. In this report, data is presented based on the most recent survey available, which in most cases will be between 2003 and 2006.

Three measures of drug use over time are commonly used for reporting survey data. Lifetime use or prevalence is the broadest. This measure is commonly used for reporting on very young groups, for example school children, but is of limited value in reflecting the current situation among adults, although it may provide insight into patterns of use and incidence. In this report, the focus is on reporting use in the last year and in the last month, as these two measures better reflect the present situation, with the latter category often serving as a proxy measure for regular use. Clearly, identifying those who are using regularly or having problems with their use of drugs is important, and some progress has been made in this respect with the development of scales to assess more intensive forms of use; and these are included where they are available (see the box on developing psychometric scales, p. 42).

([1]) EMCDDA standard age ranges: all adults (15 to 64 years) and young adults (15 to 34 years). Data from some countries cover slightly different age ranges (e.g. 16–64, 18–64, 16–59 years). For more information about methodology of population surveys and the methodology used in each national survey, see the 2007 statistical bulletin.

([27]) See Table PPP-1 in the 2007 statistical bulletin.

([28]) Data on price of both cannabis resin and herbal cannabis were analysed for 19 countries (in which data for at least three consecutive years were available).

([29]) Data on cannabis potency can be found in Tables PPP-2 and PPP-5 in the 2007 statistical bulletin.

are using cannabis in this fashion and that this fact may in part be reflected in the increases in cannabis treatment demands that have been observed in some countries.

It is conservatively estimated that cannabis has been used at least once (lifetime prevalence) by more than 70 million European adults, that is on average nearly a quarter (22%) of all 15- to 64-year-olds ([30]). National figures vary from 2% to 37%, with the lowest figures in Bulgaria, Malta and Romania, and the highest in Denmark (36.5%), France (30.6%), the United Kingdom (29.8%) and Italy (29.3%) ([31]). Despite this wide overall range, 12 European countries out of the 26 that provided information reported lifetime prevalence rates in the range 10–25% ([32]).

Moving the point of reference from lifetime to last year, the levels of reported cannabis use fall but still remain considerable. Estimates suggest that more than 23 million European adults have used cannabis in the last year, producing an average figure of about 7% of all 15- to 64-year-olds. National figures range between 1% and 11.2%, with the lowest figures reported by Bulgaria, Greece and Malta, and the highest by Italy (11.2%), Spain (11.2%), the Czech Republic (9.3%) and the United Kingdom (8.7%). Again, despite the wide overall range, 13 out of the 25 countries that provided information reported last year prevalence estimates between 4% and 9% (Figure 3).

Estimates of last month prevalence will include people using cannabis more regularly, although not necessarily in an intensive way. It is estimated that 13.4 million Europeans adults used the drug in the previous month, on average about 4% of all 15- to 64-year-olds. Country figures range between 0.5% and 8.7%. The lowest figures were reported by Bulgaria, Malta, Lithuania and Sweden, and the highest from Spain (8.7%), Italy (5.8%), the United Kingdom (5.2%) and France (4.8%). Of the 26 countries that provided information, figures from 13 countries fall within the range 2% to 6% ([33]).

Cannabis use among young adults

Cannabis use is disproportionately high among young people, with, depending on the country surveyed, between 3% and 49.5% of young European adults (15–34 years) reporting having ever used cannabis, 3–20% reporting use in the last year, and 1.5–15.5% reporting use in the last month. The highest lifetime figures are reported from Denmark, France, the United Kingdom and Spain, with the highest reported levels of last year prevalence from Spain, the Czech Republic, France and Italy. On average 30% of young adults report lifetime use and 13% use in the last year, and over 7% report use in the last month. As a point of comparison, last year and last month estimates for adults aged 35 to 64 years, are 3% and 1.6% respectively ([34]).

If attention is restricted to young people in the 15- to 24-year age range, prevalence estimates for lifetime use range between 3% and 44% (with most countries reporting figures in the range 20–40%). Last-year prevalence rates range from 4% to 28% (in most countries 10–25%); and last month prevalence rates are between 1% and 19% (in most countries 5–12%). Among males in this age group, prevalence estimates are higher still. Lifetime use was reported by 11–51% of young males (in most countries 25–45%), use in the last year was reported by 5–35% (in most countries 15–30%), and last month use by 1.7–23.7% (in most countries 6–20%) ([35]).

Patterns of cannabis use

As noted above, the use of cannabis, as with most other illegal drugs, is notably higher among younger people, although even here considerable country variation can be found. Use is also notably higher among males than among females, although this difference tends to be less pronounced for young people. In general, the ratio of men to women increases in more recent measures of use and, again, considerable country variation can be observed, for example, gender ratios for reported use of cannabis in the last month range from 1.5 in Italy to 1.14 in Lithuania (see the 2006 selected issue on gender and drug use).

For many, cannabis use tends to be discontinued after a short experimental period and rates of use generally decline as individuals grow older. Tracking the careers of cannabis users in the available data and identifying changes over time in consumption patterns is, however, difficult. Some insight into this issue can be gained by comparing reported lifetime use with more recent consumption measures. On average, this analysis suggests that 32% of all adults (15–64 years) who have ever used cannabis have done so in the last year and 18% in the last month. These proportions, sometimes known as 'continuation rates', vary considerably across countries, and will be influenced by a number of factors

([30]) The average proportion was computed as the average of national prevalence rates weighted according to the population of the relevant age group in each country. Total numbers were computed by multiplying prevalence among the population concerned in each country and, in countries for which no information was available, imputing the average prevalence. Figures here are probably a minimum, as there could be some under-reporting.

([31]) In this text, the United Kingdom figures are based on the 2006 British Crime Survey (England and Wales), due to practical reasons. There are additional estimations for Scotland, Northern Ireland and a combined estimation for the United Kingdom is available (presented in the 2007 statistical bulletin).

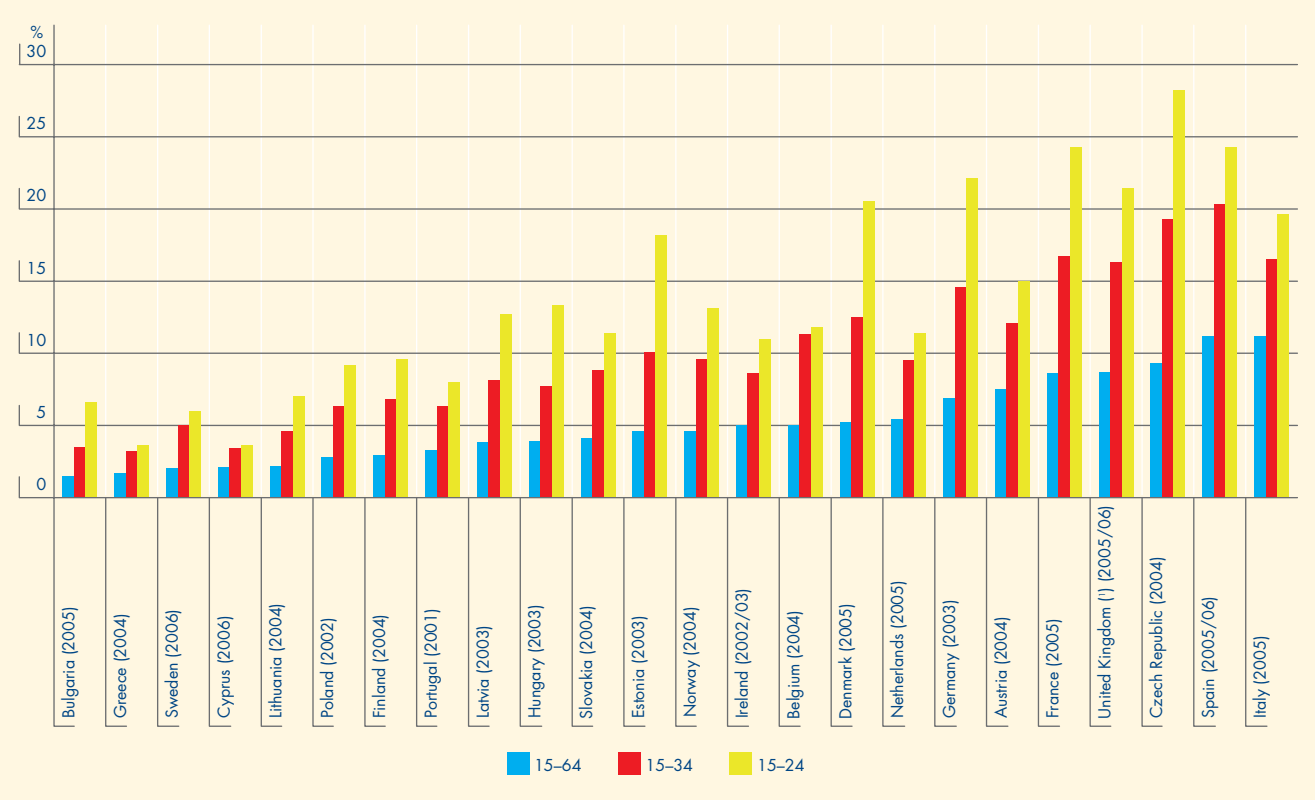
([32]) See Table GPS-8 in the 2007 statistical bulletin.

([33]) See Table GPS-12 in the 2007 statistical bulletin.

([34]) See Table GPS-9, GPS-11 and GPS-13 in the 2007 statistical bulletin.

([35]) See Tables GPS-17, GPS-18 and GPS-19 and Figures GPS-1, GPS-3, GPS-7 and GPS-12 in the 2007 statistical bulletin.

Figure 3: Last year prevalence of cannabis use among all adults (aged 15–64) and young adults (aged 15–34 and 15–24)



(1) England and Wales.
NB: Data are from the most recent national surveys available in each country at the time of reporting. Countries are ordered according to the overall (all adults) prevalence. See Tables GPS-10, GPS-11 and GPS-18 in the 2007 statistical bulletin for further information.
Sources: Reitox national reports (2006), taken from population surveys reports or scientific articles.

including the historical development of cannabis use within a country and the number of new cases. Nonetheless, understanding the proportion of cannabis users that go on to regular and long term patterns of use is likely to be important for understanding the potential public health impact of the use of this substance. Despite concerns that there may be a growth in the number of those using the drug regularly or intensively ([36]), there is currently very little information available to allow this issue to be explored. The EMCDDA is currently working closely with a number of Member States on the development of a better methodological approach to this issue. A crude estimation made by EMCDDA in 2004, based on limited data, suggested that around 1 % of European adults, or about 3 million people, may be 'daily or almost daily' cannabis users. It is planned that this estimation can be updated in the near future. Several countries have reported increases of regular or intensive cannabis use, but only Spain reported comparable data on 'daily use' ([37]) which increased from 0.7 % in 1997 to 2 % in 2006.

Another important information need in this area is to better understand the factors associated with discontinuing use. As noted above, most of those who initiate cannabis use will discontinue it after an interval of time. Understanding the factors associated with giving up is clearly important for the design of interventions in this area. Some information in this area is becoming available, for example, the 2005 French population survey noted that among those who had ever used cannabis, but have not used it in the last year, for most (80 %) the main reason for not using the drug was simply a lack of interest in a drug; this is despite the fact that most adults (almost 60 %) considered that they could easily obtain cannabis if they wanted to.

([36]) There is as yet no universally accepted definition of 'intensive cannabis use'. It is, however, a broad term meaning use of cannabis that exceeds a certain threshold of frequency. It does not necessarily imply the existence of 'dependence/abuse' or other problems, but it is considered to increase the risk of negative consequences, including dependence. In this chapter, figures refer to 'daily or almost daily use' (defined as use on 20 or more days out of the last 30 days). This benchmark has often been used in studies and can be derived from the European model questionnaire. Ongoing methodological studies (national and EMCDDA) will help to understand better relationships between intensive/frequent use and problems (see box on developing psychometric scales, p. 42).

([37]) 1997 (0.7 %), 1999 (0.8 %), 2001 (1.5 %), 2003 (1.5 %), 2005/06 (2 %). This measure (use on 30 days during last 30 days) is different from the previously used 'daily or almost daily use' (use 20 days or more during last 30 days), which will produce a higher estimation. In France, a 'regular consumer' is defined as using the drug '10 times or more in the last 30 days' (4.3 % of adult males, 1.3 % of adult females). In the United Kingdom, 'frequent use' is considered 'use more than once per month in the last year', and is not comparable with measures used in this section.

Developing psychometric scales to identify intensive, dependent and problematic cannabis use in survey data

Descriptions on drug use from surveys are based on self-reported behaviour over different time intervals. Historically, daily use has not been monitored systematically, in part because in most countries the prevalence of cannabis use was low. And, the approach of restricting attention to use in the last month does not allow estimates of the number of intensive users to be made with any precision. However, as cannabis use has increased across Europe and concerns about cannabis problems have grown, this approach has had to be reconsidered. In fact, nearly all EU countries now collect information on how many days the drug has been used in the month prior to interview. Based on this information, it is estimated that around 3 million people may be using cannabis daily or almost daily.

The EMCDDA is working with national experts to improve the reporting of this kind of intensive use in population survey data. However, this still provides only a blunt tool for identifying those who are suffering problems or dependence because of their use of cannabis. This information is crucial to understanding the public health impact of cannabis consumption and is currently a key issue for the EMCDDA expert survey group.

Current work is under way to develop the methodological and conceptual framework necessary for monitoring 'intensive forms of drug use' that could be used in population surveys to better identify those experiencing problems. Some countries are now starting to measure 'dependence' on or 'problematic use' of cannabis among the general population, with pioneering projects under way in Germany, France, the Netherlands, Poland, Portugal, the United Kingdom and, most recently, Spain.

An example of why this work is important can be found in the experience of the 2005 French survey which included the experimental CAST scale (cannabis abuse screening test); on this measure, a preliminary analysis suggested that as many as 16% of those using cannabis in the last year and 58% of daily users could be at risk of problematic use.

Trends in cannabis use among adults

Tracking trends in drug use in Europe is made difficult by the absence in many countries of reliable time series data. However, an increasing number of countries have launched surveys from the 1990s onwards, and these are now beginning to provide valuable insight into trends over time.

Time series provided by surveys can shed light on the development of cannabis use in Europe. One finding is that there are important temporal differences between countries and waves of popularity observable in the use of the drug since it began to become popular in the 1960s ([38]). An example of this is data from Sweden (2005 Reitox national report) where a relatively high level of experimentation was reported in the 1970s among conscripts and school students, followed by a substantial decrease in the 1980s, and then a new rise during the 1990s to levels similar to those of the 1970s followed by a subsequent decrease in more recent years. A similar phenomenon is seen in the Finnish data with major drug waves, first in the 1960s and then again in the 1990s.

From the survey evidence, it can be concluded that cannabis use increased markedly during the 1990s in almost all EU countries. This increase has continued until recently in many countries, although there are now signs of stabilisation in some countries, especially among what can be considered the high-prevalence group. An example here is the United Kingdom, which in general terms often appears to be a 'frontrunner' in respect to drug-use trends. During the early 1990s, the United Kingdom stood out as a high-prevalence country, reporting on most measures the highest prevalence figures in Europe. However, last year prevalence levels among young adults (16–34) stabilised from 1998 and have fallen between 2003 and 2006 (20.0% to 16.3%). Interestingly, in the youngest age group (16–24), a steady decrease has been observed since 1998, suggesting that cannabis use has become less popular among the young ([39]).

Levels of cannabis use in France, Spain and Italy have all began to approach the United Kingdom prevalence levels in recent years (2002, 2003 and 2005 respectively), following a period of steady increases. Again, some evidence of stabilisation in the situation is becoming apparent: France reported a decrease in use in 2005; and although Spain reports a slight increase until 2006, overall there are signs that the trend may be levelling off in the most recent data. In the Czech Republic, a country with high prevalence rates, trends are difficult to assess within the data available — although the information for young adults suggests that prevalence levels may have fallen slightly.

Among the middle and lower ranking countries in terms of last year prevalence among young adults (15–34 years), the latest data from Denmark and the Netherlands show a slight fall, while levels of use still appear to be increasing in Estonia, Germany, Hungary, Slovakia and Norway ([40]). However, most of these increases are small and, in general, less pronounced in the more recent estimates.

Finland and Sweden remain among the countries reporting the lowest levels of cannabis use and, although prevalence

([38]) See also Figure 4 in the 2004 annual report.
([39]) See Figure GPS-10 in the 2007 statistical bulletin.
([40]) See Figure GPS-4 in the 2007 statistical bulletin.

estimates have increased, there is no suggestion of convergence with higher prevalence countries. The increase observed in Sweden between 2000 and 2004 in last year prevalence among young adults (1.3 % to 5.3 %), although large, is difficult to interpret because of methodological changes in the way the survey was conducted, and prevalence estimates in the 2004, 2005 and 2006 surveys suggest a stable situation.

Among school students

Another useful window on cannabis patterns and trends is provided by school survey data, which show levels of cannabis use increasing in many EU countries during the late 1990s and early 2000s.

Overall, the general picture emerging from the school survey data reflects that found in adult surveys. The highest rates of lifetime prevalence of cannabis use among school students aged 15–16 years in Europe are reported by Belgium, the Czech Republic, Ireland, Spain, France and the United Kingdom: all report rates between 30 % and 44 % and Germany, Italy, the Netherlands, Slovenia and Slovakia report rates above 25 %. As a point of contrast, Greece, Cyprus, Romania, Sweden, Turkey and Norway all report lifetime prevalence estimates lower than 10 %.

Analysis of data from the first three rounds of the ESPAD (European schools project on alcohol and other drugs) survey (1996–2003) showed marked geographical differences in trends in lifetime prevalence of cannabis use among school students aged 15–16 years. Countries can be categorised into three geographical groups. In Ireland and the United Kingdom, which have long histories of cannabis use, lifetime prevalence is high but has remained stable during the last decade. In the eastern and central European Member States, together with Denmark, Spain, France, Italy and Portugal, lifetime prevalence of cannabis use increased substantially between 1995 and 2003. In the third group of Member States (Finland and Sweden in the north and Greece, Cyprus and Malta in the south) plus Norway, estimates of lifetime prevalence among school students have remained at relatively low levels (around 10 % and below). Data from the next round of the ESPAD study is expected next year.

Only four countries (Italy, Poland, Sweden, the United Kingdom) reported new data from national school surveys in 2005, and Belgium reported a survey from the Flanders region. In Sweden the situation appeared stable and slight decreases were noted in the other four surveys.

Cannabis: treatment demand data ([41])

Treatment demand patterns overall

Among the total of 326 000 treatment demands reported in 2005 (data available from 21 countries), cannabis was the primary reason for entering treatment in about 20 % of all cases, making it the next most commonly reported drug after heroin. The greatest demand for treatment for primary cannabis use is usually in outpatient settings ([42]).

Drug clinic clients are often reported as problematically using other drugs along with the primary drug for which they seek treatment; this is less often the case for cannabis users, who are the clients most often reported as using only one substance (cannabis). Some, though, do use cannabis in combination with other drugs, most often alcohol (37 %) and amphetamines or ecstasy (28 %). After alcohol (38 %), cannabis is reported as the second most frequently cited secondary substance by those receiving treatment ([43]).

Increasing treatment demands

Among the approximate 130 000 new demands for drug treatment, cannabis clients represent 29 % of all new drug clients, following closely the proportion of new heroin treatment demands (35 %; data available from 22 countries) ([44]). Although problems concerning the availability of data make commenting on trends with precision difficult, the main trends in demands for cannabis treatment can be identified. Between 1999 and 2005, the total numbers of both new and all reported cannabis treatment demands have approximately trebled. However, the upward trend seems to be stabilising in the most recent data. In all countries (except Lithuania), among new clients, the proportion reported as seeking treatment for primary cannabis use is higher than the corresponding proportion among all clients ([45]).

Over the period 1999–2005, the proportion of clients seeking treatment for primary cannabis use increased in all the countries that reported data (Figure 4). However, there are interesting variations between countries, with cannabis being cited by less than 5 % of all clients reported as entering treatment in Bulgaria, Lithuania, Poland and Romania and by more than 30 % in Hungary and France. For the remaining countries, in 12 the proportion of

([41]) The analysis of the general distribution and the trends is based on the data on clients demanding treatment in all treatment centres; the analysis of the profile of clients and the patterns of drug use is mainly based on the data from outpatient treatment centres.

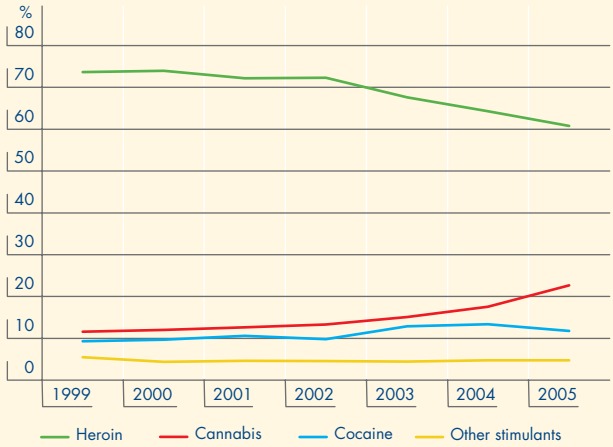
([42]) See Figure TDI-2 in the 2007 statistical bulletin.

([43]) See Tables TDI-22 and TDI-23 (part i) and (part iv) in the 2007 statistical bulletin.

([44]) See Figure TDI-2 in the 2007 statistical bulletin.

([45]) See Tables TDI-3 (part iii) and TDI-5 (part ii) in the 2007 statistical bulletin.

Figure 4: Trends in pattern of use of treatment services (1999–2005) — principal drug for which clients ask treatment as a percentage of all requests



NB: Based on data from 21 EU Member States: Bulgaria, the Czech Republic, Denmark, Germany, Ireland, Greece, Spain, France, Italy, Cyprus, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom.
Missing data were interpolated for each country by maintaining the average EU trend in the available data for each year.
For more information and detailed notes see Figure TDI-3 in the 2007 statistical bulletin.

Sources: Reitox national focal points.

cannabis clients is between 5% and 20% and in seven it is between 21% and 29%. Similarly, among new treatment demands, there are considerable variations between countries, with cannabis being cited by less than 10% of new clients in Bulgaria, Lithuania, Luxembourg, Poland and Romania and by more than 50% in Denmark, Germany, France and Hungary ([46]).

The increase in the demand for cannabis treatment does not appear to have a simple explanation. The extent to which increased demand for treatment is a result of increases in the prevalence of intensive cannabis and related problems in the population, and an increased perception of the risks remains unclear. Other factors might have also contributed to it, including better data coverage of outpatient treatment agencies seeing cannabis clients, which are typically the centres for cannabis treatment demand, and possibly more diagnosis and reporting on problematic cannabis use. Contributions from two other possible causes should also be considered: the diversification of the treatment offer, for example the opening of cannabis treatment centres in France in late 2004, and the increase in the number of referrals from the criminal justice system. In the first case, in response to increasing demand for cannabis treatment, several countries have implemented specific programmes for adolescents or young people, with a treatment offer more targeted towards cannabis users; here, an increase in demand has produced an increase in offer which, in turn, may have accentuated the demand. In the second case, referrals from the criminal justice system are often related to offences associated to cannabis use; research findings show that the majority of people diverted to treatment from the criminal justice system have cannabis as the primary drug of use; in this scenario, an increase in the number of referrals from the criminal justice system will have contributed to the increased demand for cannabis treatment.

Client profiles

Whatever the explanatory factors that have led to increases in demand for cannabis treatment, the characteristics of those who end up seeking treatment are of interest, although it cannot be suggested that this tiny fraction of the cannabis-using population is representative. Looking at the profile of people entering outpatient treatment for a primary cannabis use, the most common characteristics are being young, male, still in education as opposed to employed or unemployed, and living with their parents as opposed to having their own accommodation ([47]). Compared to the other drug clients, people entering treatment for primary cannabis use have the highest proportion of males and the youngest age (mean age 24.5 years). Those entering treatment for the first time are even younger than all cannabis clients (mean age 23.8); correspondingly 67% and 80% of those aged 15–19 or younger than 15 years are new cannabis clients. However, in the last three years, indications of an increase in the age of new cannabis clients are reported ([48]). Overall, cannabis clients can be divided into three groups: those who use it occasionally (34%), those using it once to several times a week (27%) and those using it daily (39%).

It is likely that these differences in reported use of the drug among cannabis clients are the result of different referral routes into treatment, and speculation might be that the increase in referrals from the criminal justice system may be associated with some of those with low consumption levels reported as entering treatment. There are differences between countries in the frequency of cannabis use, with half of the countries reporting more than 30% of clients as daily cannabis users and the other half with less than 30%. The Netherlands, Denmark and Spain have the highest proportions of regular users among clients in treatment, while Hungary, Germany and Italy report the highest proportion of occasional users ([49]). In addition, as discussed below,

([46]) See Tables TDI-5 (part ii) and TDI-4 (part ii) in the 2007 statistical bulletin.
([47]) See Tables TDI-13, TDI-14 and TDI-21 (part i) and (part ii) in the 2007 statistical bulletin.
([48]) See Table TDI-10 (part i), (part ii) and (part ix) in the 2007, 2006 and 2005 statistical bulletins.
([49]) See Table TDI-18 (part iii) and (part iv) in the 2007 statistical bulletin.

the focus of responses to intensive cannabis use may be on prevention rather than treatment, and such differences in national practice may affect overall levels of reporting; this may in part explain why some high-prevalence countries report relatively low cannabis treatment figures.

Responding to cannabis problems

Data on cannabis treatment has to be seen in the context of what constitutes cannabis treatment in Europe, which currently covers a broad continuum of measures that range from brief interventions to treatment in residential settings. In some of the programmes, the orientation is as much towards prevention and harm reduction as towards the treatment of drug problems.

Identifying those at risk and intervening early is recognised as an important component of all drug programmes, and teaching staff may be among the first to identify cannabis among their pupils. Germany, Italy and Poland all have developed programmes for teachers that help them respond to cannabis use and seek specialist help when this is appropriate.

No strong evidence base exists to inform cannabis treatment practice, and research studies in this area are limited and mainly based on American and Australian experiences. In Europe, the most common reported approaches to cannabis problems include: short-term outpatient services, counselling, school-based programmes and outreach prevention activities. Generally, interventions appear to be based on brief-intervention approaches using a combination of motivational interviewing and cognitive-behavioural elements. Although no strong consensus exists on what constitutes effective practices, some studies have suggested this kind of approach can be useful. One European initiative in this area is the Incant project, where Belgium, France, Germany, the Netherlands and Switzerland have cooperated on exploring the value of multidimensional family therapy (MDFT) with cannabis users. After receiving a positive pilot phase evaluation (Rigter, 2005), this project has been expanded into a multi-site, randomised controlled trial comparing MDFT to standard treatments for cannabis disorders.

Only 13 Member States report the availability of specialised treatment facilities for problematic cannabis users, suggesting that most cannabis users are seen in general drug programmes or generic health or youth services. Concerns have been raised that it may be inappropriate to treat young cannabis users in general drug services if this leads to clients mixing with older, problematic users of other drugs. Although the extent to which this is a problem remains unclear, it remains an important question for planning services in this area.

France provides an example of a specialised service for cannabis users where 250 cannabis consultation centres have been created in 2005. These centres are now seeing an estimated 2 900 clients per month with around a third of the clients (31 %) being self-referred, or referred by a third person (31 %) and just over a third being referred by court decision (38 %). Other examples of specific treatment programmes for cannabis users include the Maria Youth Centre in Sweden, which provides young problematic cannabis users with a counselling programme, followed by support sessions. And in Germany, a modular therapy of cannabis-related disorders for adolescents (Candis) has been developed at the Research Outpatient Department in Dresden since January 2006.

Quasi-compulsory interventions

Despite a general move towards directing cannabis users coming into contact with the criminal justice system towards treatment and counselling services rather than penal sanctions, the availability and structure of these mechanisms differ substantially across Europe with few countries (Germany, France, Luxembourg, Austria, Sweden) reporting offering structured programmes or services.

For cannabis users referred from court services, treatment interventions are not the only kind of response noted. Occasional users are offered intensive courses in some countries, for example Germany, Austria and Luxembourg all report courses aimed at changing the beliefs and patterns of use of cannabis users ([50]).

New communication strategies for engaging with cannabis users

A number of innovative programmes in Europe attempt to exploit new communication tools for engaging with cannabis users. In some countries (Germany, the United Kingdom) Internet-based brief interventions have been developed that allow cannabis consumers to audit their current use and self-identify problems. An example of this approach is the German 'quit the shit' ([51]), which offers support to users who wish to stop using cannabis. An evaluation study found that those using this service reported reduced cannabis consumption, both in terms of quantity used and number of days on which consumption occurred.

([50]) http://www.lwl.org/LWL/Jugend/KS/Projekte_KS1/FreD/FreD-Basics/
([51]) http://www.drugcom.de

In Denmark, SMASH is an anonymous support and counselling project for young cannabis users, intended to reduce the harmful effects, provide information and support to help them stop smoking cannabis ([52]). The project is based around subscription to two SMS packages. The first of these (hashfacts) provides factual information about cannabis use and the second offers support and motivation to those attempting to stop taking drugs. Young people can also receive personal coaching via text messages to help them stop or reduce their use of cannabis. A similar service exists in Ireland, although the emphasis is on information dissemination.

Drug use and related problems among very young people (under 15 years old) — EMCDDA 2007 selected issue

The selected issue on the use of drugs by very young Europeans (under the age of 15) finds that the prevalence of drug use among this age group is low and mainly reflects experimental use. Regular use of drugs by very young people is rare, and it often concerns a highly problematic section of the population.

The primary response to drug use among the under-15s largely centres on prevention or early intervention strategies. Nevertheless, the selected issue estimates that around 4 000 very young people receive drug treatment in Europe. Drug treatment tailored to the needs of young people is the exception, but most of the European countries have identified the need for such programmes.

The selected issue also looks at how recognition of the links between the consumption of licit and illicit psychoactive substances at a young age and substance dependence later in life has been worked into European public health policies.

This selected issue is available in print and on the Internet in English only (http://issues07.emcdda.europa.eu).

([52]) http://www.smash.name

Chapter 4
Amphetamines, ecstasy and LSD

In many European countries, the second most commonly used illicit substance is some form of synthetically produced drug, although on a European scale, there are now more users of cocaine. The use of these substances among the general population is typically low, but prevalence rates among younger age groups are significantly higher, and in some social settings or cultural groups the use of these drugs may be particularly high. Globally, amphetamines (amphetamine and methamphetamine) and ecstasy are among the most prevalent synthetic illicit drugs.

Amphetamine and methamphetamine are central nervous system stimulants. Of the two drugs, amphetamine is by far the more commonly available in Europe whereas significant methamphetamine use appears to be restricted to the Czech Republic and Slovakia.

Amphetamine and methamphetamine: differences and similarities

On the illicit drugs market, the main representatives of the amphetamines group are amphetamine and methamphetamine (and their salts) — two closely related synthetic substances, members of the phenethylamine family. Both substances are central nervous system stimulants, which share the same mechanism of action, behavioural effects, tolerance, withdrawal and prolonged use (chronic) effects. Amphetamine is less potent than methamphetamine, but in uncontrolled situations the effects are almost indistinguishable.

Amphetamine and methamphetamine products mostly consist of powders, but ice, the pure crystalline hydrochloride salt of methamphetamine is also used. Tablets containing either amphetamine or methamphetamine may carry logos similar to those seen on MDMA and other ecstasy tablets.

Given the physical forms in which they are available, amphetamine and methamphetamine may be ingested, snorted, inhaled and, less commonly, injected. Unlike the sulphate salt of amphetamine, methamphetamine hydrochloride, particularly the crystalline form (ice), is sufficiently volatile to be smoked.

Source: EMCDDA drugs profiles (http://www.emcdda.europa.eu/?nnodeid=25328).

Ecstasy refers to synthetic substances that are chemically related to amphetamines but which differ to some extent in their effects. The best-known member of the ecstasy group of drugs is 3,4-methylenedioxy-methamphetamine (MDMA), but other analogues are also occasionally found in ecstasy tablets (MDA, MDEA). The prevalence of ecstasy use in the EU has been increasing since the 1990s.

Historically, lysergic acid diethylamide (LSD) has been by far the best-known hallucinogenic drug, but overall consumption levels have been low and somewhat stable for a considerable time. Recently, evidence of increased availability and use of naturally occurring hallucinogenic substances, hallucinogenic mushrooms in particular, has emerged.

Supply and availability ([53])

Amphetamine

Global amphetamine production was estimated at 88 tonnes in 2005 (UNODC, 2007). Although illicit manufacture has extended to other parts of the world, it is still concentrated in western and central Europe. Laboratories manufacturing illicit amphetamine were dismantled in 2005 in Belgium, Bulgaria, Germany, Estonia, Lithuania, the Netherlands and Poland. Amphetamine seized in Europe is reported to come mainly from Belgium, the Netherlands and Poland, and to a lesser extent from Estonia and Lithuania.

Globally, 12.9 tonnes of amphetamine was seized in 2005, most of it in two regions: western and central Europe and east and south-east Asia.

In 2005, an estimated 40 300 seizures of amphetamine, amounting to 6.6 tonnes, were made in Europe. Until 2004, the United Kingdom has consistently accounted for the greatest number of seizures and the largest quantities of amphetamine intercepted in Europe. Despite some fluctuations, at European level, both the overall number of amphetamine seizures and quantities seized have increased since 2000 ([54]). In 2005, however, a majority of reporting countries recorded a downward trend in the number of amphetamine seizures made. This picture

([53]) For information on interpreting seizures and other market data see p. 37. Data on seizures and quantities seized of amphetamine, ecstasy and LSD are not available for all countries for 2005; see the seizure tables in the 2007 statistical bulletin for more information.

([54]) See Tables SZR-11 and SZR-12 in the 2007 statistical bulletin.

International action against the manufacture and diversion of drug precursors

Several international initiatives have been set up to prevent the diversion of precursor chemicals used in the manufacture of illicit drugs: Project Cohesion focuses on potassium permanganate (used in the manufacture of cocaine) and acetic anhydride (used in the manufacture of heroin), while Project Prism addresses synthetic drugs precursors ([1]). All data below come from the INCB report on precursors (INCB, 2007b).

In 2005, global potassium permanganate seizures were the largest ever reported to the INCB with 16 countries intercepting 183 tonnes, almost all of which was seized outside Europe.

Of the 22 400 litres of acetic anhydride seized worldwide in 2005, again Europe accounted for only a small proportion.

In 2005, seizures of 41 tonnes of ephedrine and pseudo-ephedrine, key precursors of methamphetamine, were reported to the INCB, most of them by China, while EU Member States (mainly Bulgaria, the Czech Republic, Greece and Romania), together with the Russian Federation, accounted for 1.7 tonnes.

Global seizures of 1-phenyl-2-propanone (P-2-P), used in the illicit manufacture of methamphetamine and amphetamine, amounted to 2 900 litres in 2005, with European countries contributing 1 700 litres (mostly in Germany and the Netherlands).

Europe's share of global seizures of 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), used to manufacture MDMA, decreased in 2005 to 38% with 5 100 litres being reported (mostly in France and the Netherlands). The increasing seizures of 3,4-MDP-2-P in other regions seem to indicate that illicit manufacture of MDMA is expanding beyond Europe.

([1]) All scheduled under Table I of the 1988 United Nations Convention.

should be confirmed against 2005 data from the United Kingdom when available.

In 2005, the average or typical retail price of amphetamine ranged from EUR 7 per gram to EUR 37.5 per gram, with most European countries reporting prices of EUR 10–20 per gram ([55]). Over the period 2000–05, mean amphetamine prices, corrected for inflation, decreased in most of the 17 countries providing sufficient data.

The average or typical retail purity of amphetamine in 2005 varied considerably, but most European countries reported purities between 15% and 50% ([56]).

Methamphetamine

Global methamphetamine production was estimated at 278 tonnes in 2005. It is mostly manufactured in east and south-east Asia and in North America. In Europe, illicit manufacture of methamphetamine is still largely limited to the Czech Republic (under the local name of 'pervitin'), although production is also reported in Lithuania, Moldova and Slovakia (INCB, 2007a; UNODC, 2007).

In 2005, global seizures of methamphetamine increased to an estimated 17.1 tonnes, over half of it being reported by east and south-east Asia (China, Thailand), and a third by North America (United States). In the same year, an estimated 2 200 seizures, amounting to about 104 kg of methamphetamine were reported in 15 European countries ([57]). Norway and Sweden accounted for the largest numbers of seizures and quantities of methamphetamine intercepted.

The average or typical retail price of methamphetamine (reported by a few countries only) varied in 2005 between EUR 5 and EUR 35 per gram. Most countries reported average or typical retail purities of methamphetamine in the range 30–65% ([58]).

Ecstasy

Global production of ecstasy was estimated at 113 tonnes in 2005 (UNODC, 2007). Europe remains the main centre of ecstasy production, although its relative importance appears to be declining as ecstasy manufacture has spread to other parts of the world, notably to North America, east and south-east Asia and Oceania (CND, 2006; UNODC, 2006). In Europe, ecstasy manufacturing takes place mainly in the Netherlands (although signs of a decrease in production are reported there) followed by Belgium. The ecstasy seized in Europe in 2005 is reported to come from these two countries and to a lesser extent from Poland and the United Kingdom.

Of the estimated 5.3 tonnes of ecstasy intercepted worldwide in 2005, a major share continued to be seized in western and central Europe (38%), followed by Oceania (27%) and North America (20%).

([55]) See Table PPP-4 in the 2007 statistical bulletin.

([56]) See Table PPP-8 in the 2007 statistical bulletin. Note that the reported average levels of amphetamine purity may conceal wide variation in the purity of samples analysed.

([57]) For the United Kingdom, due to the absence of 2005 data, 2004 data were considered for estimating purposes. See Tables SZR-17 and SZR-18 in the 2007 statistical bulletin.

([58]) See Tables PPP-4 and PPP-8 in the 2007 statistical bulletin.

An estimated 26 500 seizures led to the confiscation of about 16.3 million ecstasy tablets in Europe in 2005 ([59]). The largest quantities of ecstasy continue to be seized in the United Kingdom, Belgium, the Netherlands and Germany. After a peak in 2001, ecstasy seizures made in Europe have been on the increase again since 2003. The total amount of ecstasy intercepted has been fluctuating at around 20 million tablets per year between 2000 and 2004. In 2005, however, the available data show a decrease in the quantities of ecstasy seized in a majority of countries. This picture should be confirmed against 2005 data from the United Kingdom when available.

In 2005, the average or typical retail cost of ecstasy tablets ranged from less than EUR 3 per tablet to EUR 15 ([60]). Over 2000–05, mean retail prices of ecstasy, corrected for inflation, fell in most of the 21 countries providing sufficient data.

In Europe, most ecstasy tablets continued in 2005 to contain MDMA or another ecstasy-like substance (MDEA, MDA), usually as the only psychoactive substance present. In 10 Member States, such tablets accounted for more than 80% of the total number of tablets analysed. There are some exceptions to this finding: in Slovenia MDMA/MDEA/MDA are more frequently found in combination with amphetamine and/or methamphetamine; while in Poland, amphetamine and/or methamphetamine are more frequently found as the only psychoactive substances in the tablets analysed. The MDMA content of ecstasy tablets varies greatly between batches (even between those with the same logo) both between and within countries. In 2005, the average or typical content of MDMA per ecstasy tablet ranged from 2 to 130 mg in reporting countries, although in most countries the average was between 30 and 80 mg of MDMA.

LSD

After a continuous decrease for several years, both numbers of seizures and quantities of LSD intercepted have been on the increase since 2003 ([61]). Although LSD is manufactured and trafficked to a much smaller extent than other synthetic drugs, an estimated 800 seizures, amounting to 850 000 LSD units, were made in Europe in 2005, with the Netherlands accounting for about 75% of the total amount seized. The average or typical cost to users of a unit of LSD ranged from EUR 4 to EUR 30 ([62]).

Prevalence and patterns among the general population and youth

In terms of measures of recent use, ecstasy is now the most commonly used synthetic drug in 17 European countries, and amphetamines in nine ([63]). Ever in lifetime prevalence of amphetamines tends to be higher, reflecting the more recent emergence of ecstasy on the illicit drug market in Europe. Data from school surveys suggest that use by school students of ecstasy, amphetamine and psychotropic drugs other than cannabis cluster among a few individuals. For example, school students who have tried ecstasy also report prevalence rates for use of cocaine and hallucinogenic drugs that are more than 20 times higher than in the general school student population ([64]) and around five times higher than among those who have never used cannabis.

Among EU Member States, use of amphetamines or ecstasy appears to be relatively high in only a few countries: the Czech Republic, Estonia and the United Kingdom; and, to a lesser extent in Latvia and the Netherlands.

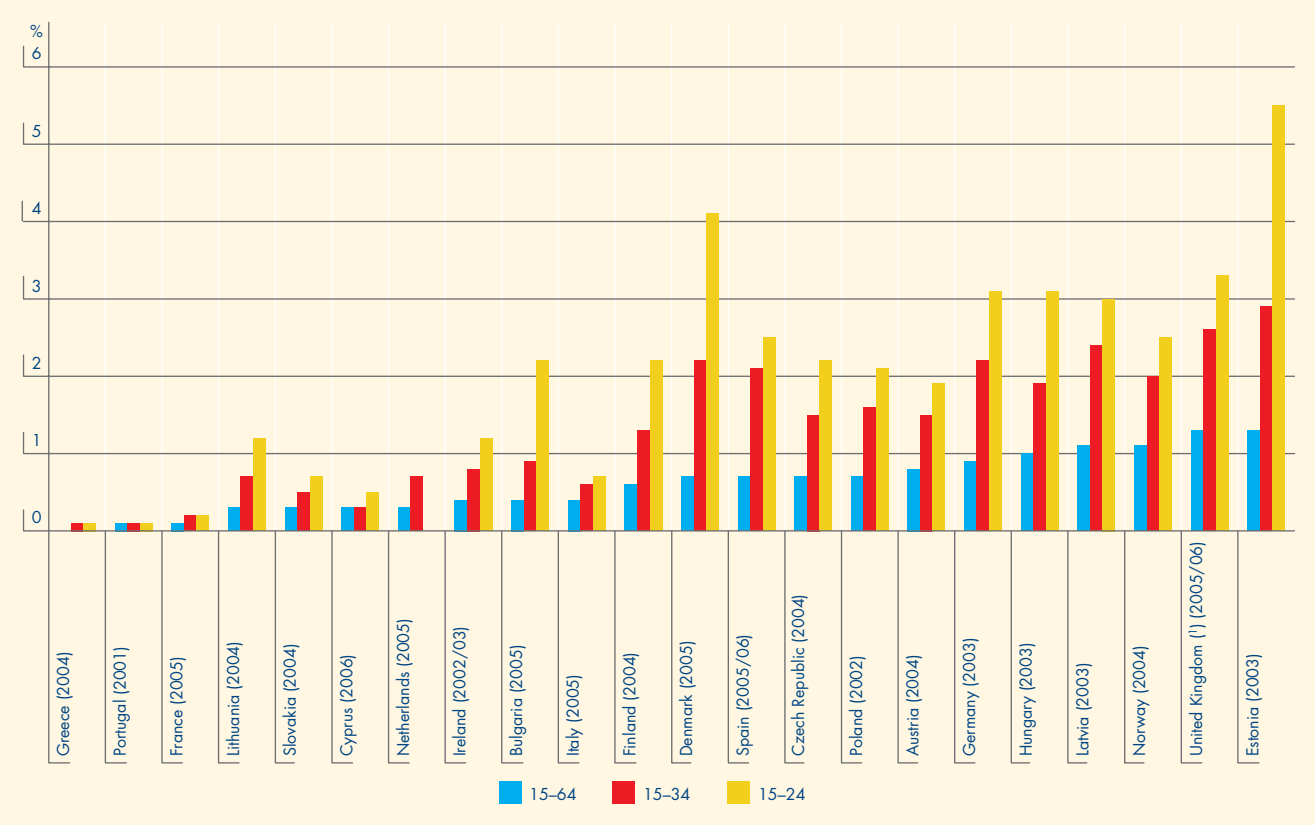
Amphetamines

Recent surveys among the adult population report that lifetime prevalence of the use of amphetamines in Europe ranges from 0.1% to 3.6% of all adults (15–64 years), except in Denmark (6.9%) and the United Kingdom (England and Wales), where it reaches 11.5% (reflecting a higher past use, whereas current use is more in line with other countries). The countries with the next highest figures are Norway (3.6%), Germany and Spain (3.4%). On average nearly 3.5% of all European adults have used amphetamines at least once ([65]). Last year use is much lower: 0.7% on average (range 0–1.3%). Data from general population surveys suggest that roughly 11 million people will have tried amphetamines, and about 2 million Europeans will have used the drug in the last year.

Among young adults (15–34 years) ever in lifetime use of amphetamines is reported by 0.2–16.8%, although, if the figures from the United Kingdom (England and Wales) (16.8%) and Denmark (12.7%) are considered separately, the range is limited to 0.2–5.9% ([66]). Half of the countries providing data have prevalence rates below 4%, with the highest rates after the United Kingdom and Denmark

([59]) See Tables SZR-13 and SZR-14 in the 2007 statistical bulletin.
([60]) See Table PPP-4 in the 2007 statistical bulletin.
([61]) See Tables SZR-15 and SZR-16 in the 2007 statistical bulletin.
([62]) See Table PPP-4 in the 2007 statistical bulletin.
([63]) Survey data on 'amphetamine use' often do not distinguish between amphetamine and methamphetamine, however, typically this will be related to the use of amphetamine (sulphate or dexamphetamine), as use of methamphetamine is uncommon.
([64]) See Figure EYE-1 (part iv) in the 2007 statistical bulletin.
([65]) For the method of computation see footnote (30).
([66]) See Table GPS-9 in the 2007 statistical bulletin.

Figure 5: Last year prevalence of amphetamines use among all adults (aged 15–64) and young adults (aged 15–34 and 15–24)



(1) England and Wales.
NB: Data are from the most recent national surveys available in each country at the time of reporting. Countries are ordered according to the overall (all adults) prevalence. See Tables GPS-10, GPS-11 and GPS-18 in the 2007 statistical bulletin for further information.
Sources: Reitox national reports (2006), taken from population surveys reports or scientific articles.

reported by Norway (5.9%), Germany (5.4%) and Latvia (5.3%). On average, 5.1% of young European adults have tried amphetamines ([67]). Last year use in this age group ranges from 0.1% to 2.9%, with Estonia (2.9%), the United Kingdom (2.6%) and Latvia (2.4%) reporting the highest prevalence rates (Figure 5). It is notable that, when last year use is considered, the figures from the United Kingdom and Denmark are more in line with those of other countries. It is estimated that, on average, 1.5% of young European adults have used amphetamines in the last year.

Only Finland can provide a recent estimate of problem amphetamine use (defined as injecting or long duration/regular use), which in 2002 was estimated to amount to between 10 900 and 18 500 problem amphetamine users (3.1 to 5.3 cases per 1 000 aged 15–64 years), about three times the number of problem opioid users.

Methamphetamine

Levels of methamphetamine use in Europe appear limited, in contrast to the international picture, which has seen a growth in the use of this drug in recent years. European countries are concerned, however, about the potential of the use of this drug to grow in Member States, prompting some precautionary measures, for example in the United Kingdom where there has been a decision to reclassify methamphetamine among the most harmful drugs (Class A).

Historically, methamphetamine use in Europe use has been concentrated in the Czech Republic and to some extent Slovakia. Recent estimates of problem methamphetamine use are reported by two countries (the Czech Republic, Slovakia). In 2005, in the Czech Republic there were estimated to be 18 400–24 000 methamphetamine users (2.5 to 3.2 cases per 1000 aged 15–64 years), almost twice the number of problem opioid users, and in Slovakia, 6 000–14 000 methamphetamine users (1.5 to 3.7 cases per 1 000 aged 15–64 years), slightly less than the estimated number of opioid users. Methamphetamine has become the most frequent primary drug among those demanding treatment for the first time in Slovakia, and high levels of methamphetamine use have now been reported among some subpopulation groups in Hungary.

In other parts of Europe, significant methamphetamine use is not reported. Two important caveats here are: that most surveys do not allow the use of methamphetamine

([67]) See Figure GPS-18 (part ii) in the 2007 statistical bulletin.

to be distinguished from that of amphetamine; and that methamphetamine has occasionally been found in tablets sold as ecstasy and therefore may have been unknowingly consumed ([68]).

Ecstasy

Ecstasy has been tried by 0.3–7.2% of all European adults. Half of the countries report lifetime prevalence rates of 2.5% or lower, with the highest prevalence rates being reported by the United Kingdom (7.2%), the Czech Republic (7.1%), Spain (4.4%) and the Netherlands (4.3%). The prevalence of last year use of ecstasy ranges from 0.2% to 3.5% of adults, with the highest rates reported by the Czech Republic (3.5%), Estonia (1.7%) and the United Kingdom (1.6%), although half of the countries report prevalence rates of 0.5% or below. It is estimated that almost 9.5 million Europeans (3% on average) have tried ecstasy, and almost 3 million have used it in the last year.

Among young adults (15–34 years), lifetime prevalence of ecstasy use ranges from 0.5% to 14.6%, with the highest figures reported for the Czech Republic (14.6%), the United Kingdom (13.3%) and the Netherlands (8.1%) ([69]). On average, over 5% of young European adults have tried ecstasy.

Among 15- to 24-year-olds, lifetime prevalence of ecstasy ranges from 0.4% to 18.7%, with the highest figures reported by the Czech Republic (18.7%), the United Kingdom (10.4%), and Hungary (7.9%) ([70]). Last year use among this age group ranges from 0.3% to 12%, with the Czech Republic (12.0%) and Estonia (6.1%) reporting the highest rates (Figure 6).

Among the 15–24 age group, higher rates of lifetime prevalence of ecstasy are found among males (0.3–23.2%) than among females (0.3–13.9%). In recent school surveys, increases in lifetime prevalence of ecstasy use occurred largely in parallel among both male and female school students, although there is a progressive increase in the gender gap with increasing age. Among young people, large increases in prevalence levels may occur with small increases in age, for example data available from 16 countries show that, compared to younger students, lifetime prevalence of ecstasy use among 17- to 18-year-old school students is, in most cases, considerably higher ([71]).

LSD

Ever in lifetime use of LSD among adults ranges from 0.2% to 5.5%, with two thirds of countries reporting lifetime prevalence rates between 0.4% and 1.7%. Among young adults (15–34 years), lifetime prevalence of LSD use ranges from 0.3% to 7.6%, and among the 15–24 age group it varies from 0 to 4.2%. Last year use of this drug is low, and in the 15–24 age group exceeds 1% only in seven countries (Bulgaria, the Czech Republic, Estonia, Italy, Latvia, Hungary, Poland).

Trends

Overall in Europe, there is continuing evidence of stabilising or even decreasing trends in amphetamine and ecstasy consumption. Amphetamine use among young adults (15–34) has declined substantially in the United Kingdom (England and Wales) since 1996, and to a lesser extent in Denmark and the Czech Republic, while in other countries the prevalence levels appear largely stable, although some small increases are reported ([72]).

A more mixed picture is found for ecstasy use among young adults (15–34) ([73]). After general increases in use during the 1990s, in recent years several countries, including two high-prevalence countries, Spain and the United Kingdom, report some stabilisation or even moderate decreases. In some countries, a decrease in prevalence is observed among the 15–24 age group, but not among those aged 15–34 ([74]), suggesting a decline in the drug's popularity among the younger age groups. A question arising from the data in some countries (Spain, Denmark, the United Kingdom) is whether cocaine is replacing amphetamines and ecstasy as the stimulant drug of choice ([75]).

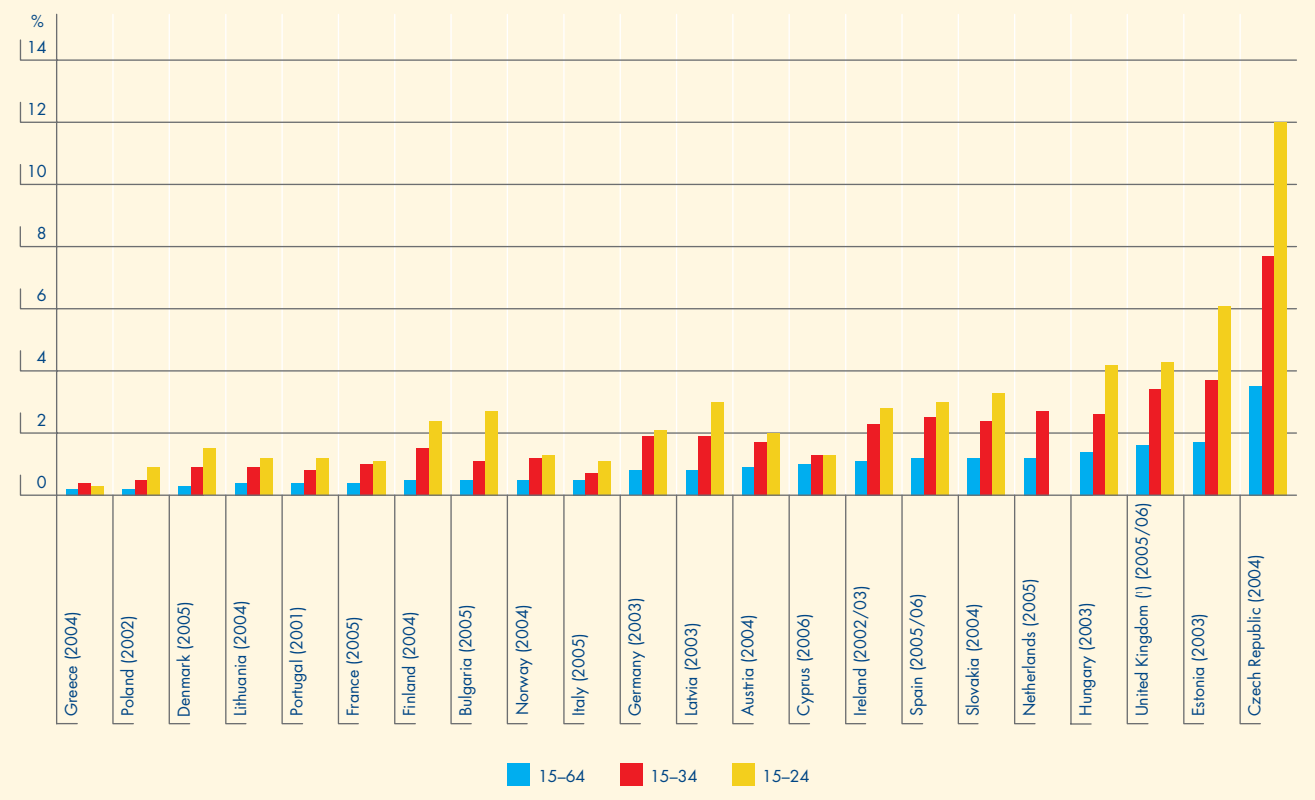
In newly available national or regional school surveys, reported in 2006 (Italy, Poland, Sweden; Flanders in Belgium), no change or even some decrease is recorded in ever in lifetime use of amphetamines and ecstasy ([76]).

Recreational settings

Studies of drug use in recreational settings such as dance events can provide a useful window on the behaviour of those using stimulant drugs on a regular and intensive basis. Rates of drug use in these settings are typically high, but

([68]) See 'Amphetamine and methamphetamine: differences and similarities', p. 48.
([69]) See Table GPS-9 in the 2007 statistical bulletin.
([70]) See Figure GPS-22 in the 2007 statistical bulletin.
([71]) See Figure EYE-1 (part ii) in the 2007 statistical bulletin.
([72]) See Figure GPS-8 in the 2007 statistical bulletin.
([73]) See Figure GPS-21 in the 2007 statistical bulletin.
([74]) See Tables GPS-4 and GPS-15 in the 2007 statistical bulletin.
([75]) See Table GPS-20 in the 2007 statistical bulletin.
([76]) See Figure EYE-4 in the 2007 statistical bulletin.

Figure 6: Last year prevalence of ecstasy use among all adults (aged 15–64) and young adults (aged 15–34 and 15–24)



(1) England and Wales.
NB: Data are from the most recent national surveys available in each country at the time of reporting. Countries are ordered according to the overall (all adults) prevalence. See Tables GPS-10, GPS-11 and GPS-18 in the 2007 statistical bulletin for further information.
Sources: Reitox national reports (2006), taken from population surveys reports or scientific articles.

are not generalisable to the wider population. For example, studies of people surveyed in selected dance music settings report high levels of ecstasy use and lower but still high levels of amphetamine use ([77]).

An annual reader survey conducted by the United Kingdom *Mixmag* music magazine, whose readership consists of regular dance club-goers report that the proportion of those defined as heavy ecstasy users (usually consuming more than four pills per session) more than doubled between 1999 and 2003, from 16% to 36% (McCambrige et al., 2005). Although the representativeness of this sample is questionable, it does support the general concern that there has been an increase in the quantity of ecstasy tablets consumed by some groups of users. Increasingly intense use of ecstasy and polydrug use by experienced ecstasy users is also reported in a United Kingdom Internet study (Scholey et al., 2004). However, it is of note that reports from Amsterdam suggest that last year and last month use of ecstasy decreased by 20% between 1998 and 2003 and the average amount of ecstasy used on each occasion also declined in this period (2005 Reitox national reports). According to a 2005 survey among pub-goers in Amsterdam, only 3% used ecstasy during the night out.

Although data available on the combined use of drugs and alcohol remains limited, consumption of alcohol in recreational dance music settings, often in quantities considered hazardous to health and in combination with stimulant drugs, is a growing cause for concern.

Treatment demand data

The number of demands for treatment relating to the use of amphetamines and ecstasy is relatively small. In general, this form of drug use is rarely the primary reason for attending drug treatment in most of the 21 countries for which data is available ([78]). Such treatment demands mostly refer to primary amphetamines use, and only a very small proportion to ecstasy ([79]).

There are a limited number of countries with a non-trivial proportion of amphetamines and ecstasy users among drug clients and they can be divided in three groups. The

([77]) See the 2006 selected issue on drug use in recreational settings.
([78]) See Figure TDI-2 (part ii) and Table TDI-5 in the 2007 statistical bulletin.
([79]) See Table TDI-113 in the 2007 statistical bulletin.

Czech Republic and Slovakia report a substantial proportion of treatment requests related to primary use of amphetamines (correspondingly 58% and 24% of all clients), mostly, they relate to a primary methamphetamine problem; Sweden, Finland and Latvia report around a third of all drug clients entering treatment for primary amphetamines use; Ireland, the Netherlands, the United Kingdom and France report between 1% and 5% of patients entering treatment for primary ecstasy use ([80]).

In all countries, except Greece and Sweden, the proportion of new clients entering treatment for primary use of amphetamines and ecstasy is greater than the proportion of all clients receiving treatment for these drugs ([81]). While this may have several explanations, it is in accord with the data on trends: from 1999 to 2005 the number of first treatment demands for primary amphetamines and ecstasy use increased by over 3 000, from 6 500 to 10 000 ([82]).

Clients entering treatment for use of stimulants other than cocaine are on average around 27 years old (26 if they enter treatment for the first time) and used the drug for the first time at an average age of 19 ([83]). Ecstasy clients are, along with cannabis users, the youngest group entering drug treatment. In the Netherlands the highest proportion of women in drug treatment is reported among the ecstasy clients. The proportion of women among amphetamines clients is higher than that for other drugs, with the highest proportion of outpatient female clients reported in the youngest age group ([84]).

Amphetamines clients usually consume the drug in combination with other substances, mainly cannabis and alcohol, and in some countries injecting is commonly reported ([85]). In the Czech Republic, an interesting geographic variation is reported, with more users reported outside the capital; this is similar to reports from the United States, where non-metropolitan areas have higher admission rates for methamphetamine and amphetamine use (Dasis, 2006).

Responding to drug use in recreational settings

Drug prevention activities

In general, there has been shift in approaches to prevention, with an increased recognition of the key role that lifestyle factors play in shaping attitudes to drug use and in the importance of challenging the belief that drug use is a normal or acceptable behaviour. This kind of approach is of particular relevance to prevention work in settings that are culturally associated with drug taking. The high prevalence of drug use in some recreational settings, such as clubs, bars and dance events means that these locations have been identified as appropriate targets for drug demand reduction initiatives. The need to further develop prevention activities in recreational settings is also noted in the EU drug action plan (2005–08).

One approach has been to make information material that may have prevention and, sometimes, harm-reduction messages available in recreational settings. Material is usually developed in a user-friendly style that reflects the youth culture of the target group, and is sometimes distributed through mobile outreach teams. To engage with young people, outreach teams usually take a non-judgmental approach and, while stating that the safest option is not to take drugs at all, may also provide harm-reduction advice (Belgium, the Czech Republic, Austria, Portugal).

In addition, to responses that aim at informing and persuading individuals not to use drugs, an increasing number of Member States are also developing approaches to better regulate recreational environments. Some of these approaches, including running explicitly drug-free events, have attempted to alter the beliefs held by some that drug use facilitates their leisure activities. In an increasing number of countries (Belgium, Denmark, Ireland, Italy, Lithuania, the Netherlands, Sweden, the United Kingdom, Norway), there appears to be an interest among municipalities in establishing closer contact with the leisure industry and developing approaches to limit the availability of drugs and reduce the health risks in dance music and other settings. For example, safe clubbing guidelines, such as those developed in the United Kingdom ([86]), are now being produced in a number of countries.

Among the most frequently used responses to the use of ecstasy, amphetamines and psychotropic drugs are targeted public information campaigns and, increasingly, Internet sites. Prevention strategies have made use of the Internet to establish low-threshold contact with young people who take ecstasy, amphetamines or other

([80]) See Table TDI-5 (part ii) in the 2007 statistical bulletin.
([81]) See Table TDI-4 (part ii) and TDI-5 (part ii) in the 2007 statistical bulletin.
([82]) See Figure TDI-1 (part ii) in the 2007 statistical bulletin.
([83]) See Tables TDI-10, TDI-11 and TDI-102 to TDI-109 in the 2007 statistical bulletin.
([84]) See Tables TDI-21 and TDI-25 in the 2007 statistical bulletin.
([85]) See Tables TDI-4, TDI-5 (part ii), TDI-24, TDI-116 and TDI-117 in the 2007 statistical bulletin.
([86]) See the 2006 selected issue on recreational settings.

psychotropic drugs or who might be considering taking them. In many Member States, information and prevention is being provided through Internet sites to promote critical reflection among young people about their own consumption behaviour. These sites provide advice, for example about going out 'wisely', safe sex, road traffic risks, healthy diets, party tourism and legal issues (Belgium) ([87]).

Drug treatment

Treatment services for users of ecstasy, amphetamines and other psychotropic drugs are generally provided through drug treatment services that serve problem drug users or more specialised services for users of cocaine and other stimulant drugs. For further information about drug treatment services in the EU see Chapter 2 and Chapter 5.

([87]) Links to some of these may be found at http://www.emcdda.europa.eu/?nnodeid=5575

Chapter 5
Cocaine and crack cocaine

As consumption of cocaine has increased, the use of this drug has become a major issue for European drug policy. In recognition of the growing importance of this subject, patterns of cocaine use are explored in detail in the 2007 selected issue on cocaine.

Supply and availability ([88])

Production and trafficking

Cocaine, after cannabis, is the second most trafficked illicit drug in the world. Global seizures of cocaine have continued to increase in 2005 to now total 756 tonnes, with the largest quantities of the drug intercepted in South America, followed by North America.

Colombia remains by far the largest source of illicit coca in the world, followed by Peru and Bolivia (UNODC, 2007). Most of the cocaine seized in Europe comes from South America, either directly or via Central America, the Caribbean and West Africa.

The main point of entry in Europe remains the Iberian peninsula, with Portugal appearing to be increasingly important. Cocaine is also directly imported into other countries, with the Netherlands remaining a key entry point. Both Spain and the Netherlands are regarded as main distribution centres for the drug. Imports from outside Europe are also reported by a number of other countries including Belgium, Germany, France and the United Kingdom; and distribution may also be diversifying, with reports of increased activity through eastern and central Europe and both EU and neighbouring countries sometimes now reported as secondary transit locations.

Seizures

In 2005, an estimated 70 000 seizures of cocaine, amounting to 107 tonnes, were made in Europe. Most seizures of cocaine continue to be reported in western European countries, especially Spain, which accounts for about half the seizures and amounts of cocaine intercepted in Europe ([89]). Over the period 2000–05, both the number of seizures and the quantities of cocaine seized increased overall at European level ([90]). This was principally due to marked increases in Spain and Portugal, with Portugal overtaking the Netherlands in 2005 as the country responsible for the second largest interceptions of cocaine after Spain.

Price and purity

In 2005, the average or typical retail price of cocaine varied widely across Europe, from EUR 45 to EUR 120 per gram, with most countries reporting prices of EUR 50–80 per gram ([91]). The mean prices of cocaine, corrected for inflation, showed an overall downward trend over the period 2000–05 in most of the 19 countries reporting sufficient data.

The average or typical purity of cocaine at user level varied in 2005 from 20% to 78%, with most countries reporting purities in the 30–60% range ([92]). Data available over the period 2000–05 indicate an overall decrease in the mean purity of cocaine in most of the 21 reporting countries.

Prevalence and patterns of cocaine use

Cocaine is now, after cannabis, the second most commonly used illicit drug in many EU Member States and in the EU as a whole. Based on recent national population surveys in the EU and Norway, it is estimated that cocaine has been used at least once (lifetime prevalence) by more than 12 million Europeans, representing almost 4% of all adults ([93]). National figures on reported ever in lifetime use range from 0.2 to 7.3%, with three countries reporting values of more than 5% (Spain, Italy, the United Kingdom) ([94]).

Use of cocaine in the last year is reported by at least 4.5 million Europeans (1.3% on average). Last year use of cocaine ranges from 0.1% in Greece to 3.0% in Spain,

([88]) See 'Interpreting seizures and other market data', p. 37.
([89]) This should be checked against missing 2005 data when available. For estimating purposes, 2005 missing data were replaced by 2004 data.
([90]) See Tables SZR-9 and SZR-10 in the 2007 statistical bulletin.
([91]) See Table PPP-3 in the 2007 statistical bulletin.
([92]) See Table PPP-7 in the 2007 statistical bulletin.
([93]) For the method of computation see footnote (30).
([94]) See Table GPS-8 in the 2007 statistical bulletin.

with Italy and the United Kingdom also reporting prevalence levels above 2% ([95]). Survey estimates suggest that 2 million Europeans (0.6% on average) have used cocaine in the last month ([96]).

Prevalence of cocaine use, as it is with other illicit drugs, is concentrated among young adults (aged 15–34). Around 7.5 million young European adults (5.3% on average) have used it at least once in their life, with five countries reporting prevalence levels of 5% or above (Germany, Italy, Denmark, Spain, the United Kingdom) ([97]). Estimates of cocaine use for shorter reference periods ([98]) suggest that in the last year, of the 3.5 million (2.4%) young adults who have used the drug, 1.5 million (1%) have used it in the last month.

Among school students, overall prevalence rates for cocaine use are much lower than those for cannabis use. In most countries, ever in lifetime prevalence of cocaine use among 15- to 16-year-old school students is 2% or lower, rising to 6% only in Spain and the United Kingdom ([99]). Data on 17- to 18-year-old school students available from 16 countries show considerably higher lifetime prevalence estimates for cocaine use among the older age group in Spain, although preliminary data for the country suggest a decline has occured recently ([100]). In most of the other 15 countries, prevalence is higher among the older students but differences are less notable. However, it should be noted that last year and last month prevalence levels of cocaine use are much lower.

Use of cocaine is not confined to certain social groups, but use of the drug by socially integrated young adults in recreational settings can reach higher levels than those reported in general population surveys. Studies targeting dance music settings in several European countries revealed lifetime prevalence of cocaine use ranging from 10% to 75% ([101]).

Patterns of cocaine use vary greatly between different groups of users. Among socially integrated users, the drug is usually snorted; many are also using other substances including alcohol, tobacco, cannabis, and stimulants other than cocaine ([102]), and this kind of polydrug consumption can lead to elevated health risks.

Overall, the use of crack in Europe remains relatively uncommon and is concentrated among marginalised and excluded subpopulations in some cities. However, cocaine smokers do represent a significant proportion of treatment demands, although they remain in the minority. Among those not injecting other drugs, the injecting of cocaine does not appear to be common, even among treatment clients (see below). However, there have been increasing reports of heroin injectors also injecting cocaine, or cocaine and heroin mixtures.

Estimations of prevalence of problem cocaine use ([103]) are available for only three countries (Spain, Italy, the United Kingdom). The estimates obtained in these countries are in the range of three to six problem users of cocaine per 1 000 adults (aged 15–64) ([104]).

Trends in cocaine use

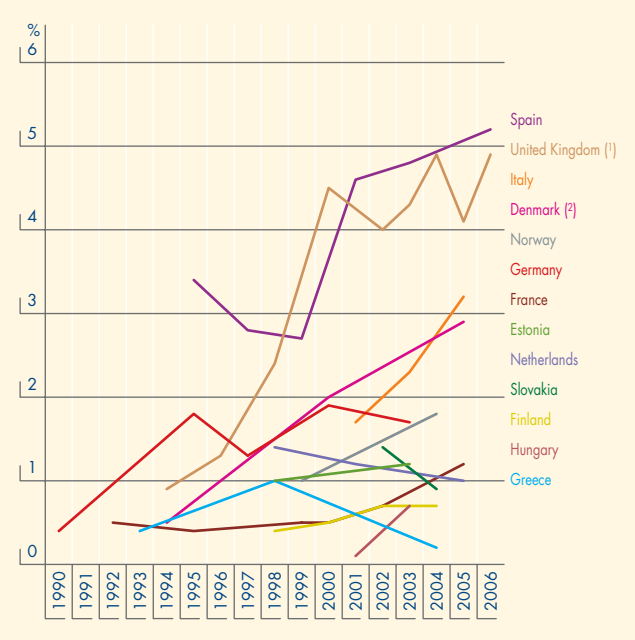
Signs of stabilisation in cocaine use among young adults noted in the 2006 annual report are not supported by recent data. Increases in the last year prevalence of cocaine use among the 15–34 age group have been registered in all countries reporting recent survey data, although there may be some levelling off in Spain and the United Kingdom (England and Wales), the Member States with the highest prevalence levels. Notable increases were also reported by Italy and Denmark (Figure 7).

Analysis of data for countries with longer time series and appreciable prevalence rates can allow detection of trends within subgroups of the population. In both Spain and the United Kingdom, the increase in prevalence was generally greater among males than among females. The reported increase in last year cocaine prevalence in Spain since 2001 can be attributed to increased levels of use in the 15–24 age group, rather than across 15–34 year olds as a whole.

It has been suggested that, in some European countries, a 'replacement' of other stimulants by cocaine could have taken place ([105]). Data from surveys conducted with young people in dance music club settings need to be treated with caution because of the highly selected nature of the sample. Nonetheless, they can provide a window on the behaviour of regular drug consumers, and studies conducted in the

([95]) See Table GPS-10 in the 2007 statistical bulletin.
([96]) See Table GPS-12 in the 2007 statistical bulletin.
([97]) See Table GPS-9 in the 2007 statistical bulletin.
([98]) See Tables GPS-11 and GPS-13 in the 2007 statistical bulletin.
([99]) See Table EYE-3 in the 2007 statistical bulletin.
([100]) See Table EYE-2 in the 2007 statistical bulletin.
([101]) See the 2006 selected issue on drug use in recreational settings.
([102]) See Figure 15 in the 2006 annual report.
([103]) Defined as long-term and/or regular and/or injecting cocaine use.
([104]) See Table PDU-2 in the 2007 statistical bulletin and the 2007 selected issue on cocaine.
([105]) See Chapter 4 in this report.

Figure 7: Trends in last year prevalence of cocaine use among young adults (aged 15–34)



(1) England and Wales.
(2) In Denmark, the value for 1994 corresponds to 'hard drugs'.
NB: Data are from the most recent national surveys available in each country at the time of reporting. See Table GPS-4 in the 2007 statistical bulletin for further information.
Sources: Reitox national reports (2006), taken from population surveys reports or scientific articles.

Netherlands indicate that, in some municipalities, cocaine has outstripped ecstasy among club-goers as the most commonly used stimulant, with the drug gaining increased acceptability among some groups.

Cocaine: treatment demand data

After opioids and cannabis, cocaine is the drug most commonly reported as the reason for entering treatment in Europe. In 2005, approximately 48 000 demands for treatment for cocaine as the primary drug were reported, accounting for about 13 % of all reported treatment demands across the EU ([106]); cocaine is also reported as a secondary drug by around 15 % of all outpatient clients ([107]). The overall figure conceals a wide variation between countries, with most countries reporting low percentages of cocaine users among clients in drug treatment, while high proportions of cocaine users among drug clients are reported by the Netherlands (35 %) and Spain (42 %, in 2004). Among those new to treatment, the proportion of cocaine clients is higher, with overall around 22 % of all new treatment demands (33 000 individuals, based on 22 countries) reported as cocaine-related.

The increasing trend of clients seeking treatment for cocaine use reported in previous years is continuing. From 1999 to 2005, the proportion of new clients demanding treatment for cocaine use grew from 11 % to 24 % of all new drug clients and the number of reported cases went from 13 000 to 33 000 ([108]). A more detailed analysis of trends in the demand for treatment for the drug is presented in the 2007 selected issue on cocaine.

European data on drug users entering treatment for primary cocaine use are mainly related to cocaine powder (85 %), with only 15 % referring to crack cocaine; and almost all reported treatment for cocaine dependence takes place in outpatient centres (94 %) ([109]). However, it should be noted that the data on cocaine treatment demand provided in inpatient centres and general practice settings is incomplete.

Cocaine clients entering outpatient centres are reported to be the oldest drug clients after opioid users, with a mean age of 31 years ([110]). They are predominantly males, with one of the highest male to female ratios among all types of drug clients (almost five males for one female in all clients, and six males for one female in new clients) ([111]). Most cocaine users in outpatient treatment started to use the drug between the ages of 15 and 24 years ([112]).

Cocaine treatment

The provision of specialised responses for problematic cocaine and crack users in Europe remains limited and, as noted above, Spain and the Netherlands are currently responsible for the majority of reports of cocaine treatment. However, among those countries with significant cocaine-using populations, there appears to be a growing interest in providing specialist services. Unsurprisingly, in low-prevalence countries, the provision of specific cocaine treatment services is not reported as a policy priority. In contrast to opioid treatment, where the target population is relatively homogenous, cocaine treatment in Europe faces the challenge of providing interventions to a broader spectrum of users. Among primary cocaine users, the main route of administration reported by outpatient clients is sniffing, followed by smoking or inhalation, with relatively few (less

([106]) See Figure TDI-2 in the 2007 statistical bulletin.
([107]) See Table TDI-22 (part i) in the 2006 statistical bulletin.
([108]) See Figure TDI-1 in the 2007 statistical bulletin.
([109]) See Tables TDI-24 and TDI-115 in the 2007 statistical bulletin.
([110]) See Table TDI-10 in the 2007 statistical bulletin.
([111]) See Table TDI-21 in the 2007 statistical bulletin.
([112]) See Table TDI-11 (part i) to (part iv) in the 2007 statistical bulletin.

than 10%) of clients reporting injecting the drug. Among those new to treatment, injecting levels are even lower (5%) ([113]). Around 16% of cocaine clients report using it in combination with opioids and, in some countries, many clients being treated for opioid problems will also be using cocaine, at least occasionally.

Treatment services are, therefore, likely to be faced with offering care to three populations, which can be characterised in simple terms as: first, socially more integrated cocaine users who may also have a history of regular 'recreational' polydrug use including alcohol; secondly, cocaine users who may also have opioid problems; and thirdly, highly marginalised and problematic crack cocaine users.

The needs of these three groups are likely to be different and require different approaches from service providers. Most reported cocaine treatment in Europe takes place in outpatient settings, which in many cases will be orientated to the needs of opioid users. It is questionable how attractive such services are to relatively well-integrated cocaine users who have developed problems through their recreational use of the drug. And it is likely that a proportion of this group will seek help either through generic healthcare providers, such as general practitioners or counsellors or, if they are able, through private specialised clinics.

In contrast to opioid treatment, pharmacological options for cocaine treatment are limited, although prescribing can be helpful in providing relief for related symptoms. At present no pharmacological agent is available to help users to achieve or manage cocaine abstinence — though there may be some future options in this direction. The emphasis in Europe is put on the provision of psychosocial interventions, which are mostly based on cognitive behavioural approaches. An in-depth detailed review of options for cocaine treatment can be found in the 2007 selected issue on cocaine and in an EMCDDA technical review (EMCDDA, 2007b).

The low prevalence and highly geographically restricted nature of crack cocaine problems in Europe means that experience of responding to the needs this group of drug users is far more limited. There is a large amount of literature based on the US experience of crack cocaine problems, but the extent to which this can be directly applied to the European context remains unclear. The United Kingdom, which compared to other European countries reports a relatively high level of problematic crack use, has produced guidelines for professionals suggesting that crack treatment should be provided in the context of a structured programme of drug treatment, which includes abstinence and harm minimisation measures (NTA, 2002). A recent evaluation of service provision in the United Kingdom also reported some positive outcomes among crack cocaine clients in residential care (Weaver, 2007).

Risk and harm reduction

Recreational cocaine users are at risk not only of developing a dependent drug habit, but also through the interaction of cocaine use with other drugs or with coexisting cardiovascular problems. Most European countries report that cocaine users can access information about cocaine and the risks of cocaine use through various information sources such as websites, helplines and through other media. It is interesting to note that the European Foundation of Drug Helplines reports an increase in the number of calls related to cocaine during 2005 and 2006 ([114]).

Cocaine use may also be associated with high-risk sexual activity or with involvement in the sex industry. Studies have reported that women using crack cocaine may be particularly vulnerable and may engage in high-risk sex behaviours either for money or drugs, and in some countries, harm-reduction and outreach programmes work specifically with sex workers targeting both sexual and drug-taking risk behaviours.

Although small in number, crack cocaine users are likely to be at particularly high risk of experiencing problems and may be difficult to engage in treatment and other services. In some cities where significant crack cocaine problems exist, harm-reduction programmes have attempted to intervene by providing outreach, crisis intervention, assistance for acute medical problems as well as referral to structured services. For example, in Vienna, rooms are available through outpatient services to provide a safe space for cocaine and crack users who are often suffering from anxiety, and basic healthcare and referral to other services are offered. In those countries that provide consumption rooms for injecting drug users, this kind of provision has sometimes been extended to crack cocaine users, for example, in Germany, special facilities are provided for crack smokers in both Frankfurt and Hamburg.

Harm-reduction approaches to cocaine injectors are, in general, no different to those provided to other injectors (see Chapter 8), although some studies have suggested that stimulant users will inject more and, therefore, be potentially at greater risk. In addition, there are specific risks related to the injection of crack cocaine if it has been incorrectly prepared.

([113]) See Table TDI-17 (part ii) and (part vi) and Table TDI-110 in the 2007 statistical bulletin.
([114]) http://www.fesat.org/

Cocaine and crack cocaine: a growing public health issue — EMCDDA 2007 selected issue

In recent years, there have been signs that cocaine use is a growing problem in Europe. This selected issue shows that, in some European countries, there has been a marked increase in the use of cocaine, in treatment demands for cocaine and in seizures of the drug. The potential for cocaine use to have a major impact on public health is examined. Special attention is given to the health consequences of cocaine, which are often not well recognised in existing reporting systems. The selected issue looks in detail at the challenges to providing effective treatment for cocaine and crack cocaine dependence, which has proved to be particularly difficult, not least because of the very varied types of cocaine users and their differing needs.

This selected issue is available in print and on the Internet in English only (http://issues07.emcdda.europa.eu).

Chapter 6

Opioid use and drug injection

Heroin supply and availability ([115])

In Europe, historically, two forms of imported heroin have been used: the commonly available brown heroin (its chemical base form) mainly from Afghanistan, and the less common and more expensive white heroin (a salt form) which typically originates from south-east Asia — although this form of the drug is now becoming increasingly rare. A small amount of opioid drugs are also produced within Europe, but manufacture is mainly confined in 2005 to small-scale production of home-made poppy products (e.g. poppy straw, poppy concentrate from crushed poppy stalks or heads) in a number of eastern European countries (Latvia, Lithuania, Poland).

Production and trafficking

Heroin consumed in Europe is predominantly manufactured in Afghanistan, which remains the world leader in illicit opium supply, followed by Myanmar. It is estimated that about 6 610 tonnes of opium was produced in 2006, 92 % of which in Afghanistan. This represents a 43 % increase compared to the 2005 estimate, due to a substantial increase in the area under cultivation. Global potential production of heroin was estimated at 606 tonnes in 2006, up from 472 tonnes in 2005 (UNODC, 2007). Opioid seizures and laboratories dismantled seem to indicate that opium produced in Afghanistan is increasingly being converted into morphine or heroin before being exported (CND, 2007).

Heroin enters Europe by two major trafficking routes. The historically important, and shortest, Balkan 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 Greece, the former Yugoslav Republic of Macedonia (FYROM), Albania, Italy, Serbia, Montenegro and Bosnia-Herzegovina and a northern branch through Bulgaria, Romania, Hungary, Austria, Germany and the Netherlands; the latter operating as a secondary distribution centre to other western European countries. Since the mid-1990s, heroin has been increasingly (but to a lesser extent than through the Balkan route) smuggled to Europe through the 'silk route' via central Asian Republics, the Caspian Sea and the Russian Federation, Belarus or Ukraine, to Estonia, Latvia, some of the Nordic countries, Germany and Bulgaria. Although these routes are the most important, countries in the Arabian peninsula (Oman, United Arab Emirates) have become transit sites for heroin consignments from south-west and south-east Asia (INCB, 2006), with some of it being then smuggled through eastern Africa (Ethiopia, Kenya, Mauritius), and sometimes through western Africa as well (Nigeria), to be shipped to illicit markets in Europe and to a lesser extent North America (INCB, 2007a). There are also reports of heroin from south-west Asia being smuggled to Europe via countries in south and east Asia (India, Bangladesh, Sri Lanka, China).

Seizures

In 2005, 342 tonnes of opium, 32 tonnes of morphine and 58 tonnes of heroin were seized worldwide. Asia (China, Afghanistan, Iran, Pakistan) continued to account for the greatest quantities of heroin (54 %) seized worldwide, followed by Europe (38 %) (UNODC, 2007).

An estimated 52 000 seizures resulted in the interception of about 16.8 tonnes of heroin in the EU Member States and candidate countries and Norway in 2005. The United Kingdom (based on 2004 data) continued to account for the highest number of seizures made in Europe, followed by Spain, Germany and Greece, while Turkey seized the largest quantities (followed by the United Kingdom, Italy and the Netherlands), accounting for nearly half of the total amount intercepted in 2005 ([116]). Seizures of heroin show an overall decline between 2000 and 2003 and, based on data available, have been increasing since then. Over the period 2000–05, total quantities of heroin seized in EU Member States have been fluctuating within a slightly downward trend, whereas a large increase is reported in Turkey over the same period ([117]).

([115]) See 'Interpreting seizures and other market data', p. 37.

([116]) This should be checked against missing 2005 data when available. For estimating purposes, 2005 missing data were replaced by 2004 data.

([117]) See Tables SZR-7 and SZR-8 in the 2007 statistical bulletin.

Price and purity

Detecting trends in both price and purity is hampered by a lack of consistent data, and estimates are therefore based on only a limited range of countries ([118]). Most countries reported average or typical street price of brown heroin in the range EUR 35–80 per gram. Between 2000 and 2005 mean heroin prices, corrected for inflation, appear to have decreased in most of the 18 countries providing comparable data. The average or typical purity of brown heroin at street level was reported to vary considerably, with most countries reporting values between 15% and 50%; figures for white heroin tended to be higher (30–70%), where it was available. The mean purity of heroin products has been fluctuating in most of the 18 reporting countries since 2000.

Prevalence estimates of problem opioid use

Data in this section are derived from the EMCDDA problem drug use (PDU) indicator, which includes mainly estimates of injecting drug use and the use of opioids, although in a few countries, users of amphetamines are also an important component ([119]). Estimating the number of problem opioid users is difficult, and analyses of a sophisticated nature are required to obtain prevalence estimates from the available data sources. Moreover, as most studies are based on a localised geographical area, such as a city or district, extrapolation to generate national estimates is difficult.

Estimation is also complicated as patterns of problem drug use in Europe appear to be becoming more diverse. For example, polydrug use problems have become progressively more important in most countries, and some countries where opioid problems (almost exclusively heroin problems) have historically predominated now report changes towards other drugs, such as cocaine.

Recent estimates of the prevalence of problem opioid use at national level range roughly between one and six cases per 1 000 population aged 15–64. In comparison, the full PDU prevalence is estimated to be between one and eight cases per 1 000. Some of the lowest well-documented estimates available are from the new countries of the EU, although this is not the case for Malta, where a relatively high prevalence has been reported (5.8–6.7 cases per 1 000 aged 15–64) (Figure 8).

From the limited data available, an average prevalence of problem opioid use of between four and five cases per 1 000 of the population aged 15–64 can be derived. This translates into some 1.5 million (1.3–1.7 million) problem opioid users in the EU and Norway. However, these estimates are far from robust and more extensive data are required.

Time trends in problem opioid use

A lack of reliable historical data complicates the assessment of trends over time in problem opioid use and trends should thus be interpreted with caution. Reports from some countries suggest that problem opioid use may, on average, have stabilised somewhat in recent years. Data from repeated estimates on problem opioid use for the period between 2001 and 2005 are only available from eight countries and provide a relatively stable picture with only one country (Austria) showing a clear increase ([120]).

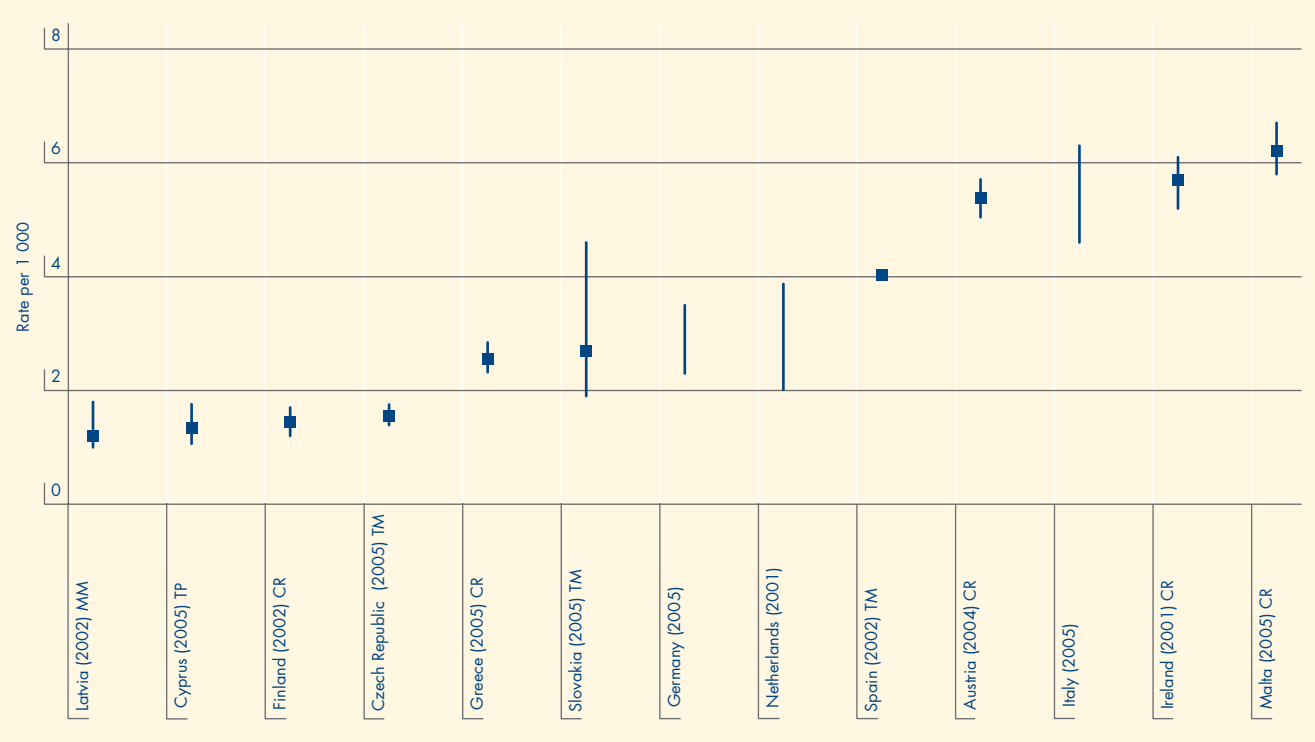
Despite the general indication that the overall trend in the prevalence of opioid use is relatively stable, there are indications of increases in heroin seizures (see above), possibly relating to increased availability of heroin on the European market, and increasing reports of the use of opioids diverted from legitimate uses. In Italy, estimates of the incidence of heroin use based on treatment demand data suggest a rise since 1998, after a period of decline, with an annual incidence in 2005 of around 30 000 new heroin users. In Austria, also, the proportion of those under age 25 has increased among new substitution treatment clients, suggesting a rise in the number of young people experiencing problems, associated with the diversion and uncontrolled use of prescribed opioids. Similarly, after a period of decline, the Czech Republic reports an increase in the injecting of a diverted substance (in this case, buprenorphine), and information available from Belgium suggests that there has been an increase in the illicit use of methadone. Recent monitoring of low-threshold services in France raises concerns about the illicit use of buprenorphine, including injecting use, and use among young people who have initiated their problem drug use with buprenorphine rather than heroin; concerns about new subgroups of young and marginalised injectors have also been reported. In Finland, heroin also appears to have been largely replaced by buprenorphine among new opioid treatment demands and buprenorphine is increasingly mentioned in reports on overdose deaths.

([118]) See Tables PPP-2 and PPP-6 in the 2007 statistical bulletin.

([119]) Although the technical definition used by the EMCDDA for PDU is 'injecting drug use or long duration/regular use of opioids, cocaine and/or amphetamines', problem drug use estimates have principally reflected heroin use. In the few countries where problematic use of amphetamines is reported, well-documented estimates are available. Estimates of problematic cocaine use are scarce and the PDU indicator is, except in few high-prevalence countries, likely to be less reliable for this drug.

([120]) See Figure PDU-4 (part ii) in the 2007 statistical bulletin.

Figure 8: Estimates of the prevalence of problem opioid use (rate per 1 000 population aged 15–64), 2001–05



NB: The symbol indicates a point estimate; a bar indicates an estimation uncertainty interval, which can be either a 95% confidence interval or an interval based on sensitivity analysis (see Table PDU-3 for detailed information). Target groups may vary slightly owing to different estimation methods and data sources; therefore, comparisons should be made with caution. Where no method is indicated, the line given represents an interval between the lowest lower bound of all existing estimates and the highest upper bound of them. Estimation methods: CR = capture–recapture; TM = treatment multiplier; TP = truncated Poisson; MM = mortality multiplier. For more information, see Tables PDU-1, PDU-2 and PDU-3 in the 2007 statistical bulletin.

Sources: National focal points.

Injecting drug use

Injecting drug users (IDUs) are at high risk of experiencing health problems from their drug use, such as blood-borne infections (e.g. HIV/AIDS, hepatitis) or drug overdose. Despite their importance for public health, few countries are currently able to provide estimates of the levels of injecting drug use (Figure 9) and, therefore, improving the monitoring of this special population is an important challenge for the development of health monitoring systems in Europe.

Indirect estimates of injecting drug use prevalence

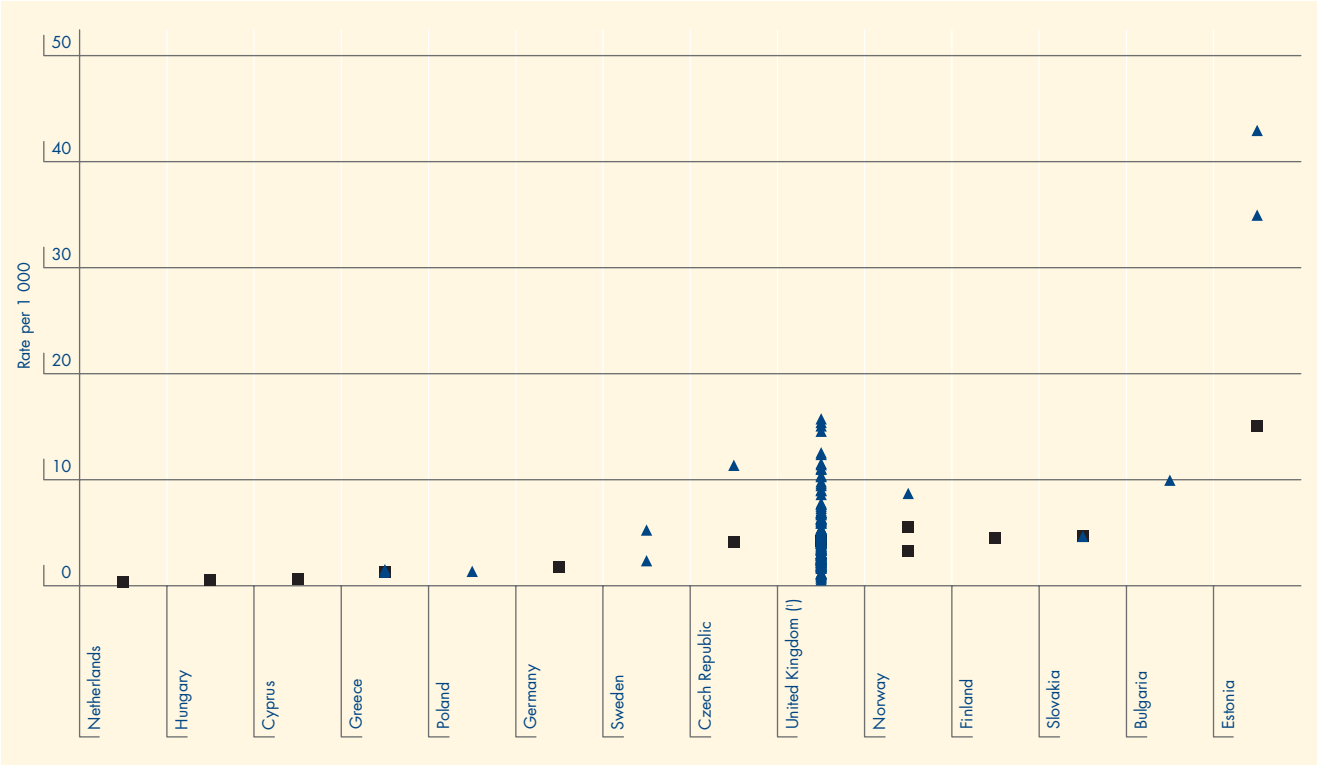
Most available estimates of injecting drug use are derived from either fatal overdose rates or data on infectious diseases (such as HIV). Considerable variation is reported between countries, with national estimates typically ranging between 0.5 and six cases per 1 000 population aged 15–64, in the period 2001–05. An exception is Estonia, where a much higher estimate of 15 cases per 1 000 has been reported. Of the other countries able to provide data, the highest estimates have been reported from the Czech Republic, Slovakia, Finland and the United Kingdom, at between four and five cases per 1 000 population aged 15–64, and the lowest figures from Cyprus, Hungary and the Netherlands, at under one case per 1 000.

Extrapolation from the limited data available must be done with caution, but does suggest an average prevalence of IDU (current injectors) of between three and four cases per 1 000 of the adult population. This would mean there may be around 1.1 million (0.9–1.3 million) injectors in the EU and Norway today. These are predominantly opioid injectors, although they may inject other drugs as well, and some countries report a significant amphetamine or methamphetamine injecting problem (the Czech Republic, Slovakia, Finland, Sweden).

Trends in injecting drug use from treatment demand data

The lack of data makes drawing conclusions on trends in injecting difficult, although one window on this behaviour is provided by data on drug users entering treatment. Treatment demands among opioid users, for example, may give an indication of patterns of use in the wider population. The proportion of injectors among all primary heroin users entering drug treatment (2001–05) shows marked differences in levels of injecting between countries. Overall, these data suggest that injecting may be becoming less popular, with declines observed by Denmark, Ireland, Greece, Hungary, the United Kingdom and Turkey. In some countries (Spain, the Netherlands, Portugal), a relatively small proportion of treated heroin users now inject. However, this picture is not

Figure 9: Estimates from national and subnational studies of the prevalence of injecting drug use (rate per 1 000 population aged 15–64), 2001–05



(1) English regional estimates for 2004/05.
NB: Black square = sample with national coverage; blue triangle = sample with subnational coverage.
The pattern of subnational prevalence estimates depends much on availability and location of studies within a country. Target groups may vary slightly owing to different studies' methods and data sources; therefore, comparisons should be made with caution.
For more details see Tables PDU-1, PDU-2 and PDU-3 in the 2007 statistical bulletin.
Sources: National focal points.

seen everywhere, for example in several of the new Member States, injection appears to remain the predominant mode of heroin administration. It should be noted that trends in injecting in non-heroin users may be different.

Treatment of opioid dependence

Maintenance treatment

A relatively robust evidence base supported by data from treatment outcome studies and controlled trials now exists for the effectiveness of drug substitution treatments in treating dependence on heroin or other opioids (see Gossop, 2006 for a review). Positive effects have been shown in reducing the use of illicit drugs, health risk behaviours and criminality and improved social functioning. Substitution treatment programmes usually include, as well as a prescribing element, other interventions to support behavioural change. Generally, the consensus in this area is that it is good practice to integrate programmes into the wider framework of medical care and social assistance.

Prescribing practice for substitution treatment in Europe

Over the past 15 years, the provision of treatment for heroin dependence has seen large increases in the EU. According to available data, this is mainly due to a more than sevenfold increase of substitution treatment provision in the EU-15 Member States, since 1993.

With the exception of five countries (the Czech Republic, France, Latvia, Finland, Sweden), methadone is by far the most commonly used drug for substitution purposes, accounting for around 72 % of all substitution treatments ([121]). In general, methadone treatment is based around specialist outpatient centres, but in some countries it may also be delivered in general practice settings or, when patients have been stabilised, in community-based care settings. Methadone dispensing practice varies; sometimes it is only available from specialist centres and consumption will be supervised, but in some countries, such as the United Kingdom, pharmacies also play an important role, and take-home prescriptions may be allowed.

([121]) See Tables HSR-7, HSR-9 and HSR-11 in the 2007 statistical bulletin.

Quality assurance and substitution treatment

The effectiveness of any service will depend on the quality of the care provided. Concerns have been expressed that some substitution treatment programmes are of poor quality, with the focus of activities too much on prescribing and not sufficient attention paid to providing a more comprehensive package of social and medical support. Criticisms made also include: the lack of adequate clinical monitoring; poor prescribing practices leading to diversion of drugs onto the illicit market; and, that low-dose treatment programmes are not in line with the clinical evidence on effectiveness (Loth et al., 2007; Schifano et al., 2006; Strang et al., 2005).

Many countries have taken these concerns seriously, and Denmark, Germany and the United Kingdom all report that reviews are under way with the objective of improving the quality of care provided. Similarly, Denmark has recently completed a three-year project to document the impact of wider psychosocial support in substitution treatment and to test quality assurance processes.

In Germany, two recent studies have examined substitution therapy practice and looked at possibilities for improving care (COBRA) and explored quality assurance issues resulting in a new manual for medical practitioners (ASTO). In the United Kingdom, an audit was recently undertaken in England to analyse prescribing and clinical management practices and assess the extent to which they are in line with existing clinical guidelines.

The availability of national clinical guidelines, standards and treatment protocols is important in ensuring the quality of substitution treatment. National clinical guidelines and treatment protocols are reported to be in preparation or being revised in Demark, Ireland, Hungary, Portugal, the United Kingdom and Norway, and Slovakia published guidance on methadone treatment administration in 2004. In the Netherlands, maintenance treatment is now increasingly realised according to medical treatment standards, and administration of methadone is supervised during the first phase of treatment. In Austria, two decrees laying down the framework of medically assisted treatment were drafted in 2005, with the aim to improve substitution treatment and include measures on supervised consumption as well as regulation of physicians operating in this area.

A national monitoring system for reporting on clients in substitution treatment programmes also provides information useful for assessing the quality and availability of services. Currently, such schemes are reported to exist in 17 Member States, and national substitution registers are in preparation in Belgium and Luxembourg, while an expansion of the existing register to all health centres is being implemented in the Czech Republic.

In recent years, there has been interest across the EU in additional pharmacological agents for treating drug dependence, and the use of buprenorphine, in particular, has become more common. In 2005, Slovenia and in May 2006, Malta joined the group of European countries licensing buprenorphine maintenance treatment at specialised units ([122]), and currently Bulgaria, Hungary, Poland and Romania are the only countries where this treatment option is not available.

One reason for interest in the use of buprenorphine is that it is arguably a more suitable pharmaceutical option than methadone for use in community practice. This issue is a complex one and is discussed in detail in the 2005 selected issue on buprenorphine. In most countries buprenorphine can only be prescribed by trained, accredited physicians and is subject to regulation appropriate to its controlled status under the international conventions (Schedule III of the 1971 UN Convention on Psychotropic Substances).

Buprenorphine is marketed in the form of sublingual tablets, and although it is not considered a particularly attractive substance to inject, reports exist that tablets have been dissolved and injected. The potential for misuse of buprenorphine is supported by reports from some countries of the diversion of the drug onto the illicit market. To deter illicit use of buprenorphine, a new formulation of the drug, in combination with naloxone, has been developed. This formulation, Suboxone, received a European marketing authorisation in 2006.

In January 2007, the Netherlands introduced heroin assisted treatment as a possible option for treating opioid dependence, expanding the number of treatment places to around 1 000, and therefore joined the United Kingdom as one of the two European countries where this option is available. Overall, the number of clients receiving heroin in Europe is very small, and treatment is usually reserved for particularly chronic cases where other therapeutic options have proved unsuccessful. The efficacy of heroin as a substitution agent has also been explored in experimental research in both Spain (March et al., 2006) and Germany (Naber and Haasen, 2006). Both studies reported positive treatment findings, suggesting that this approach may prove an appropriate treatment modality for socially excluded opioid users with severe problems who have responded poorly to other treatment options. Together with earlier work, these studies on heroin prescription have stimulated debate about the need for this treatment option to be more widely available.

([122]) See Figure HSR-1 and Table HSR-8 in the 2007 statistical bulletin.

Procedure for European marketing authorisation for medicinal products

The European Medicines Agency (EMEA) is responsible for the scientific evaluation of applications for European marketing authorisation for medicinal products. Medicines approved through the centralised procedure obtain a single marketing authorisation which is valid in all Member States of the European Union.

All authorised medicinal products are also monitored for safety. This is conducted through the EU network of national medicines agencies, in close cooperation with healthcare professionals and the pharmaceutical companies themselves.

The EMEA publishes a European public assessment report (EPAR) for every centrally authorised product that is granted a marketing authorisation; EPARs are published on the EMEA website (http://www.emea.europa.eu/) and a summary for the public is available in all official languages of the EU. The EMEA also works in partnership with the EMCDDA and Europol in support of the work to detect new drug threats in Europe in the context of the Council decision (see Chapter 7).

Treatment data

The EMCDDA collects two types of information to describe treatment in Europe. The treatment demand indicator is based on the monitoring of characteristics of clients entering treatment across Europe. In addition, Member States are asked to provide data that describes the overall structure and availability of services.

Data from the treatment demand indicator

Data from the monitoring of clients entering drug treatment in Europe provides a window not only on the wider epidemiological situation in respect to patterns of use and trends but also on the relative demand and availability of different forms of treatment. This can cause difficulties in interpreting the available information, as an increase in those being treated for a particular drug problem may indicate that demand for services have gone up or that availability of a particular kind of service has increased. As an aid to the analysis of this sort of data, a distinction is made between new and all treatment demands, with the assumption that new treatment demands better reflect changes in broader patterns of drug taking and all treatments better reflect the overall demands made on the treatment sector as whole.

Information available from the treatment demand indicator (TDI) does not cover all people in drug treatment, which is a considerably greater number; only clients requesting treatment during the reported year are recorded, but a pilot project is currently being implemented in 2007, aiming to extend the European data collection to treatment clients in continuous treatment ([123]) and assess reporting coverage of national systems.

In many countries, opioids, mainly heroin, remain the principal drug for which clients seek treatment. Of the total 326 000 treatment requests reported in 2005 under the treatment demand indicator, opioids were recorded as the principal drug in about 40 % of cases, with around 46 % of these clients reporting injecting the drug ([124]).

Some countries report a significant proportion of treatment demands relating to opioids other than heroin. In Finland, other opioids, especially buprenorphine are reported to be a primary drug of use by 41 % of drug clients and in France 7.5 % of all clients are reported as using buprenorphine. In the United Kingdom and the Netherlands, around 4 % of clients are reported as primary methadone users. In Spain, Latvia and Sweden, between 5 % and 7 % of drug clients are entering treatment for primary use of unspecified opioids other than heroin or methadone ([125]). And in Hungary, where the use of home-made opium poppy products has a long history, around 4 % of treatment requests are related to opium.

Most opioid users are reported by outpatient treatment units; however, in Sweden 71 % of opioid clients are reported by inpatient centres, indicating that services are differently structured in this country. A small percentage (3 %) of inpatient treatment demands for opioid clients is also reported by the United Kingdom ([126]). In the few countries reporting data on treatment demand in low-threshold agencies, a significant proportion of drug clients seek treatment for primary opioid use ([127]).

The relative proportion of treatment demands made by non-opioid clients is increasing in the TDI data set and actual numbers of new clients demanding treatment for opioid use is also falling in many countries, with the absolute number of reported new treatment demands for primary heroin use decreasing from 80 000 in 1999 to 51 000 in 2005 ([128]).

([123]) See http://www.emcdda.europa.eu/?nnodeid=1420 (meeting report 2006).
([124]) See Table TDI-5 in the 2007 statistical bulletin.
([125]) See Table TDI-114 in the 2007 statistical bulletin.
([126]) See Table TDI-24 in the 2007 statistical bulletin.
([127]) See Table TDI-119 in the 2007 statistical bulletin.
([128]) See Figure TDI-1 in the 2007 statistical bulletin.

Levels of drug substitution treatment

In the EU Member States and Norway, in 2005, it is estimated that the number of drug substitution treatments was at least 585 000. This estimate is based on treatment monitoring carried out in most countries and provides a general picture of service availability. These figures are probably a minimum estimate, as some treatment modalities are likely to be under-reported, for example treatment provided by general practitioners or in prison settings.

The vast majority of treated clients (97%) are reported by the EU-15 Member States, who also contribute the majority (80%) of all treatment demands reported in the TDI data set. This represents a more than sevenfold increase since 1993, when substitution cases were estimated to be around 73 000 (Farrell, 1995). Data show a rise of about 15% in client numbers in the EU and Norway from 2003 to 2005, mostly due to increases in Germany (estimated increase of 8 300 cases), France (5 706), Italy (6 234), Portugal (4 168) and the United Kingdom (41 500) ([129]). In 2005, stabilisation in the number of clients in substitution treatment was reported in the Netherlands (122 cases per 100 000 inhabitants) and Luxembourg (355 cases per 100 000).

The strongest relative growth during between 2003 and 2005 was observed in (but not confined to) some of the new Member States, with countries reporting substantial increases (over 40%) including Bulgaria, Estonia, Greece, Lithuania, Romania and Norway. These increases coincided with a geographical expansion of the availability of substitution treatment option in many of these countries. Provision of substitution treatment did not increase in all new Member States: Hungary, Poland and Slovakia reported a relatively stable situation, while client numbers in the Latvian high-threshold methadone programme actually decreased from 67 to 50. In two countries with a history of high levels of provision, Spain and Malta, provision has recently decreased, possibly reflecting overall levels of demand in these countries.

The interrelationship between repeat treatment demands, maintenance levels and the prevalence of problem opioid use is complex. The levels of clients' repeat treatment demands and the numbers of clients in drug maintenance programmes is determined by historical developments in opioid use incidence and prevalence, as well as treatment service organisation and type. For a few countries, it is possible to use estimated levels of opioid drug use prevalence to calculate the ratio of clients in maintenance treatment to opioid problem users.

For EU countries where estimates of problem opioid use were available for 2005, the extent of substitution treatment among problem opioid users was calculated (Figure 10). Results show significant differences between countries, with rates varying from under 10% (Slovakia) to about 50% of opioid users (Italy). However, the data does suggest the need to review the availability of treatment options in all countries in order to ensure that sufficient provision is available to meet estimated needs.

Despite some recent increases in substitution treatment in the Baltic States and central European countries, levels remain low compared to the estimated number of opioid users in these Member States, with the exception of Slovenia. An estimate from Estonia suggests that only 5% of heroin users in the four major urban centres are covered by substitution programmes, and that this rate is as low as 1% at national level.

Opioid treatment demands

The proportion of treatment demands that are for primary opioid use reflects, to some extent, the relative prevalence of illicit opioids as a problem drug requiring (further) treatment, although it is influenced by the organisation of the treatment services and the reporting system.

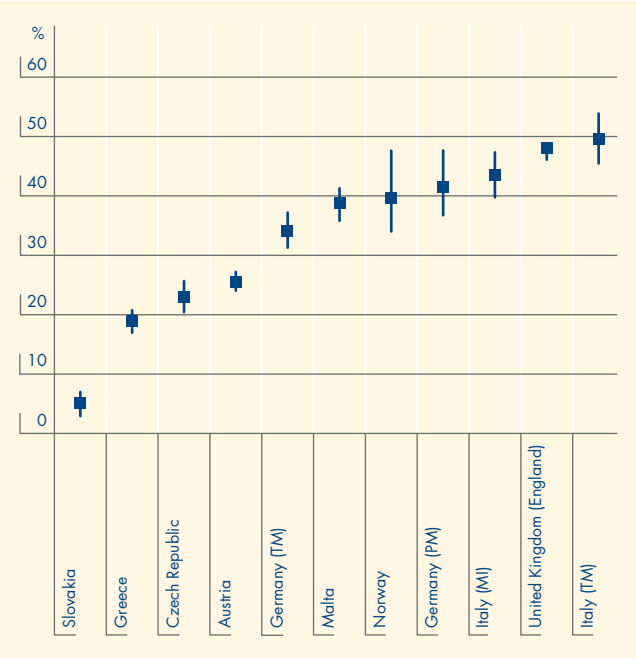
The proportion of clients seeking treatment for opioid use varies between countries. Based on the most recent data available, opioid users make up 40–70% of all treatment demands in 12 countries, less than 40% in seven countries and more than 70% in six countries ([130]).

The percentage of all drug treatment demands accounted for by all heroin requests has fallen, decreasing from 74% in 1999 to 61% in 2005. The only countries not reporting a decrease are Bulgaria and the United Kingdom ([131]).

The absolute decrease of new opioids treatment demands, mainly due to heroin use, is confirmed by looking at the trend of new heroin clients: all the countries, except Bulgaria and Greece, report a decrease in the proportion of new requests for primary heroin use among new drug clients in the last seven years. From 1999 to 2005, the percentage of new heroin clients among all new drug clients fell from 70% to 37%.

([129]) See Table HSR-7 in the 2007 statistical bulletin.
([130]) See Table TDI-5 in the 2007 statistical bulletin.
([131]) See Figure TDI-3 in the 2007 statistical bulletin.

Figure 10: Number of opioid maintenance treatment clients as a percentage of the estimated number of problem opioid users, 2005



NB: This information is available for only nine countries.
The symbol indicates a point estimate; a bar indicates an uncertainty interval arising from the estimation procedures; the number of opioid users is estimated by various methods: TM = treatment multiplier; PM = police multiplier; MI = multivariate indicator. Where no method is indicated, the line given represents an interval between the lowest lower bound of all existing estimates and the highest upper bound of them. For more information see Figure HSR-3 in the 2007 statistical bulletin.
Sources: National focal points.

Treatment demand clients

Those seeking treatment for opioid problems tend to be relatively old compared with those seeking help for problems with other drugs ([132]) and also tend to report worse social conditions. Unemployment levels among opioid clients are generally high, education levels low, and between 10% and 18% are reported to be homeless.

Most clients (60%) report initiation of opioid use before the age of 20; first use of opioids after the age of 25 was very uncommon ([133]). On average, a lag of 7–8 years was reported between first use of opioids and first contact with drug treatment: the mean age at onset of opioid use was 22 years and the mean age at first treatment demand 29–30 years. Inpatient treatment demands were typically a little older than those receiving outpatient care, and the data suggest quite a short interval between first contact with treatment and subsequent treatment episodes.

There are three men for every woman among outpatient opioid clients and four among inpatient clients; however, differences between countries existed, with typically a higher proportion of men among the treated population in southern European countries.

Across Europe, among those opioid clients seeking treatment for whom the route of administration is known, on average, 58% inject the substance (53% if they are new to treatment). The proportion of injectors is highest in Romania, the Czech Republic and Finland and the lowest in the Netherlands, Denmark and Spain ([134]).

Most opioid clients are polydrug users, taking opioids in combination with another secondary substance, mainly other opioids (35%), cocaine (23%) and cannabis (17%) ([135]).

Some countries report a high degree of co-occurrence of opioid dependence and other psychiatric disorders among opioid users. This observation has also been made in many clinical studies, which indicate that major depression, anxiety disorders, antisocial and borderline personality disorders are relatively common disorders among opioid users (Mateu et al., 2005).

([132]) See Table TDI-10 in the 2007 statistical bulletin.
([133]) See Tables TDI-11, TDI-107 and TDI-109 in the 2007 statistical bulletin.
([134]) See Tables TDI-4 and TDI-5 in the 2007 statistical bulletin.
([135]) See Table TDI-23 in the 2007 statistical bulletin.

Chapter 7
New and emerging drug trends and action on new drugs

Emerging drugs trends often mimic, expand on, or substitute previously popular drug trends and raise questions about why psychoactive substances are being consumed. Therefore, emerging trends in drug and alcohol consumption must be understood not only in relation to changes in policy by governments, but also in relation to each other and within the broader context of current fashions and socio-cultural changes in leisure time pursuits.

Developments in information technology and communication media, particularly the Internet, provide channels that facilitate the diffusion of new trends and allow the expression of diverse opinions about drug use and the associated risks.

New or changing patterns of drug use usually emerge at local, or city levels and very few Member States have, for example, monitoring systems to indicate the extent of fatal and non-fatal intoxications from the use of new or emerging psychoactive substances. In the context of an inevitably partial picture, the accumulated information about emerging drug trends in Europe is assessed by triangulating information from a wide range of different sources.

This chapter reports on recent developments in the illicit use of psychoactive substances that are not routinely addressed by the key drug indicators and have only recently been identified as a potential concern by policymakers or have attracted attention from the mass media.

Piperazines: new psychoactive substances

The most significant development relating to new psychoactive substances in recent years is the spread of various novel piperazine derivatives, a number of which appeared in Europe between 2004 and 2006.

This group of synthetic substances is derived from the parent compound piperazine and includes BZP (1-benzylpiperazine) and mCPP (1-(3-chlorophenyl)piperazine). These two substances are largely available from chemical suppliers and on the Internet, and illicit production is mainly limited to producing tablets or capsules.

BZP

Studies have compared the physiological and subjective effects of BZP with those of amphetamine, and suggest that BZP has approximately one tenth of the potency of dexamphetamine.

In recent years, products containing BZP started to be aggressively marketed as a legal alternative to ecstasy by various retailers through the printed media, Internet sites, designated shops and stalls at clubs and festivals, and may be traded as 'ecstasy'. BZP is offered in various combinations with other piperazines, and some, in particular BZP in combination with TFMPP ([136]), are thought to be designed to mimic ecstasy's effects. These products usually are visibly labelled as piperazine-containing, but are often misrepresented as 'natural' or 'herbal'.

The evidence accumulated in the EU about emerging trends in drug use suggests that they may parallel consumer trends in legal markets — for example the sale of entirely synthetic substances such as BZP, with the claim that it is 'natural' or 'herbal', may be appealing to a wider consumer interest in natural products. Furthermore, perceived safety of BZP is fostered by the fact that the products are often sold by designated retailers or in specialised shops rather than on the street.

BZP has been encountered in 14 EU Member States (Belgium, Denmark, Germany, Ireland, Greece, Spain, France, Malta, the Netherlands, Austria, Portugal, Finland, Sweden, the United Kingdom) and Norway.

There is some evidence about health risks related to BZP, which appears to have a narrow safety margin when used recreationally. In the United Kingdom, there have been reported incidents where BZP intoxications have been clinically observed and BZP has been toxicologically confirmed as the only consumed psychoactive substance in which users suffered serious side-effects, some resulting in medical emergencies. There are, though, no fatal cases that can be directly attributed to BZP. In March 2007, the EU responded to rising concern over the use of BZP by

([136]) 1-(3-Trifluoromethylphenyl)piperazine.

formally requesting a risk assessment of the health and social risks posed by this substance ([137]).

mCPP

mCPP has been described as producing stimulant and hallucinogenic effects similar to those of ecstasy (MDMA). Tablets containing mCPP are often designed to look like ecstasy and are almost always traded as such and the drugs are sometimes found in combination. It might be assumed that the addition of mCPP is intended to potentiate or ameliorate the effects of MDMA.

Since 2004, mCPP has been found in 26 Member States (all but Cyprus) and Norway; as such, it is becoming the most widely encountered new psychotropic substance in the EU ever since the European early-warning system monitoring began in 1997.

No serious intoxications or fatal cases related to mCPP have been reported in the European Union. There is little evidence that it is a particularly dangerous substance in terms of acute toxicity, though the chronic (prolonged use) toxicity has not been established.

GHB

Open Internet sales of GHB ([138]) have been curtailed since this substance was added to Schedule IV of the UN Convention on Psychotropic Substances in March 2001 and therefore all EU countries are bound to control it under their legislation addressing psychotropic substances. GHB has been used therapeutically in anaesthesia in France and Germany, and in the treatment of alcohol withdrawal in Austria and Italy. In June 2005, the Committee for Medicinal Products for Human Use (CHMP) of EMEA recommended granting a marketing authorisation for the medicinal product Xyrem (GHB being the active substance) for the treatment of cataplexy in adult patients with narcolepsy (EMEA, 2005) ([139]).

GHB is easily manufactured from its precursors gamma-butyrolactone (GBL) and 1,4-butanediol (1,4-BD), solvents widely used in industry and commercially available. Some countries, recognising the potential for misuse of these precursor substances have chosen to control one or both of them under drug control or equivalent legislation (Italy, Latvia, Sweden). Because GBL is not controlled in most Member States and online chemical suppliers offering it provide an easy access, some GHB users appear to have switched to consuming GBL. Qualitative analyses of online GHB and drug forums based in the United Kingdom, Germany and the Netherlands suggest that users obtain GBL from chemical suppliers who market GBL for various legitimate purposes.

Drug facilitated sexual assault

Cases of sexual assault by means of covertly adding a drug to a drink in order to incapacitate a victim have been increasingly reported in the media and medical literature since the 1980s. However, forensic evidence for this type of crime is notoriously difficult to obtain. Forensic studies do reveal that high concentrations of alcohol and also prescription benzodiazepine drugs are commonly identified in cases of alleged sexual assault (in over 80% of French cases and 30% of United Kingdom cases), but the narrow window of detection for drugs such as GHB is a limitation in establishing evidence in cases of alleged offences that are not quickly reported. The forensic evidence that is available from studies conducted since 2000 (in the United Kingdom, France, United States and Australia) indicate that covert administration of drugs for the purpose of sexual assault appears uncommon, although true incidence may be higher than identified due to non- or delayed reporting.

Prevalence and patterns of use

All information sources available suggest that general prevalence of GHB use is low, with significant levels of use limited to some specific subpopulations. An Internet survey conducted in the United Kingdom found that GHB was more commonly used within the home (67%) compared with nightlife environments (26%) (Sumnall et al., 2007). A survey of 408 pub-goers in Amsterdam in 2005 reported lifetime prevalence estimates for GHB which were significantly higher among the clientele of gay bars and trendy cafes (17.5% and 19% respectively) than in mainstream and student pubs and cafes (5.7% and 2.7% respectively) (Nabben et al., 2006).

Trends

A lack of information makes trends in GHB use difficult to assess, although the available evidence suggests that use of GHB remains limited to some small subpopulation groups. Data from dance music surveys from Belgium, the Netherlands and the United Kingdom suggest that use of GHB may have peaked around 2000–03 and declined subsequently. However, the extent to which this finding would apply to other subgroups is unclear. It might be noted

([137]) See http://www.emcdda.europa.eu/?nnodeid=1346

([138]) The term GHB is used to include the possible use of GBL or 1,4-BD.

([139]) See 'Procedure for European marketing authorisation for medicinal products', p. 68.

Internet as a source of information on emerging drug trends

In 2004, over a third of young people in the EU stated that they would turn to the Internet if they wanted to know more about drugs (Eurobarometer, 2004). If young people do go online seeking drug information, a real question arises as to the extent to which the information they access will be unbiased and accurate. Numerous sites cover drug use issues, some of them government-sponsored, others run by lobby groups, consumer or advocacy networks. In addition to acting as a source of information on drugs, the Internet has created a marketplace for both licit and illicit drugs, with sites offering for sale illicit drugs and legal alternatives. Online drug retailers increasingly have the potential to spread new drug-taking practices or products by exploiting the marketing potential of the Internet by using online marketing strategies that are very responsive to users' demands and to changing legal and market situations.

Within the framework of the E-POD (European perspectives on drugs) project, the EMCDDA is exploring ways to use the Internet as a source of information on emerging drug trends. At the EU level there are also developments to provide reliable information on public health matters: the new EU public health portal provides a gateway into a range of European public health resources including drug-related information ([1]).

([1]) http://ec.europa.eu/health-eu

that in 2005, drug telephone helplines in Finland reported telephone calls about GBL for the first time (FESAT, 2005).

Health risks

The main health risk associated with the use of GHB appears to be the high risk of loss of consciousness, especially when the drug is combined with alcohol or other sedative drugs. GHB use can also result in other problems including coma, decrease in body temperature, hypotonia, hallucinations, nausea, vomiting, bradycardia and respiratory depression. Physical dependence to GHB has been observed following prolonged use, and additional health risks may be posed due to the possible presence of solvents or heavy metal contaminants.

Since 1993, five Member States and Norway have reported GHB-related deaths to the EMCDDA: Denmark and Italy (one case each), Finland and Norway (three cases each) as well as Sweden and the United Kingdom (around 40 GHB-related deaths).

In Amsterdam, the reported number of non-fatal emergencies due to the use of GHB was 76 in 2005, exceeding, as in previous years, the medical emergencies attributed to use of hallucinogenic mushrooms (70 cases), ecstasy (63 cases), amphetamine (three cases) and LSD (one case). Compared with other substances, a high proportion of GHB cases (84%) required transportation to a hospital. GHB information requests to the National Poisons Information Centre in the Netherlands increased by 27% (constituting 241 of the 1 383 requests made) in 2005 compared with 2004.

Risk reduction

Responses to the use of GHB are most commonly provided by national or community projects targeting nightlife settings, and usually consist of training club staff and disseminating information about the risks of using GHB (Germany, France, the Netherlands, Austria, the United Kingdom). Advice on precautions to be taken in nightlife settings to avoid having drinks 'spiked' and measures to be taken in the case of a potential overdose are central in information disseminated about GHB. Teams that provide first aid support for drug and alcohol problems are increasingly deployed at large events to respond to incidents involving GHB or other drug-related.

Ketamine

Ketamine has been monitored in the EU since concerns first arose in 2000 about its misuse (EMCDDA, 2002). At national level, ketamine is subject to controlled drugs legislation (as opposed to medicine regulations) in almost half of the EU Member States, and in Sweden and the United Kingdom, ketamine was listed as a narcotic substance in 2005 and 2006 respectively. Recently, a critical review of ketamine conducted by the WHO concluded that international controls would create problems with the availability of the substance for use in human medicine in remote areas of the world and in veterinary medicine, because there is no appropriate replacement (WHO, 2006). Following this review, in March 2007, the UN Commission on Narcotic Drugs draft resolution on responding to the

New psychoactive substances

Council Decision 2005/387/JHA of 10 May 2005 on the information exchange, risk assessment and control of new psychoactive substances establishes a mechanism for the rapid exchange of information on new psychoactive substances that may pose public health and social threats. The EMCDDA and Europol, in close collaboration with their networks — the Reitox national focal points and Europol national units respectively — are assigned a central role in implementing an early-warning system for detection of new psychoactive substances ([1]).

([1]) http://www.emcdda.europa.eu/?nnodeid=1346

threat posed by the abuse and diversion of ketamine encouraged Member States to consider adopting a system of precautionary measures for use by their government agencies to facilitate the timely detection of the diversion of ketamine.

Little epidemiological data exists on the use of ketamine, although a recent school survey in the United Kingdom reported lifetime prevalence rates at less than 0.5%. Some data is also available from surveys carried out in dance music settings, and among the different studies on this high-risk population, rates of ever in lifetime use of ketamine were reported to range from 7% in a Czech study to 21% in a Hungarian sample.

Chapter 8

Drug-related infectious diseases and drug-related deaths

Drug-related infectious diseases

Data provided to the EMCDDA and the European Centre for the Epidemiological Monitoring of AIDS (EuroHIV, 2006) suggest that, by the end of 2005, the transmission of HIV among injecting drug users (IDUs) was low in most countries of the European Union. This may at least partly follow from the increased availability of prevention, treatment and harm-reduction measures including substitution treatment and needle and syringe programmes, although other factors, such as the declines in injecting drug use observed in several countries, may also have played an important role. In several EU countries and regions, however, it is likely that IDU-related HIV transmission still continued at relatively high rates in 2005 ([140]), underlining the need to ensure the coverage and effectiveness of local prevention practice.

Surveillance of drug-related infectious diseases among IDUs in Europe is currently focused on HIV/AIDS and viral hepatitis (B and C). It consists of two complementary systems, case reporting (or 'notifications': absolute counts of newly reported/notified cases) and 'seroprevalence monitoring' (or 'sentinel surveillance': percentage testing positive in samples of IDUs) (Figure 11) ([141]). Both systems are likely to be imperfect, and countries differ in the availability of data. However, while the data provided by either of these two systems should be interpreted with caution, taken together, they provide a more complete picture of recent epidemiological trends.

Indicators of HIV incidence and prevalence

HIV case reporting

An important indicator of the number (incidence) of new infections among injecting drug users is provided by case reports of newly diagnosed HIV infections. In interpreting this data, a number of considerations should be borne in mind: infected IDUs may not be diagnosed if they are not in contact with health services; new infections may not necessarily be attributed to drug injection; and, the number of cases identified may be influenced by differences in testing and reporting rates between countries or over time.

The available data suggests that, by 2005, in most countries, rates of new infection related to IDUs were low. A caveat to this analysis is that in several high-prevalence countries, recent case reporting data is not available (Estonia, Spain, Italy, Austria). In 19 Member States, most of which have never experienced large HIV epidemics among IDUs, rates of reported IDU-related cases remained under five cases per million population in 2005. Higher figures were reported by Ireland and Luxembourg, with 16 and 15 new cases per million respectively. In Portugal, which reported the highest rate among the countries where IDU-specific data are available (85 new cases per million of the general population in 2005), the current situation appears to have stabilised after a decline between 2000 and 2003 ([142]). In Latvia, Lithuania and probably also in Estonia, rates of reported new IDU-related infections have strongly declined since the epidemic peaks in 2001–02, although they are still high in comparison with most other countries. In Latvia, the rate has dropped from 283 new cases per million in 2001 to 49 per million in 2005. In Lithuania, after an outbreak among prisoners, a peak observed in 2002 (109 per million) has been followed by a decrease to 25 new cases per million in 2005. Although there has been a strong decline in HIV infection in Estonia, the country still reports the highest rate of new HIV infections in the EU. And, while IDU-specific data are not available for Estonia, drug injecting is likely to remain a major transmission route for HIV in this country.

HIV prevalence among young and new IDUs

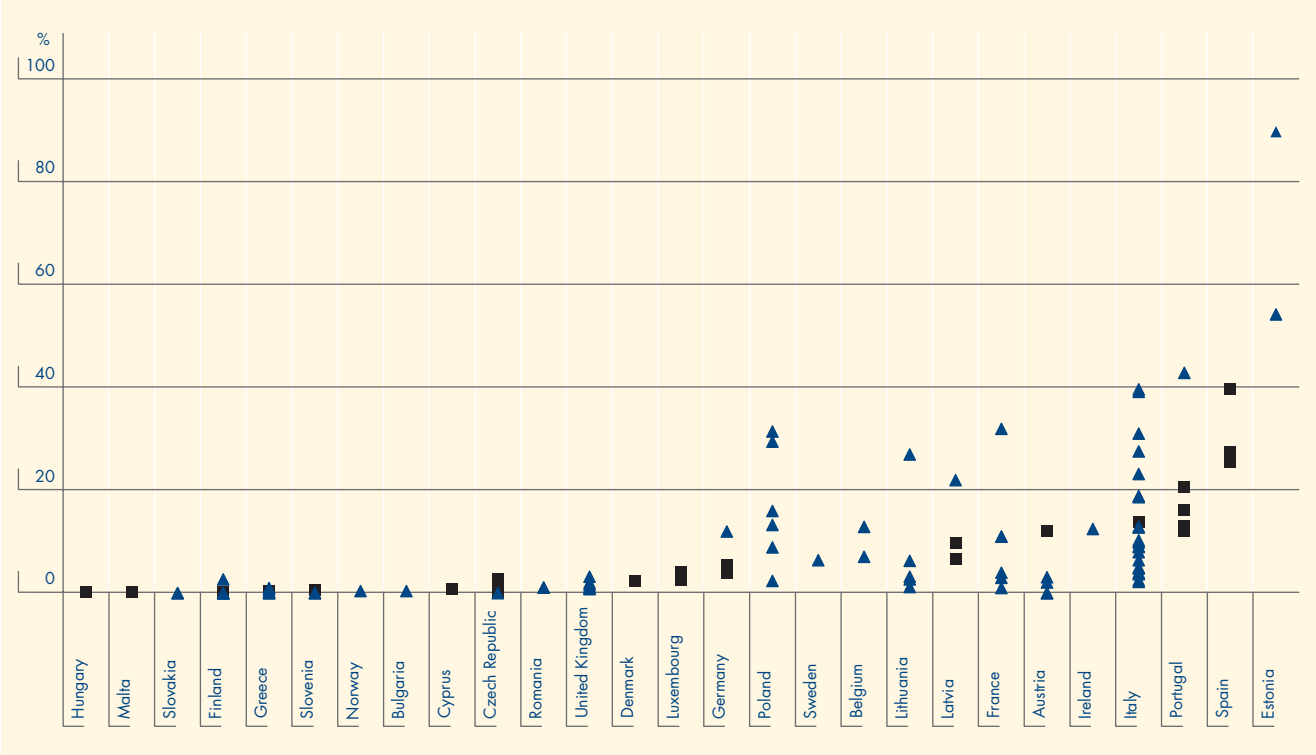
Support for the conclusions drawn from the available case reporting data can be found by analysing levels of HIV infection in samples of new IDUs (those injecting less than two years) and young IDUs (those under age 25). As infections in these groups are likely to be recently acquired, these data provide proxy indicators of HIV incidence. In these subgroups (found in the prevalence studies reported below), a high level of HIV infection (over 5 % in 2004–05) supports

([140]) See Figure INF-2 in the 2007 statistical bulletin.

([141]) Some prevalence studies in this area are small-scale: only samples of more than 50 people and statistically significant ($p < 0.05$) time trends are reported in this section.

([142]) The rises in 2004 (HIV cases) and 2005 (AIDS cases) in Portugal may be due to increased attention and reporting by professionals following discussions regarding the change to mandatory HIV reporting in 2005.

Figure 11: Estimates from national and subnational studies of HIV prevalence among injecting drug users, 2004/05



NB: Black square = sample with national coverage; blue triangle = sample with subnational (including local or regional) coverage.
Estimates for Spain and Sweden include 2006 data; data for Ireland and Latvia are from 2003; data for Slovakia are from 2003/04.
Countries are presented by order of increasing prevalence, based on the average of national data or, if not available, of subnational data.
Comparisons between countries have to be interpreted with caution owing to different types of settings and study methods; national sampling strategies vary — see Figure INF-3 in the 2007 statistical bulletin for further information. All reported sample sizes are larger than 50.

Sources: Reitox national focal points. For primary sources, study details and data before 2004, see Table INF-8 (part i) and (part ii) and Table INF-0 (part i) in the 2007 statistical bulletin.

indications of recent high incidence among IDUs in Portugal (data are national), Lithuania and Estonia (data are regional or city level), and suggests this has also been the case in one city out of the three reporting in Poland ([143]). It should be kept in mind that the size of these subsamples is, in general, small and that HIV seroprevalence data on young and new IDUs is not available from some countries.

Trends in HIV prevalence

Increasing HIV prevalences in repeated samples of IDUs may also indicate ongoing infections — although declines in mortality of infected IDUs or decreasing numbers of uninfected IDUs can be important confounders. Most available time series for the EU show stable prevalence, suggesting that the numbers of infected IDUs dying are balanced by the numbers of IDUs contracting HIV infection. Nonetheless, geographically scattered increases in prevalence across nine countries are observed since 2001 in some time series studies, although often alongside stable or declining trends in other regions making overall trends difficult to detect. These countries include again Latvia (national increase) and Lithuania (increase in one city), but also Austria (national increase), the United Kingdom (increase in England and Wales, but still at a low level) as well as some countries where prevalence is still very low (less than 1 %). Overall, these local or national level increases in HIV prevalence suggest that complacency concerning the provision of prevention measures to IDUs should be avoided.

In contrast, declining prevalence is reported from Greece (both at national level and in one region), Spain (both at national level and in one region) and Finland (national). Moreover, consistently low prevalence since 2001 (less than 1 % in all available data) is reported in four countries, all of which are new Member States: Bulgaria (Sofia, but prevalence is increasing), Hungary (national), Slovenia (two cities, but increasing) and Slovakia (two cities).

Overall, among the more than 90 time series of repeated HIV prevalence measurements in IDU samples covering 22 EU Member States plus Norway in 2001–05, more regions show a declining than an increasing trend. The

([143]) See Tables INF-9 and INF-10 in the 2007 statistical bulletin. In the annual report, only samples of size 50 and larger are reported.

data suggest that, especially in areas where prevalence has been high, the burden of infection in IDUs is likely to be now decreasing and possibly that prevention and harm-reduction policies are showing effect ([144]).

EU estimate

From the available case reporting and seroprevalence data and estimates of the number of IDUs and problem drug users (see Chapter 6), it is estimated that, in the EU, there may be some 100 000 to 200 000 people living with HIV who have ever in their lives been drug injectors. The number of newly diagnosed cases of HIV among injecting drug users is estimated to be currently around 3 500 per annum in the EU.

AIDS incidence and access to HAART

As highly active antiretroviral treatment (HAART), available since 1996, effectively stops progression of HIV infection to AIDS, AIDS incidence data have therefore become less helpful as an indicator for HIV transmission. Levels of HAART coverage are estimated by the WHO to be high in the EU Member States, candidate countries and Norway, with all reporting at least 75 % coverage ([145]), although specific data for IDUs are not available. AIDS incidence data remains important as it indicates the level of symptomatic disease and the introduction and availability of HAART.

Portugal remains the country with the highest incidence of IDU-related AIDS and it is the only country recording a recent increase, with an estimated 36 new cases per million population in 2005, up from 30 cases per million in 2004. In addition, total AIDS mortality (most likely largely related to injecting drug use) has not declined between 1997 and 2002, suggesting that access to HAART may have been low during this period ([146]). Of the Baltic countries, Latvia records a decrease in AIDS incidence, at 23 new cases per million in 2005, down from a peak of 26 new cases per million in 2004, while Estonia has not provided IDU-specific data in 2005 but reported an increase between 2003 and 2004 (from four to 13 cases per million) ([147]).

Hepatitis B and C infections

While HIV infection in IDUs in the EU is mainly concentrated in few high-prevalence countries, viral hepatitis and, in particular, infection caused by the hepatitis C virus (HCV), is much more evenly distributed and more highly prevalent.

HCV antibody levels of over 60 % among the IDU samples tested in 2004–05 are reported in 60 studies from 17 countries (six countries out of 28 report no data) ([148]). Among young IDUs (under age 25) in these samples, a high prevalence (over 40 % in at least one sample) was found in seven countries and among new IDUs, for whom data are not available for many countries, in Poland and the United Kingdom ([149]). Only five countries reported studies where prevalence was less than 25 %.

From the available data and estimates of the number of IDUs and problem drug users (see Chapter 6), it can be calculated that there may be around one million people living with an HCV infection in the EU who have ever in their lives been drug injectors.

The prevalence of markers for HBV infection varies to a greater extent than that of HCV markers, possibly due to differences in vaccination levels. The most complete data set available is that for the antibody to the hepatitis core antigen (anti-HBc), which indicates a history of infection. In 2004–05, prevalence rates of over 40 % were reported from six countries.

Time trends in notified cases of hepatitis B and C show different pictures. In the case of hepatitis B, the proportion of IDUs among all notified cases appears generally to have declined, possibly reflecting the increasing impact of vaccination programmes. No general trend is visible for the proportion of IDUs among notified cases of hepatitis C infection ([150]); however, this proportion differs strongly between countries, suggesting that differences exist in the transmission of hepatitis C. Understanding the factors that are responsible for inter-country differences in infection rates is likely to be important for the design of better prevention and harm-reduction strategies in this area.

Preventing infectious diseases

The last decade has seen a consensus emerging at EU level on the key elements necessary for an effective response to infectious diseases among injecting drug users. In Europe, multi-component prevention responses are well established — they may include: access to adequate drug treatment, especially substitution treatment; needle and syringe programmes; information and distribution of prevention material; education, including peer education, on how to

([144]) See Tables INF-8, INF-9 and INF-10 in the 2007 statistical bulletin.
([145]) See Figure INF-14 in the 2006 statistical bulletin.
([146]) Portugal National Coordination for HIV/AIDS Infection, Ministry of Health, 2006.
([147]) See Figure INF-1 in the 2007 statistical bulletin. Data for the two most recent years are estimates adjusted for reporting delays therefore subject to changes over time (source EuroHIV).
([148]) See Tables INF-11, INF-12 and INF-13 in the 2007 statistical bulletin. In the annual report only samples of size 50 and larger are reported.
([149]) See Figure INF-6 (part vii) in the 2007 statistical bulletin.
([150]) See Figures INF-8 and INF-11 in the 2007 statistical bulletin.

Good prison health is good public health

Among the greatest challenges in public health in the last two decades are: the resurgence of communicable diseases such as TB; the rise and rapid spread of HIV/AIDS; and the seemingly uncontrollable pandemic of problematic use of psychotropic drugs. The most vulnerable sections of the population suffer disproportionately from these conditions. Among prison populations, in particular, drug problems are often common and levels of infectious diseases relatively high. Moreover, drug use often continues or, sometimes, is initiated in prison; and in this setting, high-risk behaviours can be common. Prisons, therefore, have the potential to lead to elevated levels of infection of potential life-threatening diseases but may also provide an opportunity to intervene with a particularly important target group.

With a few exceptions (France, the United Kingdom (England and Wales), Norway) prison health is generally an integral part of the judicial or security system rather than of the health system, thus risking isolating health in prisons from mainstream public health approaches and raising questions about the independence, quality, accessibility and level of health services provided.

The poor health status of prisoners can have implications for wider public health, when drug users are released and resume contact with their family and others in the community. Therefore, the detection of serious communicable diseases such as HIV infection and tuberculosis, accompanied by adequate treatment and harm-reduction measures can contribute significantly to the health status of the communities from which the prisoners come and to which they will return. For those who are drug-dependent, treatment programmes in prison can provide an opportunity that may benefit not only the individual's health, but may also reduce the likelihood of future offending.

In order to increase our knowledge of the prison health situation and of the specific responses, the public health programme of the European Commission supports the Health in Prisons Project, World Health Organisation Regional Office for Europe, to establish a database for the collection of relevant prison health indicators and other health determinants. The EMCDDA is involved in the joint development of the database together with WHO Europe and the European Network on Drugs and Infections Prevention in Prison (Endipp) ([1]).

([1]) http://data.euro.who.int/hip/

reduce risks; voluntary counselling and testing of infectious diseases; vaccination and treatment of infectious diseases.

Regardless of the balance of these elements in different national policies, there is clear agreement that a coordinated and comprehensive public health approach is vital to reduce the spread of infectious diseases among drug users.

To address the problem of undiagnosed HIV infection, new guidance has been published this year (WHO/UNAIDS, 2007). A more proactive approach of healthcare providers to recommending HIV testing and counselling, especially at facilities targeting most-at-risk populations, such as injecting drug users, is suggested in order to achieve increased voluntary uptake of HIV testing. A message emerging from the work of the EMCDDA on this topic is that regular voluntary medical examination, including testing and counselling for HIV and other infections, is a particularly appropriate service to offer to injecting drug users.

For the prevention of hepatitis A and B, vaccination has an important role to play. Some countries provide vaccination for hepatitis B at the population level, while others target those considered to be at particular risk. In Norway, hepatitis A and B vaccinations were stepped up after epidemic outbreaks of these liver infections showed that injecting drug use had spread to smaller municipalities.

The high prevalence of hepatitis C infection among injectors points strongly for the need to develop more effective responses to this disease, for which vaccination is not an option. A number of countries have specific programmes aimed at hepatitis C prevention and some interesting work is developing in this area, for example the 'stop hepC' campaign, which has run in Oslo since 2003, aims at reaching drug users before they have started injecting or while they are still new to the practice.

Drug treatment and harm-reduction services also need to develop responses to the risks posed by the sexual behaviour of their clients. In addition to drug injecting, drug users may also be exposed to an elevated risk of HIV infection due to their sexual behaviour — either because of impaired decision-making, the association of some drugs with high-risk sexual behaviours, or through their involvement in sex work or sex for drug exchanges. Women drug users may be particularly vulnerable, though concerns also exist about the interaction between drug use and high-risk sexual behaviour among some groups of men who have sex with men. In addition to HIV, drug users may also be at higher risk of acquiring other sexually transmitted diseases (STDs), and drug treatment services may be able to play an important role in diagnosing undetected STDs. For example, a recent Maltese study reported undetected human papilloma virus infections among women screened at an outpatient treatment unit.

Needle and syringe programmes

The integration of needle and syringe exchange or distribution schemes within services provided by drugs agencies and the combined offer of risk counselling and advice services, as well as of referral of drug users to treatment are common in the EU. Needle and syringe

programmes (NSPs) were identified as a priority measure for addressing the spread of infectious disease among drug injectors in three out of four EU countries and Norway ([151]). Provision of clean needles and syringes is reported by all countries except Cyprus, where this measure has, in 2006, been recommended by an expert group to curb a possible increase in injecting-related infections. The distribution of other sterile equipment such as alcohol pads and dry wipes, water, filters and cookers together with clean syringes is becoming a general approach among service providers. While the distribution of sterile injecting material through NSPs is generally no longer regarded as a controversial issue, not all countries prioritise these programmes, and some consider pharmacy sales as largely sufficient.

The nature and range of provision of sterile injecting material vary between countries. In general, syringe provision outlets are located in specialised drugs agencies, and in all but three countries this type of provision is complemented by mobile services that can reach out to groups of drug injectors in marginalised neighbourhoods. Syringe vending machines complement the available NSP services in 10 countries ([152]), but data on turnover are scarce and research about the effectiveness of this type of provision is lacking. Luxembourg has now joined Spain and Germany among the few countries offering needle and syringe exchange in prisons; although provision in Germany is limited to one prison in Berlin.

The widespread availability of community-based pharmacies means that syringe exchange schemes operated through pharmacies can considerably improve the geographical availability of syringes and, therefore, complement provision by specialist agencies. For example, in Scotland, 1.7 million syringes were distributed through a network of 116 participating pharmacies in 2004, and in Portugal more than 1 300 pharmacies took part in the scheme and distributed 1.4 million syringes ([153]). Formally organised pharmacy-based syringe exchange or distribution schemes are reported in eight European countries (Belgium, Denmark, Spain, France, the Netherlands, Portugal, Slovenia, the United Kingdom).

In countries where pharmacies represent a common source for drug users to obtain their injecting equipment, they could play a more important role in delivering other health-promoting measures to drug users, including the dissemination of information about sexual and injecting-related risks of infectious diseases, testing and counselling services, and referral to treatment. Currently, work to motivate pharmacists to get involved in syringe programmes and to support those who are is only reported by France, Portugal and the United Kingdom.

The geographic coverage of NSPs and the provision of injecting material through them vary greatly between countries. However, a growing number of countries have nationwide networks of NSPs. Countries reporting good national coverage of NSPs include: Luxembourg and Malta, two small countries; Italy, where NSPs are commonly or often implemented in about 70 % of all local health districts; the Czech Republic, where they are available in all 77 districts and in the capital city of Prague; and Finland, where legislation obliges municipalities to provide relevant services to prevent infectious diseases, including NSPs. Portugal estimates that its pharmacy-based and outreach NSPs cover about 50 % of the territory, and in Denmark, 10 of the 13 counties run NSPs. All Austrian cities with a significant injecting drug scene have at least one needle and syringe outlet, and in Bulgaria, services are available in 10 cities with relatively high levels of problem drug use. In Estonia, it was estimated in 2005 that 37 % of IDUs were in contact with NSPs, while the coverage of the target groups in Slovakia and Romania was estimated to be considerably lower (20 % and 10–15 %, respectively).

Between 2003 and 2005, increases in the total number of syringes exchanged or distributed through specialised NSPs were reported by several countries (Bulgaria, the Czech Republic, Estonia, Hungary, Austria, Slovakia, Finland) ([154]).

Specialised agencies that provide needle and syringe programmes can have other important public health roles, for example, assessing and raising the awareness for risk behaviour among clients, motivating them to get tested and vaccinated, as well as providing a conduit to primary healthcare and drug treatment. While the extent to which these agencies deliver these services is unclear, the need for this type of service development is underlined by the findings of a national audit recently conducted in England. This audit report found that levels of awareness of infectious diseases among clients were relatively low, and that agencies could be more proactive in offering counselling, testing and vaccination.

([151]) See Figure 11 in the 2006 annual report.
([152]) See Table HSR-2 in the 2007 statistical bulletin.
([153]) See Table HSR-4 in the 2007 statistical bulletin.
([154]) See Table HSR-3 in the 2007 statistical bulletin.

Drug-related deaths and mortality

Drug-related deaths

The EMCDDA definition of drug-related deaths refers to those that are caused directly by the consumption of one or more drugs. In general, drug-related deaths occur shortly after the consumption of the substance(s). Other terms used to describe these deaths include 'overdoses', 'poisonings', 'drug-induced deaths' and 'acute drug deaths' ([155]). The number of drug-related deaths in a community will depend on the number of people using drugs associated with overdose (particularly opioids). Other factors that will also be important include: the proportion of injectors, prevalence of polydrug use, availability and policy of treatment services and emergency services.

Although the comparability of European data has improved in recent years, differences in the quality of reporting between countries still mean that direct comparisons should be made with caution. The extent of drug-related deaths can be expressed in terms of the number of cases reported, by population rates or by proportional mortality. While differences in the quality of reporting exist between countries, if methods are unchanged over time, trends in numbers and characteristics of overdose cases may be observed.

Between 1990 and 2004, from 6 500 to over 9 000 deaths were reported each year by EU Member States, adding up to more than 122 000 deaths during this period. These figures should be considered as a minimum estimate ([156]).

Population mortality due to drug-related death varies widely between countries, ranging from 3–5 ([157]) to over 50 deaths per million inhabitants (average 18.3), with rates of over 20 per million being found in 11 European countries. Among males aged 15–39 years, mortality rates are typically three times higher (averaging 61 deaths per million). In 2004–05, drug-related deaths accounted for 4% of all deaths among Europeans aged 15–39 years, and for more than 7% in nine countries ([158]).

In addition to overdoses, drug users die from causes indirectly related to drug use. For instance, AIDS deaths related to injecting drug use accounted for almost 1 400 deaths in 2003 (EuroHIV, 2006) ([159]), although this is possibly an underestimate. The number of deaths from other causes indirectly related to drug use (e.g. hepatitis, violence, suicide or accidents) is more difficult to assess. It has been estimated that, in at least some European cities, 10–20% of mortality among young adults could be attributed to opioid use, directly or indirectly (Bargagli et al., 2006) (see below). Mortality related to other forms of drug use (e.g. cocaine) would add to this figure, but is more difficult to quantify.

Determining the overall level of mortality resulting from problem drug use at a national or European level will require advances in data collection and analysis. An attempt at such an exercise on a national scale is reported in the Dutch national report. By extrapolating data from a local study, the mortality rate due, directly and indirectly, to problem drug use was estimated, taking into account regional differences. Although further methodological work is needed, this type of study, in addition to measuring the extent of deaths indirectly related to drug use, has the potential to overcome possible under-reporting of overdose deaths.

Acute deaths related to opioids

Heroin deaths ([160])

Opioid overdose is one of the leading causes of death among young people in Europe, particularly among males in urban areas. Opioids are present in most cases of acute drug-related deaths due to illegal substances reported in the EU, accounting for 46% to 100% (Figure 12), mainly heroin or its metabolites. In Europe, most opioid deaths are related to heroin, but often other substances are also identified as having possibly played a role, in particular alcohol, benzodiazepines, or other opioids and, in some countries, cocaine. A voluntary data collection on substances involved in drug deaths in which nine countries participated in 2006 ([161]) has confirmed that in opioid overdoses, more than one drug is usually mentioned (60–90% of cases) and they could be considered 'polydrug deaths'.

Men account for the majority of opioid overdose deaths (59–100%), with the highest proportions of females occurring in the Czech Republic, Poland and Slovakia and the lowest in Italy, Lithuania and Luxembourg. Most overdose

([155]) Most national case definitions are the same as the EMCDDA definition or very similar, although some countries still include cases due to psychoactive medicines or non-overdose deaths, generally as a limited proportion (see the 2007 statistical bulletin methodological note 'Drug-related deaths summary: definitions and methodological issues' and 'DRD Standard Protocol, version 3.1').

([156]) See Tables DRD-2 (part i), DRD-3 and DRD-4 in the 2007 statistical bulletin.

([157]) In France, the rate was 0.9 per million in 2005, which may imply some under-reporting, but it should be noted that it was about 10 times higher in 1994, when overdose deaths started to decline.

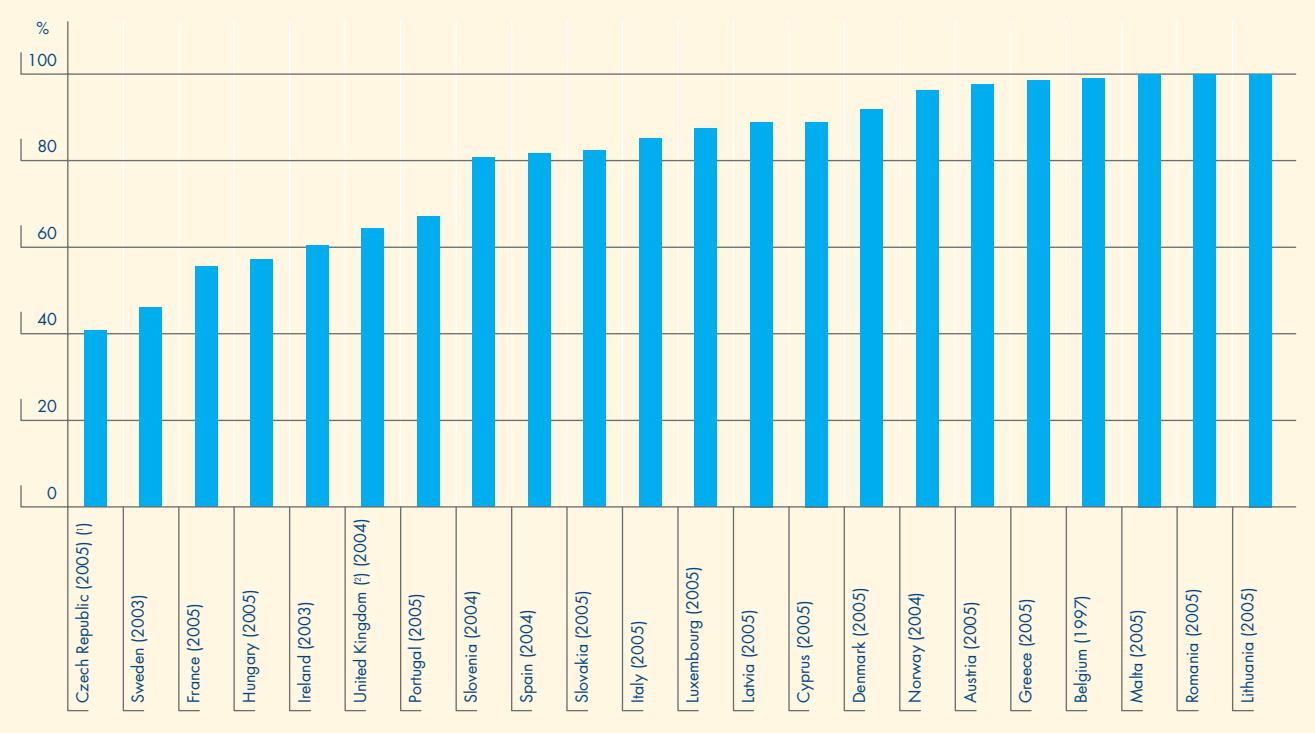
([158]) See Table DRD-5 in the 2007 statistical bulletin.

([159]) Note that figure refers to the west and centre area of WHO Europe, which includes some non-EU countries, and the total deaths for Estonia, Latvia and Lithuania (east area).

([160]) As most cases reported to the EMCDDA are opioid overdoses, general characteristics of acute drug-related deaths are used for description of opioid cases.

([161]) The Czech Republic, Denmark, Germany, Latvia, Malta, the Netherlands, Austria, Portugal and the United Kingdom.

Figure 12: Proportion of acute drug-related deaths that show presence of opioids



(1) For the Czech Republic, the EMCDDA Selection D definition of acute drug-related death was used instead of the national definition. The national definition includes poisoning by psychoactive medicines, which accounts for most cases (156 cases out of 218).
(2) Office of National Statistics definition.
NB: In some countries, the 'National definitions' of drug-related death include a limited number of cases of deaths indirectly related to drug use. Data for 2005 or last year for which information is available. For further information, see Table DRD-1 in the 2007 statistical bulletin.
Sources: Reitox national reports (2006), taken from national mortality registries or special registries.

fatalities concern those aged between 20 and 40 years old, with the mean age in most countries in the mid-30s ([162]). The mean age at overdose death is lowest in Bulgaria, Estonia, Latvia, and Romania and highest in Poland, Finland and the United Kingdom. There are very few reported overdose deaths among people aged less than 15 years, although drug deaths in this age group could be under-reported. While some drug-related deaths are recorded among those aged over 65 years, only seven countries report more than 5 % of cases in this age group. In several of the Member States that joined the EU since 2004, the comparatively low mean age at death and the high proportion of fatal overdoses among those aged less than 25 years may signal a younger heroin-using population in these countries ([163]).

In many Member States, the age of overdose fatalities is increasing, suggesting a decrease in the incidence of heroin use among young people. This trend is common among the EU-15 Member States, although in Austria and Luxembourg decreases have been observed in recent years. In the other Member States, the trend is less clear, and the small numbers of cases makes it difficult to interpret the figures ([164]).

Methadone and buprenorphine deaths

Although research shows that substitution treatment reduces the risk of fatal overdose, each year some deaths are reported associated with the misuse of substitution medicines. Monitoring the number of deaths related to methadone and to buprenorphine and the circumstances surrounding the deaths can provide important information for the quality assurance of substitution programmes and to inform prevention and harm-reduction initiatives.

The presence of methadone in a substantial proportion of drug-related deaths is reported by several countries, although the role played by methadone in the death is not always clear and other substances may also be present. Denmark reported that methadone was the cause of poisoning (alone or in combination) in 43 % of drug-related deaths (89 out of 206, in 2005); Germany reported that 255 cases (out of 1 477) were attributed to 'substitution substances' (75 alone and 180 with other narcotics) in 2005, compared with 345 cases in 2004; the United Kingdom reported 280 cases (out of 1 972, drug strategy definition) with 'mention' of methadone

([162]) See Table DRD-1 (part i) in the 2007 statistical bulletin.
([163]) See Figure DRD-2 in the 2007 statistical bulletin.
([164]) See Figures DRD-3 and DRD-4 in the 2007 statistical bulletin.

(2004); and, in Norway, 55 autopsies revealed traces of methadone. Spain reported (Reitox national reports, 2005) that there were few fatal overdoses involving only methadone (2 % of total), but that it was frequently present in combination in opioid deaths (42 %) and cocaine deaths (20 %). Other countries did not report methadone deaths or the numbers were very small.

Deaths due to buprenorphine poisoning appear to be rare, which is attributed to the agonist–antagonist pharmacological characteristics of this drug. However, some deaths have been reported by European countries. In the 2006 and 2005 national reports, only France and Finland recorded deaths related to this substance. In Finland, buprenorphine was found in 83 cases in 2005 (73 in 2004), generally combined with benzodiazepines, sedatives or alcohol, or injected. In France, only two fatal overdoses involving buprenorphine were reported in 2005 (four in 2004). Buprenorphine is the main opioid substitution drug in these two countries, but the estimated 70 000 to 85 000 people receiving the substance in France is much greater than the numbers treated in Finland. In addition to France and Finland, in 2004, three other countries reported deaths mentioning buprenorphine (two or three in each case). A study searching exhaustively for deaths with mentions of buprenorphine in the United Kingdom between 1980 and 2002 found only 43 cases, often in combination with benzodiazepines or other opioids (Schifano et al., 2005).

Acute deaths related to non-opioid drugs

Deaths related to ecstasy and amphetamines

Deaths mentioning ecstasy are infrequent, but caused considerable concern when they started to be reported some years ago, as they often occur unexpectedly among socially integrated young people. The limited data available in the 2006 Reitox national reports suggests that ecstasy deaths remain at similar levels to those reported in previous years. In Europe as a whole, there were references to 78 deaths involving ecstasy ([165]).

Amphetamine deaths are also infrequently reported, although in the Czech Republic 16 deaths were attributed to pervitin (methamphetamine) in 2004 and 14 in 2005, correlating with an increase in the estimated number of problem pervitin users and treatment demands. In Finland, 65 deaths were reported involving amphetamines, although the role of the drug in these deaths was not specified.

Deaths related to cocaine

Overdose deaths due to cocaine are more difficult to identify than those caused by opioids, and are often considered to be the result of a combination of causes, rather than from cocaine toxicity itself ([166]). Studies have found that most cocaine deaths are related to chronic use of the drug and are often the result of cardiovascular and neurological problems brought on by the use of cocaine over a long time, particularly in users with predisposing conditions or risk factors. In Europe, reports of deaths with cocaine involved usually also mention the presence of other substances (including alcohol and opioids), reflecting the use of cocaine in combination with other drugs.

Among the countries supplying data, over 400 cocaine deaths were identified in both the 2006 and 2005 national reports. There is a clear need to investigate further the health consequences and mortality related to cocaine use.

Trends in acute drug-related deaths

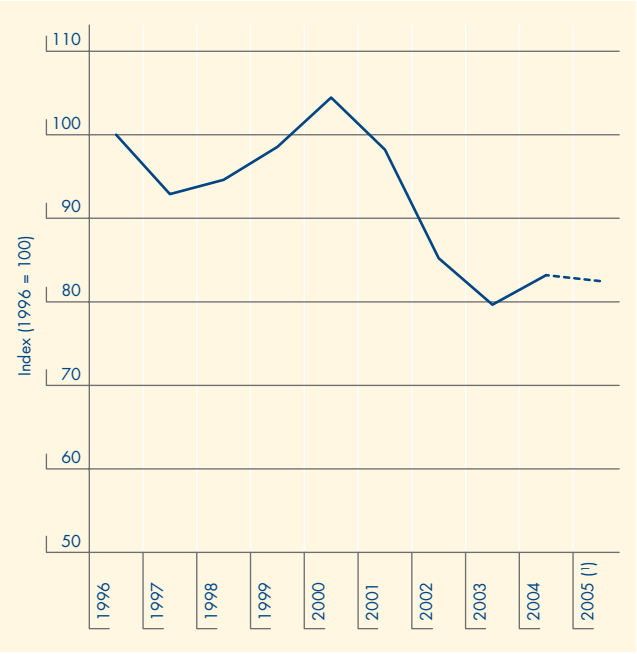
National trends in drug-related deaths can provide insights both into developments in patterns of problematic drug use in each country and into developments in responses. Data available for the EU reveal some general trends in drug-related deaths. From a longer term perspective, the EU-15 Member States and Norway experienced a sharp increase in drug-related deaths during the 1980s and early 1990s, possibly paralleling the expansion of heroin use and injection ([167]). Drug deaths continued to increase between 1990 and 2000, although less sharply.

Since 2000, many EU countries have reported decreases in the numbers of drug-related deaths, possibly related to increases in treatment availability and harm-reduction initiatives, although possible moves away from injection or a reduction in heroin availability may also be important. At European level, drug-related deaths fell by 6 % in 2001, by 14 % in 2002 and by 5 % in 2003 (Figure 13). However, reports for 2004 and provisional data for 2005 indicate that the decrease in drug-related deaths has not continued beyond 2003.

A worrying trend has begun to emerge in reports of drug-related deaths in some countries. After marked peaks in drug-related deaths in 1999–2001, followed by a clear decrease for two to three years, an increase in reported deaths has been observed in 2004 and 2005 ([168]). This pattern generally describes the trends in drug-related deaths observed in recent years in Ireland, Greece, Portugal, Finland and Norway and, to a lesser extent, those observed

([165]) Depending on country, figures refer to 2004 or 2005, for ecstasy and cocaine.
([166]) See the 2007 selected issue on cocaine for a more detailed report on deaths related to this drug.
([167]) See Figure DRD-8 in the 2007 statistical bulletin.
([168]) See Table DRD-2 in the 2007 statistical bulletin.

Figure 13: Overall trend in acute drug-related deaths, 1996–2005 for all Member States with available data



(1) For 2005 the figure is provisional, based on comparing 2004 and 2005 only for those countries with data for both years.
NB: The indexed change is calculated based on countries with information for the stated year and the preceding.
See Table DRD-2 in the 2007 statistical bulletin for numbers of deaths in each country and notes on methodology.
Sources: Reitox national reports (2006), taken from general mortality registries or special registries (forensic or police).

in the Netherlands, Austria and the United Kingdom. In Italy, after several years of decreasing numbers of drug-related deaths, some increase has been recorded in the past two years ([169]). Several possible causes have been suggested to account for this recent increase, among which are polydrug use by opioid users, or a possible increase in the availability of heroin.

There is a marked discrepancy in trends in drug-related deaths between the EU-15 Member States and those who have joined since 2004. Among the EU-15 Member States, there has been an overall decrease since 1996, very marked between 2000 and 2002, suggesting a long-term decrease in the number of young opioid injectors. However, recent trends in these countries are mixed. In the new Member States, a sharp increase was observed until 2002, but decreasing in 2003–04.

Increases in the proportion of drug-related deaths in drug users aged under 30 years have been observed in Greece and among those aged under 25 years in Estonia, Luxembourg and Austria, and to a lesser extent in Latvia and the Netherlands, although in most countries young drug users account for a decreasing proportion of overdoses ([170]).

Gender differences are also observable in trends in drug-related deaths ([171]). For more details see the 2006 selected issue on gender and drug use.

Overall mortality among problem drug users

Information on the overall mortality (directly and indirectly caused by drugs) among problem drug users mostly refers to opioid users whereas information on mortality related to other forms of drug use is generally lacking, but it will be increasingly important for public health purposes, for instance among regular but socially integrated cocaine users.

Research studies among opioid users in various European settings have found that mortality among this group is high compared to that of the general population. A collaborative study that started within an EMCDDA project found that opioid users recruited in treatment in eight European locations had a very high mortality compared to their peers of the same age (see EMCDDA, 2006). A mortality cohort study carried out in the Czech Republic found that the standardised mortality ratio of stimulant users was 4–6 times higher than that of the general population, while that of opioid users was 9–12 times higher (Reitox national reports, 2005). A French cohort study that followed individuals arrested for heroin, cocaine or crack use found that male mortality was five times higher and female mortality 9.5 times than in the general population, but with a decreasing trend (Reitox national reports, 2005). Further information on mortality among drug users is expected from cohort studies in progress in several European countries (Bulgaria, Spain, Malta, Austria, Poland, Romania, Sweden, the United Kingdom, Norway).

Recent studies from the Netherlands and Norway did not find any relationship between age and risk of overdose death (Cruts et al., in press; Ødegård et al., 2006 cited in the Norwegian national report), however, as opioid users age, mortality due to chronic conditions may add progressively to mortality due to external causes such as suicide and violence. Poor living conditions of drug users as well as their mental health problems may also contribute substantially to the high mortality of this group.

Suicide is identified as a cause of drug overdose deaths in some studies among drug users. Known suicides, added together with undetermined intent deaths constituted 30% of all drug-related deaths reported in Scotland in 2005. In 2003, 13% of all drug-related deaths were suicides

([169]) See Figure DRD-11 in the 2007 statistical bulletin.
([170]) See Figure DRD-9 in the 2007 statistical bulletin.
([171]) See Figure DRD-6 in the 2007 statistical bulletin.

(Scottish Executive, 2005). Substance misuse problems are thought to contribute to suicidal behaviour in several ways: common risk factors, substance misuse among people prone to high-risk behaviours.

Reducing drug-related deaths

The attention given to overdose prevention measures has grown in recognition of the relative importance of drug overdose as a public health issue. While engagement with treatment and other services may reduce drug-related deaths, there remains considerable potential for developing interventions targeted specifically on overdose risks, and overall, Europe still lacks a comprehensive approach to overdose prevention.

Member States, especially those with older heroin epidemics, have increasingly stepped up their availability of drug treatment over the past years and are now reaching an increasing number of hard-to-reach problem drug users (see also Chapter 2 and Chapter 6). Easier accessibility of treatment and greater variety of approaches, including substitution treatment, improve rates of retention in treatment, which makes an important contribution to reducing drug-related deaths and mortality. Several countries have lowered accessibility thresholds to drug maintenance treatment, and changes in philosophy towards expediting entry and re-enrolling in methadone maintenance treatment (measures which have been shown to increase survival) are evident. Furthermore, studies from high-threshold programmes, suggest that strict admission criteria and treatment rules lead to more disciplinary discharges, increasing the risk of death to those discharged, compared to those remaining in treatment (Fugelstad et al., 2007). A longitudinal study on the effectiveness of treatments for heroin addiction, which will examine the association between retention in treatment and mortality, is currently underway in Italy (Bargagli et al., 2006).

In the first few weeks after leaving prison or treatment those who have withdrawn from opioid drugs are at an elevated risk of an overdose, if they relapse back into drug use — as their previous tolerance will be reduced. It is, therefore, an important harm-reduction measure to inform those leaving such settings of the risks that resuming drug use can pose and discuss with them risk reduction strategies. Continuity of care with social support and treatment services can play an import role here, especially for those leaving prison.

Other overdose prevention approaches include teaching drug users the recovery position and how to respond better to emergency situations, as well as working with the police, ambulance service and drug users themselves to encourage the calling of emergency medical services at an early stage in an overdose event. Research suggests that concurrent use of other drugs, particularly alcohol and sedative drugs, may increase the risk of fatal opioid overdose and, therefore, polydrug use is an important issue for services to address. Some experimental work has looked at the possibility of providing drug users with opioid antagonists, an example being a Scottish pilot scheme to distribute Naloxone to drug users, their families and friends. This approach has not been widely developed in Europe to date, but may have potential. The availability of opioid antagonists in ambulances, treatment facilities or other settings where opioid drug overdose is likely to be encountered is a more common approach, though not universal. Given the effectiveness of these drugs, if quickly administered, a need clearly exists to review the availability of this sort of response within any review of overdose prevention measures.

An approach that has generated some controversy is the provision of drug consumption rooms, whereby drug users may consume their drugs in a designated space where

Co-morbidity and Isadora project

Psychiatric disorders are commonly related to problematic drug use. Although no systematic collection of information on co-morbidity exists at European level, findings from local research conducted in several European countries suggest that between 30 % and 90 % of clients in drug treatment may have co-morbid psychiatric conditions. The most common disorders diagnosed among those dependent on drugs include personality disorders, depression, antisocial personality, anxiety, and mood and eating disorders. Schizophrenia and suicidal tendencies are also mentioned. Co-morbidity is reported to be more common among heroin users, especially those who have a long history of drug use and who have experienced several interruptions in methadone treatment and whose social and living conditions have deteriorated. Similarly, drug dependence is common among people with serious mental illness.

The European project Isadora ('integrated services aimed at dual diagnosis and optimal recovery from addiction') was concluded in 2005 after a three-year research period ([1]). The project, aiming to identify major institutional and individual risk factors for co-morbidity, involved seven sites across Europe and 352 patients recruited from acute psychiatric wards. According to the results, poor prognosis and chaotic dual diagnosis pathways are not due to client characteristics alone, but also to fragmented service provision, often resulting in an inefficient compartmentalisation of care. Among the outputs of Isadora is a comprehensive dual diagnosis training manual.

([1]) http://isadora.advsh.net/

medical and other services may also be available. Drug consumption rooms have been criticised by the INCB in their recent annual reports, but are viewed by some EU Member States as a useful component of their responses to some forms of highly problematic drug use. The arguments made in favour of drug consumption rooms include that they can provide an overdose prevention measure, reduce other risks associated with injecting, provide an opportunity for disseminating information and act as a conduit to primary healthcare, treatment and other drug services. Consumption rooms are sometimes also viewed as an opportunity to limit public nuisance caused by the use of drugs. There are now in excess of 70 consumption rooms in the EU and Norway: about 40 in the Netherlands, 25 in Germany, six in Spain and one each in Luxembourg and Norway.

Information, education and communication (IEC) techniques are used throughout Europe in initiatives that aim to reduce drug-related deaths. Several countries report that specifically developed information materials are distributed among drug users, their peers and families, or police. However, besides first aid courses for staff at drugs agencies or for drug users themselves, overdose risk assessment and counselling about risk management seems to be becoming more common in Europe and is mentioned, for example, in the reports from Romania, the Netherlands and Malta. In 2005, an action plan to reduce drug-related deaths was launched in Scotland, and consists of an overdose awareness DVD, new research to look at the delays in calling for help and a national forum to look at trends and identify areas where further action needs to be taken.

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