European Monitoring Centre
for Drugs and Drug Addiction

EN

ISSN 2314-9086

European Drug Report

Trends and Developments

2018

European Monitoring Centre
for Drugs and Drug Addiction

European Drug Report

Trends and Developments

2018

Legal notice

This report is available in Bulgarian, Spanish, Czech, Danish, German, Estonian, Greek, English, French, Croatian, Italian, Latvian, Lithuanian, Hungarian, Dutch, Polish, Portuguese, Romanian, Slovak, Slovenian, Finnish, Swedish, Turkish and Norwegian. All translations were made by the Translation Centre for the Bodies of the European Union.

Luxembourg: Publications Office of the European Union, 2018

Print	ISBN 978-92-9497-283-5	ISSN 1977-9860	doi:10.2810/688395	TD-AT-18-001-EN-C
PDF	ISBN 978-92-9497-272-9	ISSN 2314-9086	doi:10.2810/800331	TD-AT-18-001-EN-N

Recommended citation: European Monitoring Centre for Drugs and Drug Addiction (2018), *European Drug Report 2018: Trends and Developments*, Publications Office of the European Union, Luxembourg.

European Monitoring Centre
for Drugs and Drug Addiction

Praça Europa 1, Cais do Sodré, 1249-289 Lisbon, Portugal
Tel. +351 211210200
info@emcdda.europa.eu | www.emcdda.europa.eu
twitter.com/emcdda | facebook.com/emcdda

Contents

Preface

We are pleased to present the EMCDDA's annual analysis of the drug phenomenon in Europe. *The European Drug Report 2018: Trends and Developments* provides a timely insight into Europe's drug problems and responses. Our flagship report is built on a thorough review of European and national data that highlights emerging patterns and issues. This year it is accompanied online by 30 Country Drug Reports and resources containing full data arrays and graphics, allowing an overview for each country.

Our report is designed to equip our stakeholders with a comprehensive overview. It will also provide an early warning of new drug trends, help identify priorities for national and local strategic planning, enable comparisons between countries and support evaluations through the provision of data on trends. The report is complemented by our recent triennial publication, the *Health and social responses to drug problems: a European guide* (2017).

This year, for a wide range of substances, we are seeing some worrying signs of increased levels of drug production now taking place within Europe, closer to consumer markets. Technological advances facilitate this development, and they also connect European drug producers and consumers to global markets via the surface web and darknet. We also note that the increase in cocaine production in South America is now having an impact on the European market, bringing both increased risk of health problems for users and more complex challenges for law enforcement, as traffickers modify and switch supply routes. Emerging evidence of the increased availability and use of crack cocaine in Europe is also a cause for concern and requires monitoring.

New psychoactive substances available on Europe's drug markets continue to cause public health problems and challenge policymakers. Recent EU legislation has reinforced the exchange of information on the new substances appearing on the market and reduced the time it takes for these substances to be risk-assessed and controlled across Europe. Highly potent synthetic opioids and cannabinoids are causing problems in a range of settings, and in the case of fentanyl derivatives, putting those who use drugs and front-line responders in greater danger. Addressing this challenge has placed a renewed focus on the role of the opioid antidote naloxone in overdose response strategies and the level of access to it that drug users have.

We believe that the threats posed by drugs to public health and security in Europe continue to require a high-level, multidisciplinary response. The new EU action plan adopted in 2017 provides the framework for the necessary European cooperation.

Our report and the analysis it presents is a testament to the robust support we receive from our national and institutional partners. Input from our Reitox national focal points and national experts allows us to build a unique overview of Europe's drug situation. We are also grateful to our partners at European level, in particular the European Commission, Europol, the European Centre for Disease Prevention and Control and the European Medicines Agency. Additionally, we are thankful to specialised networks that have collaborated with us so that we can incorporate leading-edge and innovative data into our report in the areas of wastewater analysis, school surveys and drug-related hospital emergencies.

Laura d'Arrigo
Chair, EMCDDA Management Board

Alexis Goosdeel
Director, EMCDDA

Introductory note and acknowledgements

This report is based on information provided to the EMCDDA by the EU Member States, the candidate country Turkey and Norway in an annual reporting process.

The purpose of the current report is to prove an overview and summary of the European drug situation and responses to it. The statistical data reported here relate to 2016 (or the last year available). Analysis of trends is based only on those countries providing sufficient data to describe changes over the period specified. The reader should also be aware that monitoring patterns and trends in a hidden and stigmatised behaviour like drug use is both practically and methodologically challenging. For this reason, multiple sources of data are used for the purposes of analysis in this report. Although considerable improvements can be noted, both nationally and in respect to what is possible to achieve in a European level analysis, the methodological difficulties in this area must be acknowledged. Caution is therefore required in interpretation, in particular when countries are compared on any single measure. Caveats and qualifications relating to the data are to be found in the online version of this report and in the Statistical Bulletin, where detailed information on methodology, qualifications on analysis and comments on the limitations in the information set available can be found. Information is also available there on the methods and data used for European level estimates, where interpolation may be used.

The EMCDDA would like to thank the following for their help in producing this report:

- the heads of the Reitox national focal points and their staff;
- the services and experts within each Member State that collected the raw data for this report;
- the members of the Management Board and the Scientific Committee of the EMCDDA;
- the European Parliament, the Council of the European Union — in particular its Horizontal Working Party on Drugs — and the European Commission;
- the European Centre for Disease Prevention and Control (ECDC), the European Medicines Agency (EMA) and Europol;
- the Pompidou Group of the Council of Europe, the United Nations Office on Drugs and Crime, the WHO Regional Office for Europe, Interpol, the World Customs Organisation, the European School Survey Project on Alcohol and Other Drugs (ESPAD), the Sewage Analysis Core Group Europe (SCORE), the European Drug Emergencies Network (Euro-DEN Plus);
- the Translation Centre for the Bodies of the European Union and the Publications Office of the European Union.

Reitox national focal points

Reitox is the European information network on drugs and drug addiction. The network is comprised of national focal points in the EU Member States, the candidate country Turkey, Norway 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 on the EMCDDA website.

Commentary

Developments in European countries are both influenced by and impact on global drug trends

Understanding Europe's drug problems and developing effective responses

In this commentary we explore some of the key factors that appear to influence both the patterns of drug use we see in Europe in 2018 and the health, social and security problems that are associated with them. A starting point for this discussion is the overarching observation that today, by historical standards, not only does Europe's drug problem appear to be going through a particularly dynamic phase, but also across the board the available data suggests that drug availability is high and in some areas even increasing. This presents a set of important new challenges to existing national and European responses to drug use and drug-related problems, some of the implications of which are discussed below.

Signs of increased drug production in Europe

Developments in European countries are both influenced by and impact on global drug trends. For some synthetic stimulant drugs like MDMA, Europe is a major producer, exporting products and expertise to other parts of the world.

For cannabis, European production has to some extent displaced importation and appears to have impacted on the business models of external producers. One consequence of this can be seen in the increased potency of the cannabis resin now being trafficked into Europe.

For cocaine and heroin, the two other major plant-based illicit drugs, production remains centred in Latin American and Asian countries, respectively. Global data suggests that for both substances production has been increasing. How this impacts on Europe merits scrutiny. In the case of heroin, despite the relatively high purity of the drug at street level, overall use remains stable with rates of initiation into use appearing to be low. For cocaine, in contrast, several indicators are now trending upwards. This is discussed in more detail below. For both substances however, seizure data suggest some recent changes in the production chain that may have important future implications. Secondary processing and extraction of cocaine from 'carrier materials' continues to be observed in Europe, as does the importation of large volumes of the drug concealed in shipping containers. For heroin, a new development is that laboratories converting morphine to heroin have been detected and dismantled in several European countries. The driver of this is likely to be the greater availability and considerably lower cost in Europe of acetic anhydride, a key precursor chemical for heroin production, at a time when opium poppy harvests are increasing. This development illustrates not only the globally joined-up nature of modern drug production networks, but also the need to frame drug control responses, such as precursor controls, within a global perspective.

Similarly, while European and international efforts to restrict the production and availability of new psychoactive substances appear to be now having some impact, there have also been reports of the tableting and manufacture of these substances within European borders. To date, these developments in the production of new drugs appear limited. However, changes in this area have the potential to rapidly impact on drug problems, and therefore vigilance is required to ensure that Europe is prepared to better respond to potential future threats in this area.

Internet sales: Europe in a global market

The sale of drugs on the internet represents another good example of how change can occur rapidly, posing challenges for existing policy and response models and for drug monitoring. A recent joint EMCDDA-Europol report analysed the role European suppliers and consumers play in this global market. EU suppliers were estimated to be responsible for nearly half of 'darknet' drug sales between 2011 and 2015. Online sales are currently small in relation to the overall illicit drug market, but they appear to be growing. While attention is often focused on the darknet, it is also apparent that for new psychoactive substances and misused medicines, social media and the surface web may be equally important. Of particular concern here is the emergence of new benzodiazepine-related substances. Since 2015, 14 new benzodiazepines have been reported to the EU Early Warning System. These substances are not licensed medicines in the European Union, and very little is known about their toxicology; however, risks are likely to increase when they are used alongside illicit drugs or alcohol. The availability of both established and new benzodiazepines on the illicit drugs market appears to be increasing in some countries, and these substances are known to play an important but often overlooked role in opioid overdose deaths. Recent signs that use of these substances might be growing among young people are particularly worrying, and this is an area requiring further investigation, policy consideration and prevention efforts. The use of benzodiazepines among high-risk drug users is a topic explored in an online supplement to this report.

The consequences of increased cocaine supply

Rising cocaine production in Latin America now appears to be making itself felt on the European market. In some countries, wastewater analysis has provided an early warning of increased availability and use of the drug, which are now also reflected in other data sources. While cocaine prices have remained stable, drug purity is currently at the highest level for over a decade in Europe. Historically, most cocaine entering Europe has come through the Iberian peninsula. Recent large seizures elsewhere suggest the relative importance of this route may have declined slightly, with cocaine increasingly also now trafficked into Europe through large container ports. It is noteworthy in this respect that, in 2016, Belgium surpassed Spain as the country with the largest volume of cocaine seized.

Overall, the public health implications of cocaine use are difficult to measure, as its role in both acute problems and long-term health harms is difficult to monitor and may often go unrecognised. Problems can be expected to increase, however, if prevalence of use, and particularly high-risk patterns of use, increases. One of the signs that this may be happening is an increase observed in the number of first-time admissions to specialised treatment related to cocaine, although these have not returned to the high levels last seen a decade ago. Troublingly, while still rare, there is also some increase in reported crack cocaine use, and concerns exist that this may be beginning to affect more countries. Overall there still remains a need to better understand what constitutes effective treatment for cocaine users, including how best to respond to cocaine problems that may coexist with opioid dependence.

New psychoactive substances continue to challenge public health

The importance of being prepared for new challenges is highlighted by the success of the EU Early Warning System for new psychoactive substances. This system has been internationally recognised as providing Europe with a capacity to identify and respond to the emergence of drugs that has been lacking elsewhere. Enhanced EU legislation in this area has been recently adopted, increasing the speed of reporting, while new information providers continue to join the system. New psychoactive substances present an evolving challenge to drug policy. Overall, some 670 substances are monitored by the system, with the presence of around 400 of these being reported each year. The list of substances appearing on the drug market continues to grow, with about one additional new psychoactive substance being reported every week in Europe. Although the number of new substances making their debut is down from the peak reached in 2015, the negative public health implications of the use of these drugs remain high.

The appearance in Europe of synthetic opioids and synthetic cannabinoids linked to deaths and acute intoxications led to the EMCDDA assessing an unprecedented number of substances for their risks to public health. This process can trigger a fast-track legislative response across the European Union. Data were also provided to the World Health Organization in 2017, and some of these substances are now being considered for international control. Five fentanyl derivatives were investigated in 2017. These substances were available in a number of novel forms including nasal sprays. They were also sometimes found mixed with other drugs, such as heroin, cocaine or fake medicines, with the consequence of users often being unaware that they were consuming the substance. The emergence of these potent drugs, often purchased on the internet, raises significant challenges for both health and law enforcement services. The substances are easy to transport and conceal, with small volumes often representing many hundreds of thousands of potential street doses. From a health perspective, they add to the already considerable burden attributed to other opioid deaths. In the United States, fentanyl derivatives now make a major contribution to the current opioid crisis, and over a short period of time they have become the substances most associated with overdose mortality. In Europe we are not facing a problem of the same scale but nonetheless reports to the EMCDDA of deaths and non-fatal overdoses associated with fentanyl and non-controlled fentanyl derivatives underline the need for continued vigilance.

Synthetic cannabinoids are increasingly linked to health problems

Reports of health harms linked to new synthetic cannabinoids led to a further four risk assessments by the EMCDDA in 2017. Synthetic cannabinoids have been associated with deaths and acute intoxications. A recent EMCDDA report drew attention to the growing health and security problems the use of these substances is causing in some European prisons. It was also apparent that these issues may sometimes go unobserved, due to the ease with which these substances can be smuggled into prisons and the challenges that exist in detecting their use.

Synthetic cannabinoids were first marketed as legal alternatives to natural cannabis products, but in many ways they are different. Initially associated more with recreational use, synthetic cannabinoids are now being used problematically by more marginalised social groups, such as the homeless, although overall our understanding of patterns of use of these drugs remains limited. Where information exists it shows that the prevalence of synthetic cannabinoid use is generally low, but the potential of these substances to cause harm is considerable. An indication of this can be seen in recent data from Turkey, where an overall increase in drug-induced deaths appears to be partly driven by use of synthetic cannabinoids.

Synthetic opioids and synthetic cannabinoids linked to deaths and acute intoxications

The changing cannabis market brings new policy challenges

Cannabis remains the most widely used illicit drug in Europe. The drug's prominence is evident from its place in seizures, drug law offences, prevalence estimates and new treatment demands. Developments in the Americas, which include the legalisation of the drug in some jurisdictions, have led to the rapid development of a commercial cannabis market. This is resulting in innovation in the forms of the drug available and delivery systems for its consumption. These include high-potency strains of cannabis, e-liquids and edible products. The legal recreational market has been accompanied by regulations allowing access to cannabis for medical or therapeutic purposes in some jurisdictions. The EMCDDA is monitoring these developments and providing explanatory policy summaries to highlight some of the issues they raise for discussions in Europe. Among these is the possibility that some of the new forms of this drug may appear on the European drug market.

Developments in North America have prompted renewed interest in the role played by cannabis in drug-impaired driving. In 2017 the EMCDDA hosted the third international symposium on drug-impaired driving. The report from international experts attending this meeting highlighted the difficulties in developing effective policy responses in this area, a topic that is relevant to countries regardless of the legal status of the drug.

Other important policy questions in this area include what constitutes appropriate treatment for cannabis-related disorders, how to ensure policy synergies with tobacco reduction strategies, and what constitutes effective harm reduction approaches in this area. The prevalence of cannabis consumption in Europe remains high by historical standards, and recent increases have been noted in some EU Member States. Also at a high level, having risen markedly in the past decade, is the potency of the drug, in both herbal and resin forms. In addition to the public health issues, there are concerns about how this major illegal market impacts on community safety and may help finance organised crime. Considering the many issues involved, defining what constitutes the most appropriate response to cannabis use is a task of both growing complexity and increasing importance. The EMCDDA is committed to improving the understanding of these issues and providing the accurate, scientific and impartial information necessary for an informed debate on this challenging policy topic.

Responding to opioid overdose: the role of naloxone

Drug overdose deaths remain high in Europe, and opioids are implicated in the majority of cases. The emergence of fentanyl derivatives on the European drug market adds weight to the already considerable arguments for increasing the access to the opioid antagonist naloxone. There is growing evidence that the wider availability of this substance, combined with training in overdose recognition and response, can help prevent deaths among those using opioids. Naloxone provision is therefore being increasingly recognised in many countries as an important element in their overdose reduction strategy. The availability of fentanyl derivatives increase the risks in this area further, because of their potency and because they may be used by opioid-naive individuals or put at risk those accidentally exposed to them through their occupation — such as law enforcement officers. These developments point to an urgent need to review current naloxone policies and increase training and awareness-raising for both drug users and professionals who may encounter the drug. These reviews also need to take into account that new non-injectable formulations, such as nasal sprays, may facilitate use of naloxone in a wider range of settings.

Prisons: an important setting for implementing responses

Responding to drug use in criminal justice settings is one of the topics addressed in the EMCDDA publication *Health and social responses to drug problems: a European guide*. Release from prison is a particularly high-risk period for those with a history of opioid use. To address this, a number of countries have developed innovative programmes that provide naloxone and training for those being released from prison. Alongside naloxone provision, referral to appropriate community treatment and social support services are recognised as key responses in this area. This highlights the role of the criminal justice system generally and the prison setting in particular as a critical location for addressing problems for high-risk drug users. A significant community dividend can accrue from assessing drug users and addressing their health and social needs prior to their release from prison.

Cannabis remains the most widely used illicit drug in Europe

AT A GLANCE — ESTIMATES OF DRUG USE IN THE EUROPEAN UNION

Cannabis

Adults (15–64)

Last year use **24.0 million** 7.2 %

Lifetime use **87.6 million** 26.3 %

Young adults (15–34)

Last year use **17.2 million** 14.1 %

National estimates of use in last year

Lowest **3.5 %** Highest **21.5 %**

Cocaine

Adults (15–64)

Last year use **3.5 million** 1.1 %

Lifetime use **17.0 million** 5.1 %

Young adults (15–34)

Last year use **2.3 million** 1.9 %

National estimates of use in last year

Lowest **0.2 %** Highest **4.0 %**

MDMA

Adults (15–64)

Last year use **2.6 million** 0.8 %

Lifetime use **13.5 million** 4.1 %

Young adults (15–34)

Last year use **2.2 million** 1.8 %

National estimates of use in last year

Lowest **0.2 %** Highest **7.4 %**

Amphetamines

Adults (15–64)

Last year use **1.7 million** 0.5 %

Lifetime use **11.9 million** 3.6 %

Young adults (15–34)

Last year use **1.2 million** 1.0 %

National estimates of use in last year

Lowest **0 %** Highest **3.6 %**

Opioids

High-risk opioid users **1.3 million**

Drug treatment requests

Principal drug in about **36 %** of all drug treatment requests in the European Union

36 %

628 000 opioid users received substitution treatment in 2016

Fatal overdoses

84 %

Opioids are found in **84 %** of fatal overdoses

New psychoactive substances

15- to 16-year-old school students in 24 European countries

Last year use **3.0 %**

Lifetime use **4.0 %**

Source: ESPAD Report 2015 Additional tables.

NB: For the complete set of data and information on the methodology, see the accompanying online Statistical Bulletin.

An example of this is the potential value that can be derived from scaling up the testing and treatment of infectious diseases among the prison population. This has gained particular importance as a result of the European Union's commitment to eliminate the hepatitis C virus. Drug injection is the predominant form of transmission of this infection. New effective therapies are now available, but ensuring that those infected have access to them remains a challenge. Prisons and drug treatment services are important for identifying those with HCV infection. In 2018, the EMCDDA will support a new initiative to increase awareness and encourage access to hepatitis C testing and treatment in order to address this major drug-related problem.

Ensuring monitoring remains sensitive to changing drug problems

Although data on the availability of new psychoactive substances are improving, it remains very difficult to estimate the demand for these substances in Europe. These difficulties are amplified when we consider the misuse of diverted, fake or unlicensed medicines.

An important observation here is that our existing monitoring tools may be insensitive to some important changes occurring in drug consumption patterns. Further investment in established and new monitoring approaches, such as wastewater analysis, web-based surveys and trendspotting studies, is needed in order to keep pace with these changes. The EMCDDA recently released the findings from an annual assessment of drug residues in wastewater collected in cities in 19 European countries, which demonstrated the utility of these complementary information sources in providing a more timely window on drug trends than that provided by more traditional data sources.

As well as supporting data collection within Europe, the European Union is also working to help third countries develop their monitoring capacity. Initiatives towards this end include European Commission-funded technical assistance projects for EU candidate, potential candidate and neighbouring countries. These activities are important not only because drug problems are complicating the health and security problems experienced by the countries bordering the EU, but also because developments in these countries interact with, and impact on, the drug problems we face in our own Member States. The analysis reported in this year's European Drug Report therefore explicitly recognises that to understand the current and future challenges that drug use poses to Europe's health and security policy agenda, it is also necessary to understand the global dimensions of this issue.

1

In the global context, Europe is an important market for drugs

Drug supply and the market

In the global context, Europe is an important market for drugs, supplied both from domestic production and trafficking from other world regions. South America, West Asia and North Africa are important source areas for illicit drugs entering Europe, while China is a source country for new psychoactive substances. In addition, some drugs and precursors are transited through Europe en route to other continents. Europe is also a producing region for cannabis and synthetic drugs; cannabis production is mostly for local consumption, while some synthetic drugs are manufactured for export to other parts of the world.

Sizeable markets for cannabis, heroin and amphetamines have existed in many European countries since the 1970s and 1980s. Over time, other substances also established themselves — including MDMA and cocaine in the 1990s. The European drug market continues to evolve, with a wide range of new psychoactive substances emerging over the last decade. Recent changes in the illicit drug market, largely linked to globalisation and new technology, include innovation in drug production and trafficking methods, the establishment of new trafficking routes and online markets.

Monitoring drug markets, supply and laws

The analysis presented in this chapter draws on reported data on drug seizures, drug precursor seizures and stopped shipments, dismantled drug production facilities, drug laws, drug law offences, retail drug prices, purity and potency. In some cases, the absence of seizure data from key countries makes the analysis of trends difficult. A range of factors can influence trends, including user preferences, changes in production and trafficking, law enforcement activity levels and priorities and the effectiveness of interdiction measures. Full data sets and methodological notes can be found in the online Statistical Bulletin.

Also presented here are data on notifications and seizures of new psychoactive substances reported to the EU Early Warning System by the national partners of the EMCDDA and Europol. As this information is drawn from case reports rather than routine monitoring systems, seizure estimates represent a minimum. A full description of the Early Warning System can be found on the EMCDDA website under Action on new drugs.

Illicit drug markets in Europe: complex and multi-level

Illicit drug markets are complex systems of production and distribution that generate large sums of money at different levels. The nature of the market makes it difficult to monitor. However, a conservative estimate values the European Union retail market for illicit drugs at EUR 24 billion in 2013, with cannabis responsible for the largest share (38 %), followed by heroin (28 %) and cocaine (24 %).

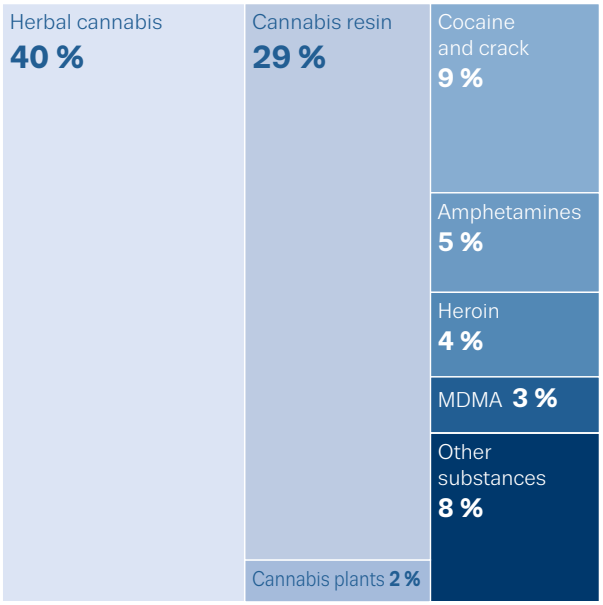
While offline markets are still predominant, recent years have seen online markets growing in importance as platforms for the marketing and distribution of illicit drugs. This has provided new opportunities for monitoring a sector of market activity. A recent EMCDDA and Europol analysis identified over 100 global darknet markets, where sellers and buyers use various technologies to conceal their identities. An estimated two-thirds of all purchases taking place on these markets were drug-related. EU-based suppliers were responsible for around 46 % of the drug revenue on these markets between 2011 and 2015, most of which was accounted for by sellers located in Germany, the Netherlands and the United Kingdom. Stimulant drugs comprise the majority of all European darknet drug sales. Darknet markets mainly facilitate low-volume or direct-to-consumer sales, although an analysis of one marketplace, Alphabay, found that compared with other drugs a higher proportion of MDMA purchases appeared to be bought with the intention to sell.

Over a million seizures of illicit drugs

Seizures of illicit drugs by law enforcement agencies are an important indicator of drug markets, with over 1 million seizures of illicit drugs reported in 2016 in Europe. Most reported seizures involve small quantities of drugs confiscated from users. Multi-kilogram consignments of drugs impounded from traffickers and producers, however, account for most of the total quantity of drugs seized. Cannabis is the most commonly seized drug, accounting for over 70 % of the total number of seizures in Europe (Figure 1.1). The three countries that report the highest numbers of seizures, together accounting for more than 60 % of all drug seizures in the European Union, are Spain, the United Kingdom and France.

FIGURE 1.1

Number of reported drug seizures, breakdown by drug, 2016



However, data on the number of seizures are not available for the Netherlands and Poland, while 2015 data are the most recent available for Germany, Ireland and Slovenia, adding a degree of uncertainty to the analysis.

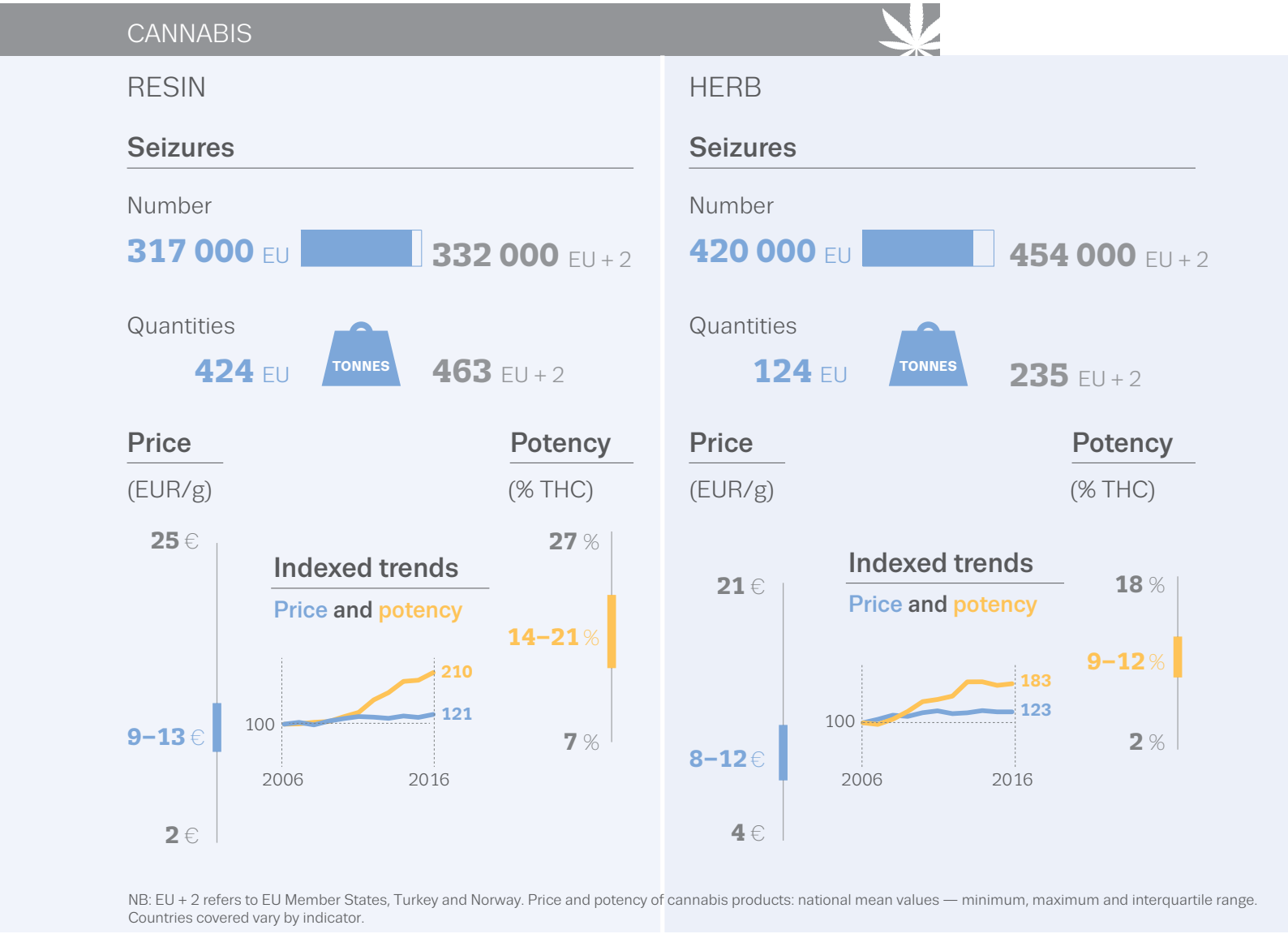
Cannabis: resin seizures dominate, but quantity of herb increasing

Herbal cannabis ('marijuana') and cannabis resin ('hashish') are the two main cannabis products found on the European drugs market, while cannabis oil is comparatively rare. Cannabis products account for the largest share (38 %) of the illicit drug retail market in the European Union, with an estimated minimum value of EUR 9.3 billion (likely range EUR 8.4 billion to EUR 12.9 billion). Herbal cannabis consumed in Europe is both cultivated within Europe and trafficked from external countries. The herbal cannabis produced in Europe is mostly cultivated indoors. Cannabis resin, while increasingly produced in Europe, is mostly imported, mainly from Morocco, with reports indicating that Libya has become a major hub for resin trafficking. In addition, the western Balkans are a source of both herbal cannabis and cannabis oil.

In 2016, 763 000 seizures of cannabis products were reported in the European Union including 420 000 seizures of herbal cannabis, 317 000 of cannabis resin and 22 000 of cannabis plants. The number of seizures of herbal cannabis has exceeded that of cannabis resin since 2009, with relatively stable trends in both resin and herbal cannabis seizures since 2011 (Figure 1.2). However, the quantity of cannabis resin seized is more than 3 times that of herbal cannabis (424 versus 124 tonnes). This is partially a consequence of most cannabis resin being trafficked in volume over large distances and across national borders, making it more vulnerable to interdiction. In the analysis of the quantity of cannabis seized, a small number of countries are particularly important, due to their location on major cannabis trafficking routes. Spain, for example, as a major point of entry for cannabis resin produced in Morocco, reported three-quarters (76 %) of the total quantity seized in the European Union in 2016 (Figure 1.3).

An increase in quantities of herbal cannabis seized in 2016 is linked in part to increases reported in Spain, Greece and Italy. Also Turkey reported seizing a greater quantity of herbal cannabis in 2016 (111 tonnes) compared with 2015.

Seizures of cannabis plants may be regarded as an indicator of the production of the drug within a country. However, differences between countries, both in reporting practices and law enforcement priorities and resources, warrant caution in the interpretation of cannabis plant seizures. The number of plants seized in Europe peaked at 11.5 million in 2015, due to intensive interdiction in the Netherlands that year, before dropping to 3.3 million plants in 2016, a level similar to previous years. In 2016, 1 200 seizures of cannabis oil were reported, almost four times more than in 2015, with Turkey (53 litres) and Denmark (14 litres) seizing the largest quantities.



NB: EU + 2 refers to EU Member States, Turkey and Norway. Price and potency of cannabis products: national mean values — minimum, maximum and interquartile range. Countries covered vary by indicator.

FIGURE 1.2

Trends in number of cannabis seizures and quantity of cannabis seized: resin and herb

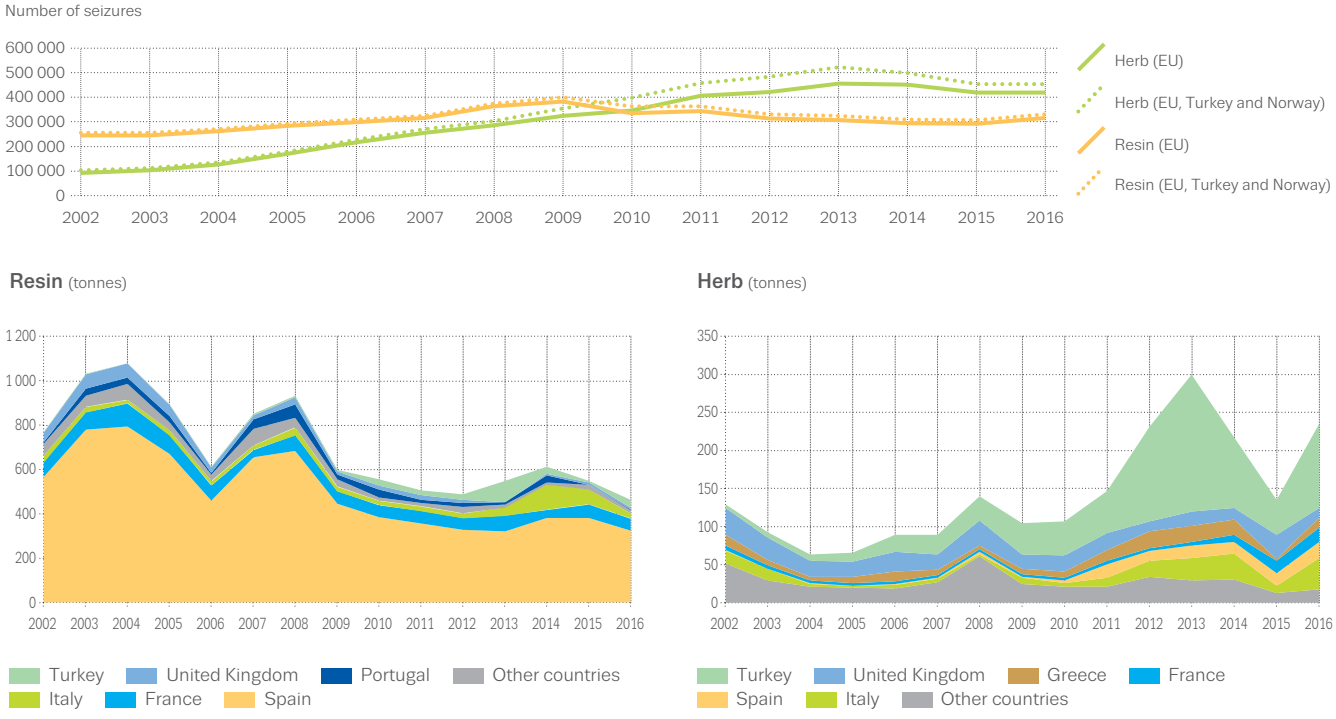
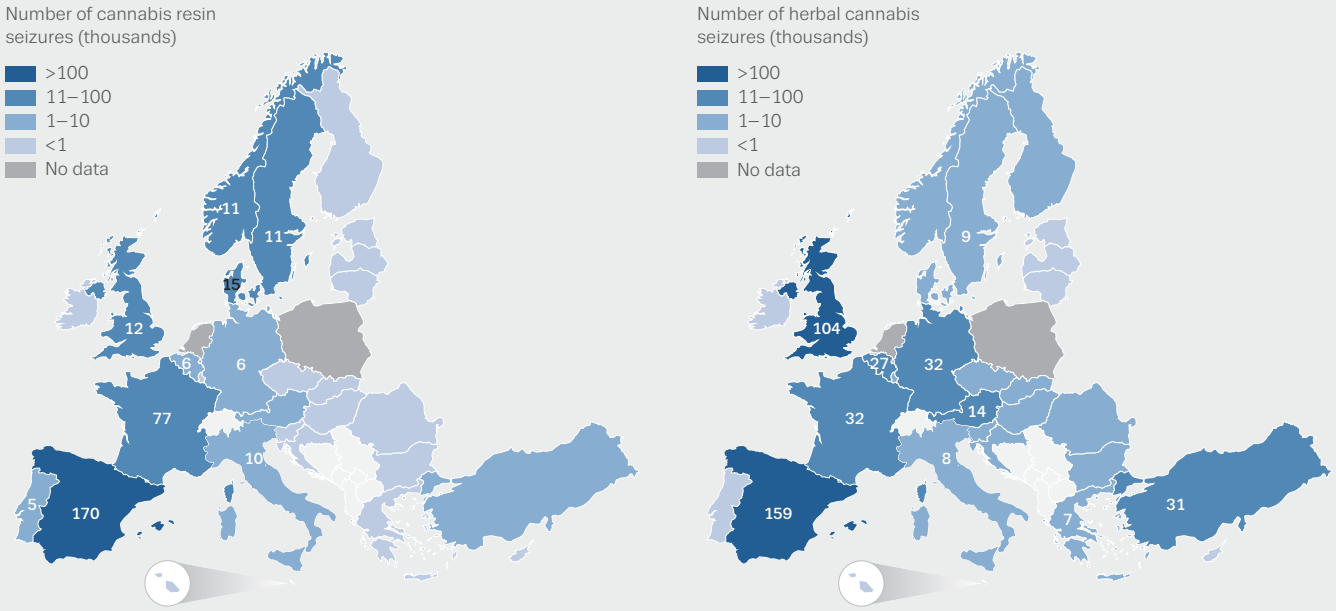
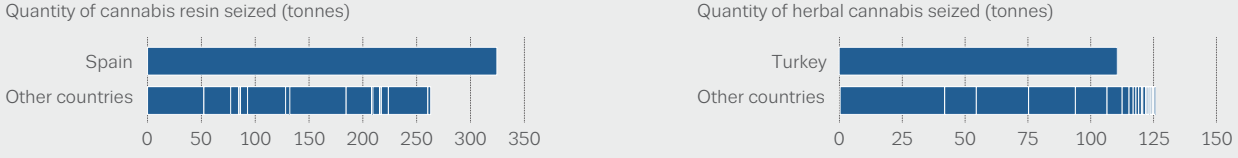


FIGURE 1.3

Seizures of cannabis resin and herbal cannabis, 2016 or most recent year



NB: Number of seizures (thousands) for the 10 countries with highest values.

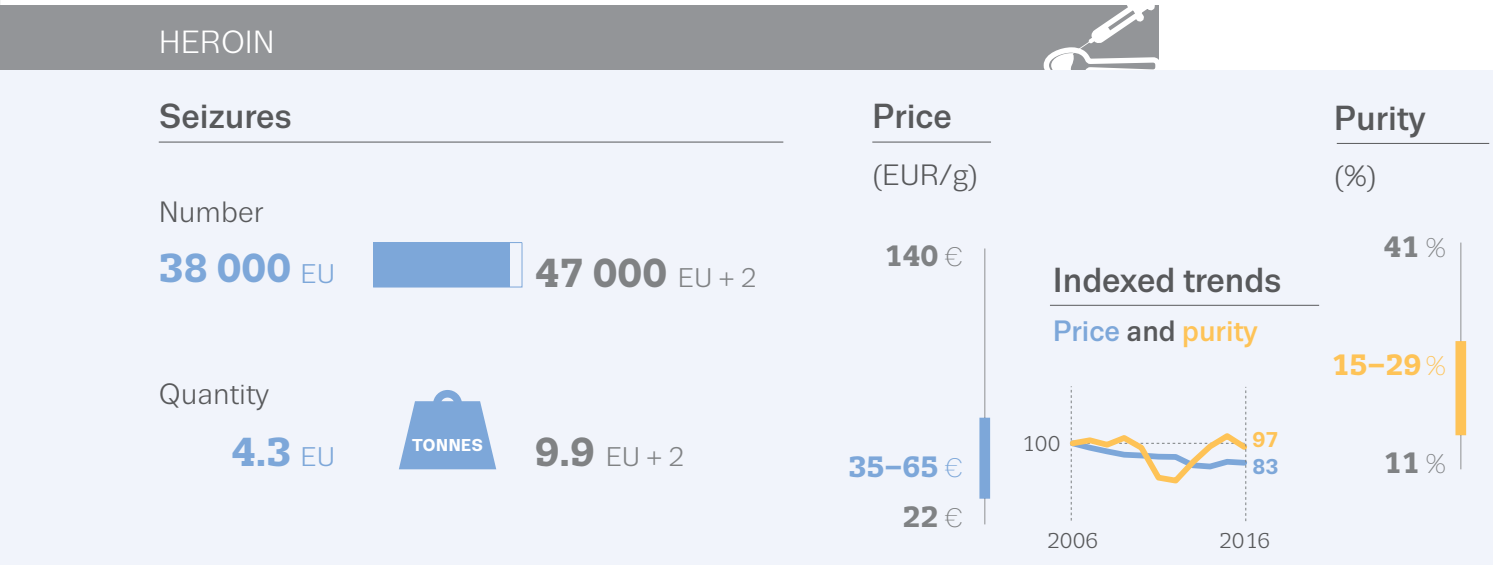


Analysis of indexed trends among those countries reporting consistently shows a large increase in the potency (content of tetrahydrocannabinol, THC) of both herbal cannabis and cannabis resin since 2006. The potency for both forms increased until 2013, since when herbal cannabis potency has stabilised whereas resin potency has continued to increase. Drivers of this increasing potency in resin may include the introduction of intensive production techniques within Europe, the introduction of high-potency plants and new techniques in Morocco, and new multi-strain or hybrid plant based resin products. While on average resin has a higher potency than herb, the data suggest that they have similar prices.

Heroin seizures: quantity declines

Heroin is the most common opioid on the EU drug market, with an estimated minimum retail value of EUR 6.8 billion (likely range EUR 6.0 billion to EUR 7.8 billion) in 2013. Historically, imported heroin has been available in Europe in two forms, the more common of which is brown heroin (its chemical base form), originating mainly from Afghanistan. Far less common is white heroin (a salt form), which in the past came from South-East Asia, but now may also be produced in Afghanistan or neighbouring countries. Other opioids available in illicit markets include opium and the medicines morphine, methadone, buprenorphine, tramadol and various fentanyl derivatives. Some opioids may be diverted from legitimate pharmaceutical supplies, while others are illegally manufactured.

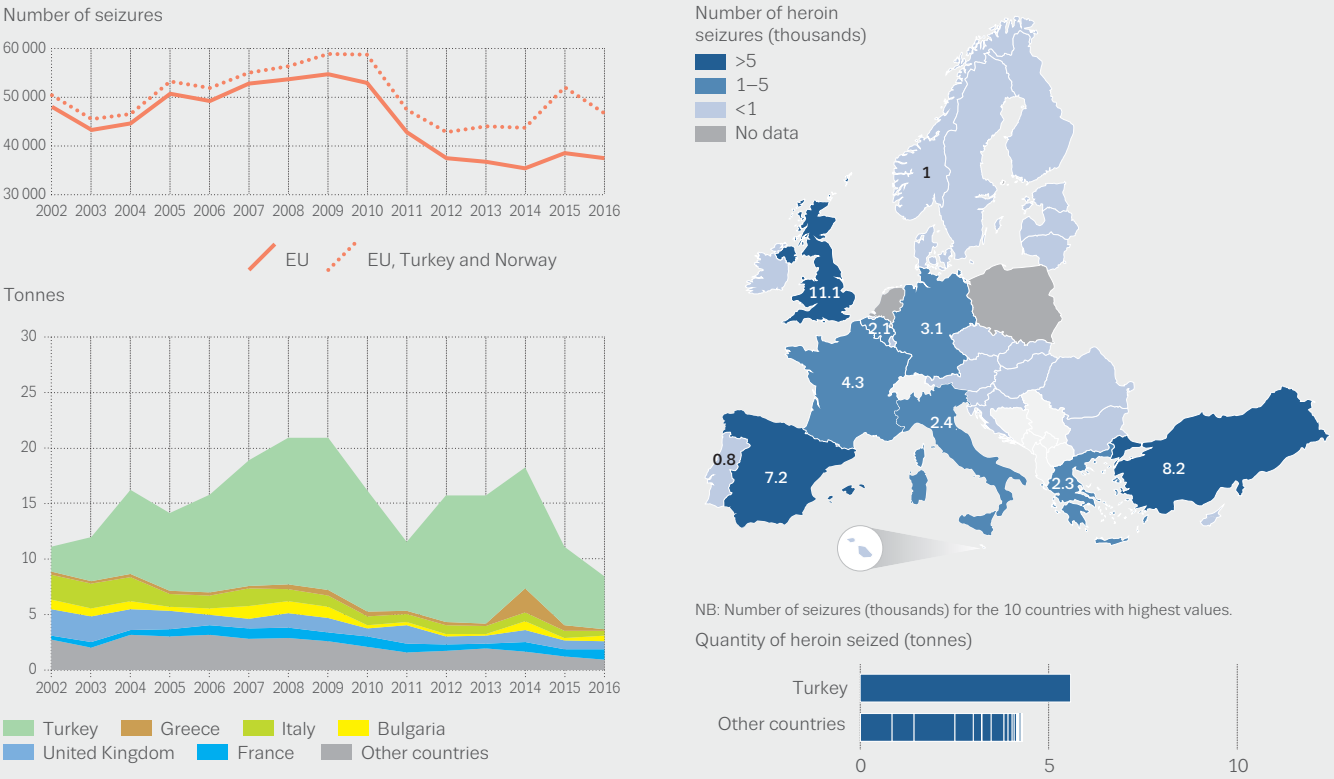
Afghanistan remains the world's largest illicit producer of opium, and most heroin found in Europe is thought to be manufactured there or in neighbouring Iran or Pakistan. Illicit opioid production in Europe has until recently been limited to homemade poppy products produced in some eastern countries. The discovery of several laboratories for converting morphine to heroin in the Netherlands, Spain and the Czech Republic in recent years suggests that some heroin is manufactured in Europe. This change may reflect suppliers seeking to reduce costs by carrying out the last stages of heroin production in Europe, where precursors such as acetic anhydride are obtainable at lower prices than in opium-producing countries. Manufacturing the drug close to the consumer market may also be aimed at reducing interdiction risks.



NB: EU + 2 refers to EU Member States, Turkey and Norway. Price and purity of 'brown heroin': national mean values — minimum, maximum and interquartile range. Countries covered vary by indicator.

FIGURE 1.4

Number of heroin seizures and quantity seized: trends and 2016 or most recent year



Heroin enters Europe along four main trafficking routes. The two most important ones are the 'Balkan route' and the 'southern route'. The first of these runs through Turkey, into Balkan countries (Bulgaria, Romania or Greece) and on to central, southern and western Europe. An offshoot of the Balkan route involving Syria and Iraq has also emerged. The southern route, where shipments from Iran and Pakistan enter Europe by air or sea, either directly or transiting through African countries, has gained importance in recent years. Other routes include the 'northern route' and a route through the southern Caucasus and across the Black Sea.

The drug markets in a number of European countries experienced reduced heroin availability in 2010/11, evidenced by an overall drop in seizures from 2009 to 2014, before stabilising in 2015 and 2016. Between 2002 and 2014, the quantity of heroin seized within the European Union halved, from 10 to 5 tonnes, and has stabilised in recent years, with 4.3 tonnes registered in

TABLE 1.1

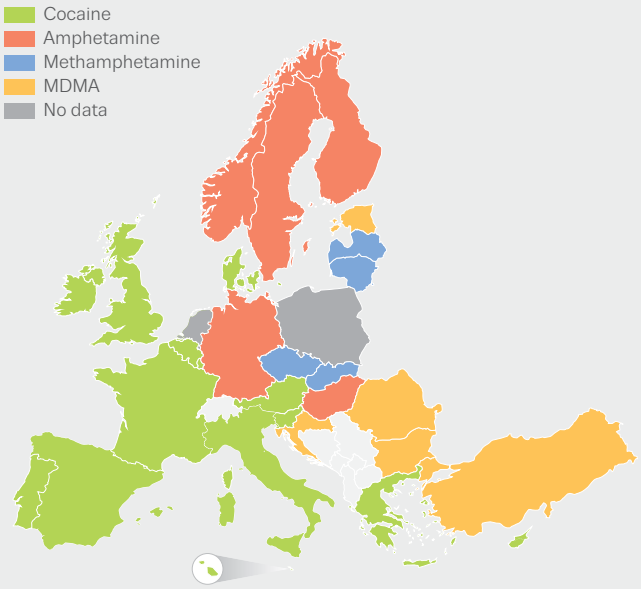
Seizures of opioids other than heroin in 2016

Opioid	Number	Quantity			Number of countries
		Kilograms	Litres	Tablets	
Methadone	1 245	21.75	1.84	115 906	16
Buprenorphine	3 523	1.94	0.0005	69 373	16
Tramadol	3 553	2.03		63 412 688	16
Fentanyl derivatives	738	1.55	1.2	11 792 (1)	12
Morphine	225	11.08		4 201	13
Opium	335	327.5			10
Codeine	339	20.65		9 506	9
Oxycodone	12	0.005		107	6

(1) Patches or blotters.

FIGURE 1.5

Most frequently seized stimulant drug in Europe, 2016 or most recent data



2016. Turkey continues to seize more heroin than all other European countries combined (Figure 1.4), although the quantity of heroin seized in Turkey fell from 8.3 tonnes in 2015 to 5.6 tonnes in 2016. Among those countries reporting consistently, indexed trends suggest that, following a period of rapid increase from a low point in 2012, heroin purity in Europe decreased in 2016 compared with 2015, while the price has declined over the last decade.

In addition to heroin, other opioid products are seized in European countries, but these represent a small fraction of the total seizures. The other opioids most commonly seized are the medicinal opioids tramadol, buprenorphine and methadone (see Table 1.1). In 2016 there was a large increase in the number of tramadol tablets seized, and fentanyl derivatives were also seized in much larger quantities.

Europe's stimulant market: regional differences

The main illicit stimulant drugs available in Europe are cocaine, amphetamine, methamphetamine and MDMA. The retail value of the stimulant market in the European Union was estimated to be between EUR 6.3 billion and EUR 10.2 billion in 2013. There are marked regional differences regarding which stimulant is most commonly seized (Figure 1.5), which are influenced by the location of entry ports and trafficking routes, major production centres and large consumer markets. Cocaine is the most frequently seized stimulant in many western and southern countries, while amphetamines and MDMA seizures are predominant in northern and eastern Europe.

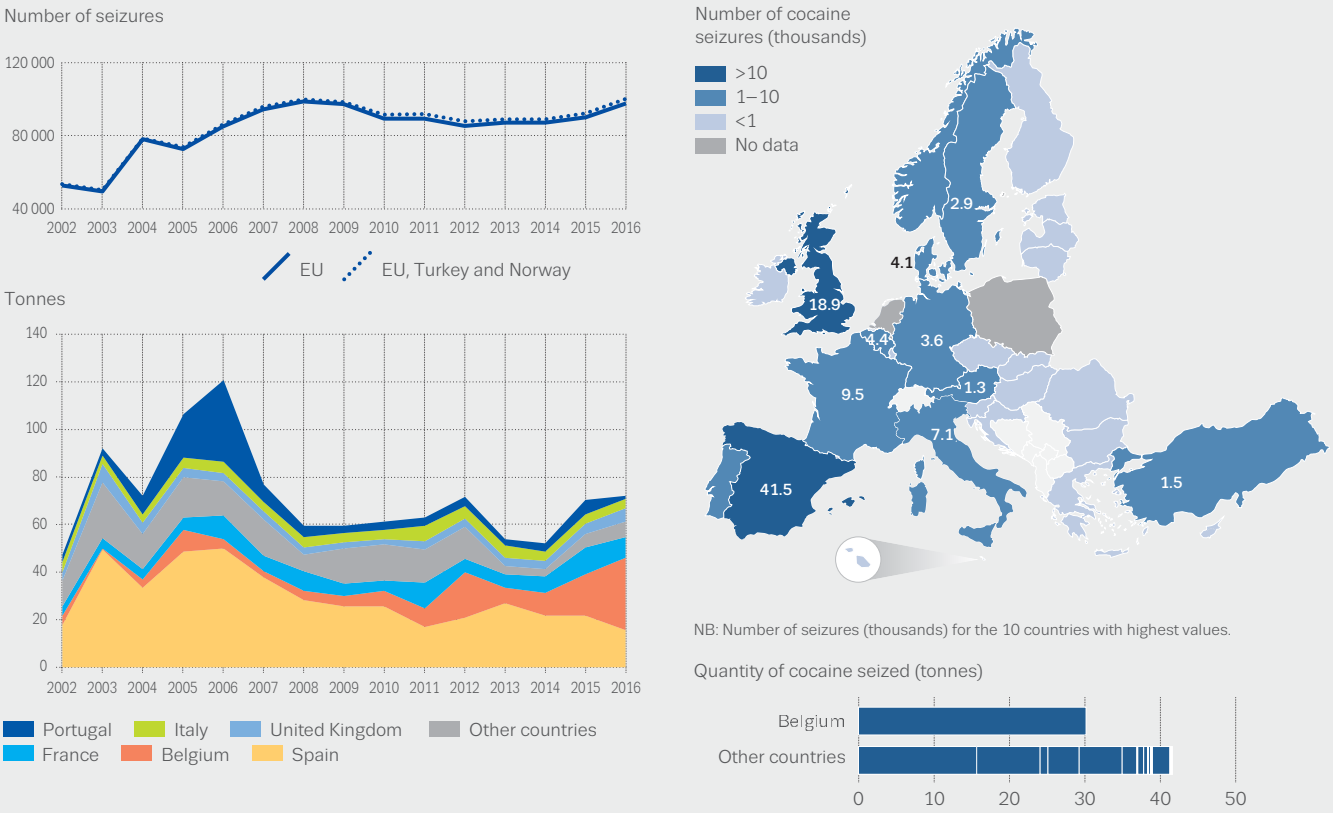
Cocaine market: continued resurgence

In Europe, cocaine is available in two forms, the most common is cocaine powder (the salt form) and less commonly available is crack cocaine (free base), a smokeable form of the drug. Produced from the leaves of the coca bush, cocaine is cultivated mainly in Bolivia, Colombia and Peru. Cocaine is transported to Europe by various means, including passenger flights, air freight, postal services, private aircraft, yachts and maritime containers. The retail cocaine market in the European Union was estimated to be worth a minimum of EUR 5.7 billion in 2013.

Heroin is the most common opioid on the EU drug market

FIGURE 1.6

Number of cocaine seizures and quantity seized: trends and 2016 or most recent year



In total, around 98 000 seizures of cocaine were reported in the European Union in 2016 amounting to 70.9 tonnes. Compared with the previous year, there was a small increase in the quantity of cocaine seized in 2016, and a more marked increase in the number of seizures (see Figure 1.6). With seizures of around 30 tonnes of cocaine or 43 % of the estimated EU total in 2016, Belgium displaced Spain (15.6 tonnes) as the country reporting the highest annual seizures of the drug. Total seizures of over 5 tonnes of the drug were also reported by France (8.5 tonnes) and the United Kingdom (5.7 tonnes). Overall, indexed trends suggest that the upward trend in

COCAINE

Seizures

Number

98 000 EU

100 000 EU + 2

Quantity

70.9 EU

TONNES

71.8 EU + 2

Price

(EUR/g)

105 €

57–76 €

44 €

Purity

(%)

84 %

51–73 %

40 %

Indexed trends

Price and purity

100

116

94

2006

2016

NB: EU+2 refers to EU Member States, Turkey and Norway. Price and purity of cocaine: national mean values - minimum, maximum and interquartile range. Countries covered by indicator.

cocaine purity, evident since 2010, has continued in 2016, taking cocaine purity to the highest level seen in the last decade.

Other coca products were seized in Europe in 2016, including 569 kilograms of liquid containing cocaine and 3 kilograms of coca leaves. In addition, the seizure of 79 kilograms of coca paste in Spain and a further 7 kilograms in Italy suggests the existence of illicit laboratories producing cocaine hydrochloride in Europe. This development indicates a change in production tactics by some criminal organisations, as previously most of the cocaine laboratories found in Europe have been 'secondary extraction facilities', where cocaine is recovered from materials in which it had been incorporated (such as wines, clothes, plastics).

Drug production: precursor chemical developments

Drug precursors are chemicals needed to manufacture illicit drugs. As many of these have legitimate uses they are not prohibited, but their trade is monitored and controlled through EU regulations, which schedule certain chemicals (that is, add them to the list of controlled substances). The availability of precursors has a large impact on the synthetic drug market and on the production methods used in illicit laboratories. Production techniques are constantly evolving in order to circumvent controls, and changes typically include the use of non-scheduled chemicals to produce synthetic drugs or their precursors, such as the recently detected N-t-BOC-MDMA (N-tert-butyloxycarbonyl-MDMA). The additional processing requires more chemicals and creates more waste, potentially leading to environmental damage.

Data on seizures and stopped shipments of drug precursors confirm the use of both scheduled and non-scheduled chemicals in the production of illicit drugs in the European Union, in particular for amphetamines and MDMA (Table 1.2). The scheduling of the BMK (benzyl methyl ketone) precursor APAAN (alpha-phenylacetoacetonitrile) in late 2013 continues to have an impact, with seizures falling from 48 000 kilograms in 2013 to around 600 kilograms in 2016. Seizures of alternative chemicals APAA (alpha-phenylacetoacetamide) and glycidic derivatives of BMK, which can also be easily converted to BMK, that were first reported in 2015, increased sharply in 2016.

TABLE 1.2

Summary of seizures and stopped shipments of EU scheduled precursors and non-scheduled chemicals used for selected synthetic drugs produced in the European Union, 2016

	Seizures		Stopped shipments		TOTALS	
Scheduled/*non-scheduled*	**Number**	**Quantity**	**Number**	**Quantity**	**Number**	**Quantity**
MDMA or related substances						
PMK (litres)	8	1 077	0	0	**8**	**1 077**
Safrole (litres)	5	63	0	0	**5**	**63**
Piperonal (kg)	2	1	4	7 700	**6**	**7 701**
Glycidic derivatives of PMK (kg)	16	5 905	1	1 000	**17**	**6 905**
N-t-BOC-MDMA (kg)	1	123	0	0	**1**	**123**
Amphetamine and methamphetamine						
Ephedrine bulk (kg)	33	64	0	0	**33**	**64**
BMK (litres)	24	2 506	0	0	**24**	**2 506**
Pseudoephedrine bulk (kg)	12	20	0	0	**12**	**20**
APAAN (kg)	7	597	0	0	**7**	**597**
PAA, phenylacetic acid (kg)	0	0	5	112	**5**	**112**
APAA (kg)	27	5 884	2	2 025	**29**	**7 909**
Glycidic derivatives of BMK (kg)	19	3 290	0	0	**19**	**3 290**

Seizures of both PMK (piperonyl methyl ketone) and non-scheduled chemicals for MDMA manufacture increased in 2016. Seizures of PMK in France, PMK glycidic acid derivatives in Bulgaria and stopped shipments of precursors in Spain indicate that trafficking routes are diversifying.

Amphetamine and methamphetamine: seizures remain stable

Amphetamine and methamphetamine are synthetic stimulant drugs, often grouped under the umbrella term 'amphetamines', and hence can be difficult to differentiate in some datasets. Over the last decade, seizures indicate that the availability of methamphetamine has increased, but it is still much lower than that of amphetamine.

Both drugs are produced in Europe for the European market. There are indications that amphetamine production mainly takes place in Belgium, the Netherlands and Poland, and to a lesser extent in the Baltic States and Germany. Some of these countries have reported dismantling laboratories in which the final stage of production, the conversion of amphetamine base oil to amphetamine sulphate, takes place. This indicates a shift in location of this stage of the manufacturing process, which is thought to be linked to a preference among some groups for trafficking liquids rather than the finished product in order to avoid interdiction.

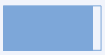
Some amphetamine is also manufactured for export, principally to the Middle East, the Far East and Oceania. Seizures of amphetamine tablets with a 'Captagon' logo have also increased recently, especially in Turkey, where more than 13 million tablets were seized in 2016.

AMPHETAMINES

AMPHETAMINE

Seizures

Number

34 000 EU  **39 000** EU + 2

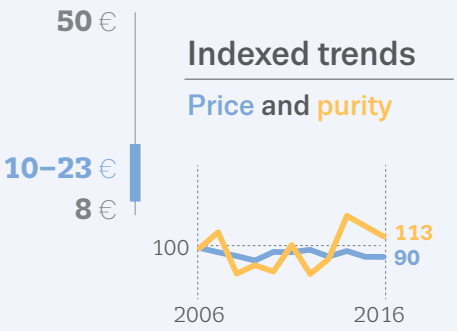
Quantities

5.7 EU 

9.5 EU + 2

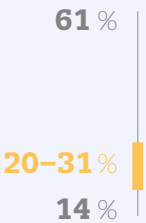
Price

(EUR/g)



Purity

(%)



Indexed trends

Price and purity

METHAMPHETAMINE

Seizures

Number

9 000 EU  **14 000** EU + 2

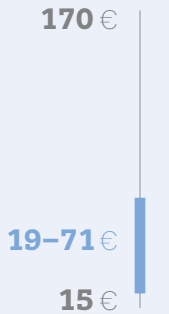
Quantities

0.5 EU 

0.8 EU + 2

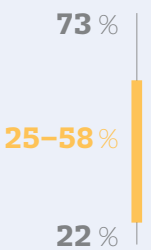
Price

(EUR/g)



Purity

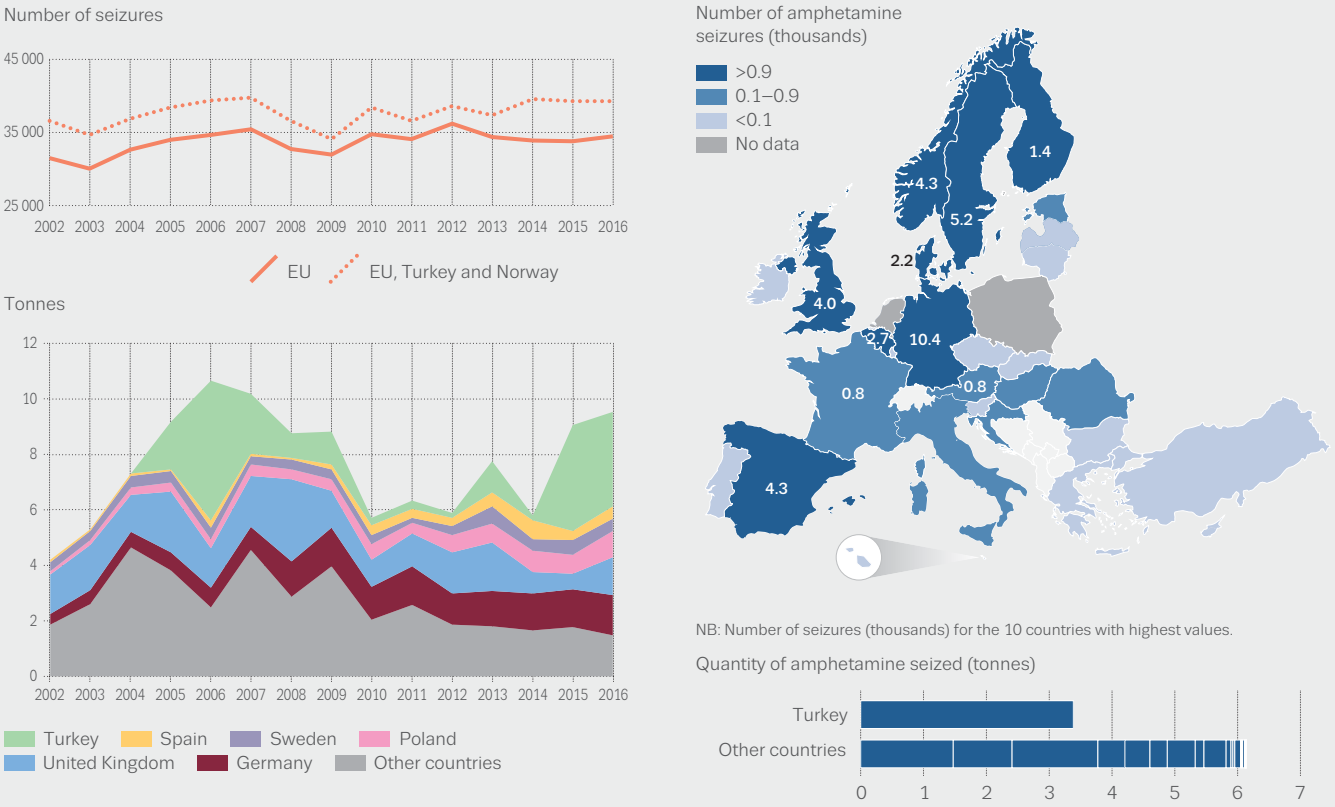
(%)



NB: EU + 2 refers to EU Member States, Turkey and Norway. Price and purity of amphetamines: national mean values — minimum, maximum and interquartile range. Countries covered vary by indicator. Indexed trends are not available for methamphetamine.

FIGURE 1.7

Number of amphetamine seizures and quantity seized: trends and 2016 or most recent year



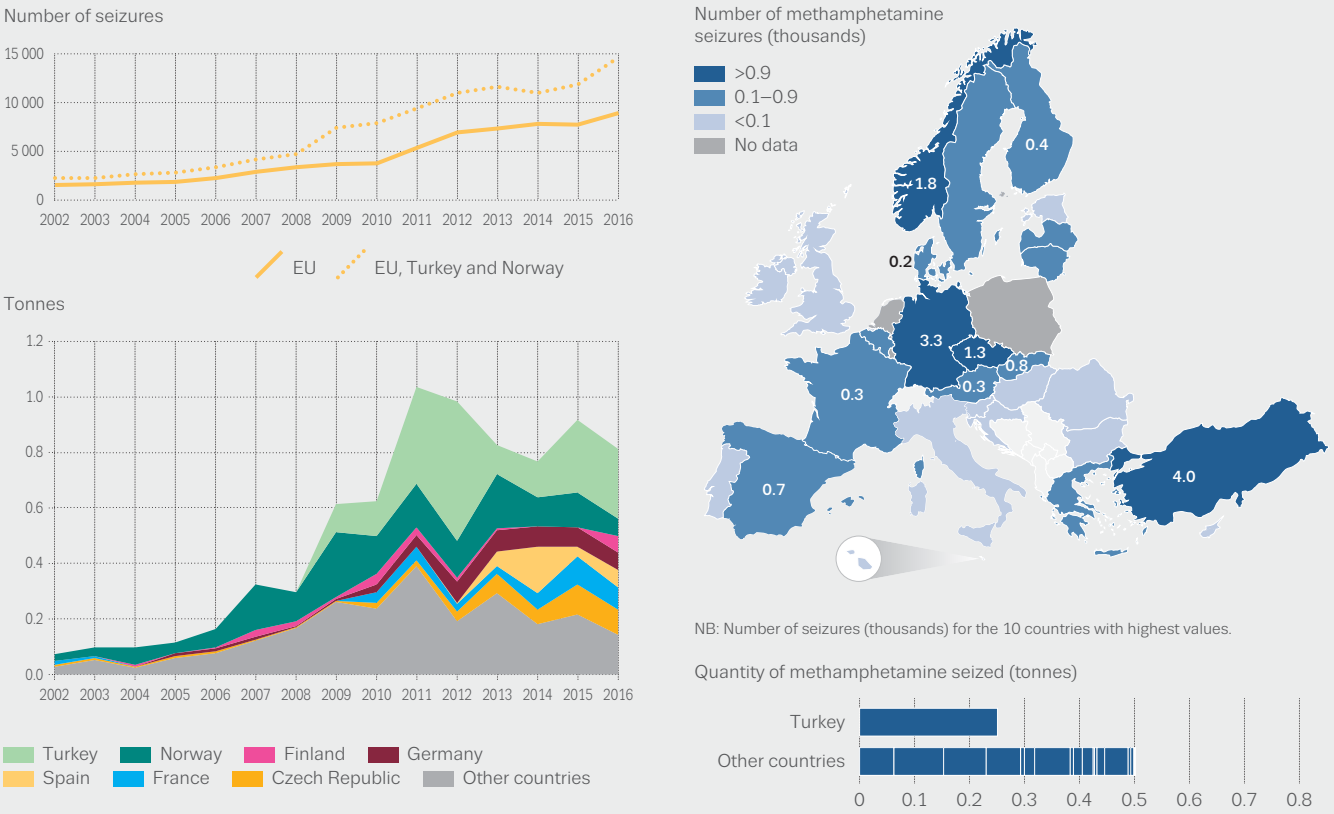
The Czech Republic, and more recently, the border areas of neighbouring countries, has long been the source of much of Europe's methamphetamine. In the Czech Republic, methamphetamine is produced mainly from the precursor pseudoephedrine, which is extracted from medicinal products imported chiefly from Poland or increasingly from elsewhere through Poland. The drug may also be produced using BMK. In 2016, of the 291 illegal methamphetamine laboratories reported in the European Union, 261 were located in the Czech Republic. Small-scale laboratories supplying the domestic market dominate, however, large-scale production facilities involving organised crime groups producing methamphetamine for other European countries were also reported.

In 2016, 34 000 seizures of amphetamine were reported by EU Member States, amounting to 5.7 tonnes. Overall, the quantity of amphetamine seized in the European Union is stable, fluctuating around 5 to 6 tonnes each year since 2010 (Figure 1.7). Methamphetamine seizures are far lower, with 9 000 seizures reported in the European Union in 2016, amounting to 0.5 tonnes, with the Czech Republic seizing the largest amount (Figure 1.8). The number of seizures of methamphetamine has shown an upward trend since 2002, while the quantity seized has been relatively stable since 2009. In 2016, large quantities of amphetamines were also seized in Turkey, primarily as 'Captagon' (1.3 million tablets, or an estimated 3.4 tonnes of amphetamine), as well as 0.25 tonnes of methamphetamine.

Typically, the average reported purity is higher for methamphetamine than for amphetamine samples.

FIGURE 1.8

Number of methamphetamine seizures and quantity seized: trends and 2016 or most recent year



MDMA: increased production and seizures

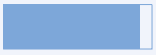
MDMA (3,4-methylenedioxymethamphetamine) is a synthetic drug chemically related to amphetamines, but with different effects. MDMA is consumed as tablets (often called ecstasy), and powder and crystalline forms of the drug are also available. New MDMA tablet designs, in various colours, shapes and brand logos, are constantly being introduced into the market. In 2013, the retail MDMA market in the European Union was estimated to be worth

MDMA

Seizures

Number

24 000 EU



31 000 EU + 2

Quantity

5.3 EU

9.1 EU + 2

295 EU

306 EU + 2

Price

(EUR/tablet)

16 €

6–11 €

4 €

Purity

(MDMA mg/tablet)

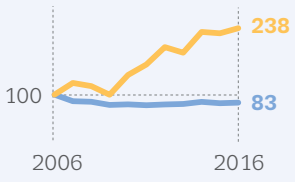
168

86–152

41

Indexed trends

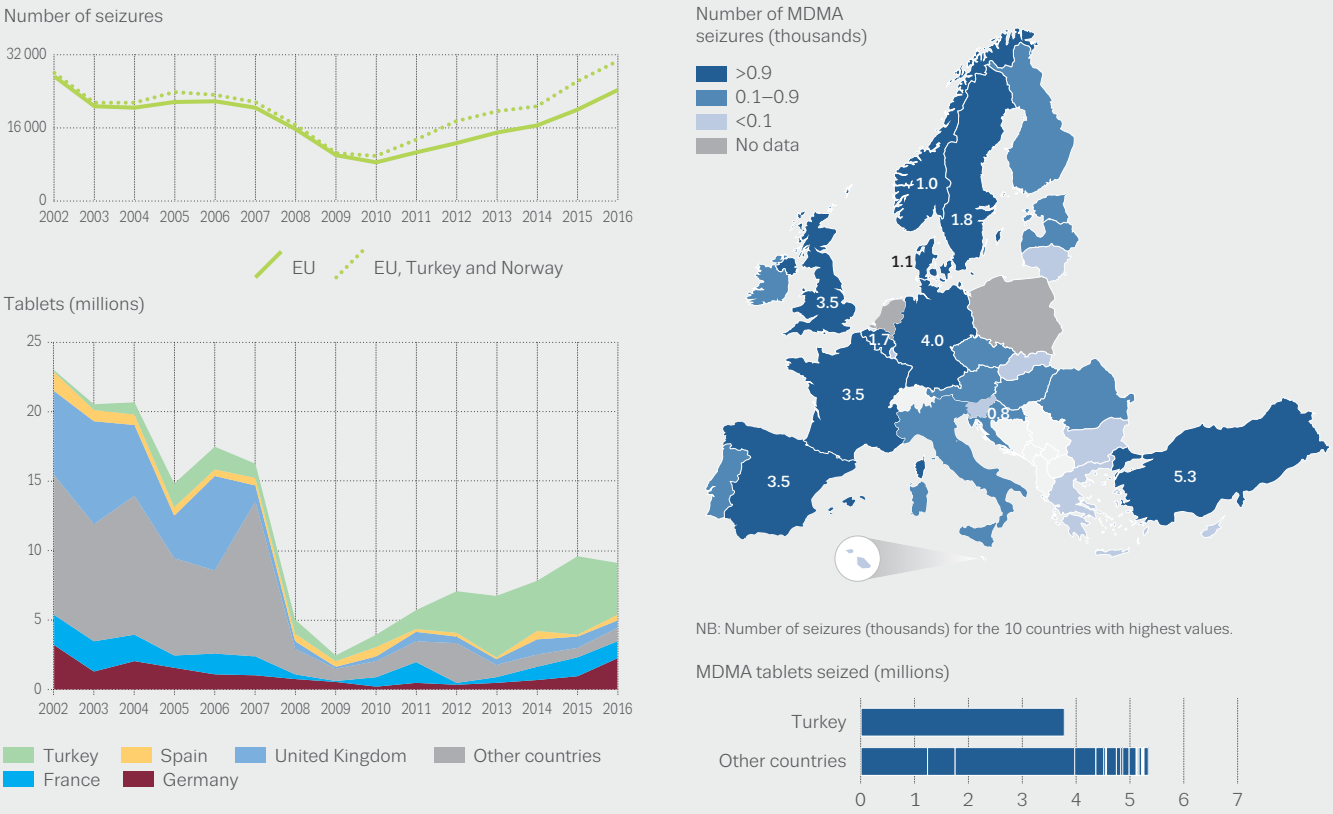
Price and purity



NB: EU + 2 refers to EU Member States, Turkey and Norway. Price and purity of MDMA: national mean values — minimum, maximum and interquartile range. Countries covered vary by indicator.

FIGURE 1.9

Number of MDMA seizures and quantity seized: trends and 2016 or most recent year



around EUR 0.7 billion. After a period of low availability linked to a lack of precursor chemicals needed for its manufacture, the MDMA market has seen a revival in recent years. The average content of MDMA in tablets has been increasing since 2009, and high amounts of MDMA in some batches have been linked with harms and deaths.

The production of MDMA in Europe is mainly concentrated in the Netherlands and Belgium, with 11 MDMA laboratories dismantled in the European Union in 2016 (10 in the Netherlands and 1 in Belgium), more than double the number in 2015. MDMA produced in Europe is also exported to other parts of the world, for example, the Australian police reported that the single largest quantity of MDMA seized in Australia in 2016 (1.2 tonnes) originated in Europe.

Assessing recent trends in MDMA seizures is difficult due to the absence of data from some countries that are likely to make important contributions to this total. For 2016, no data are available from the Netherlands, and the numbers of seizures are not available from Germany and Poland. In the absence of these important contributions, the quantity of MDMA seized in the European Union increased in 2016 and is estimated at 5.3 million tablets and 295 kilograms of MDMA powder.

The overall number of reported MDMA seizures in the European Union has continued to rise since 2010, while the quantity seized has also increased somewhat over the same period, although there are year on year fluctuations. Large quantities of MDMA were also seized in Turkey in 2016, amounting to 3.8 million tablets (Figure 1.9). Indexed trends show the MDMA content of tablets seized has increased substantially in recent years.

Seizures of LSD, GHB and ketamine

Seizures of other illicit drugs are reported in the European Union, including around 1 800 seizures of LSD (lysergic acid diethylamide) in 2016, amounting to 97 000 units. The overall number of LSD seizures has almost doubled since 2010, although the quantity seized has fluctuated. Fourteen EU countries reported around 1 300 seizures of ketamine, amounting to an estimated 83 kilograms of the drug, most of which was accounted for by Denmark, Italy and the United Kingdom. Norway also reported a small number of ketamine seizures — 50 seizures amounting to 0.2 kilograms. In 2016, seizures of GHB (gamma-hydroxybutyrate) or GBL (gamma-butyrolactone) were reported by 13 EU countries plus Norway and Turkey. Taken together, the estimated total of 1 700 seizures

amounted to almost 360 kilograms and 1 400 litres of the drug, with Norway accounting for over a quarter of the total number of seizures.

New psychoactive substances: a complex market

By the end of 2017, the EMCDDA was monitoring more than 670 new psychoactive substances that have been identified in Europe. These substances are not covered by international drug controls and make up a broad range of drugs, such as synthetic cannabinoids, stimulants, opioids and benzodiazepines (Figure 1.10). In most cases they are marketed as 'legal' replacements for illicit drugs, while others are aimed at small groups who wish to explore them for possible novel effects.

In many cases, new substances are produced in bulk quantities by chemical and pharmaceutical companies in China. From there they are shipped to Europe, where they are processed into products, packaged and sold. In addition, some new substances may be sourced as medicines, which are either diverted from the legitimate supply chain or obtained illegally. The substances may also be produced in clandestine laboratories, either in Europe or elsewhere. Various indicators, including detections of illicit laboratories, analysis of dumped synthetic drug waste and precursor seizures, suggest an increase in this form of production in the last few years in Europe.

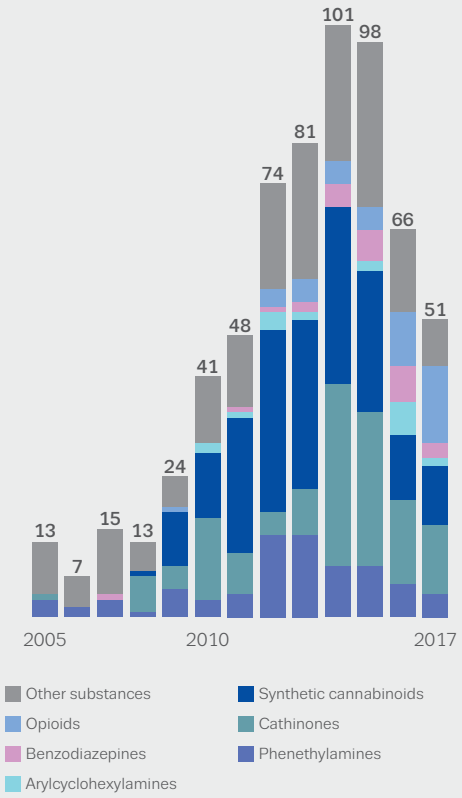
Some new substances are sold openly in specialised physical shops and on the surface web — often as branded 'legal high' products. In addition, they are sold on darknet markets and on the illicit market, sometimes under their own name and sometimes falsely as illicit drugs such as heroin, cocaine, ecstasy and benzodiazepines.

Almost 70 % of new substances identified through the European Union Early Warning System were detected in the last 5 years. During 2017, 51 new substances were detected for the first time in Europe. This is fewer than in any of the previous 5 years and represents a decline from the peak levels of about 100 new identifications each year reached in 2014 and 2015. The causes of this decrease are unclear, but may in part be due to measures taken by national governments in Europe to prohibit new substances, particularly their open sale. In addition, control measures and law enforcement operations in China targeting laboratories producing new substances may be an important factor.

The number of new substances detected for the first time each year is just one of a range of metrics that the

FIGURE 1.10

Number and categories of new psychoactive substances notified to the EU Early Warning System for the first time, 2005–17



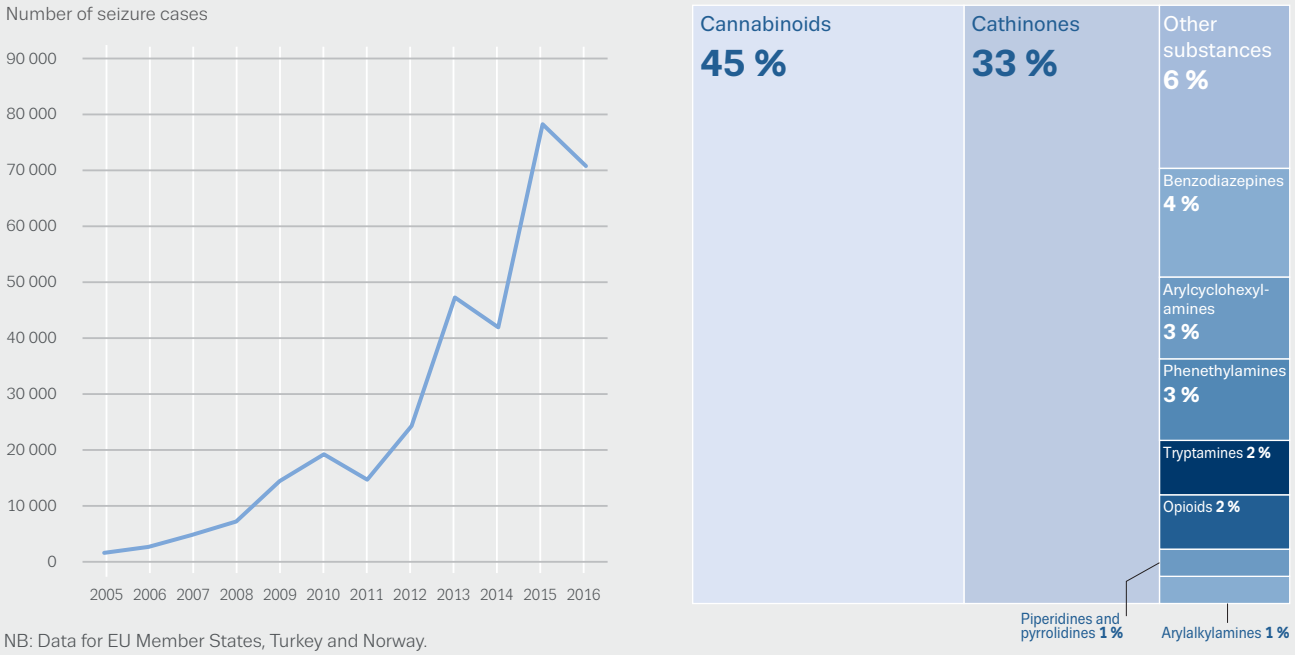
EMCDDA uses in order to understand the overall market. For example, illustrating how complex this market has become, over 50 % (369) of the new substances currently being monitored were still detected on Europe's drug market during 2016.

Seizures of new psychoactive substances: synthetic cathinones and cannabinoids continue to dominate

In 2016, almost 71 000 seizures of new psychoactive substances were reported through the EU Early Warning System (Figure 1.11). Together, synthetic cathinones and synthetic cannabinoids accounted for almost 80 % of all seizures and 80 % of all quantities of new substances seized in 2016. An overall decrease was observed in the quantities seized in 2016 compared with the previous year. However, seizure quantities of synthetic cathinones, benzodiazepines and synthetic opioids increased. European seizure totals for new substances must be understood as minimum values, as data are drawn from case reports rather than monitoring systems. Reported seizures are influenced by a range of factors such as increasing awareness of new substances, their changing

FIGURE 1.11

Number of seizures of new psychoactive substances reported to the EU Early Warning System: trends and distribution by category in 2016



NB: Data for EU Member States, Turkey and Norway.

legal status, law enforcement capacities and priorities, and the reporting practices of law enforcement agencies.

New synthetic opioids

Overall, 38 new opioids have been detected on Europe's drug market since 2009 — including 13 reported for the first time in 2017. This includes 28 fentanyl derivatives, 10 of which were reported for the first time in 2017. Although currently playing a small role in Europe's drug market, the new fentanyl derivatives are highly potent substances that pose a serious threat to individual and public health.

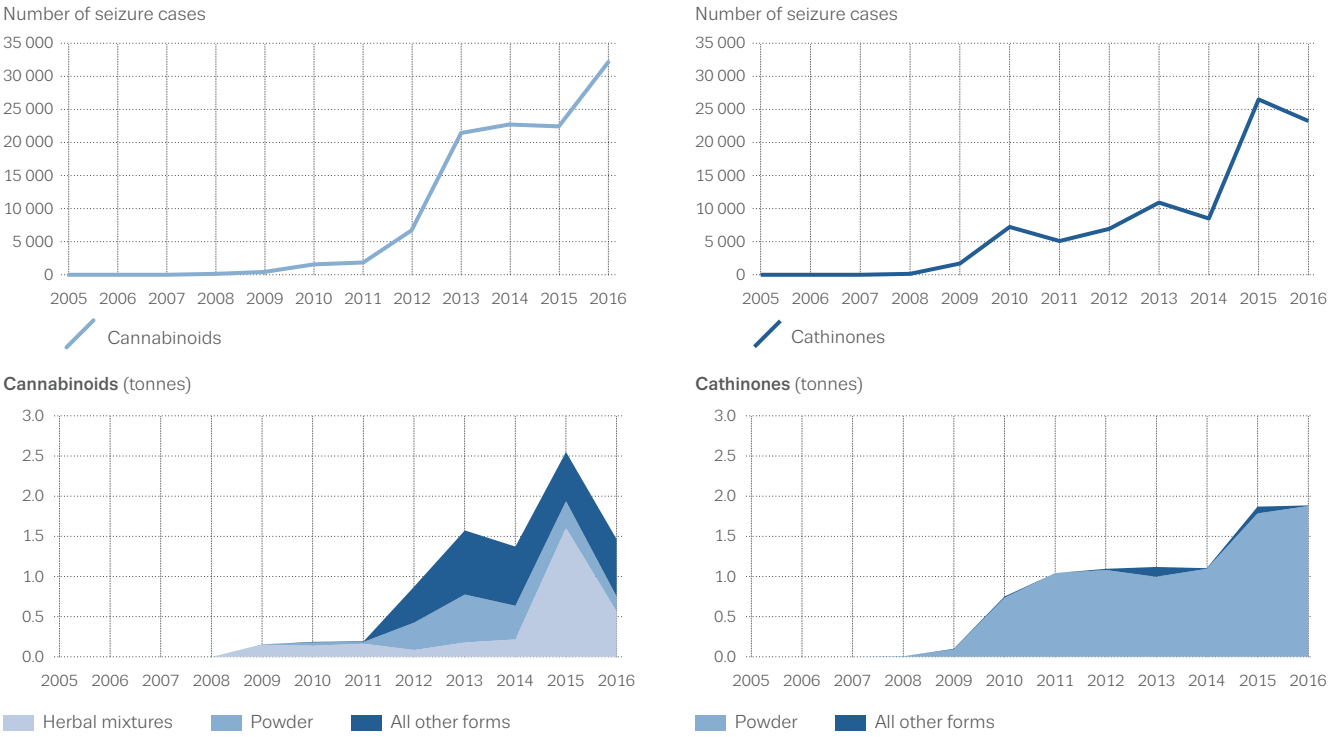
New opioids have been seized in various forms: mainly as powders, tablets and liquids. About 4.6 litres of synthetic opioids were seized in 2016, an increase from the 1.8 litres reported the previous year. Over 70 % of the 1 600 or so seizures of new synthetic opioids reported in 2016 were fentanyl derivatives. Fentanyl derivatives were found in over 96 % of the liquids seized. One concern in this respect is the appearance on the market of nasal sprays containing fentanyl derivatives such as acryloylfentanyl, furanyl-fentanyl, 4-fluoroisobutyrylfentanyl, tetrahydrofuranyl-fentanyl and carfentanil. New opioids accounted for 2.3 % of the total number of seizures of new substances seized in 2016 up from 0.8 % reported for 2015.

Synthetic cannabinoids

Synthetic cannabinoids are substances that mimic the effects of delta-9-tetrahydrocannabinol (THC), which is largely responsible for the major psychoactive effects of cannabis. European producers import bulk shipments of cannabinoid powders and mix them with dried plant material. These are marketed as 'legal' replacements for cannabis and sold as 'herbal smoking mixtures'. Synthetic cannabinoids continue to be the largest group of new substances monitored by the EMCDDA and are becoming increasingly chemically diverse, with 179 detected since 2008 — including 10 reported in 2017.

FIGURE 1.12

Seizures of synthetic cannabinoids and cathinones reported to the EU Early Warning System: trends in number of seizures and quantity seized



NB: Data for EU Member States, Turkey and Norway.

Synthetic cannabinoids were the most frequently seized new psychoactive substances again in 2016, with just over 32 000 seizures reported (Figure 1.12). This is an increase of almost 10 000 seizures on the previous year and accounts for nearly half the total number of seizures of new psychoactive substances reported in 2016. The five most commonly seized synthetic cannabinoids in 2016 were MDMB-CHMICA, AB-CHMINACA, UR-144, 5F-AKB48 and AMB-FUBINACA.

Seizures of synthetic cannabinoids amounted to almost 1.5 tonnes of the substances. This represents a significant drop from the 2.5 tonnes seized in 2015. Herbal mixtures accounted for 40 % of the quantities seized in 2016, with powders making up almost 13 %.

The seizure of synthetic cannabinoids in powder form together with the detection of processing facilities in Europe indicates that products are packaged in Europe. The powder seized, when processed into herbal smoking mixtures, could have been capable of producing many millions of doses. The cannabinoids with the highest overall quantities seized in powder form in 2016 were AM-6527 5-fluoropentyl derivative (54 kg), CUMYL-4CN-BINACA (50 kg), AMB-FUBINACA (27 kg), 5F-MDMB-PINACA (15 kg) and AB-FUBINACA (7 kg).

Synthetic cathinones

Synthetic cathinones are chemically related to cathinone, which is a naturally occurring stimulant found in the khat plant (*Catha edulis*). These substances have effects similar to common illicit stimulant drugs such as amphetamine, cocaine and MDMA. Synthetic cathinones are the second largest group of new substances monitored by the EMCDDA, with 130 detected in total — including 12 detected for the first time in 2017.

Synthetic cathinones were the second most frequently seized group of new psychoactive substances in 2016, with over 23 000 seizures, accounting for almost one-third of the total number of seizures. This is a slight decrease from the previous year's figure. The five most commonly seized cathinones in 2016 were alpha-PVP, 4-CMC, 3-CMC, 4-methyl-N,N-dimethylcathinone and 3-MMC.

Seizures of these substances amounted to nearly 1.9 tonnes, making synthetic cathinones the most seized new psychoactive substances by quantity in 2016 (Figure 1.12). Synthetic cathinones are generally found in powder form. The cathinones with the highest overall quantities seized in powder form were 4-CMC (890 kg), 4-CEC (247 kg), NEH (186 kg), 3-MMC (126 kg) and mexedrone (50 kg).

New benzodiazepines

The EMCDDA is currently monitoring 23 new benzodiazepines — 3 of which were detected for the first time in Europe in 2017. Some new benzodiazepines are sold as tablets, capsules or powders under their own names. In other cases, counterfeiters use these substances to produce fake versions of commonly prescribed anti-anxiety medicines, such as diazepam and alprazolam, which are sold directly on the illicit drug market. While the number of seizures of benzodiazepines decreased in 2016 compared with 2015, the quantity seized increased significantly. During 2016, more than half a million tablets containing new benzodiazepines such as diclazepam, etizolam, flubromazolam, flunitrazolam and fonazepam were seized — an increase of about two-thirds on the number reported in 2015.

New psychoactive substances: new legal responses

European countries take measures to prevent the supply of drugs under three United Nations Conventions, which provide a framework for control of production, trade and possession of over 240 psychoactive substances. The rapid emergence of new psychoactive substances and the diversity of available products has proved challenging for the Conventions and for European policymakers and lawmakers.

At national level, various measures have been used to control new substances, and three broad types of legal response can be identified. Many countries in Europe first responded by using consumer safety legislation, and subsequently extended or adapted existing drug laws to incorporate new psychoactive substances. Increasingly, countries have designed specific new legislation to address this phenomenon.

For many years, most European countries only listed controlled substances individually. However, as the number of new substances detected in Europe increased, more countries have sought to control groups of substances (Figure 1.13). Most of the countries have defined the groups by chemical structure ('generic' groups), though a few have defined the groups by the effects. Most of the countries that have taken the generic approach have added the group definitions to existing drug laws, but some have only included such groups in specific new psychoactive substance legislation.

At EU level, the legal framework for responding to public health and social threats caused by new psychoactive substances, which dated from 2005, has been revised, with the aim of establishing a swifter, more effective system. The new legislation retains the three-step approach to responding to new psychoactive substances — early warning, risk assessment and control measures — while strengthening existing processes by streamlining and accelerating data-collection and assessment procedures, and introducing shorter deadlines. Following the risk assessment, the Commission can then make a proposal for subjecting the substance to control measures. The European Parliament and the Council have the right, within 2 months and under certain conditions, to object to the Commission proposal. National authorities will have 6 months (instead of 12) to place the substance under control on their territory once the decision enters into force.

The EMCDDA is currently monitoring 23 new benzodiazepines

FIGURE 1.13

Appearance of new psychoactive substances and introduction of generic-group controls in Europe, since 2005

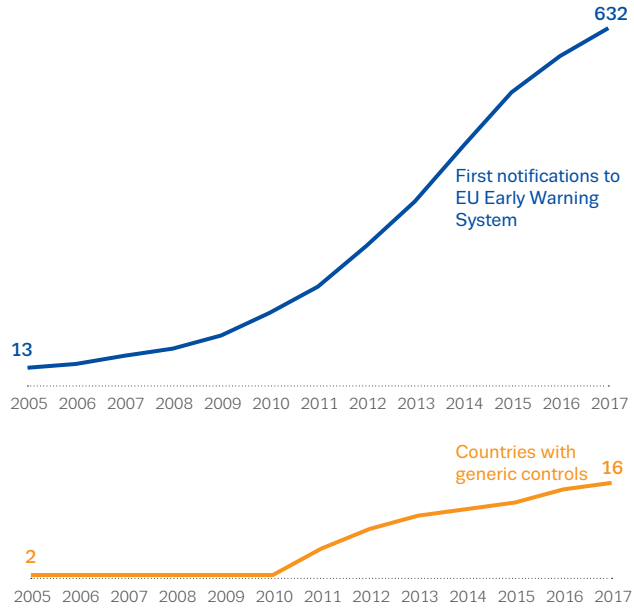
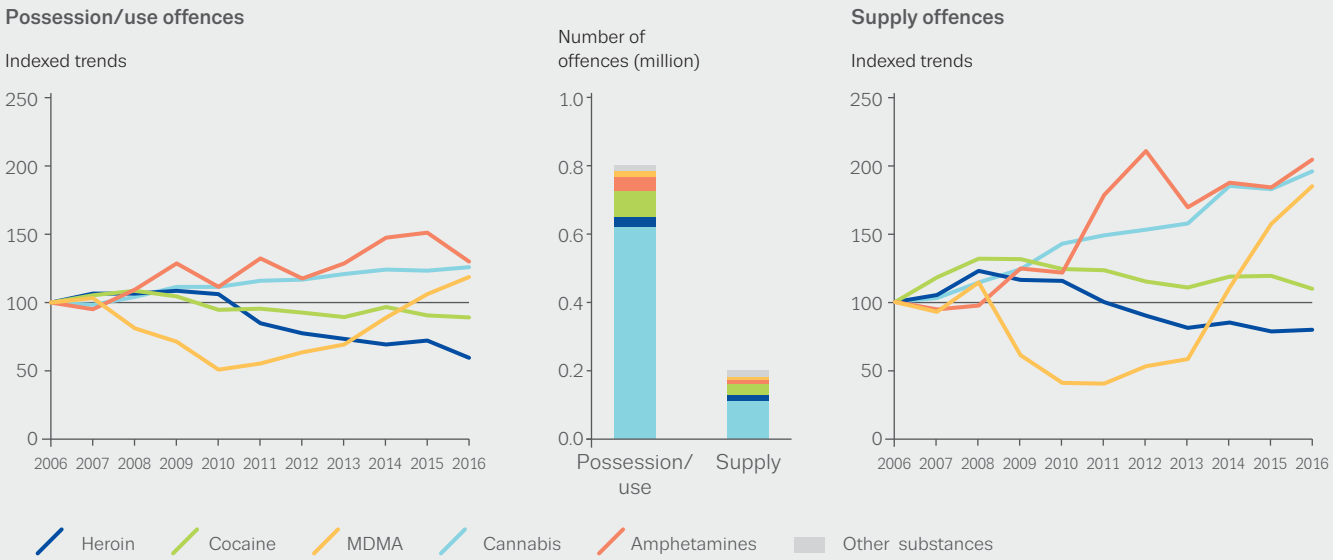


FIGURE 1.14

Drug law offences in Europe related to drug use or possession for use or drug supply: indexed trends and reported offences in 2016



NB: Data for offences for which the drug involved has been reported.

Drug law offences: cannabis predominates

The implementation of laws is monitored through data on reported drug law offences. In the European Union, an estimated 1.5 million drug law offences were reported in 2016, an increase of a third (33 %) since 2006. Most of these offences (74 %) related to use or possession, totalling around 1 million offences in 2016, which is a 28 % increase compared with 2006. More than three-quarters of the drug use or possession offences involved cannabis (77 %). The upward trend in offences for MDMA use or possession has continued in 2016, although they still only make up 2 % of use-related offences (Figure 1.14).

Overall, the number of drug supply offences in the European Union has increased by 14 % since 2006, with an estimate of more than 200 000 cases in 2016. Cannabis accounted for the majority of supply offences (57 %). There has been a sharp increase in reports of supply offences for MDMA since 2013 (Figure 1.14).

FIND OUT MORE

EMCDDA publications

2018

Country Drug Reports 2018.

Fentanils and synthetic cannabinoids: driving greater complexity into the drug situation. An update from the EU Early Warning System, Rapid communications.

2017

Cannabis legislation in Europe: an overview.

Changes in Europe's cannabis resin market, Perspectives on Drugs.

Drug squads: units specialised in drug law enforcement in Europe. Situation in the EU Member States, Norway and Turkey in 2015, EMCDDA Papers.

Drug supply reduction: an overview of EU policies and measures, EMCDDA Papers.

Drug trafficking penalties across the European Union: a survey of expert opinion, Technical reports.

Synthetic cannabinoids in Europe, Perspectives on Drugs.

2016

Cocaine trafficking to Europe, Perspectives on Drugs.

Internet and drug markets, Insights.

Legal approaches to controlling new psychoactive substances, Perspectives on Drugs.

Models for the legal supply of cannabis: recent developments, Perspectives on Drugs.

2015

Opioid trafficking routes from Asia to Europe, Perspectives on Drugs.

New psychoactive substances in Europe. An update from the EU Early Warning System, Rapid communications.

Synthetic drug production in Europe, Perspectives on Drugs.

2014

New developments in Europe's cannabis markets, Perspectives on Drugs.

EMCDDA and Europol joint publications

2018

EMCDDA–Europol Joint Report on a new psychoactive substance: (methoxyacetylfentanyl), Joint Reports.

EMCDDA–Europol Joint Report on a new psychoactive substance: (cyclopropylfentanyl), Joint Reports.

2017

Drugs and the darknet: perspectives for enforcement, research and policy.

EMCDDA–Europol Joint Report on 4-fluoroisobutyrylfentanyl; 4F-iBF.

EMCDDA–Europol Joint Report on 5F-MDMB-PINACA; 5F-ADB.

EMCDDA–Europol Joint Report on AB-CHMINACA.

EMCDDA–Europol Joint Report on acryloylfentanyl.

EMCDDA–Europol Joint Report on ADB-CHMINACA.

EMCDDA–Europol Joint Report on carfentanil.

EMCDDA–Europol Joint Report on CUMYL-4CN-BINACA.

EMCDDA–Europol Joint Report on furanylfentanyl.

EMCDDA–Europol Joint Report on tetrahydrofuranylfentanyl; THF-F.

2016

EU Drug Markets Report: In-depth Analysis.

EU Drug Markets Report: Strategic Overview.

EMCDDA–Europol 2015 Annual Report on the implementation of Council Decision 2005/387/JHA.

EMCDDA–Europol Joint Report on MDMB-CHMICA.

EMCDDA–Europol Joint Report on acetylfentanyl.

2015

EMCDDA–Europol Joint Report on α-PVP.

EMCDDA and Eurojust joint publications

2016

New psychoactive substances in Europe: legislation and prosecution — current challenges and solutions.

All publications are available at www.emcdda.europa.eu/publications

2

Drug use in Europe now encompasses a wider range of substances

Drug use prevalence and trends

Drug use in Europe now encompasses a wider range of substances than in the past. Among drug users, polydrug consumption is common and individual patterns of use range from experimental to habitual and dependent consumption. The prevalence of cannabis use is about five times that of other substances. While the use of heroin and other opioids remains relatively rare, these continue to be the drugs most commonly associated with the more harmful forms of use including injecting drug use. Use of all drugs is generally higher among males, and this difference is often accentuated for more intensive or regular patterns of use.

Monitoring drug use

The EMCDDA collects and maintains datasets that cover drug use and patterns of use in Europe.

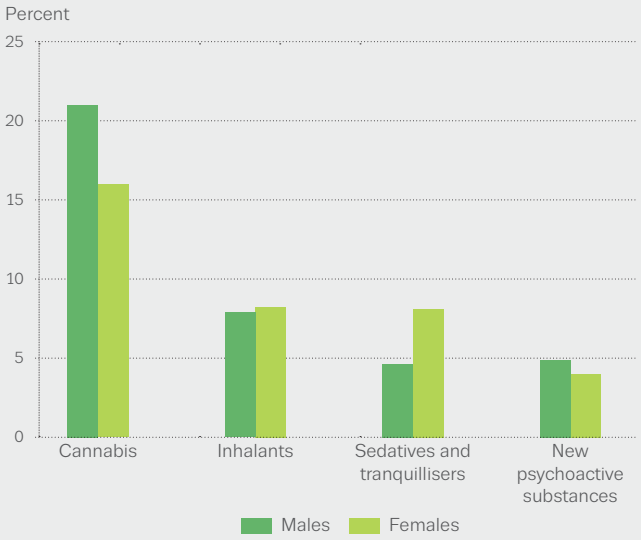
Surveys undertaken among school students and the general population can provide an overview of the prevalence of experimental and recreational drug use. These survey results can be complemented by community level analyses of drug residues in municipal wastewater, carried out in cities across Europe.

Studies reporting estimates of high-risk drug use can help to identify the extent of the more entrenched drug use problems, while data on those entering specialised drug treatment systems, when considered alongside other indicators, can inform understanding on the nature and trends in high-risk drug use.

Full data sets and methodological notes can be found in the online Statistical Bulletin.

FIGURE 2.1

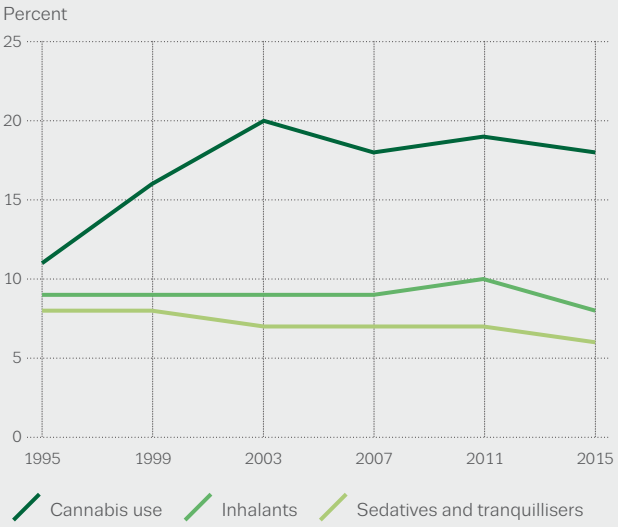
Lifetime use of substances among 15- to 16- year-old European school students, by gender



NB: Based on data for the 23 EU Member States and Norway that participated in the 2015 round of ESPAD.

FIGURE 2.2

Trends in lifetime prevalence of cannabis, inhalants and medicines (sedatives and tranquillisers without prescription) use among 15- to 16-year-old European school students



NB: Based on the 21 EU Member States and Norway that have participated in at least four rounds of ESPAD.

Substance use among school students: stable or decreasing trends

Monitoring substance use among students provides an important insight into current youth risk behaviours and potential future trends. In 2015, the European School Survey Project on Alcohol and Other Drugs (ESPAD) conducted the sixth round of data collection since its inception in 1995. This latest survey collected comparable data on substance use among 15- to 16-year-old students from 35 European countries, including 23 EU Member States and Norway. Among students in these 24 countries, on average, 18 % reported having used cannabis at least once (lifetime prevalence), with the highest levels reported by the Czech Republic (37 %) and France (31 %), and 8 % reported use in the last 30 days. The use of illicit drugs other than cannabis (MDMA/ecstasy, amphetamine, cocaine, methamphetamine and hallucinogens) was far lower, with an overall lifetime prevalence of 5 %.

The survey also asked about use of other substances, such as inhalants, medicines and new psychoactive substances. Among the participants from the EU and Norway, the average lifetime prevalence of use of inhalants was 8 % (ranging from 3 % in Belgium (Flanders) to 25 % in Croatia). Lifetime use of sedatives or tranquilisers without a doctor's prescription was reported by an average of 6 % of students (ranging from 2 % in Romania to 17 % in Poland), and lifetime use of new psychoactive substances was reported by an average of 4 % of students (ranging from 1 % in Belgium (Flanders) to 10 % in Estonia and Poland) (Figure 2.1). Among users of new psychoactive substances in the last 12 months (3.2 % of participants), herbal smoking mixtures were the most commonly used type of substance (reported by 2.6 % of all participants), with the use of powders, crystals or tablets, liquids or other forms of new psychoactive substance being less common.

Among the 22 countries with sufficient data for analysis, overall reported lifetime cannabis use peaked in 2003 followed by a slight decrease in the 2007 survey (Figure 2.2). Since then the prevalence has been relatively stable. There was a decrease in the reported lifetime use of inhalants between 2011 (10 %) and 2015 (8 %) but the long-term trend between 1995 and 2015 has been relatively stable (Figure 2.2). For sedatives and tranquilisers, lifetime use decreased slightly between 1995 and 2015, with consistently higher prevalence of use among girls than among boys over this period. Trend data on new psychoactive substances are not available from ESPAD, as questions on the use of these drugs were included for the first time in 2015.

More than 92 million adults have tried illicit drugs

More than 92 million or just over a quarter of 15- to 64-year-olds in the European Union are estimated to have tried illicit drugs during their lives. Experience of drug use is more frequently reported by males (56.0 million) than females (36.3 million). The most commonly tried drug is cannabis (53.5 million males and 34.3 million females), with much lower estimates reported for the lifetime use of cocaine (11.8 million males and 5.2 million females), MDMA (9.0 million males and 4.5 million females) and amphetamines (8.0 million males and 4.0 million females). Levels of lifetime use of cannabis differ considerably between countries, ranging from around 41 % of adults in France to less than 5 % in Malta.

Last year drug use provides a measure of recent drug use and is largely concentrated among young adults. An estimated 18.9 million young adults (aged 15–34) used drugs in the last year, with twice as many males as females reporting doing so.

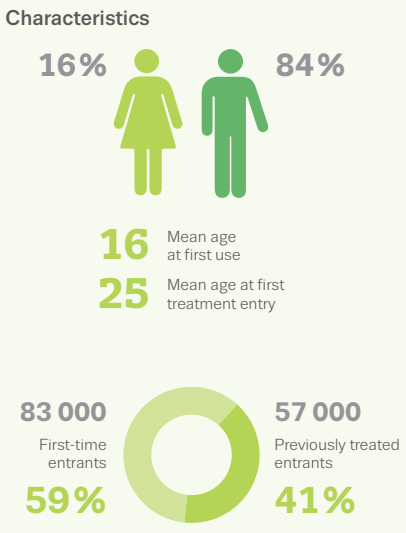
Cannabis use: overall stable but wide national variation

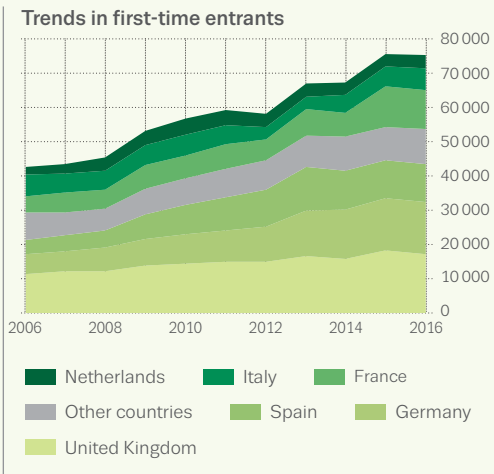
Across all age groups, cannabis is the illicit drug most likely to be used. The drug is generally smoked and, in Europe, is commonly mixed with tobacco. Patterns of cannabis use can range from the occasional to the regular and dependent.

It is estimated that 87.6 million adults in the European Union (aged 15–64), or 26.3 % of this age group, have tried cannabis during their lives. Of these, an estimated 17.2 million young adults (aged 15–34), or 14.1 % of this age group, used cannabis in the last year, with 9.8 million of these aged 15–24 (17.4 % of this age group). Last year prevalence rates among 15- to 34-year-olds range from 3.5 % in Hungary to 21.5 % in France. Among young people using cannabis in the last year, the ratio of males to females is two to one.

The most recent survey results show most countries to be reporting either stability or increases in last year cannabis use among young adults. Of the countries that have produced surveys since 2015 and reported confidence intervals, 8 reported higher estimates, 9 were stable and 2 reported lower estimates than in the previous comparable survey.

CANNABIS USERS ENTERING TREATMENT

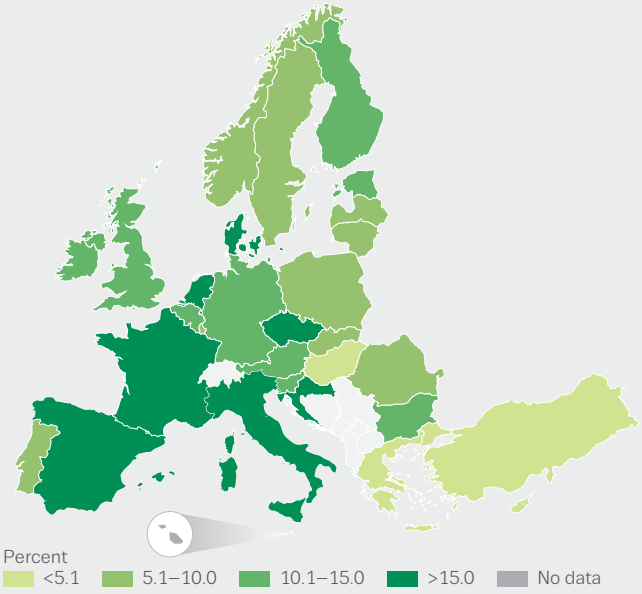


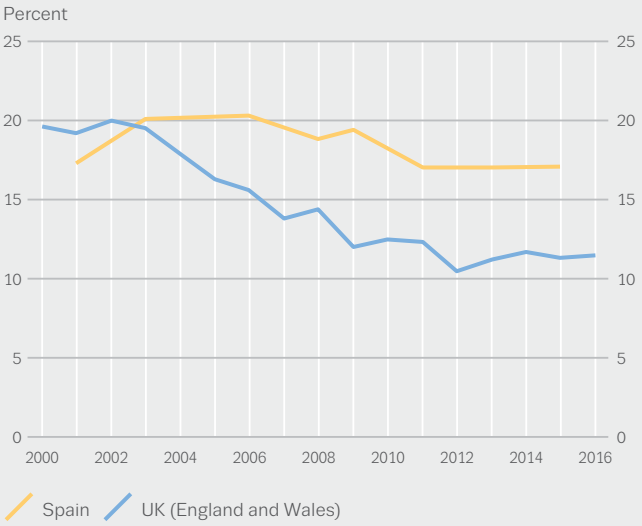


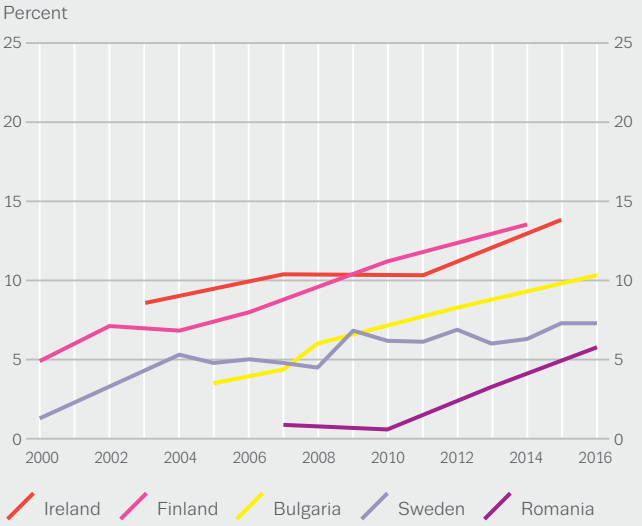
NB: Apart from trends, data are for all treatment entrants with cannabis as primary drug. Trends in first-time entrants are based on 25 countries. Only countries with data for at least 9 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years. Due to changes in the flow of data at national level, data since 2014 for Italy is not comparable with earlier years.

FIGURE 2.3

Last year prevalence of cannabis use among young adults (15–34): most recent data (map) and selected trends







Few countries have sufficient survey data to permit statistical analysis of trends in last year use of cannabis among young adults (15–34). Among these, the long-term decreasing trends, previously observed over the last decade in Spain and the United Kingdom, have now stabilised in the more recent data (Figure 2.3).

In the last decade, increasing trends in last year prevalence of cannabis use among young adults have been observed in a number of countries. These include Ireland and Finland, where the most recent data indicate levels approaching the EU average of 14.1 % and, albeit at lower recent levels, Bulgaria, Romania and Sweden. Among countries reporting recent survey data, a third comparable annual survey in the Netherlands in 2016 confirmed a prevalence of just below 16 %. In Denmark, a 2017 survey reported one of the few falls: 15.4 % as opposed to the 2013 estimate of 17.6 %.

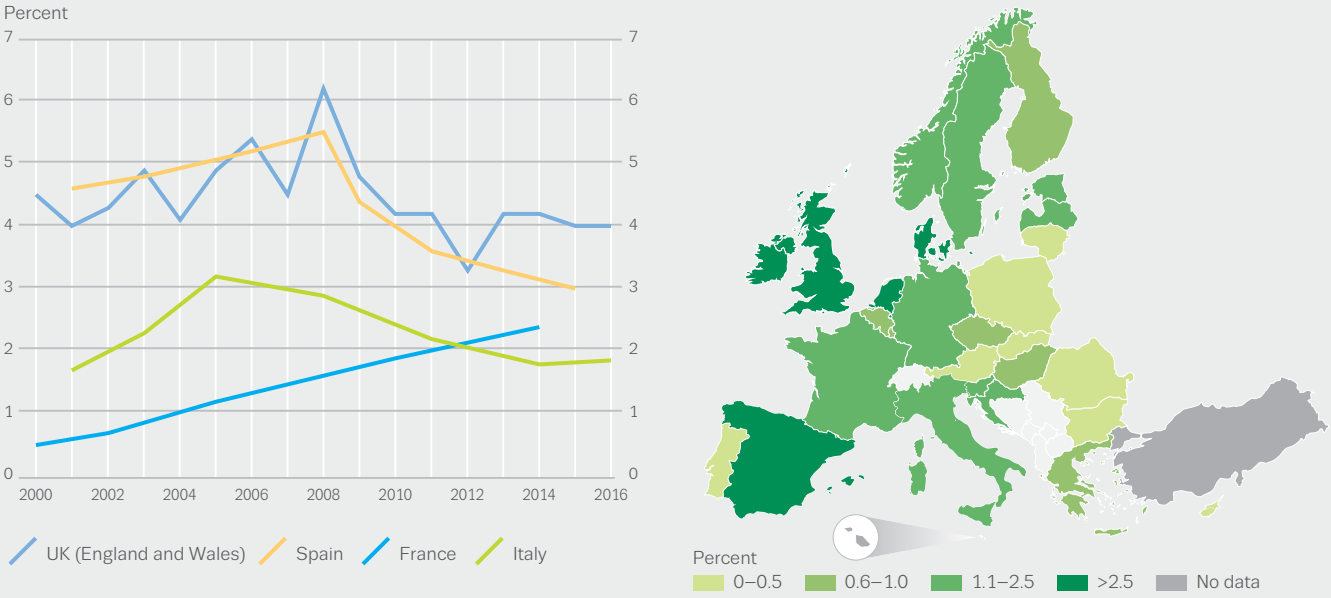
High-risk cannabis use: an increasing trend

Based on surveys of the general population, it is estimated that around 1 % of European adults are daily or almost daily cannabis users — that is, they have used the drug on 20 days or more in the last month. Around 37 % of these are older drug users, aged 35 to 64, and around three-quarters are male.

When considered alongside other indicators, data on those entering treatment for cannabis problems can provide information on the nature and scale of high-risk cannabis use in Europe. In 2016 more than 150 000 people entered drug treatment in Europe for problems related to cannabis use; of those about 83 000 were entering treatment for the first time in their lives. In the 25 countries with available data, the overall number of first-time entrants for cannabis problems increased by 76 % between 2006 and 2016, with the majority (18) of the countries reporting an increase over this period. Multiple factors may lie behind this rise, including higher prevalence of cannabis use among the general population, increases in the number of intensive users, the availability of higher potency products, changes in the perception of risk, increases in the levels of treatment provision and of referral to treatment, in particular from the criminal justice system. Overall, 50 % of the primary cannabis users entering treatment for the first time in 2016 reported daily use of the drug in the last month. The proportion of daily users, however, varies widely between countries, ranging from 10 % or less in Latvia, Hungary and Romania to 60 % or more in Spain, France, the Netherlands and Turkey.

FIGURE 2.4

Last year prevalence of cocaine use among young adults (15–34): selected trends and most recent data



Cocaine use: stable overall, but signs of increase

Cocaine is the most commonly used illicit stimulant drug in Europe, and its use is more prevalent in southern and western countries. Among regular consumers, a broad distinction can be made between more socially integrated users, who often sniff powder cocaine (cocaine hydrochloride), and marginalised users, who inject cocaine or smoke crack (cocaine base), sometimes alongside the use of opioids. In many datasets, it is not possible to distinguish between the two forms of cocaine (cocaine powder or crack) and the term cocaine use covers both forms.

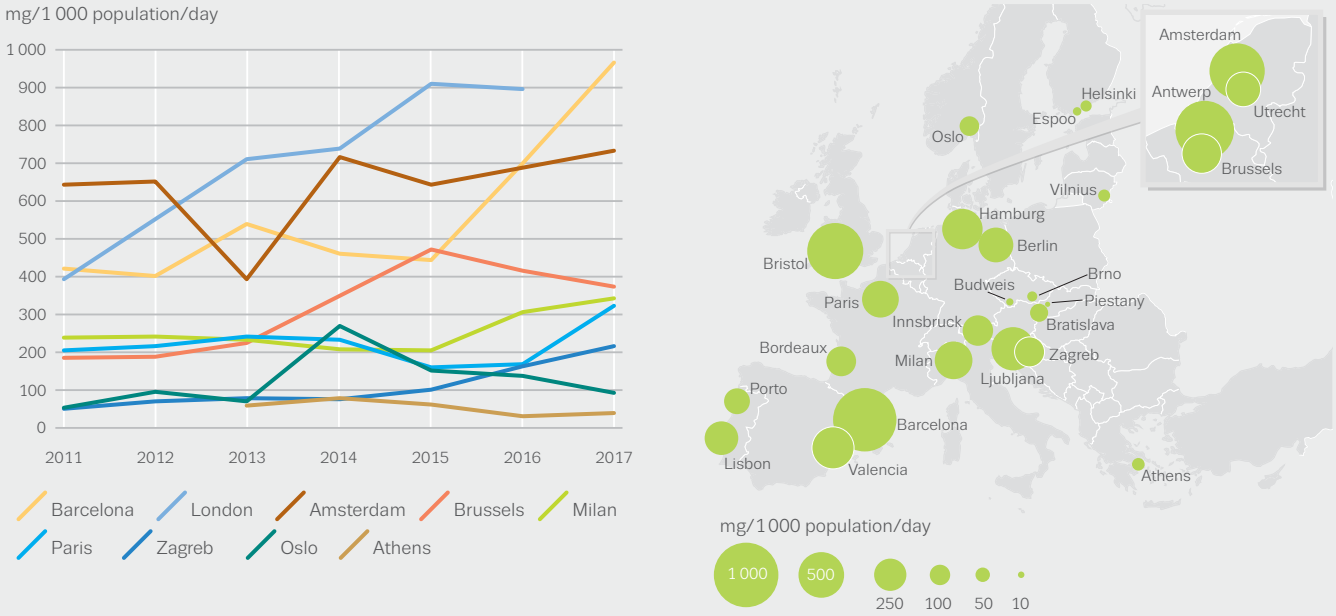
It is estimated that 17.0 million European adults (aged 15–64), or 5.1 % of this age group, have tried cocaine during their lives. Among these are about 2.3 million young adults aged 15 to 34 (1.9 % of this age group) who have used the drug in the last year.

Only Denmark, Ireland, Spain, the Netherlands and the United Kingdom report last year prevalence of cocaine use among young adults of 2.5 % or more. Across Europe, the decreases in cocaine use reported in previous years have not been observed in the most recent surveys. Of the countries that have produced surveys since 2015 and reported confidence intervals, 3 reported higher estimates, 14 reported a stable trend and 1 reported a lower estimate than in the previous comparable survey.

A statistical analysis of long-term trends in last year use of cocaine among young adults is only possible for a small number of countries, and new data confirm existing trends. Spain and the United Kingdom reported trends of increasing prevalence until 2008, followed by stability or decline (Figure 2.4). While Italy has seen a decline from a peak in 2005, the most recent survey suggests the level may now have stabilised. An upward trend was observed in 2014 in France, when prevalence rose above 2 % for the first time.

FIGURE 2.5

Cocaine residues in wastewater in selected European cities: trends and most recent data



NB: Mean daily amounts of benzoylecgonine in milligrams per 1 000 population. Sampling was carried out in selected European cities over a week in each year from 2011 to 2017.

Source: Sewage Analysis Core Group Europe (SCORE).

Analysis of municipal wastewater for cocaine residues carried out in a multi-city study complements the results from population surveys. Wastewater analysis reports on collective consumption of pure substances within a community, and the results are not directly comparable with prevalence estimates from national population surveys. The results of wastewater analysis are presented in standardised amounts (mass loads) of drug residue per 1 000 population per day.

A 2017 analysis found the highest mass loads of benzoylecgonine — the main metabolite of cocaine — in cities in Belgium, Spain, the Netherlands and the United Kingdom and very low levels in the majority of the eastern European cities studied (see Figure 2.5). Of the 31 cities that have data for 2016 and 2017, 19 reported an increase, 6 a decrease and 6 a stable situation. Increasing longer-term trends are reported for many of the 13 cities with data for 2011 and 2017.

High-risk cocaine use: more people seeking treatment

The prevalence of high-risk cocaine use among adults in Europe is difficult to gauge as only 4 countries have recent estimates, and different definitions and methodologies have been used. In Spain, a new survey used high frequency of use to estimate high-risk cocaine use at 0.43 % among people aged 14–18 in 2016/17. In 2015, based on severity of dependence scale questions, Germany estimated high-risk cocaine use among the adult population at 0.20 %. In 2015, Italy produced an estimate of 0.65 % of the adult population for those in need of treatment for cocaine use. For Portugal, a study using indirect statistical methods estimated high-risk cocaine use at 0.98 % of the adult population in 2015.

Spain, Italy and the United Kingdom account for almost three-quarters (73 %) of all reported specialised treatment entries related to cocaine in Europe. Overall, cocaine was cited as the primary drug by more than 67 000 clients entering specialised drug treatment in 2016 and by around 30 000 first-time clients.

After a period of decline, the overall number of cocaine first-time treatment entrants increased by over a fifth between 2014 and 2016. While much of this increase is accounted for by Italy and the United Kingdom, almost all countries reported increases during the same period.

The majority of those entering specialised treatment for problems related to cocaine use are primary powder cocaine users (51 000 or 10 % of all drug clients in 2016). Most primary cocaine clients are seeking treatment for use of the drug on its own (31 % of all powder cocaine clients) or in combination with cannabis (26 %), alcohol (31 %) or other substances (12 %). This group is generally reported to be socially well-integrated, with stable living conditions and regular employment. Another group, consisting of more marginalised users, enters treatment for primary crack cocaine use (8 300 clients or 2 % of all drug clients in 2016), many of whom may be using heroin as a secondary drug. Recent increases in the number of crack cocaine clients are reported in Italy and the United Kingdom.

The use of cocaine in combination with heroin or other opioids is reported by 53 000 clients entering specialised drug treatment in Europe in 2016. This number represents 15 % of all treatment entrants for whom both primary and secondary drug information is available.

COCAINE USERS ENTERING TREATMENT

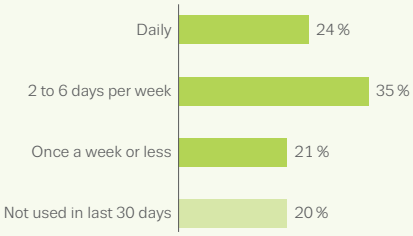
Characteristics

23 Mean age at first use

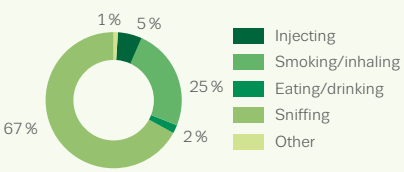
34 Mean age at first treatment entry

Frequency of use in the last month

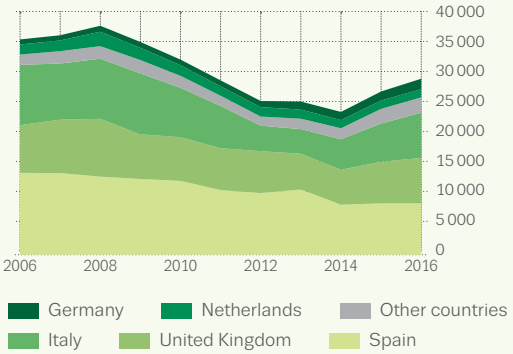
mean use **4.1** days per week



Route of administration



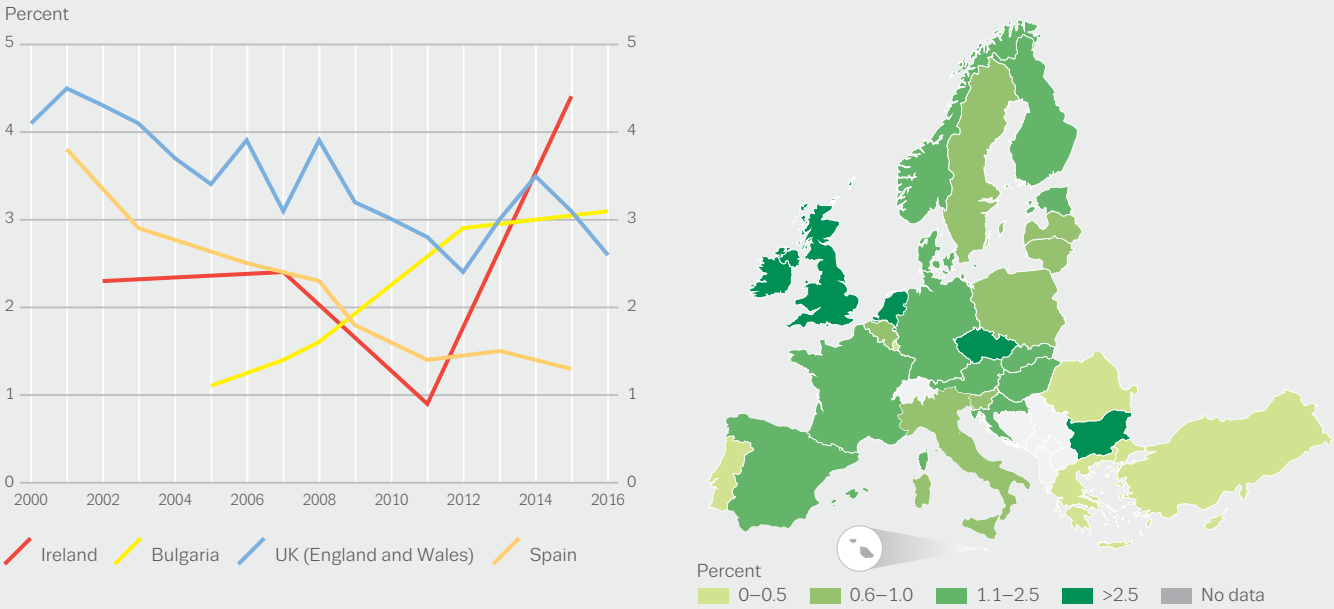
Trends in first-time entrants



NB: Apart from trends, data are for all treatment entrants with cocaine as primary drug. Trends in first-time entrants are based on 25 countries. Only countries with data for at least 9 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years. Due to changes in the flow of data at national level, data since 2014 for Italy is not comparable with earlier years.

FIGURE 2.6

Last year prevalence of MDMA use among young adults (15–34): selected trends and most recent data



MDMA: use appears to be stabilising

MDMA (3,4-methylenedioxymethamphetamine) is used in the form of tablets (often called ecstasy), and also as crystals and powders; tablets are usually swallowed, but crystals and powder may be taken orally and can also be snorted.

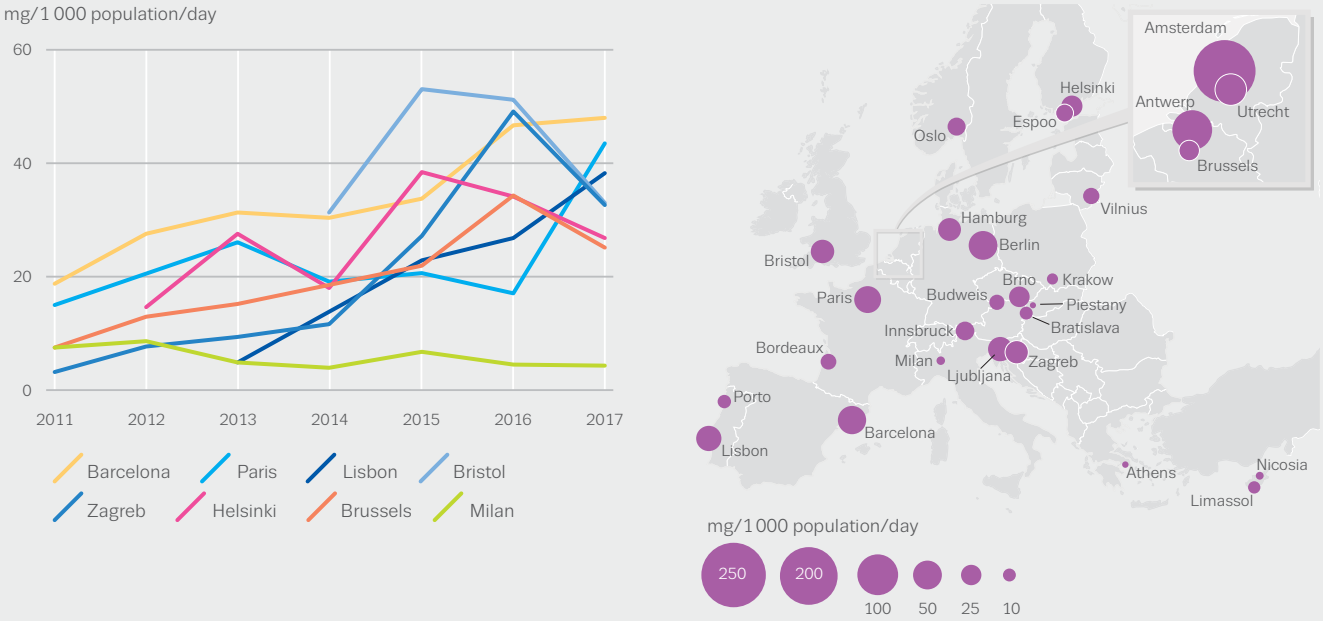
It is estimated that 13.5 million European adults (aged 15–64), or 4.1 % of this age group, have tried MDMA/ecstasy during their lives. Figures for more recent use, among the age group in which drug use is highest, suggest that 2.2 million young adults (15–34) used MDMA in the last year (1.8 % of this age group), with national estimates ranging from 0.2 % in Portugal and Romania to 7.4 % in the Netherlands.

Until recently, in many countries, MDMA prevalence had been on the decline from peak levels attained in the early to mid-2000s. In recent years, however, monitoring sources suggest stabilisation or increased use of MDMA in some countries. Among the countries that have produced new surveys since 2015 and reported confidence intervals, 5 reported higher estimates than in the previous comparable survey, 12 reported stable estimates, and 1 reported a lower estimate.

Where data exist for a statistical analysis of trends in last year use of MDMA among young adults, the more recent data suggest changes (Figure 2.6). In the United Kingdom following a declining trend, the increase observable between 2012 and 2014 has been reversed in the more

FIGURE 2.7

MDMA residues in wastewater in selected European cities: trends and most recent data



NB: Mean daily amounts of MDMA in milligrams per 1 000 population. Sampling was carried out in selected European cities over a week in each year from 2011 to 2017.
Source: Sewage Analysis Core Group Europe (SCORE).

recent data. In Spain, the long-term trend remains downward, although recent values are stable. The most recent data show a marked increase in prevalence in Ireland since 2011, and a continued upward trend in Bulgaria. Data from the 2016 survey in the Netherlands confirm the high levels reported in the previous two annual surveys.

A 2017 multi-city analysis found the highest mass loads of MDMA in the wastewater in cities in Belgium, the Netherlands and Germany (see Figure 2.7). Of the 33 cities that have data for 2016 and 2017, 11 reported an increase, 7 a stable situation and 15 a decrease. Looking at longer-term trends, in most cities with data for both 2011 and 2017 (12 cities), wastewater MDMA loads were higher in 2017 than in 2011. However, the sharp increases observed over the 2011–2016 period seem to be stabilising in 2017 for most cities.

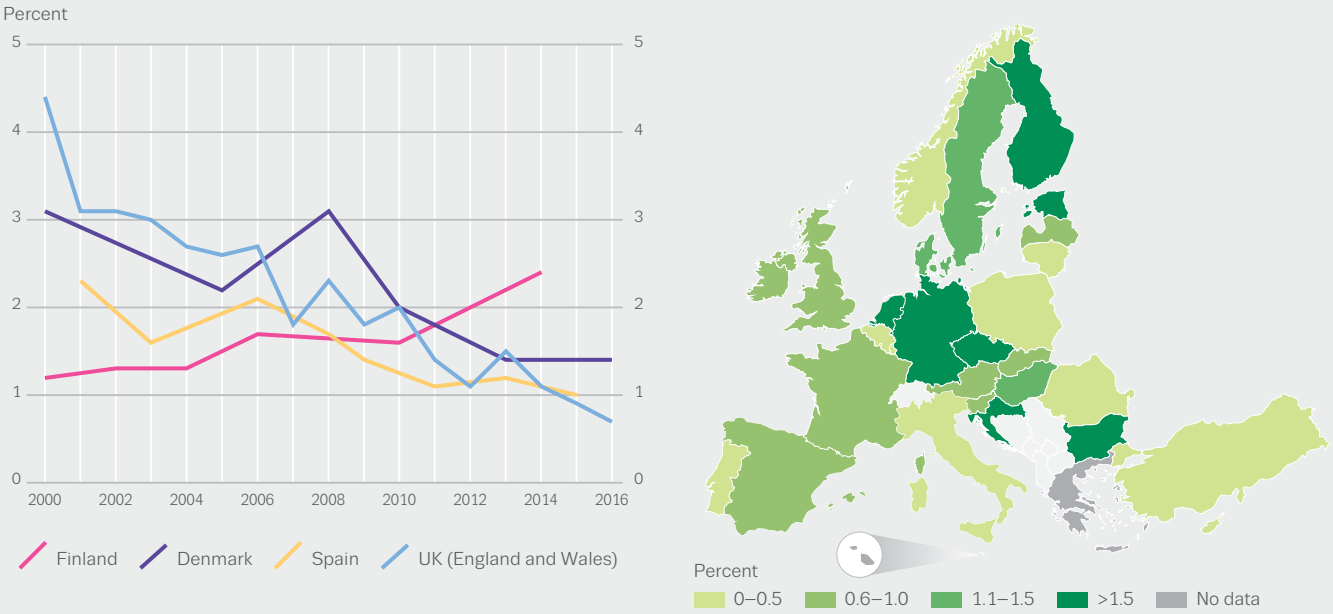
MDMA is often taken alongside other substances, including alcohol. Current indications suggest that, in higher-prevalence countries, MDMA is no longer a niche or subcultural drug limited to dance clubs and parties, but is used by a broad range of young people in mainstream nightlife settings, including bars and house parties.

MDMA use is rarely cited as a reason for entering specialised drug treatment. In 2016, MDMA was reported by less than 1 % (around 1 000 cases) of first-time treatment entrants in Europe, mainly in Spain, France, the United Kingdom and Turkey.

Monitoring sources suggest stabilisation or increased use of MDMA

FIGURE 2.8

Last year prevalence of amphetamines use among young adults (15–34): selected trends and most recent data



Amphetamines: variation in use but stable trends

Amphetamine and methamphetamine, two closely related stimulants, are both consumed in Europe, although amphetamine is much more commonly used. Methamphetamine consumption has historically been restricted to the Czech Republic and, more recently, Slovakia, although recent years have seen increases in use in other countries. In some data sets, it is not possible to distinguish between these two substances; in these cases, the generic term amphetamines is used.

Both drugs can be taken orally or nasally; in addition, use by injection constitutes a significant part of the drug problem in some countries. Methamphetamine can also be smoked, but this route of administration is not commonly reported in Europe.

It is estimated that 11.9 million European adults (aged 15–64), or 3.6 % of this age group, have tried amphetamines during their lives. Figures for more recent use, among the age group in which drug use is highest, suggest that 1.2 million (1.0 %) young adults (aged 15–34) used amphetamines during the last year, with the most recent national prevalence estimates ranging from less than 0.1 % in Portugal to 3.6 % in the Netherlands. The available data suggest that since around 2000, most European countries have experienced a relatively stable situation in amphetamines use. Of the countries that have produced new surveys since 2015 and reported confidence intervals, 2 reported higher estimates, 13 reported a stable trend and 2 reported lower estimates than in the previous comparable survey.

A statistical analysis of trends in last year prevalence of amphetamines use in young adults is only possible in a small number of countries. Long-term downward trends are observable in Denmark, Spain and the United Kingdom (Figure 2.8). In contrast, the prevalence of amphetamines use among young adults in Finland increased between 2000 and 2014.

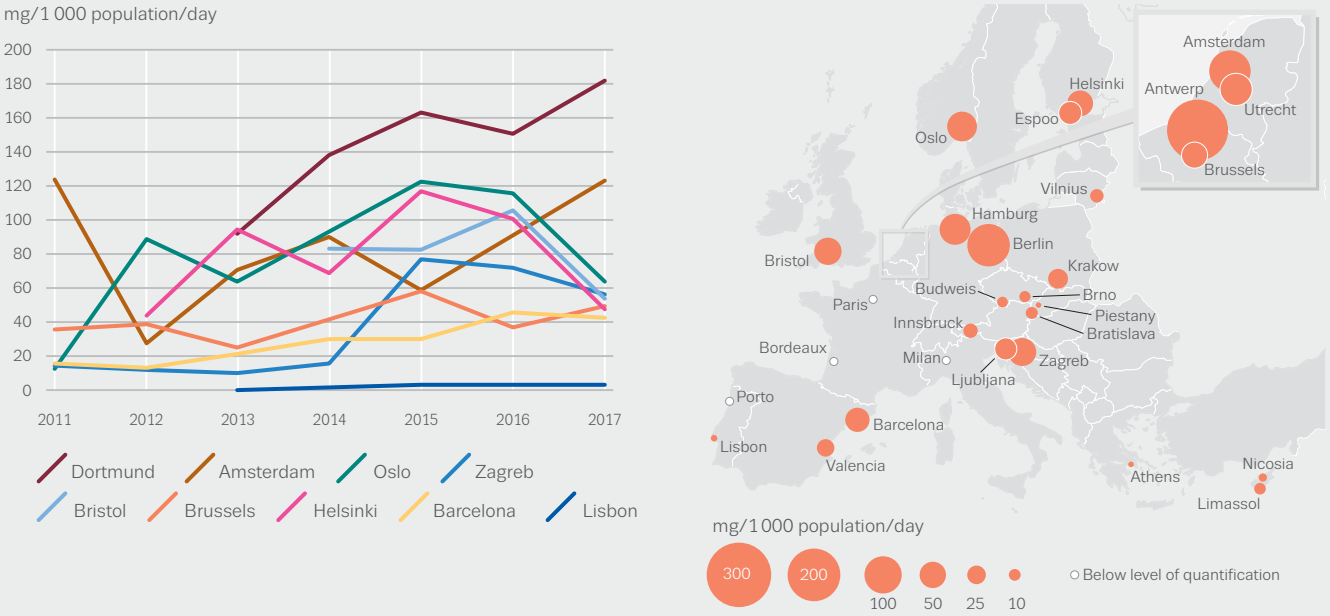
Analysis of municipal wastewater carried out in 2017 found that mass loads of amphetamine varied considerably across Europe, with the highest levels reported in cities in the north and east of Europe (see Figure 2.9). Amphetamine was found at much lower levels in cities in the south of Europe.

Of the 33 cities that have data for 2016 and 2017, 9 reported an increase, 11 a stable situation and 13 a decrease. Overall the data from 2011 to 2017 showed a diverse picture, but with relatively stable trends in most cities for amphetamine.

Methamphetamine use, generally low and historically concentrated in the Czech Republic and Slovakia, now appears to be present also in Cyprus, the east of Germany, Spain and northern Europe (see Figure 2.10). In 2016 and 2017, of the 34 cities that have data on methamphetamine in wastewater, 12 reported an increase, 10 a stable situation and 12 a decrease.

FIGURE 2.9

Amphetamine residues in wastewater in selected European cities: trends and most recent data

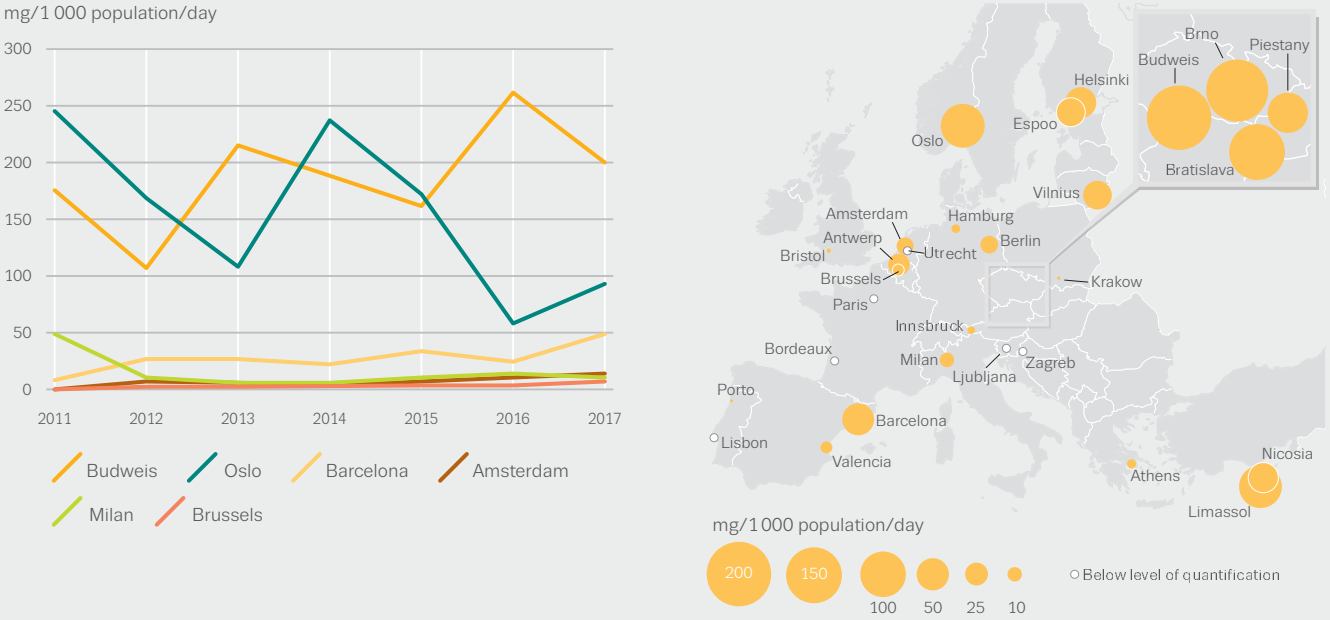


NB: Mean daily amounts of amphetamine in milligrams per 1 000 population. Sampling was carried out in selected European cities over a week in each year from 2011 to 2017.

Source: Sewage Analysis Core Group Europe (SCORE).

FIGURE 2.10

Methamphetamine residues in wastewater in selected European cities: trends and most recent data



NB: Mean daily amounts of methamphetamine in milligrams per 1 000 population. Sampling was carried out in selected European cities over a week in each year from 2011 to 2017.

Source: Sewage Analysis Core Group Europe (SCORE).

High-risk amphetamines use: treatment demand remains high

Problems related to long-term, chronic and injecting amphetamine use have, historically, been most evident in northern European countries. In contrast, methamphetamine problems have been most apparent in the Czech Republic and Slovakia. Recent estimates of high-risk use of amphetamines are available for Norway, estimated at 0.33 % or 11 200 adults (in 2013), and for Germany, estimated at 0.19 % or 102 000 adults in 2015. Users of amphetamines are likely to make up the majority of the estimated 2 230 (0.18 %) high-risk stimulant users reported by Latvia in 2016, down from 6 540 (0.46 %) in 2010. Recent estimates of high-risk methamphetamine use are available for the Czech Republic and Cyprus. In the Czech Republic, high-risk methamphetamine use among adults (15–64) was estimated at around 0.50 % in 2016 (corresponding to 34 300 users). This represents an increase from 20 900 users in 2007, though numbers have been relatively stable in recent years. The estimate for Cyprus was 0.02 % or 105 users in 2016.

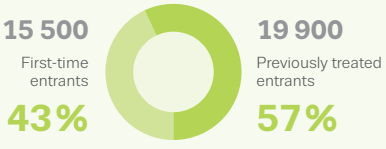
Approximately 35 000 clients entering specialised drug treatment in Europe in 2016 reported amphetamines as their primary drug, of whom around 15 000 were first-time clients. Primary amphetamine users account for more than 15 % of first-time treatment entrants in Germany, Latvia, Poland and Finland. Treatment entrants reporting primary methamphetamine use are concentrated in the Czech Republic and Slovakia, which together account for almost 90 % of the 9 200 methamphetamine clients entering specialised treatment in Europe.

AMPHETAMINES USERS ENTERING TREATMENT

Characteristics

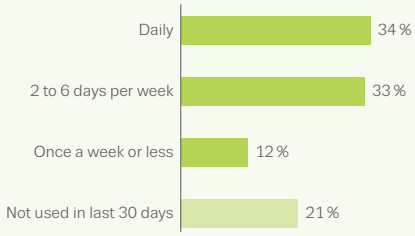
20 Mean age at first use

29 Mean age at first treatment entry

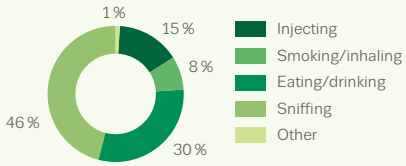


Frequency of use in the last month

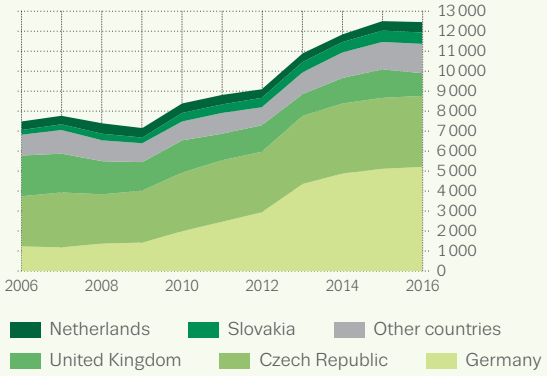
mean use **4.4** days per week



Route of administration



Trends in first-time entrants



NB: Apart from trends, data are for all treatment entrants with amphetamines as primary drug. Trends in first-time entrants are based on 25 countries. Only countries with data for at least 9 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years.

Ketamine, GHB and hallucinogens: use remains low

A number of other substances with hallucinogenic, anaesthetic, dissociative or depressant properties are used in Europe: these include LSD (lysergic acid diethylamide), hallucinogenic mushrooms, ketamine and GHB (gamma-hydroxybutyrate).

The recreational use of ketamine and GHB (including its precursor GBL, gamma-butyrolactone) has been reported among subgroups of drug users in Europe for the last two decades. National estimates, where they exist, of the prevalence of GHB and ketamine use in adult and school populations remain low. In their 2016 survey, Norway reported last year prevalence of GHB use at 0.1 % for adults (16–64). In 2016, last year prevalence of ketamine use among young adults (15–34) was estimated at 0.1 % in the Czech Republic and Romania and 0.8 % in the United Kingdom.

The overall prevalence levels of LSD and hallucinogenic mushroom use in Europe have been generally low and stable for a number of years. Among young adults (15–34), national surveys report last year prevalence estimates of less than 1 % for both substances in 2016 or most recent survey year, with the exception of the Netherlands (1.9 %), Finland (1.9 %) and the Czech Republic (3.1 %) for hallucinogenic mushrooms, and Finland (1.3 %) and the Czech Republic (1.4 %) for LSD.

New psychoactive substance use: high-risk use in marginalised populations

A number of countries have included new psychoactive substances in their general population surveys, although differences in methods and survey questions limit comparisons between countries. Since 2011, 13 European countries have reported national estimates of the use of new psychoactive substances (not including ketamine and GHB). For young adults (aged 15–34), last year prevalence of use of these substances ranged from 0.2 % in Italy and Norway, to 1.7 % in Romania. Survey data on the use of mephedrone are available for the United Kingdom (England and Wales). In the most recent survey (2016/17), last year use of this drug among 16- to 34-year-olds was estimated at 0.3 %; down from 1.1 % in 2014/15. In their most recent surveys, last year use of synthetic cannabinoids among 15- to 34-year-olds ranged from 0.2 % in Spain to 1.5 % in Latvia.

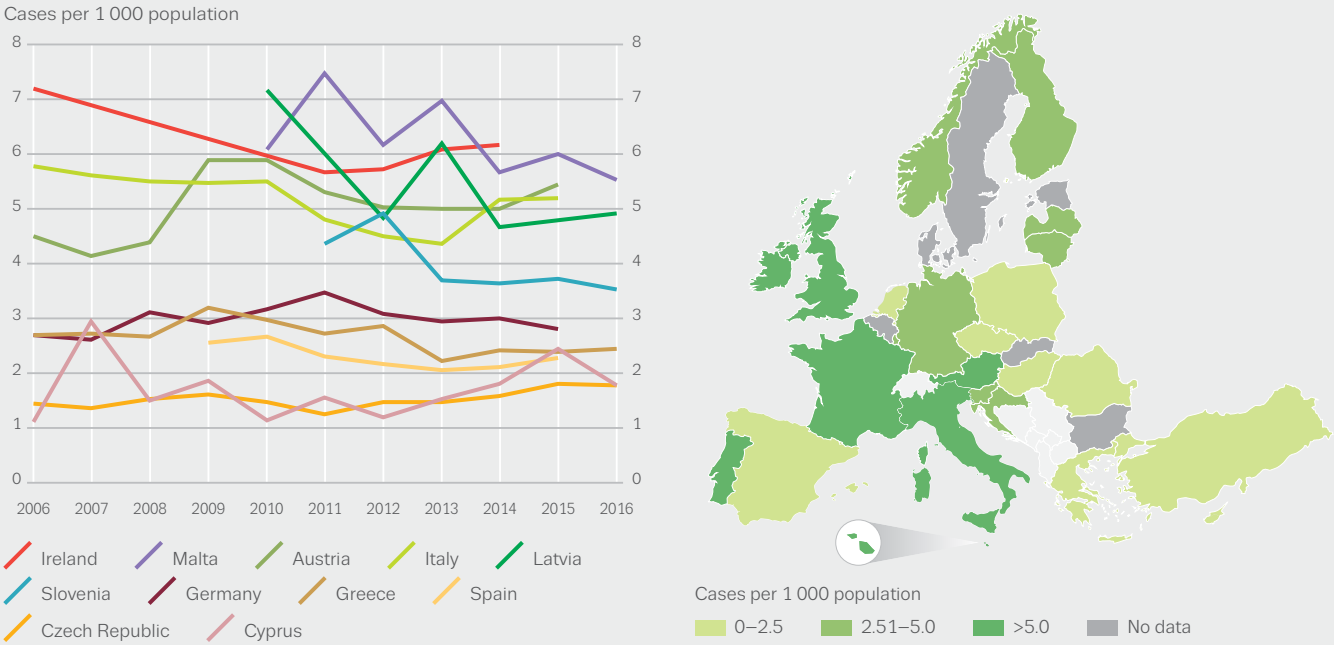
While consumption levels of new psychoactive substances are low overall in Europe, in a 2016 EMCDDA study over two-thirds of countries reported their use by high-risk drug users. In particular the use of synthetic cathinones by opioid and stimulant injectors has been linked to health and social problems. In addition, the smoking of synthetic cannabinoids in marginalised populations, including among homeless people and prisoners, has been identified as a problem in many European countries.

Overall, few people currently enter treatment in Europe for problems associated with use of new psychoactive substances, however, these substances are significant for some countries. In the most recent data, the use of synthetic cannabinoids was reported as the main reason for entering specialised drug treatment for 17 % of clients in Turkey and for 7 % in Hungary; problems related to the primary use of synthetic cathinones were cited by 0.3 % of treatment entrants in the United Kingdom.

In the United Kingdom, use of synthetic cannabinoids among prisoners is of particular concern. A survey conducted in 2016 in UK prisons found 33 % of the 625 inmates reported the use of ‘Spice’ within the last month; in comparison 14 % reported last month cannabis use.

FIGURE 2.11

National estimates of annual prevalence rate of high-risk opioid use: selected trends and most recent data



High-risk opioid use: heroin still dominates

In Europe, the most commonly used illicit opioid is heroin, which may be smoked, snorted or injected. A range of synthetic opioids such as methadone, buprenorphine and fentanyl are also misused.

Europe has experienced different waves of heroin addiction, the first affecting many western countries from the mid-1970s and a second wave affecting other countries, especially those in central and eastern Europe, in the mid to late 1990s. In recent years, the existence of an ageing cohort of high-risk opioid users, who are likely to have been in contact with substitution treatment services, has been identified.

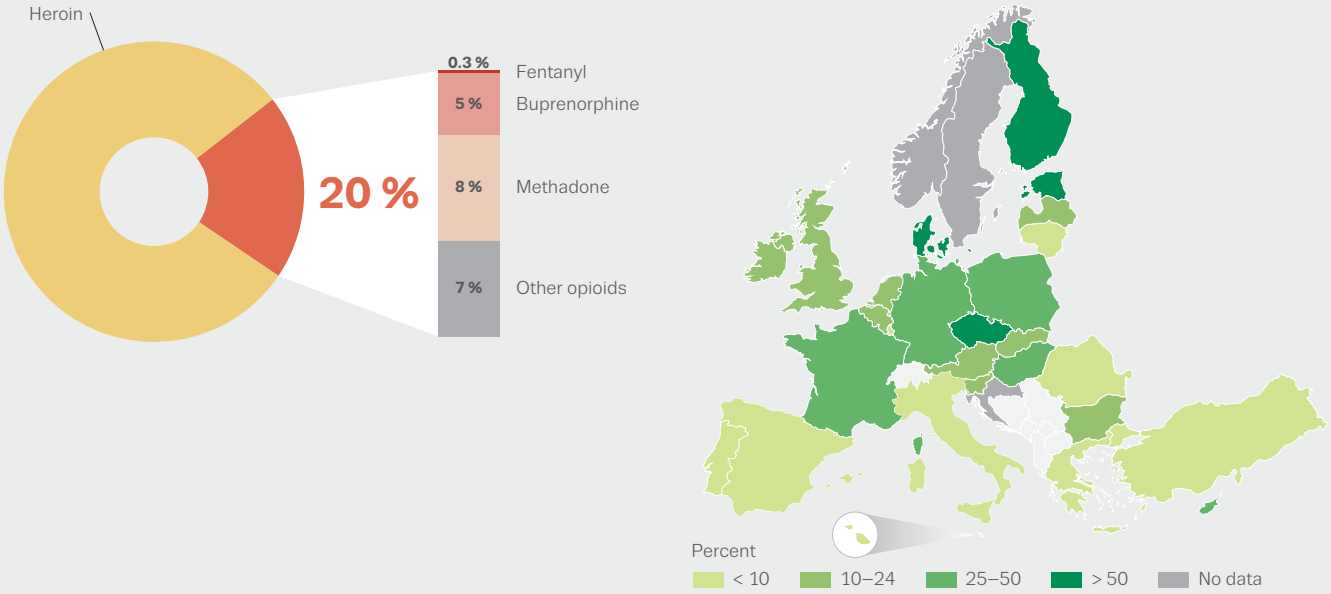
The prevalence of high-risk opioid use among adults (15–64) is estimated at 0.4 % of the EU population, the equivalent of 1.3 million high-risk opioid users in 2016. At national level, prevalence estimates of high-risk opioid use range from less than 1 to more than 8 cases per 1 000 population aged 15–64. The five most populous countries in the European Union, accounting for 62 % of its population, contain three-quarters (76 %) of its estimated number of high-risk opioid users (Germany, Spain, France, Italy, United Kingdom). Of the 11 countries with regular estimates of high-risk opioid use between 2006 and 2016, Spain and Italy show a statistically significant decrease while the Czech Republic shows a statistically significant increase (Figure 2.11).

In 2016, use of opioids was reported as the main reason for entering specialised drug treatment by 177 000 clients or 37 % of all those entering drug treatment in Europe. Of these, 35 000 were first-time entrants. Primary heroin users accounted for 82 % of first-time primary opioid users entering treatment.

According to available trend data, the number of first-time heroin clients more than halved from a peak in 2007, to a low point in 2013 before stabilising in recent years.

FIGURE 2.12

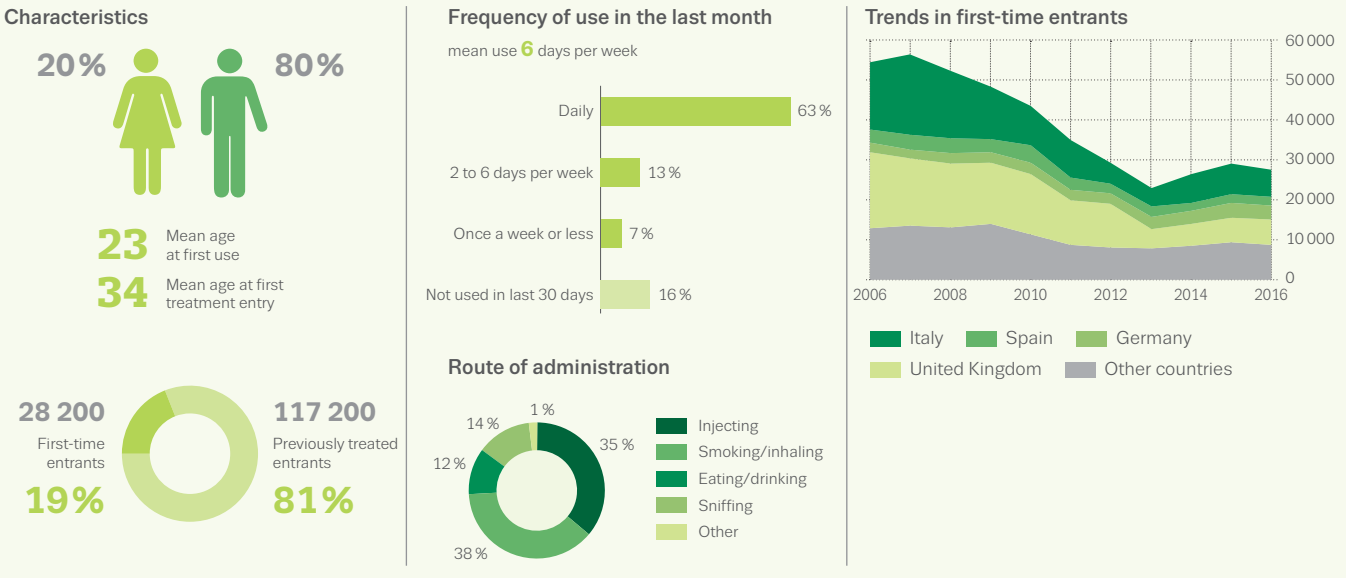
Treatment entrants citing opioids as primary drug: by type of opioid (left) and percentage reporting opioids other than heroin (right)



Synthetic opioids: diverse substances seen across Europe

While heroin remains the most commonly used illicit opioid, a number of sources suggest that licit synthetic opioids (such as methadone, buprenorphine and fentanyl) are increasingly misused. Opioids reported by treatment entrants include misused methadone, buprenorphine, fentanyl, codeine, morphine, tramadol and oxycodone. In some countries, non-heroin opioids represent the most common form of opioid use among specialised treatment entrants. In 2016, 18 European countries reported that more than 10 % of all opioid clients entering specialised services presented for problems primarily related to

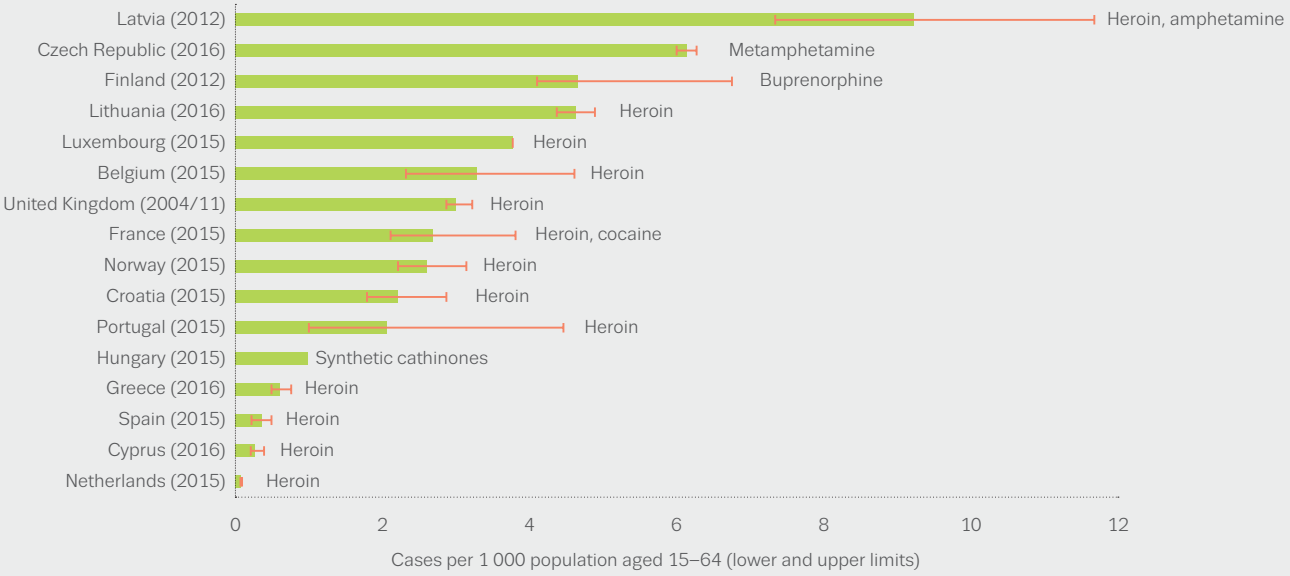
HEROIN USERS ENTERING TREATMENT



NB: Apart from trends, data are for all treatment entrants with heroin as primary drug. Data for Germany are for entrants with 'opioids' as primary drug.
Trends in first-time entrants are based on 25 countries. Only countries with data for at least 9 of the 11 years are included in the trends graph.
Missing values are interpolated from adjacent years. Due to changes in the flow of data at national level, data since 2014 for Italy is not comparable with earlier years.

FIGURE 2.13

Injecting drug use: most recent estimates of prevalence and main drug injected



opioids other than heroin (Figure 2.12). In Estonia, the majority of treatment entrants reporting an opioid as their primary drug were using fentanyl, while buprenorphine was the most cited primary opioid among treatment entrants in Finland. Buprenorphine misuse is reported by around 30 % of opioid clients in Czech Republic and the misuse of methadone by 22 % of opioid clients in Denmark. In Cyprus and Poland, between 20 % and 30 % of opioid clients enter treatment for problems related to the use of other opioids, such as oxycodone (Cyprus) and 'kompot' — heroin made from poppy straw (Poland). In addition, those entering treatment for problems relating to new psychoactive substances with opioid-like effects may be reported under the general heading of opioids.

Injecting drug use: continues to decline among new treatment entrants

Injecting drug use is most commonly associated with opioids, although in a few countries, the injection of stimulants such as amphetamines or cocaine is a problem.

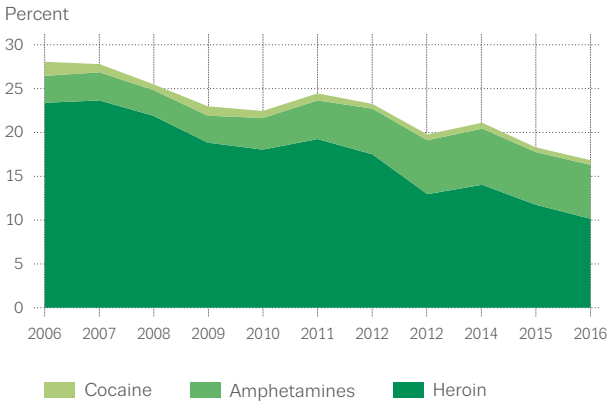
Only 16 countries have estimates of the prevalence of injecting drug use since 2011, where they range from less than 1 to 9 cases per 1 000 population aged 15–64. In most of these countries, the main injected drug can be identified clearly, though in some two drugs have similar high levels of use. Opioids are reported as a main injected drug in the majority (14) of the countries (see Figure 2.13). Heroin is mentioned in 13 of these countries, while buprenorphine is named in Finland. Stimulants are reported as a main injecting drug in 4 countries, where the substances used include synthetic cathinones (Hungary), cocaine (France), amphetamine (Latvia) and methamphetamine (Czech Republic).

Among first-time clients entering specialised drug treatment in 2016 with heroin as their primary drug, 27 % reported injecting as their main route of administration, down from 43 % in 2006. In this group, levels of injecting vary between countries, from 8 % in Spain to 90 % or more in Latvia, Lithuania and Romania. Injecting is reported as the main route of administration by 1 % of first-time cocaine clients and 47 % of first-time primary amphetamines clients. The overall picture for amphetamines, however, is heavily influenced by the Czech Republic, which accounts for 87 % of new amphetamines clients injecting the drug in Europe. Considering the three main injected drugs together, among first-time entrants to treatment in Europe, injecting as the main route of administration has declined from 28 % in 2006 to 17 % in 2016 (Figure 2.14).

The injection of synthetic cathinones, although not a widespread phenomenon, continues to be reported in specific populations, including opioid injectors and drug treatment clients in some countries and among needle exchange clients in Hungary. In a recent EMCDDA study, 10 countries reported synthetic cathinone injection — often with other stimulants and GHB — in the context of sex parties among small groups of men who have sex with men.

FIGURE 2.14

Injecting among first-time treatment entrants with heroin, cocaine or amphetamines as primary drug: percentage reporting injecting as main route of administration



NB: Trends are based on the 21 countries with data for at least 9 of the 11 years.

The injection of synthetic cathinones continues to be reported in specific populations

FIND OUT MORE

EMCDDA publications

2018

Country Drug Reports 2018.

Misuse of benzodiazepines among high-risk opioid users, Perspectives on Drugs.

Wastewater analysis and drugs: a European multi-city study, Perspectives on Drugs.

2017

High-risk drug use and new psychoactive substances, Rapid communications.

2016

Assessing illicit drugs in wastewater: advances in wastewater-based drug epidemiology, Insights.

Recent changes in Europe's MDMA/ecstasy market, Rapid communications.

2015

Characteristics of frequent and high-risk cannabis users, Perspectives on Drugs.

Drug use, impaired driving and traffic accidents, Insights.

Injection of synthetic cathinones, Perspectives on Drugs.

2014

Exploring methamphetamine trends in Europe, EMCDDA Papers.

2013

Trends in heroin use in Europe: what do treatment demand data tell us?, Perspectives on Drugs.

2012

Driving under the influence of drugs, alcohol and medicines in Europe: findings from the DRUID project, Thematic paper.

Treatment demand indicator (TDI) standard protocol 3.0: Guidelines for reporting data on people entering drug treatment in European countries, Manuals.

Fentanyl in Europe, EMCDDA Trendspotter study.

Prevalence of daily cannabis use in the European Union and Norway, Thematic paper.

EMCDDA and ESPAD joint publications

2016

ESPAD Report 2015: Results from the European School Survey Project on Alcohol and Other Drugs.

All publications are available at www.emcdda.europa.eu/publications

3

The use of illicit drugs is a recognised contributor to the global burden of disease

Drug-related harms and responses

The use of illicit drugs is a recognised contributor to the global burden of disease. Chronic and acute health problems are associated with the use of illicit drugs, and these are compounded by various factors including properties of the substances, the route of administration, individual vulnerability and the social context in which drugs are consumed. Chronic problems include dependence and drug-related infectious disease, while there is a range of acute harms, with drug overdose the best documented of these. Although relatively rare, the use of opioids still accounts for much of the morbidity and mortality associated with drug use. Injecting drug use increases risks. In comparison, although the health problems associated with cannabis use are clearly lower, the high prevalence of use of this drug may have implications for public health. The variation in content and purity of substances now available to users increases potential harms and creates a challenging environment for drug-related responses.

The design and delivery of effective evidence-based responses to drug problems is a central focus for European drug policies and involves a range of measures. Prevention and early intervention approaches aim to prevent drug use and related problems, while treatment, including both psychosocial and pharmacological approaches, represents the primary response to dependence. Some core interventions, such as opioid substitution treatment and needle and syringe programmes, were developed in part as a response to injecting opioid use and related problems, particularly the spread of infectious diseases and overdose deaths.

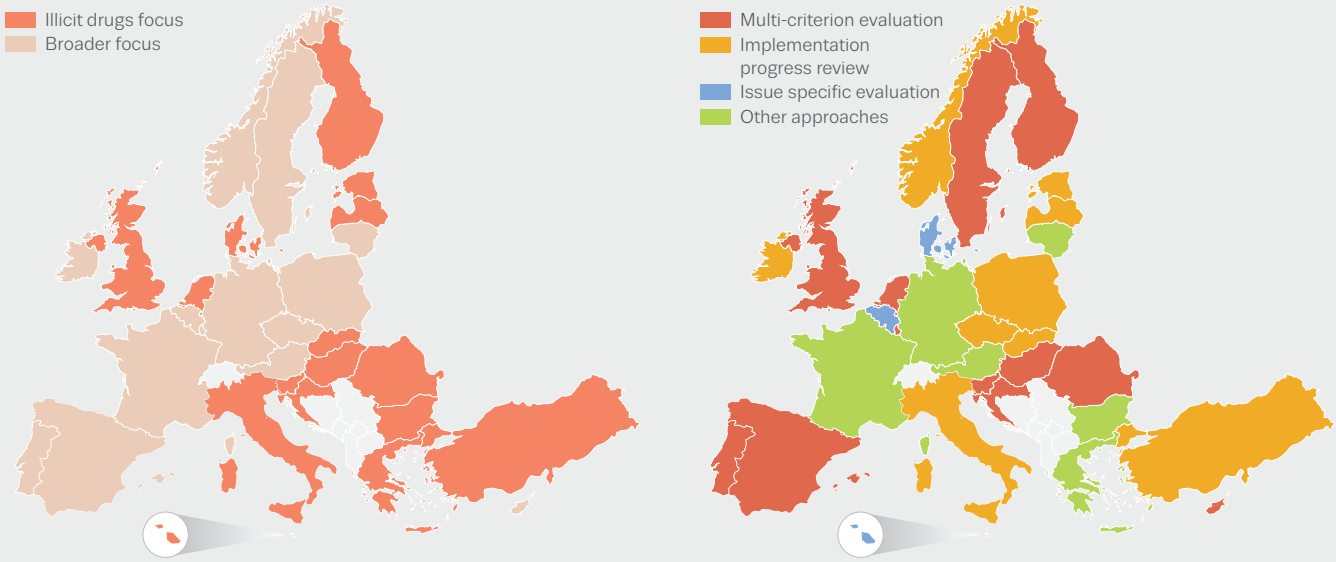
Monitoring drug-related harms and responses

Information on health and social responses to drug use, including drug strategies and drug-related public expenditure, are provided to the EMCDDA by Reitox national focal points and expert working groups. Expert ratings provide supplementary information on the availability of interventions where more formalised datasets are unavailable. This chapter is also informed by reviews of the scientific evidence on the effectiveness of public health interventions. Supporting information can be found on the EMCDDA website in the *Health and social responses to drug problems: a European guide* and associated online material, and the *Best practice portal*.

Drug-related infectious diseases and mortality and morbidity associated with drug use are the principal health harms monitored systematically by the EMCDDA. These are complemented by more limited data on acute drug-related hospital presentations and data from the EU Early Warning System, which monitors harms associated with new psychoactive substances. Further information is available online under *Key epidemiological indicators*, the *Statistical Bulletin* and *Action on new drugs*.

FIGURE 3.1

Focus of national drug strategy documents (left) and approaches to evaluation (right) in 2017



NB: Strategies with broader focus may include, for example, licit drugs and other addictions. While the United Kingdom has an illicit drug strategy, both Wales and Northern Ireland have broad strategy documents which include alcohol.

Drug strategies: broader focus

Nearly half of the 30 countries monitored by the EMCDDA now include different combinations of substance-based and behavioural addiction issues alongside illicit drugs in their national drug strategies. These planning tools are used by governments to elaborate their overall approach and specific responses to the different health, social and security dimensions of drug problems. While Denmark's national drug policy is expressed in a range of strategic documents, legislation and concrete actions, all other countries have a national drug strategy document. In 16 countries, the drug strategy is focused mainly on illicit drugs. In the other 14 countries, the policy focus is broader, giving greater consideration to other addictive substances and behaviours (see Figure 3.1). However, within the United Kingdom, the devolved administrations of Wales and Northern Ireland have broad strategy documents. When these two documents are included, the total number of broad illicit drug strategies increases to 16. These broad documents mainly address illicit drugs, and there is variation in how other substances and addictions are considered. All documents address alcohol, 10 consider tobacco, 9 cover medicines, 3 include doping in sports (e.g. performance enhancing drugs) and 8 look at addictive behaviours (e.g. gambling). Whatever the focus, all national drug strategies support the balanced approach to drug policy put forward in the EU drug strategy (2013–2020) and action plan (2017–2020), which emphasises both drug demand reduction and drug supply reduction.

All European countries evaluate their national drug strategies, though they do so through a range of different approaches. Evaluations generally aim to assess the level of strategy implementation achieved and changes in the overall drug situation over time. In 2017, 12 multi-criteria evaluations, 9 implementation progress reviews and 3 issue-specific evaluations were reported as having recently taken place, while 6 countries used other approaches, such as a mix of indicator assessments and research projects (see Figure 3.1). The trend towards the use of broadly focused strategies is gradually being mirrored by the use of evaluations with a broader focus. Currently, France, Luxembourg, Sweden and Norway have published evaluations of broadly focused strategies. This extended strategy scope brings with it the possibility of achieving a more integrated public health approach, but also challenges in terms of coordinating implementation, monitoring and evaluation.

Evidence-based prevention: supporting implementation

The prevention of drug use and drug-related problems among young people is a key objective in European national drug strategies and covers a wide range of approaches. Environmental and universal approaches target entire populations, selective prevention targets vulnerable groups who may be at greater risk of developing drug use problems and indicated prevention focuses on at-risk individuals.

Interest in the implementation of evidence-based prevention programmes in Europe has been increasing in recent years, supported by the establishment of registries, training initiatives and quality standards. In 2018, registries were established or being developed in over one-third of the 30 EMCDDA countries. The registries have entry and rating criteria for the effectiveness of the programmes. The European registry Xchange links to national registries and contains some 20 manual-based drug prevention programmes that have been rigorously evaluated and their outcomes rated. It also provides implementation experiences from practitioners on issues including organisational and cultural obstacles to implementation (recruitment, timing, adaptation challenges) and how these were overcome.

Professional training is vital for the successful introduction of prevention approaches. Opportunities for formal training in prevention science, however, are limited. One new initiative, the Universal Prevention Curriculum, based on international evidence standards, has recently been adapted to a European audience, both with a 9-week university curriculum and a condensed 3–5 day training course (UPC-Adapt) for regional or local decision and opinion-makers. The short version is being implemented in one-third of the EU Member States in 2018.

Environmental prevention: multicomponent nightlife programmes

The increased use of environmental prevention approaches in nightlife settings is reported by a number of countries, mostly in the north of Europe. Most environmental approaches primarily target alcohol, but the shared (contextual) risk factors for the problem use of alcohol and of other drugs may make such approaches useful for the prevention of other substances as well. However, their implementation remains limited. One approach of interest is multicomponent nightlife coalitions, which combine serving-staff training, entry controls, supervision and community mobilisation. There is some evidence to suggest that this approach may be effective in reducing alcohol and drug-related harm. One example, the STAD project in Sweden, is now being rolled out to 6 other EU countries. Nevertheless, in 2016, only 2 countries (Finland, United Kingdom) report extensive availability of multicomponent interventions.

Professional training is vital for the successful introduction of prevention approaches

M-health: extending access to interventions

Increasingly, a wide range of drug interventions are also provided online, including through mobile-health applications on smartphones (m-health). Internet-based and m-health interventions have the potential to extend the reach and geographical coverage of prevention and treatment programmes to people who may not otherwise access specialist drug services. Interventions accessed via smartphones can range from e-learning tools for drug professionals, drug prevention and harm-reduction provision, digital outreach within social media platforms, to patient monitoring, supervision and treatment delivery.

A recent EMCDDA study identified over 60 drug-related m-health applications (or 'apps') available in online app stores, nearly half of which originated from Europe. Most apps provided drug-related information, coupled with some form of intervention. European m-health interventions were primarily aimed at promoting harm reduction among partygoers and young people. Among the techniques used in the apps were established internet-based treatment intervention methods, such as consumption diaries, personalised feedback on self-established goals to reduce drug use and interaction with treatment professionals, for example, through encrypted messaging. Some apps also use effective prevention techniques such as social norms methods, and the reduction of misperceptions around peer drug use. The lack of quality standards for m-health apps in the drugs field, as well as concerns around data protection and the scarcity of the evidence base, represent challenges for the future development in this field. Nevertheless, m-health applications are likely to become important drug-related intervention tools for users and professionals across Europe.

Drug treatment: community-based services

Drug treatment is the primary intervention utilised for individuals who experience problems with their drug use, including dependence, and ensuring good access to appropriate treatment services is a key policy aim.

The majority of drug treatment in Europe is provided in outpatient settings, with specialised outpatient treatment centres representing the largest provider in terms of number of drug users treated (Figure 3.2). Low-threshold agencies are the second largest providers followed by primary healthcare and general mental healthcare centres. This last category includes general practitioners' surgeries, which are important prescribers of opioid substitution treatment in some large countries such as France and Germany. Elsewhere, for example in Slovenia, outpatient mental healthcare centres play a role in treatment provision.

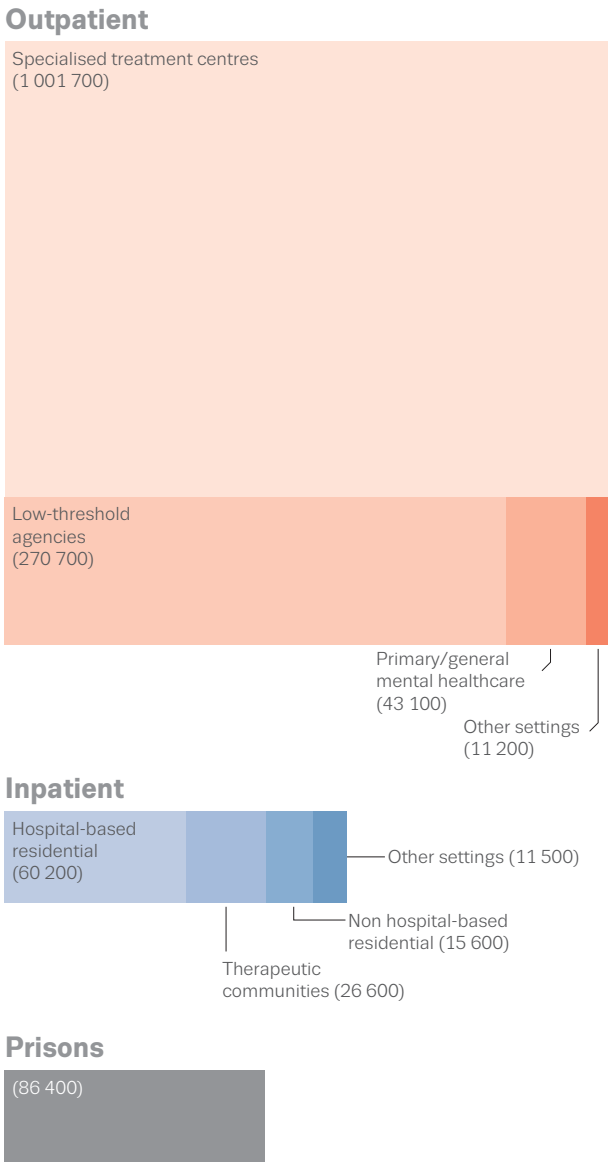
A smaller share of drug treatment in Europe is provided in inpatient settings, mainly hospital-based residential centres (e.g. psychiatric hospitals), but also therapeutic communities and specialised residential treatment centres. The relative importance of outpatient and inpatient provision within national treatment systems varies greatly between countries.

Drug treatment: entrance routes and client pathways

An estimated 1.3 million people received treatment for illicit drug use in the European Union during 2016 (1.5 million including Norway and Turkey). Self-referral continues to be the most common route into specialised drug treatment. This form of referral, which also includes referral by family members or friends, accounted for almost half (48 %) of those entering specialised drug treatment in Europe in 2016. About a quarter (26 %) of clients were referred by health, education and social services, including other drug treatment centres, while 16 % were referred by the criminal justice system. In a number of countries, schemes are in place to divert drug offenders away from the criminal justice system and into drug treatment programmes. This may involve a court order to attend treatment or a suspended sentence conditional on treatment; in some countries diversion is also possible at earlier stages of the criminal justice process.

FIGURE 3.2

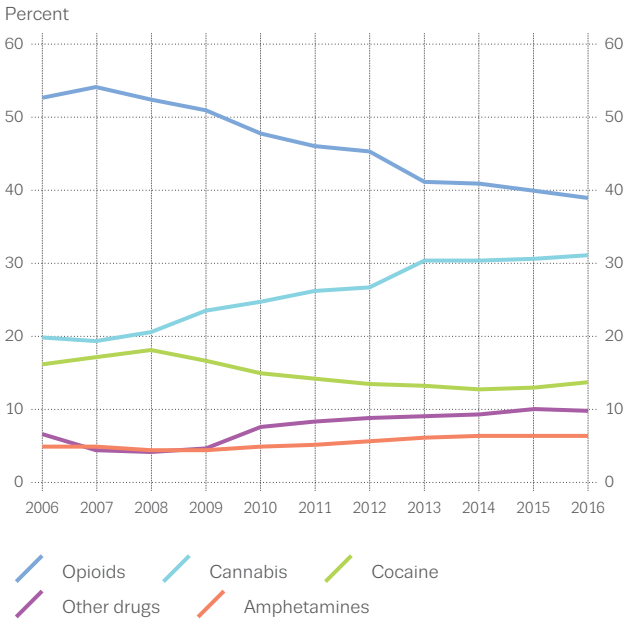
Numbers of clients receiving drug treatment in Europe in 2016, by setting



The majority of drug treatment in Europe is provided in outpatient settings

FIGURE 3.3

Trends in percentage of clients entering specialised drug treatment, by primary drug



Treatment referral practices vary greatly, both by country and by primary drug. The criminal justice system plays a particularly important role in referring cannabis users to treatment. Overall, in Europe, 26 % of cannabis clients are referred to treatment by the criminal justice system. However, the proportion varies markedly between countries. In 2016, among countries with more than 100 new cannabis treatment clients, the proportion referred by courts, probation or police ranged from 2 % in the Netherlands to more than 80 % in Hungary and Romania.

Client pathways through drug treatment are often characterised by the use of different services, multiple entries and varying lengths of stay. Opioid users represent the largest group undergoing specialised treatment and consume the greatest share of available treatment resources, mainly in the form of substitution treatment. An insight into treatment journeys is provided by results from an analysis of specialised treatment data from nine European countries in 2016. Of the 370 000 clients reported in treatment in these countries during that year, just under 20 % had entered treatment for the first time in their life; 27 % had re-entered treatment, having received treatment in an earlier year; and more than half had been in continuous treatment for more than 1 year. Most of the clients in continuous treatment were males, in their late 30s, had been in treatment for more than 3 years and had problems related to opioid use, especially heroin.

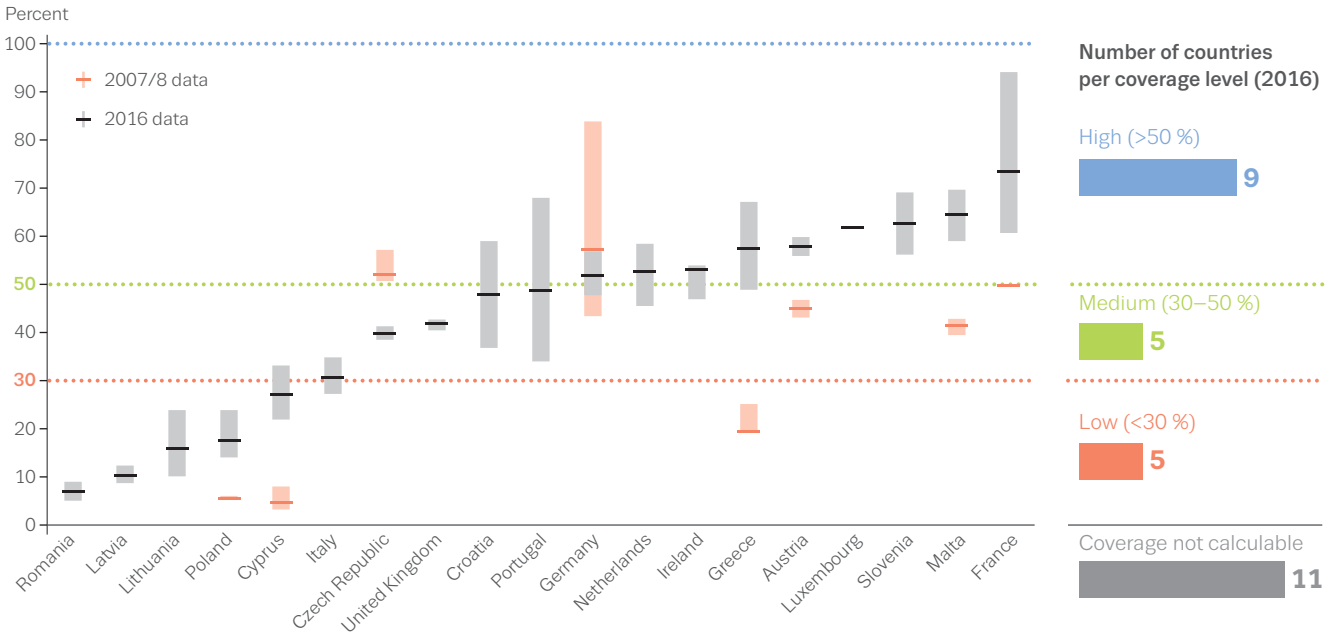
Opioid substitution treatment: national provision varies

Substitution treatment, often combined with psychosocial interventions, is the most common treatment for opioid dependence. The available evidence supports this approach, with positive outcomes found in respect to treatment retention, illicit opioid use, reported risk behaviour, drug-related harms and mortality. Cannabis and cocaine users are the second and third largest groups entering treatment services (Figure 3.3). Psychosocial interventions are the main treatment modality for these clients.

An estimated 628 000 opioid users received substitution treatment in the European Union in 2016 (636 000 including Norway). The trend shows an overall increase in clients up to a peak in 2010, followed by a 10 % decline to 2016. Between 2010 and 2016, decreases were observed in 12 countries, with the largest (decreases of more than 25 %) reported by Spain, the Netherlands and Portugal. This decline may be explained by factors related to demand or provision, including a falling population of ageing, chronic opioid users or shifts in treatment goals in some countries. Other countries have continued to expand provision as they seek to improve treatment coverage, with 16 countries reporting increases in numbers receiving substitution treatment between 2010 and 2016, including Latvia (173 %), Romania (167 %) and Greece (57 %).

FIGURE 3.4

Coverage of opioid substitution treatment (percentage of estimated high-risk opioid users receiving the intervention) in 2016 or most recent year and in 2007/8



NB: Data displayed as point estimates and uncertainty intervals.

A comparison with current estimates of the number of high-risk opioid users in Europe would suggest that overall about half receive substitution treatment, but there are differences between countries (Figure 3.4). In those countries where data from 2007 or 2008 are available for comparison, there was generally an increase in coverage. Levels of provision, however, remain low in some countries.

Methadone is the most commonly prescribed opioid substitution drug, received by almost two-thirds (63 %) of substitution clients in Europe. A further 35 % of clients are treated with medications based on buprenorphine, which is the principal substitution drug in 8 countries (Figure 3.5). Other substances, such as slow-release morphine or diacetylmorphine (heroin), are more rarely prescribed, being received by an estimated 2 % of substitution clients in Europe. The majority of those in substitution treatment in Europe are over 35 years old and have been receiving treatment for more than 2 years. Alternative treatment options for opioid users are available in all European countries. In the 13 countries for which data are available, between 3 % and 28 % of all opioid users in treatment receive interventions not involving opioid substitution.

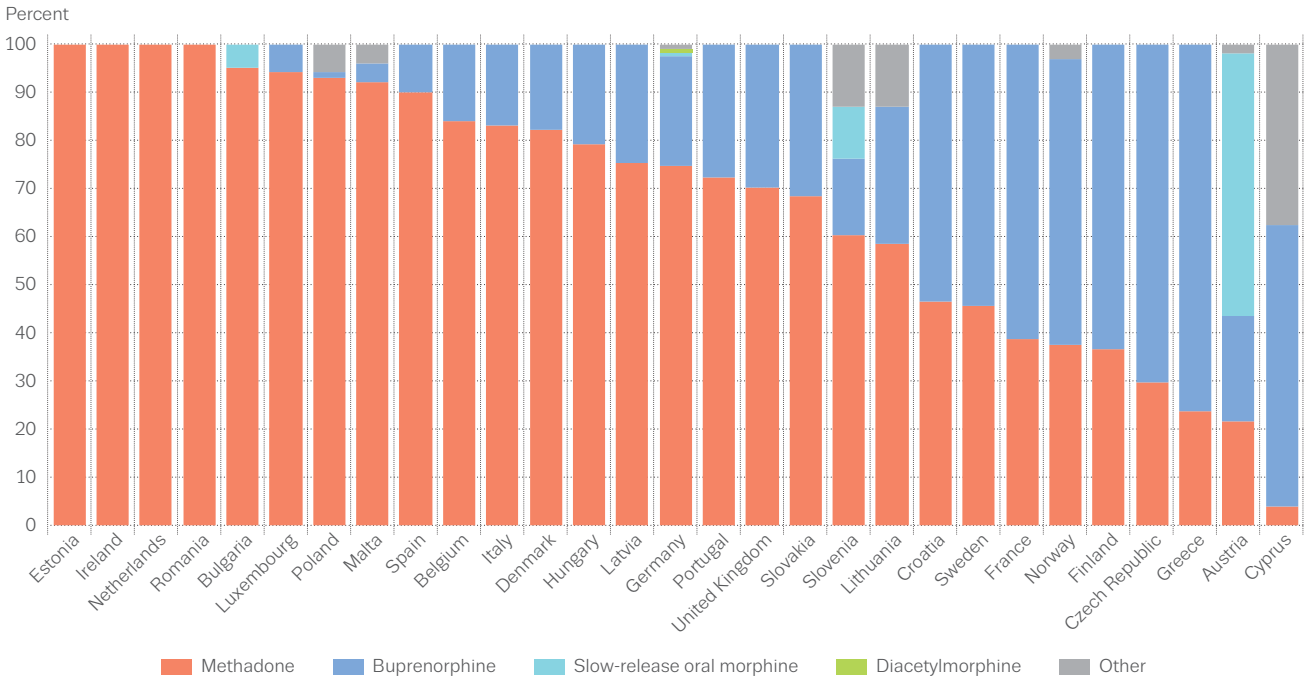
Treatment outcomes: the role of quality standards

Monitoring treatment outcomes is important for improving the treatment journeys that clients take and adjusting services to better fit observed needs. However, the establishment of outcomes monitoring is hampered by a lack of agreement on treatment goals and appropriate measures of these. A recent EMCDDA review highlighted the wide variability in outcomes measured, identifying eight different outcome domains: ‘drug use’, ‘crime’, ‘health’, ‘treatment-related’ outcomes, ‘social functioning’, ‘harms’, ‘mortality’ and ‘economic estimates’.

The use of quality standards is another way of ensuring the appropriate implementation of interventions and recommendations for practice contained in guidelines. While, in general, implementation using standards occurs at local level, international standards also exist and are used to gather consensus on general principles for interventions. For example, the European minimum quality standards on drug demand reduction adopted by the EU Council set general principles that are implemented at national level in different ways.

FIGURE 3.5

Proportion of clients receiving different types of prescribed opioid substitution medication in European countries



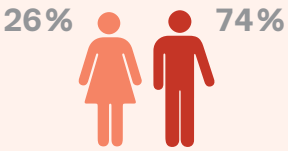
NB: United Kingdom data cover England, Wales and Northern Ireland.

CLIENTS IN OPIOID SUBSTITUTION TREATMENT

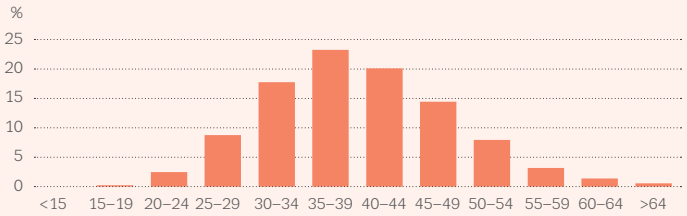
Population

628 000 EU

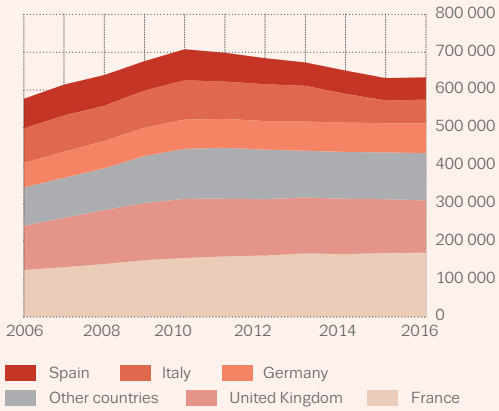
636 000 EU + Norway



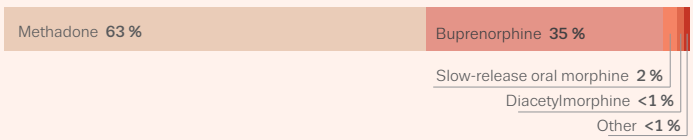
Age distribution



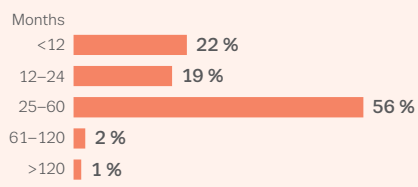
Trends in the number in substitution treatment



Type of medication



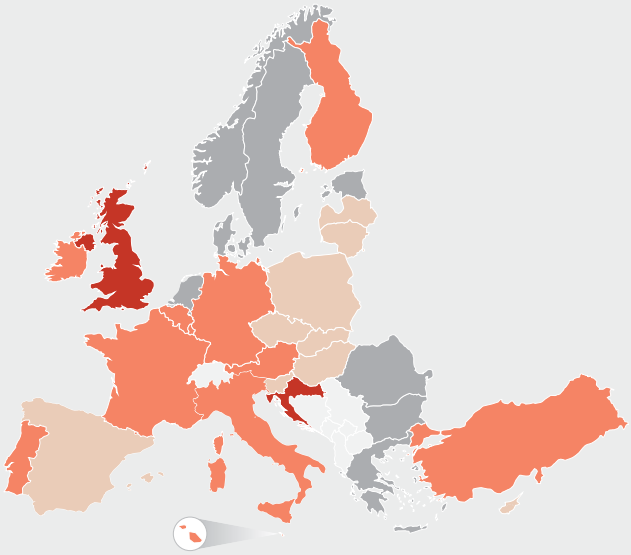
Treatment duration



NB: Only countries with data for at least 8 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years.

FIGURE 3.6

Most recent estimates of drug-related public expenditure (% GDP)



Share of gross domestic product (%)
≤ 0.05 0.06–0.19 ≥ 0.2 No data

Responding to drug problems: expenditure and costs

Understanding the costs of drug-related actions is important for both policy development and policy evaluation. However, the information available on drug-related public expenditure in Europe, at both local and national level, remains sparse and heterogeneous. In the past decade, 22 countries have produced complete estimates of drug-related public expenditure (Figure 3.6). The estimates range from 0.01 % to 0.5 % of gross domestic product (GDP), with about half of the estimates falling between 0.05 % and 0.2 % of GDP.

Spending on demand reduction initiatives as a share of the overall drug budget varies substantially across countries, representing between 21 % and 75 % of drug-related public expenditure, according to estimates reported to the EMCDDA over the past decade. Drug treatment and other health costs account for a large share of estimated expenditure related to demand reduction interventions. While national differences are due in part to varying policy and provision choices, together with differences in drug problems and the organisation of public services, the different estimation methodologies also have a large impact on results.

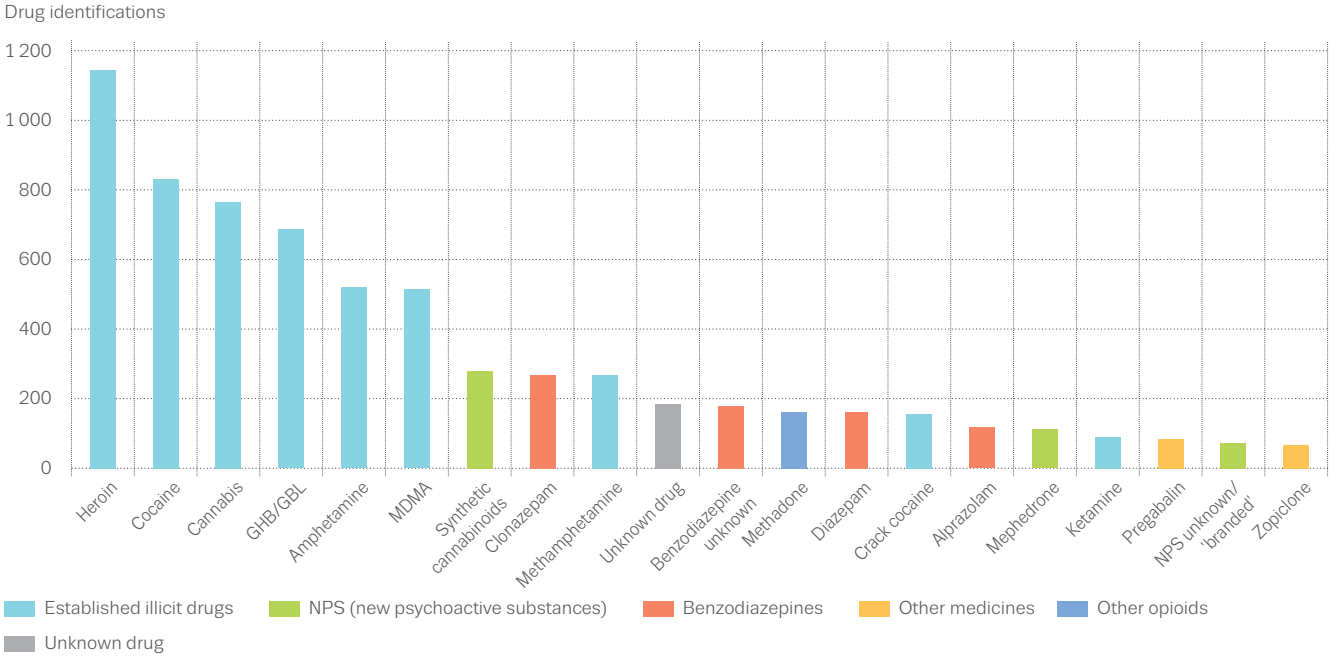
Acute drug-related harms: heroin and cocaine dominate

Hospital emergency data can provide an insight into acute drug-related harms and increase our understanding of the public health impact of the use of drugs in Europe. Only a small number of countries monitor acute drug emergencies at the national level. Among these, Lithuania and the United Kingdom reported that heroin-related emergencies rose. Conversely, downward trends in heroin-related emergencies were reported by the Czech Republic and Denmark. In Spain, cocaine was involved in almost half of the reported drug-related emergencies in 2015, and the share is stabilising after a decline. At the same time, the share of cannabis emergencies has continued to increase. Slovenia also reports an upward trend in 2016 in the numbers of emergencies related to cocaine, amphetamines and GHB. In 2016, sentinel regions in the Netherlands reported 272 emergencies relating to 4-fluoroamphetamine (4-FA), a new central nervous system stimulant. The majority of these cases were seen at first aid posts in nightlife settings, while almost one-third of drug-related ambulance call outs were linked to the use of GHB.

Drug-related acute toxicity presentations in 19 (sentinel) hospitals in 13 European countries are monitored by the European Drug Emergencies Network (Euro-DEN Plus). In 2016, the project recorded 4 874 presentations, with a median age of 32 years, most of whom were male (77 %). Almost three-quarters of the presentations were brought to hospital by ambulance. The majority (78 %) were discharged from hospital within 12 hours. A small minority (6 %) were admitted to critical care or to a psychiatric ward (4 %). A total of 22 deaths were recorded, of which 13 involved opioids.

FIGURE 3.7

Top 20 drugs recorded in emergency presentations in sentinel hospitals in 2016



NB: Results of 4 874 emergency presentations in 19 sentinel sites in 13 European countries.
Source: European Drug Emergencies Network (Euro-DEN Plus).

On average about 1.5 drugs were reported per presentation (7 423 in total). The most common drugs involved were heroin, cocaine, cannabis, GHB/GBL, amphetamine and MDMA (Figure 3.7). One-fifth (21 %) of presentations involved the misuse of prescription or over-the-counter drugs (most commonly opioids and benzodiazepines); 7 % involved new psychoactive substances (compared with 9 % in 2015 and 6 % in 2014). The number of presentations related to synthetic cathinones declined markedly, from 400 in 2014 to 160 in 2016, while at the same time the number related to synthetic cannabinoids increased from 28 to 282. The increase in the number of presentations related to synthetic cannabinoids is mainly driven by the London and Polish centres.

Differences in the drugs involved in emergency presentations between sites may reflect variations in hospital catchment area and local patterns of use. For example, emergencies involving heroin were the most common in Dublin (Ireland) and Oslo (Norway), whereas presentations related to GHB/GBL, cocaine and MDMA were predominant in London (United Kingdom).

New drugs: high potency and harms

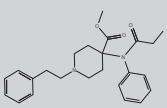
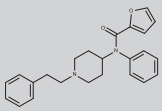
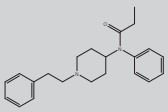
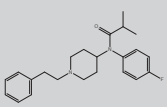
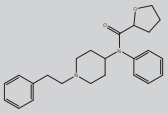
New psychoactive substances, including synthetic opioids, synthetic cannabinoids and synthetic cathinones, are causing a range of serious harms in Europe and represent a challenge to drug policy. Synthetic opioids and synthetic cannabinoids are two groups of substances that are of particular concern.

Although playing a small role in Europe's drug market, new opioids pose a serious threat to individual and public health. Of particular concern are the fentanyl derivatives, which make up the majority of new opioids monitored by the EMCDDA. These substances can be particularly potent, with minute quantities capable of causing life-threatening poisoning from rapid and severe respiratory depression. This makes them especially dangerous, particularly for unsuspecting users who believe they are buying heroin, other illicit drugs or pain medicines. In such circumstances, the availability of the opioid antidote naloxone may need to be assessed. In addition to the acute risks of overdose, fentanyl derivatives also appear to have high abuse liabilities and dependence-producing potentials, which could worsen public health and social problems commonly associated with high-risk opioid use.

Joint investigations and risk assessment

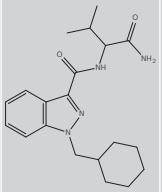
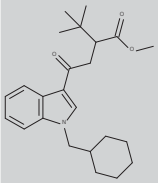
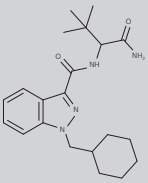
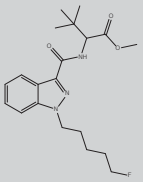
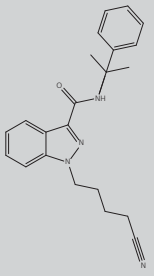
Following on from the two joint investigations on acryloylfentanyl and furanylfentanyl that were conducted by the EMCDDA and Europol in 2016, a further five fentanyl derivatives were investigated in 2017 after deaths were reported through the EU Early Warning System. The substances (4-fluoroisobutrylfentanyl, tetrahydrofuranylfentanyl, carfentanil, methoxyacetylfentanyl, cyclopropylfentanyl) were involved in more than 160 deaths, many of which were attributed directly to these substances. Overall, five of these seven substances were also formally risk-assessed by the EMCDDA during 2017 (Table 1); the remaining two substances will be assessed in 2018. To date, acryloylfentanyl and furanylfentanyl have been subject to control measures at EU-level because of the risks they pose to public health in Europe.

Table 1. Key findings from the risk assessments of five fentanyl derivatives

Common name	Carfentanil	Furanylfentanyl	Acryloylfentanyl	4F-iBF (4-fluoroisobutyryl-fentanyl)	THF-F (tetrahydro-furanylfentanyl)
Chemical structure					
Formal notification to the EU Early Warning System	12 February 2013	3 November 2015	7 July 2016	26 August 2016	23 December 2016
Number of deaths	61	23	47	20	14
Number of countries where associated deaths occurred	8	6	3	2	1
Number of law enforcement seizures	801	143	162	24	53
Number of countries where it has been seized (EU, Turkey and Norway)	7	14	5	4	1

Also during 2017, four synthetic cannabinoids were investigated, leading to risk assessments (Table 2). The substances (AB-CHMINACA, ADB-CHMINACA, 5F-MDMB-PINACA, CUMYL-4CN-BINACA) were involved in more than 80 deaths. These follow on from MDMB-CHMICA, the first cannabinoid to be risk-assessed by the EMCDDA. The reasons behind the severe toxicity that these substances can cause include their high potency and poor manufacturing practices. Evidence suggests that producers guess the quantities of substance to add when manufacturing 'smoking mixtures'. In addition, the crude manufacturing techniques used may not distribute the substance uniformly in the product. This may lead to some products containing toxic amounts of the substance, resulting in an increased risk of poisoning.

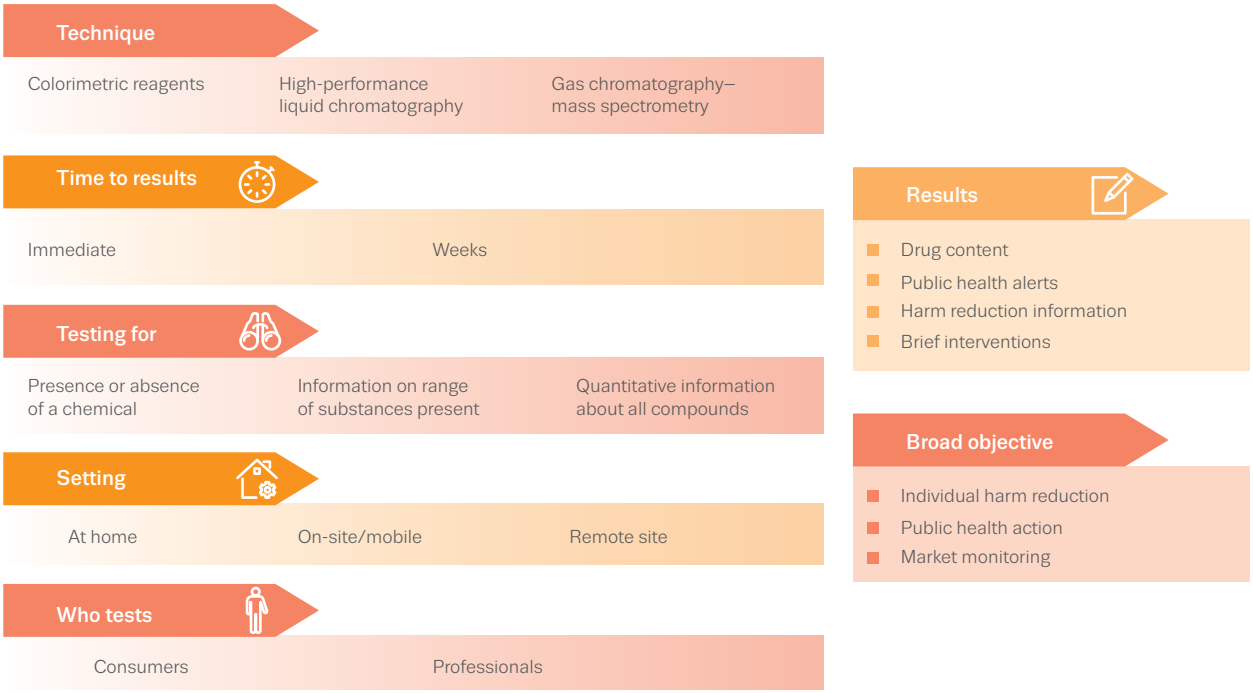
Table 2. Key findings from the risk assessments of five synthetic cannabinoids

Common name	AB-CHMINACA	MDMB-CHMICA	ADB-CHMINACA	5F-MDMB-PINACA	CUMYL-4CN-BINACA
Chemical structure					
Formal notification to the EU Early Warning System	10 April 2014	12 September 2014	24 September 2014	8 January 2015	4 March 2016
Number of deaths	31	29	13	28	11
Number of countries where associated deaths occurred	6	6	3	2	2
Number of law enforcement seizures	6 422	>3 600	3 794	1 986	2 461
Number of countries where it has been seized (EU, Turkey and Norway)	26	25	19	27	12

New opioids pose a serious threat to individual and public health

FIGURE 3.8

Examples of drug checking techniques and application



Drug-checking services: availability in Europe

Drug-checking services enable users to have their drugs analysed to provide information on the content of the sample. The aims of drug-checking services range from reducing harm, by providing advice and information to drug users, to the monitoring of current and emerging drug trends. In some countries drug-checking services are an integral part of national early warning systems, in particular supporting the identification and monitoring of new psychoactive substances.

Drug-checking services are available in 10 EU countries. The services vary in a number of ways, including location, methods, timeliness of results, how results are communicated and for what purpose (Figure 3.8). Testing services may be based in fixed laboratories or in mobile laboratories, for example, at music festivals and clubs. The methods used within services range from self-testing kits that show the presence or absence of a particular drug or adulterant, to sophisticated equipment that can identify and quantify numerous substances. The time taken to deliver results can also vary, from a few seconds to a few days.

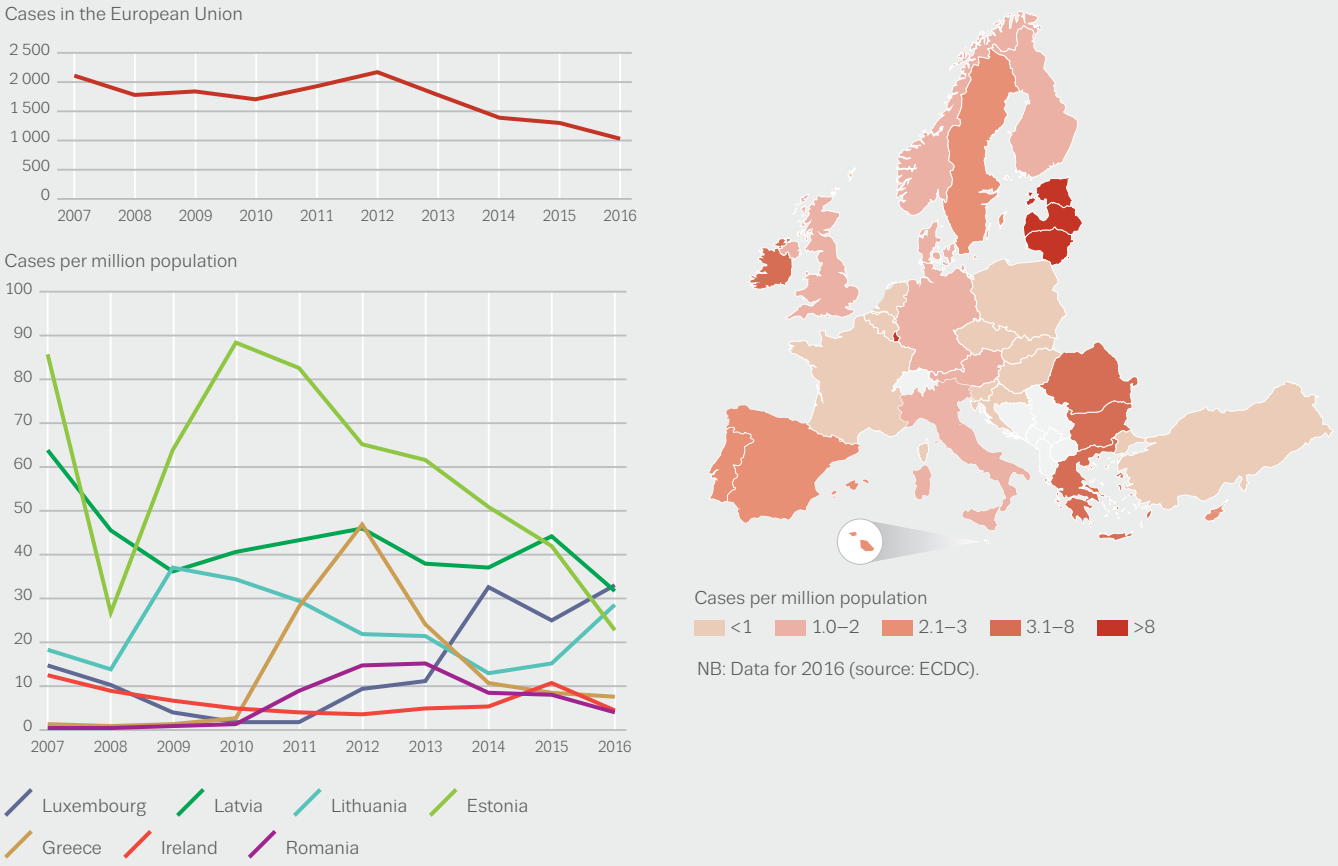
Communication of results is important for drug-checking services, and findings are often accompanied by the provision of advice or brief interventions. Communication methods used include public health and consumer alerts, information boards at dance events, online publication of results, or results given directly to individuals.

Chronic drug-related harms: HIV declines but late diagnoses persist

People who use drugs, particularly those who inject them, are at risk of contracting infectious diseases through the sharing of drug use material and through unprotected sex. Drug injection risk behaviour continues to play a central role in the transmission of blood-borne infections such as the hepatitis C virus (HCV) and, in some countries, the human immunodeficiency virus (HIV). In 2016, 1 027 new HIV diagnoses in people infected through injecting drug use were notified in the European Union (Figure 3.9), representing 5 % of all HIV diagnoses for which the route of transmission is known. This proportion has remained low and stable for the last decade. New HIV infections among people who inject drugs have declined in most European countries, with an overall decrease of 51 % between 2007 and 2016. However, injecting drug use remains an important mode of transmission in some countries: in 2016, according to the data reported to the European Centre for Disease Prevention and Control (ECDC), more than one-quarter of newly diagnosed HIV cases were attributed to injecting drug use in Lithuania (47 %), Luxembourg (29 %) and Latvia (27 %). In Romania and in Greece, while the numbers of new HIV infections attributed to injecting drug use continued to decrease in

FIGURE 3.9

Newly diagnosed HIV cases related to injecting drug use: overall and selected trends and most recent data



NB: Data for 2016 (source: ECDC).

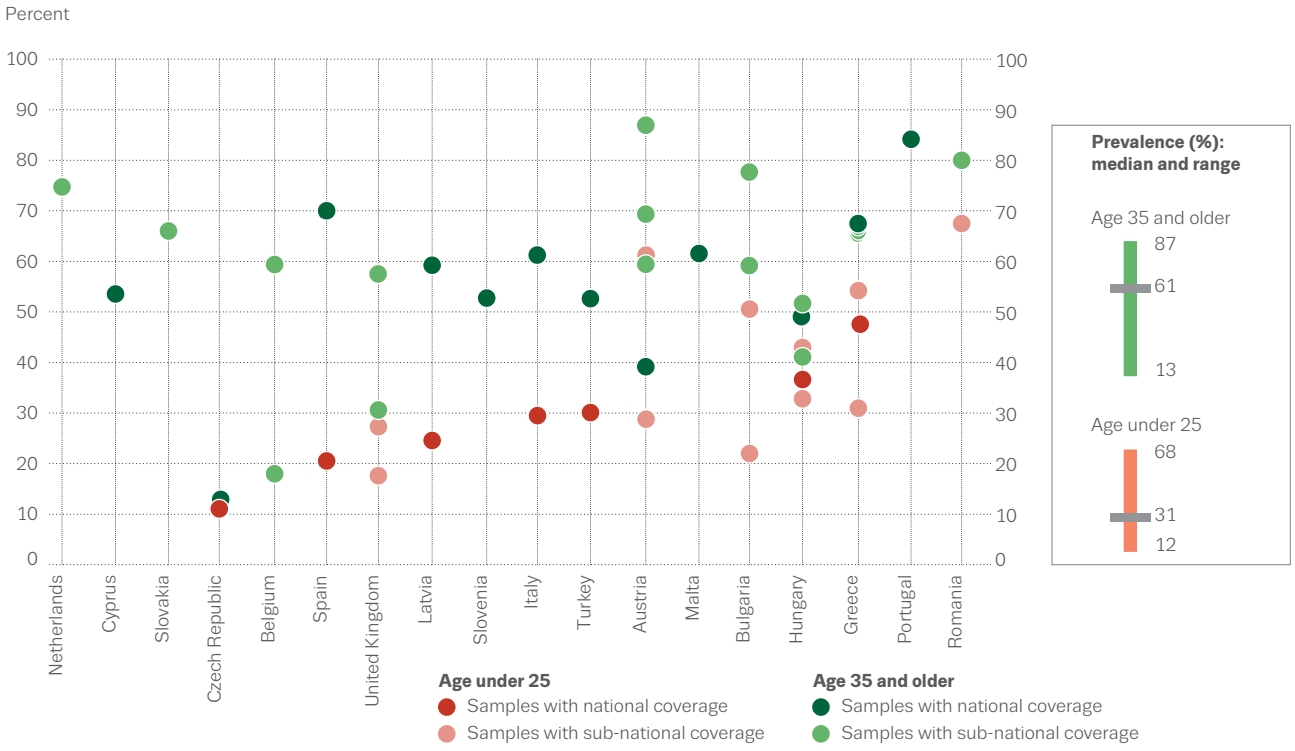
2016, they remain above the levels reported before the outbreaks in 2012.

The majority of countries reported decreases in the number of injecting-related HIV cases between 2015 and 2016, including Ireland and the United Kingdom, which had reported rises in 2015. In Ireland and the United Kingdom, this was in part related to localised outbreaks. The outbreak reported in Luxembourg in 2014 has continued through 2016, and increased stimulant injection, alongside high levels of user marginalisation, is a factor in this outbreak. Lithuania reported a sharp rise in new HIV infections among people who inject drugs, almost doubling from 44 to 83 cases in 2016. In addition, the injection of stimulant drugs in a sexual context ('slamming') among small groups of men who have sex with men has been linked to an increased risk of infection transmission.

In 2016, 13 % of the newly reported AIDS cases in the European Union, with a known route of transmission, were attributed to injecting drug use. The 422 injection-related notifications represent less than a quarter of the number reported a decade ago.

FIGURE 3.10

Prevalence of hepatitis C virus infection among people who inject drugs, by age, 2015 to 2016



NB: Samples smaller than 10 are not shown. The order of countries follows the under-25 data.

Where the information was available, half of the new HIV diagnoses attributed to drug injecting in the European Union in 2016 were diagnosed late — that is, when the virus had already begun to damage the immune system. In Greece and Romania, about 2 in every 3 new injecting-related HIV cases were diagnosed late. Late HIV diagnosis is associated with delays in initiation of anti-retroviral therapy and increased morbidity and mortality. The policy of 'test-and-treat' for HIV, whereby anti-retroviral therapy is started directly after an HIV diagnosis, results in a reduction of transmission and is especially important among groups with higher risk behaviours, such as people who inject drugs. Early diagnosis and initiation of anti-retroviral therapy offers those infected a normal life expectancy.

HCV prevalence: national differences

Viral hepatitis, particularly infection caused by the hepatitis C virus (HCV), is highly prevalent among injecting drug users across Europe. For every 100 people infected with HCV, 75 to 80 will develop chronic infection. This has important long-term consequences, as chronic HCV infection, often worsened by heavy alcohol use, will lead to increasing numbers of deaths and cases of severe liver disease, including cirrhosis and cancer, among an ageing population of high-risk drug users.

The prevalence of antibodies to HCV, indicating present or past infection, among national samples of injecting drug users in 2015–16, varied from 15 % to 82 %, with 6 out of the 13 countries with national data reporting a rate in excess of 50 %. Among the countries with national trend data for the period 2010–16, declining HCV prevalence among injecting drug users was reported in 4 countries, while 2 observed an increase.

HCV is more prevalent among older people who inject drugs than among their younger counterparts, highlighting the accumulation of risk over the years, and the high burden of infection among the older groups (Figure 3.10).

Among drug users, hepatitis B virus (HBV) infection is less common than HCV infection. For this virus, however, the presence of the HBV surface antigen indicates a current infection, which may be acute or chronic. In the 7 countries with national data, between 1.5 % and 11 % of drug injectors were estimated to be currently infected with HBV.

Drug injection is a risk factor for other infectious diseases, and drug-related clusters of hepatitis A were reported in

the Czech Republic and Germany in 2016. Clusters and sporadic cases of wound botulism among injecting drug users were also reported in Germany, Norway and the United Kingdom.

Preventing infectious diseases: effective measures

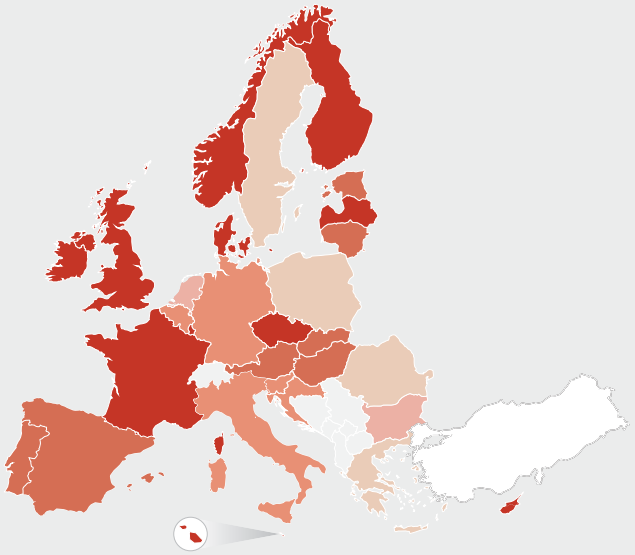
Recommended measures to reduce drug-related infectious diseases among people who inject drugs include the provision of opioid substitution treatment, the distribution of sterile injecting equipment, vaccination, infectious disease testing, hepatitis treatment and HIV treatment, as well as health promotion interventions focused on safer injecting behaviour and reducing sexual risk behaviour.

For those who inject opioids, being in substitution treatment significantly lowers infection risk, with some analyses indicating increasing protective effects when high treatment coverage is combined with high levels of syringe provision. Evidence shows that needle and syringe programmes are effective in reducing the transmission of HIV among people who inject drugs. Of the 30 countries monitored by the EMCDDA, all except Turkey provide clean injecting equipment at specialised outlets free of charge. However, considerable differences exist between countries in the geographical spread of syringe outlets (see Figure 3.11). Countries also differ in the coverage of the target population by the intervention (Figure 3.12). Information on the provision of syringes through specialised programmes is available from 25 countries, which together report the distribution of 54 million syringes in the most recent year for which data are available (2015/16). This is a major underestimation, as several large countries, such as Germany, Italy and the United Kingdom, do not report full national data on syringe provision.

European countries also report the distribution of other materials by specialised drug agencies alongside syringes and needles. More than half of the countries report, for example, written information about safer use, condoms, disinfectant pads and citric acid. The provision of foil or pipes to enable and promote inhalation rather than injection of drugs is reported by 8 countries, while in the Czech Republic, gelatine capsules are distributed to encourage the oral consumption of methamphetamine (pervitin) as an alternative to injecting.

FIGURE 3.11

Geographical availability of needle and syringe programmes in the European Union, Norway and Turkey



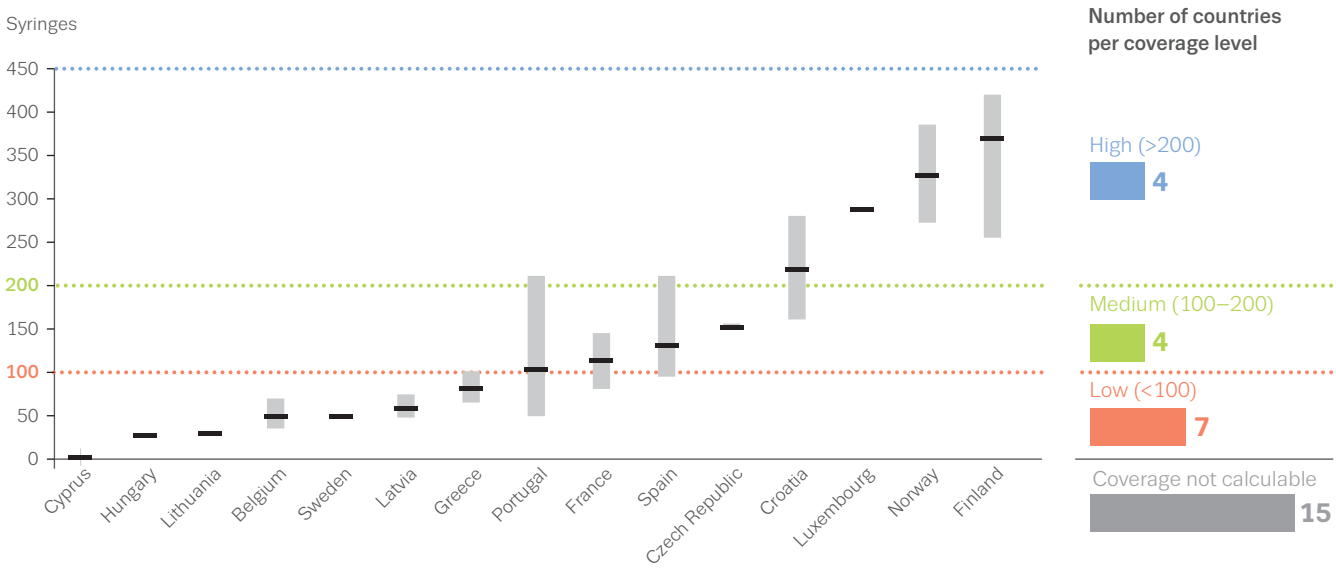
NB: Based on Eurostat NUTS-3 territorial units. Values for Spain, Germany and Italy are based on expert estimations. Geographical availability may not reflect the share of target population reached by the intervention.

HCV elimination: access to testing and treatment

EU minimum quality standards for demand reduction interventions promote the provision of voluntary testing for blood-borne infectious diseases at community agencies, alongside counselling on risky behaviours and assistance to manage illness. However, stigma and marginalisation of drug users are barriers to the uptake of testing and treatment. Innovative methods are required to overcome these challenges, especially broader use of counselling and testing by trained community care providers. In addition, any expansion of infectious disease testing should also be accompanied by measures to ensure appropriate provision of treatment of infections.

FIGURE 3.12

Coverage of specialised syringe programmes: number of syringes provided per estimated injecting drug user



NB: Data displayed as point estimates and uncertainty intervals.

European expert guidelines recommend considering HCV treatment without delay in individuals at high risk of transmitting the virus — which includes active injecting drug users and incarcerated individuals.

New effective, better tolerated, all-oral, interferon-free treatment regimens with direct-acting antiviral agents can result in a cure in 95 % of cases. Unrestricted access to treatment remains rare, due to the high costs of these medications. As of October 2017, one in two European countries had laid down its approach towards hepatitis prevention and care in a policy document. However, clinical guidelines in 9 countries included criteria that restrict access to HCV treatment for people who use drugs (e.g. requiring abstinence from drug use for 3–12 months).

Interventions in prisons: national availability differs

Prisoners report higher lifetime rates of drug use and more harmful patterns of use, including injecting, than the general population, making prisons an important setting for drug-related interventions. Many prisoners have complex healthcare needs, and assessment of drug use and drug-related problems is part of health screening at prison entry in many countries. Analysis of data on HIV and HCV prevalence among people who inject drugs from 17 European countries, covering 2006 to 2017, showed that the prevalence of these infections was significantly higher among individuals with a history of incarceration in most countries: 10 out of 17 countries in the case of HIV and 14 out of 17 in the case of HCV.

Infectious diseases testing (HIV, HBV, HCV and tuberculosis) is available in prisons in most countries, although this may be limited to testing on entry or of symptomatic individuals only. The provision of hepatitis C treatment is only reported in 11 countries. Hepatitis B vaccination programmes are reported to exist in 16 countries. The provision of clean injecting equipment is less common, with the existence of syringe programmes in this setting reported by 5 countries, only 3 of which report the intervention's actual implementation.

Two important principles for the implementation of health interventions in prison are equivalence with provision in community settings and continuity of care after prison release. In 28 countries it is possible to provide opioid substitution treatment in prisons, but the coverage is low in most countries. Interventions offered to prisoners

include detoxification, individual and group counselling, treatment in therapeutic communities and in special inpatient wards. Almost all countries report the provision of one or more of these treatment options. Most European countries have established interagency partnerships between prison health services and providers in the community, in order to facilitate delivery of health education and treatment interventions in prison and to ensure continuity of care upon prison entry and release. Preparation for prison release, including social reintegration, is carried out in all countries. Programmes to prevent the risk of drug overdose, which is particularly high among opioid injectors in the period after leaving prison, are reported in 5 countries and include training and information and the provision of naloxone upon prison release.

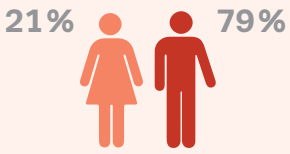
Overdose deaths: rising among high-risk drug users

Drug use is a recognised cause of avoidable mortality among European adults. Studies on cohorts of high-risk drug users commonly show total mortality rates in the range of 1–2 % per year. Overall, opioid users in Europe are 5 to 10 times more likely to die than their peers of the same age and gender. Increased mortality among opioid users is primarily related to overdose, but other causes of death indirectly related to drug use, such as infections, accidents, violence and suicide, are also important. Ill-health, marked by accumulated and interlinked conditions is common. Chronic pulmonary and liver conditions as well as cardio-vascular problems are frequent and account for an increased share of deaths among the older and chronic drug users.

In Europe, drug overdose continues to be the main cause of death among high-risk drug users, and over three-quarters of those dying from overdose are male (79 %). Overdose data, especially the European cumulative total, must be interpreted with caution. Among the reasons for this are systematic under-reporting in some countries and registration processes that result in reporting delays. Annual estimates therefore represent a provisional minimum value.

DRUG-INDUCED DEATHS

Characteristics

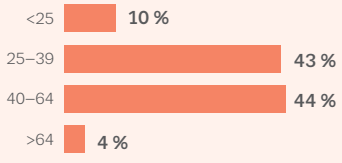


Mean age at death

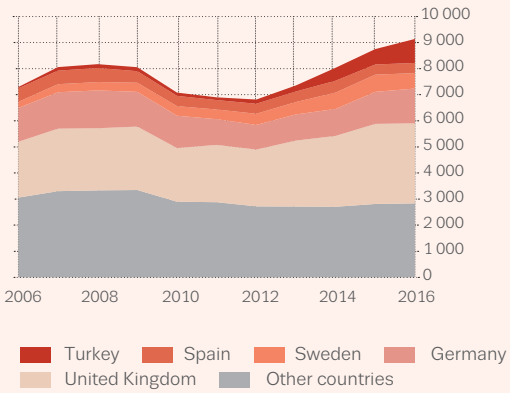
39 years

Deaths with opioids present

Age at death



Trends in overdose deaths

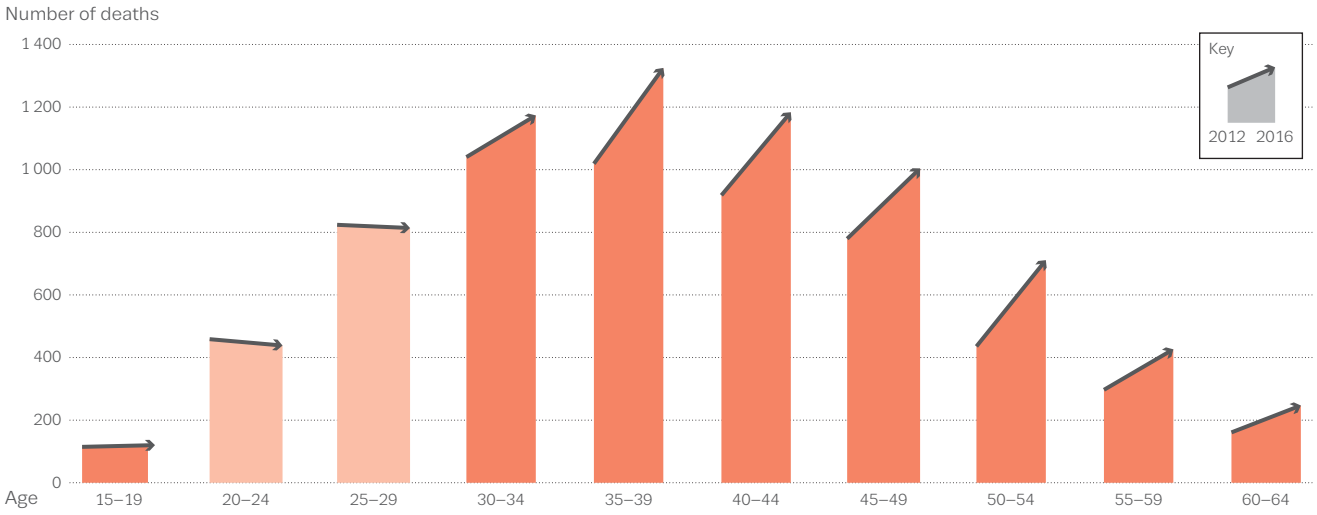


Number of deaths

NB: Data refer to EU Member States, Turkey and Norway (EU + 2).

FIGURE 3.13

Number of drug-induced deaths reported in the European Union in 2012 and 2016, or most recent year, by age band



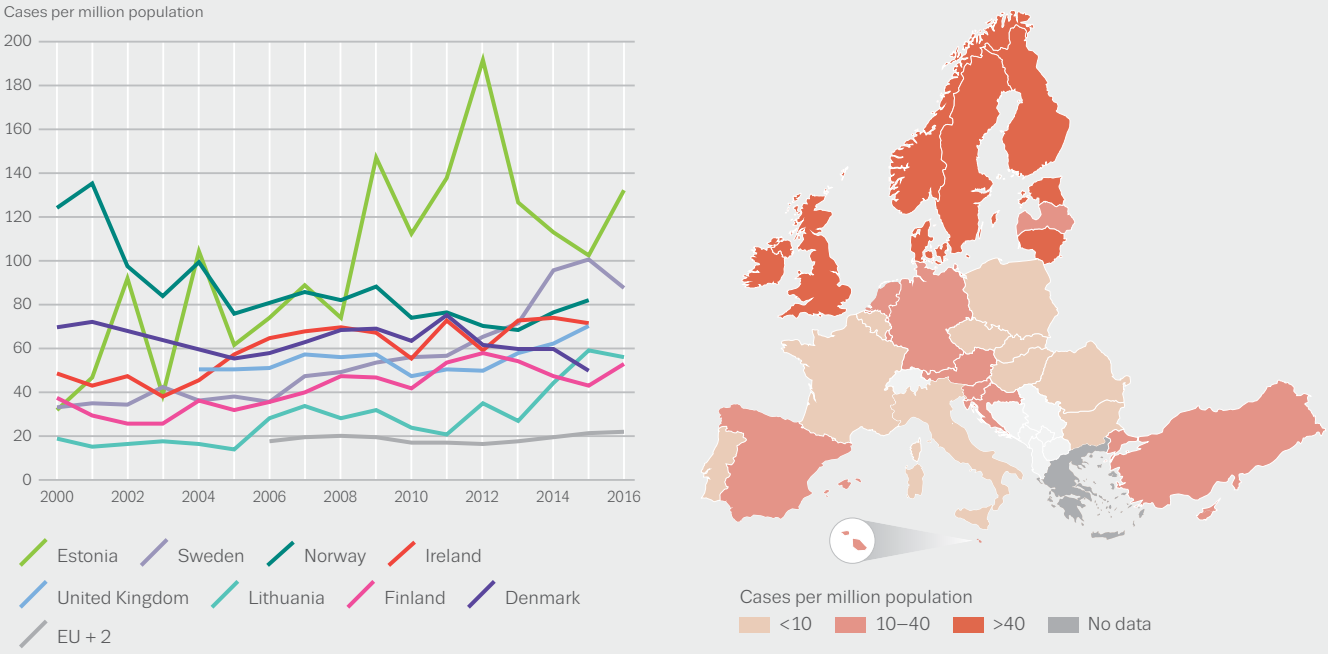
It is estimated that at least 7 929 overdose deaths, involving one or more illicit drug, occurred in the European Union in 2016. This rises to an estimated 9 138 deaths if Norway and Turkey are included, representing a 4 % increase from the revised 2015 figure of 8 749; the EU situation is overall stable compared with 2015. As in previous years, the United Kingdom (34 %) and Germany (15 %) together account for around half of the European total. This relates partly to the size of the at-risk populations in these countries, but also to the under-reporting in some other countries. Focusing on countries with relatively robust reporting systems and with data available for 2016, increases in the number of overdose deaths were observed in Estonia and Germany. In the Netherlands, it is not yet clear if a large rise in reported overdose deaths (up by 91 % compared with 2014) represents a real increase in the number of drug-induced deaths or is due to other causes, such as changes in registration. In the United Kingdom, an increase was reported in 2015, with 13 % more deaths than in 2014 and 21 % more than in 2013. Provisional data suggest that this increase continued in 2016. The upward trend apparent in Sweden for some years was reversed in 2016. Turkey continues to report major increases, with the number for 2016 almost double that of 2014, but this appears to be largely driven by improvements in data collection and reporting.

The rising trend in the reported number of overdose deaths among older age groups reflects the ageing nature of Europe's opioid-using population, who are at greatest risk of drug overdose death. Between 2012 and 2016, overdose deaths in the European Union increased in all age categories above 30 years (Figure 3.13). Deaths among the 50+ age groups increased by 55 % overall, compared with a 25 % increase in deaths among those aged 30–49. The numbers of overdose deaths taking place among younger age groups have been overall stable in the European Union. Analysis of fatal overdoses reported by Turkey in 2016 shows a younger profile than that of the European Union, with a mean age of 31 years (compared with 39 years), and one-third of the cases younger than 25 years.

Drug overdose continues to be the main cause of death among high-risk drug users

FIGURE 3.14

Drug-induced mortality rates among adults (15–64): selected trends and most recent data



NB: Trends in the eight countries reporting the highest values in 2016 or 2015 and overall European trend.
EU + 2 refers to EU Member States, Turkey and Norway.

Drug-induced mortality: highest reported rates in northern Europe

The mortality rate due to overdoses in Europe in 2016 is estimated at 21.8 deaths per million population aged 15–64. The rate among males (34.7 cases per million males) is almost four times that among females (8.9 cases per million females). Overdose mortality rates are highest at age 35–39 for males, with 57.4 deaths per million, and at age 40–44 for females, with 12.4 deaths per million. Mean age at death, however, is 39 years old for both men and women. National mortality rates and trends vary considerably (Figure 3.14) and are influenced by factors such as prevalence and patterns of drug use as well as by national practices of reporting, recording information and coding overdose cases, including variable levels of under-reporting, in national mortality databases. According to the latest data available, rates of over 40 deaths per million population were reported in 8 northern European countries, with the highest rates reported in Estonia (132 per million), Sweden (88 per million), Norway (81 per million), Ireland (70 per million) and the United Kingdom (70 per million) (Figure 3.14).

Fatal overdoses: opioid-related deaths dominate

Heroin or its metabolites, often in combination with other substances, are present in the majority of fatal overdoses reported in Europe. The most recent data show an increase in the number of heroin-related deaths in Europe, notably in the United Kingdom, where the majority of overdose deaths (87 %) involved some form of opioid. In England and Wales, heroin or morphine was mentioned in 1 177 deaths registered in 2015, representing an 18 % increase on the previous year and a 44 % increase relative to 2013. Fatalities related to heroin or morphine also increased in Scotland (United Kingdom), with 473 such deaths recorded in 2016, representing an increase of 37 % on the previous year. In France, heroin was implicated in 30 % of the overdose deaths in 2015, compared with 15 % in 2012. Other opioids are also regularly found in toxicological reports. These substances, primarily methadone, but also buprenorphine (Finland), fentanyl and its derivatives (particularly in Estonia) and tramadol, are associated with a substantial share of overdose deaths in some countries.

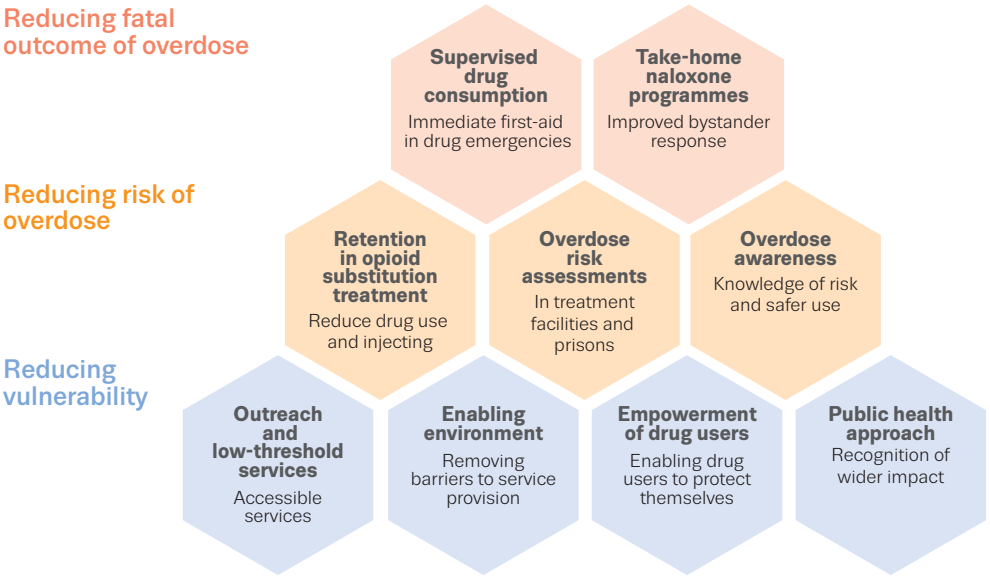
Stimulants such as cocaine, amphetamines, MDMA and cathinones are implicated in a smaller number of overdose deaths in Europe, although their significance varies by country. In the United Kingdom (England and Wales), deaths involving cocaine increased from 169 in 2013 to 340 in 2015, although many of these are thought to be heroin overdoses among people who also used crack. In 2016, stimulant-related deaths in Turkey included 100 cases associated with cocaine, 98 cases with amphetamines and 252 cases with MDMA. Turkey also reported a large increase in the number of deaths related to synthetic cannabinoids: from 137 in 2015 to 373 in 2016. In the United Kingdom, the number of deaths involving new psychoactive substances remains relatively low, but has increased since 2010, particularly in Scotland.

Overdoses and drug-related deaths: prevention interventions

Reducing overdose morbidity and mortality is a major public health challenge in Europe. A broader public health response in this area aims at reducing vulnerability among those who use drugs, especially by removing barriers and making services accessible, and by empowering drug users to take fewer risks (Figure 3.15). Assessing overdose risk among people who use drugs and strengthening their overdose awareness, combined with providing effective drug treatment, helps to prevent the occurrence of overdoses. Periods of elevated risk, such as release from prison and discharge or drop-out from treatment, require particular attention. Interventions such as supervised drug consumption facilities as well as take-home naloxone programmes are highly targeted responses which aim at improving the likelihood of surviving an overdose.

FIGURE 3.15

Key approaches for reducing opioid-related deaths



Supervised drug consumption facilities are spaces where drug users can consume drugs in hygienic and safer conditions. This intervention aims both to prevent overdoses from occurring and to ensure that professional support is available if an overdose occurs. These facilities typically provide access to a wide range of medical and social services, as well as referral to drug treatment, and are able to attract hard-to-reach populations of users. Individual facilities supervise large numbers of consumptions, which otherwise would have taken place in the streets or in other risky circumstances. There is growing evidence of their benefits, which include reductions in risk behaviour, overdose mortality and transmission of infections, as well as increased drug users' access to treatment and other health and social services. At the same time, they can help to reduce drug use in public and improve public amenity in areas surrounding urban drug markets. Such facilities now operate in 56 cities in 6 EU countries and Norway; 78 facilities in total. In Germany, where such facilities have been operating since the early 1990s, legal regulations have recently been revised to allow them to supervise lower-risk types of use, such as snorting, smoking and inhaling. In addition, two of the 16 Federal states have begun to permit their use by people in substitution treatment.

Naloxone: take-home programmes

Naloxone is an opioid antagonist medication that can reverse opioid overdose. It is used in hospital emergency departments, by ambulance personnel and by staff of other services that regularly come into contact with drug users. In recent years, there has been an expansion of 'take-home' naloxone programmes, which make the medication available to opioid users, their partners, peers and families, alongside training in recognising and responding to overdose. In 2017, sixteen take-home naloxone programmes were operating in 10 European countries. A systematic review of the effectiveness of take-home naloxone programmes found evidence that its provision in combination with educational and training interventions reduces overdose-related mortality. Some populations with an elevated risk of overdose, such as recently released prisoners, may particularly benefit. Prisoners are included in the take-home naloxone programmes in Estonia, France and the United Kingdom, and a prison-based naloxone distribution is due to start in Norway in 2018.

Most naloxone kits provided by drug and health services include either generic injectable naloxone (0.4 or 1 mg/1 ml) in ampoules or syringes pre-filled with the medication. In France, a more concentrated nasal formulation of the medication (0.9 mg/0.1 ml), used on trial basis since 2016, was granted marketing authorisation in July 2017, facilitating its wider use. In November 2017, the European Commission approved a nasal spray for marketing in the European Union, Norway, Iceland and Liechtenstein. The spray delivers 1.8 mg of naloxone in 0.1 ml of solution.

Reducing overdose morbidity and mortality is a major public health challenge

FIND OUT MORE

EMCDDA publications

2018

Country Drug Reports 2018.

Drug consumption rooms: an overview of provision and evidence, Perspectives on Drugs (update).

Environmental substance use prevention interventions in Europe, Technical report.

Preventing overdose deaths in Europe, Perspectives on Drugs (update).

2017

Health and social responses to drug problems: a European guide.

Drug-related infectious diseases in Europe. Update from the EMCDDA expert network, Rapid communications.

Evaluating drug policy: A seven-step guide to support the commissioning and managing of evaluations, Manuals.

Report of the risk assessment on acryloylfentanyl, Risk assessments.

Report of the risk assessment on furanfentanyl, Risk assessments.

Report on the risk assessment of MDMB-CHMICA, Risk assessments.

2016

Health responses to new psychoactive substances, Rapid communications.

Hepatitis C among drug users in Europe: epidemiology, treatment and prevention, Insights.

Hospital emergency presentations and acute drug toxicity in Europe: update from the Euro-DEN Plus research group and the EMCDDA, Rapid communications.

Preventing opioid overdose deaths with take-home naloxone, Insights.

Strategies to prevent diversion of opioid substitution treatment medications, Perspectives on Drugs.

The role of psychosocial interventions in drug treatment, Perspectives on Drugs.

2015

Comorbidity of substance use and mental disorders in Europe, Insights.

Drugs policy and the city in Europe, EMCDDA Papers.

Mortality among drug users in Europe: new and old challenges for public health, EMCDDA Papers.

Prevention of addictive behaviours, Insights.

The EU drugs strategy (2013–20) and its action plan (2013–16), Perspectives on Drugs.

Treatment of cannabis-related disorders in Europe, Insights.

2014

Emergency health consequences of cocaine use in Europe, Perspectives on Drugs.

Health and social responses for methamphetamine users in Europe, Perspectives on Drugs.

Internet-based drug treatment, Perspectives on Drugs.

Treatment for cocaine dependence: reviewing current evidence, Perspectives on Drugs.

2013

Drug policy advocacy organisations, EMCDDA Papers.

EMCDDA and ECDC joint publications

2017

Systematic review on active case finding of communicable diseases in prison settings.

2015

HIV and hepatitis B and C in Latvia.

2012

HIV in injecting drug users in the EU/EEA, following a reported increase of cases in Greece and Romania.

All publications are available at www.emcdda.europa.eu/publications

Annex

National data for estimates of drug use prevalence including problem opioid use, substitution treatment, total number in treatment, treatment entry, injecting drug use, drug-induced deaths, drug-related infectious diseases, syringe distribution and seizures. The data are drawn from and are a subset of the EMCDDA Statistical Bulletin 2018, where notes and meta-data are available. The years to which data refer are indicated.

TABLE A1

OPIOIDS

	Problem opioid use estimate		Entrants into treatment during the year						Clients in substitution treatment
			Opioids clients as % of treatment entrants			% opioids clients injecting (main route of administration)			
			All entrants	First-time entrants	Previously treated entrants	All entrants	First-time entrants	Previously treated entrants	
Country	Year of estimate	cases per 1 000	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)	count
Belgium	–	–	25 (2625)	9.4 (366)	34.3 (2114)	14.1 (331)	10.1 (35)	14.3 (272)	16 560
Bulgaria	–	–	73.5 (1261)	52.5 (93)	92.7 (531)	68.2 (542)	56.5 (52)	67.6 (356)	3 338
Czech Republic	2016	1.7–1.9	17 (1720)	7 (333)	25.9 (1387)	82.6 (1412)	79.8 (264)	83.2 (1148)	5 000
Denmark	–	–	12.7 (543)	6.7 (134)	18.5 (396)	22.4 (103)	3.3 (4)	29.9 (99)	7 050
Germany	2015	2.6–3.0	31.9 (27 702)	13.5 (3 614)	40.1 (24 088)	31.3 (9 956)	29.6 (1 546)	31.6 (8 410)	78 500
Estonia	–	–	93.4 (271)	87.4 (76)	95.5 (150)	69.3 (187)	72 (54)	80.7 (121)	1 248
Ireland	2014	6.1–7.0	46.9 (4 202)	26.9 (947)	60.5 (3 070)	34.2 (1 375)	24.6 (229)	37.4 (1 100)	10 087
Greece	2016	2.1–2.9	66.4 (2 833)	48.1 (833)	78.8 (1 986)	29.3 (824)	28 (232)	29.8 (589)	9 851
Spain	2015	1.6–3.0	25.7 (12 146)	11.5 (2 727)	42.2 (8 239)	12.7 (1 456)	7.1 (191)	14.4 (1 146)	59 264
France	2015	4.4–6.9	26.1 (12 111)	12.3 (1 830)	44.6 (7 640)	17.6 (1 830)	11.5 (193)	20.1 (1 325)	169 750
Croatia	2015	2.5–4.0	–	22.1 (170)	–	–	37.7 (61)	–	4 256
Italy	2015	4.6–5.9	48.5 (23 556)	33.3 (7 190)	60.7 (16 366)	47.5 (9 654)	35.6 (2 103)	52.3 (7 551)	62 868
Cyprus	2016	1.5–2.2	24.3 (212)	10.7 (49)	44.3 (132)	53.8 (112)	54.2 (26)	55.8 (72)	229
Latvia	2016	4.1–5.9	50.6 (445)	29.4 (136)	74.3 (309)	91.7 (399)	85.6 (113)	94.4 (286)	647
Lithuania	2016	2.7–6.5	86.4 (2 059)	53.4 (175)	92.1 (1 877)	85 (1 746)	83.4 (146)	83.9 (146)	1 231
Luxembourg	2015	4.46	48.7 (129)	15.4 (10)	55.2 (80)	46.4 (58)	55.6 (5)	52.6 (41)	1 085
Hungary	2010–11	0.4–0.5	4.8 (198)	1.6 (44)	13.5 (146)	46.5 (87)	42.9 (18)	48.6 (69)	669
Malta	2016	5.1–6.0	71.7 (1 290)	27.4 (72)	79.3 (1 218)	61.1 (738)	47.7 (21)	61.7 (717)	1 030
Netherlands	2012	1.1–1.5	11.5 (1 262)	6.2 (402)	19.3 (860)	6.1 (39)	7.6 (13)	5.6 (26)	7 421
Austria	2015	5.3–5.6	51.3 (1 884)	32.1 (515)	66 (1 369)	36.7 (502)	22 (78)	41.9 (424)	18 222
Poland	2014	0.4–0.7	17.3 (1 151)	6.3 (192)	27.8 (951)	57.9 (658)	30.4 (58)	63.7 (598)	2 564
Portugal	2015	3.8–7.6	43.5 (1 198)	26.5 (459)	72.1 (739)	17.8 (194)	15.4 (61)	19.1 (133)	16 368
Romania	2016	1.1–1.8	27.2 (963)	12.9 (312)	58.7 (650)	88.9 (855)	80.8 (252)	92.9 (603)	1 480
Slovenia	2016	3.2–3.9	82.2 (221)	55.3 (26)	88.2 (195)	52 (115)	23.1 (6)	55.9 (109)	3 042
Slovakia	–	–	28.6 (869)	13.5 (181)	42.1 (672)	71.4 (609)	42.5 (76)	79.5 (527)	642
Finland	2012	3.8–4.5	47.8 (317)	27.2 (67)	60 (250)	73.2 (230)	68.2 (45)	74.6 (185)	3 329
Sweden (1)	–	–	23.7 (8 602)	15.6 (1 976)	28.1 (6 626)	–	–	–	4 136
United Kingdom	2010–11	7.9–8.4	49.6 (57 673)	22.4 (8 591)	63 (48 936)	31.1 (12 428)	16.4 (827)	33.2 (11 555)	138 422
Turkey	2011	0.2–0.5	74.2 (8 073)	67.5 (3 627)	80.7 (4 446)	24.7 (1 994)	15.5 (561)	32.2 (1 433)	—
Norway (2)	2013	2.0–4.2	18.1 (1 033)	12.6 (343)	23 (690)	–	–	–	7 554
European Union	**–**	**–**	**36.1 (167 443)**	**17.9 (31 520)**	**49.1 (130 977)**	**33.8 (46 440)**	**26.2 (6 709)**	**35.3 (37 608)**	**628 289**
EU, Turkey and Norway	**–**	**–**	**36.8 (176 549)**	**19.2 (35 490)**	**49.5 (136 113)**	**33.3 (48 434)**	**24.9 (7 270)**	**35.2 (39 041)**	**635 843**

Data on entrants into treatment are for 2016 or most recent year available: Czech Republic, 2014; Denmark, Spain, Netherlands and Turkey, 2015.
Data on clients in substitution treatment are for 2016 or most recent year available: Denmark, Spain, Hungary, Poland and Finland, 2015; Netherlands, 2014; Turkey, 2011. The number for Sweden does not represent all clients.
(1) Data for clients entering treatment refer only to hospital-based care and specialised outpatient care facilities.
(2) The percentage of clients in treatment for opioid-related problems is a minimum value, not accounting for opioid clients registered as polydrug users.

TABLE A2

COCAINE

	Prevalence estimates				Entrants into treatment during the year					
	General population			School population	Cocaine clients as % of treatment entrants			% cocaine clients injecting (main route of administration)		
Country	Year of survey	Lifetime, adults (15–64)	Last 12 months, young adults (15–34)	Lifetime, students (15–16)	All entrants	First-time entrants	Previously treated entrants	All clients	First-time entrants	Previously treated entrants
		%	%	%	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)
Belgium	2013	–	0.9	2	21.7 (2 277)	21.8 (851)	21.0 (1 299)	4.7 (95)	1.1 (8)	7.1 (80)
Bulgaria	2016	0.9	0.5	5	2 (34)	5.1 (9)	0.7 (4)	6.7 (1)	0 (0)	0 (0)
Czech Republic	2016	1.4	0.7	1	0.3 (27)	0.3 (12)	0.3 (15)	0 (0)	0 (0)	0 (0)
Denmark (1)	2017	6.4	3.9	2	7.1 (306)	7.2 (144)	7.4 (158)	3.3 (8)	1.7 (2)	5 (6)
Germany (2)	2015	3.8	1.2	3	6.7 (5 855)	6.4 (1 713)	6.9 (4 142)	14.3 (2 376)	7 (301)	16.9 (2 075)
Estonia	2008	–	1.3	1	0.3 (1)	1.1 (1)	–	–	–	–
Ireland	2015	7.8	2.9	3	12.2 (1 096)	16.1 (565)	9.9 (502)	1.3 (14)	0.2 (1)	2.2 (11)
Greece (2)	2015	1.3	0.6	1	6.8 (292)	8.8 (152)	5.5 (139)	10.7 (31)	2 (3)	20.3 (28)
Spain	2015	9.1	3.0	3	36.6 (17 327)	35.5 (8 445)	37.1 (7 248)	1 (167)	0.4 (30)	1.6 (116)
France	2014	5.4	2.4	4	6.7 (3 108)	5.9 (878)	8.3 (1 418)	8.5 (243)	2.6 (21)	13.7 (178)
Croatia	2015	2.7	1.6	2	–	2.9 (22)	–	–	–	–
Italy	2017	6.8	1.9	3	29.2 (14 197)	34.3 (7 417)	25.1 (6 780)	2.9 (394)	2.2 (154)	3.7 (240)
Cyprus	2016	1.4	0.4	3	12.7 (111)	11.8 (54)	16.4 (49)	2.8 (3)	0 (0)	6.1 (3)
Latvia	2015	1.5	1.2	2	0.7 (6)	1.1 (5)	0.2 (1)	0 (0)	0 (0)	0 (0)
Lithuania	2016	0.7	0.3	2	0.6 (14)	1.8 (6)	0.4 (8)	0 (0)	0 (0)	0 (0)
Luxembourg	2014	2.5	0.6	3	17 (45)	12.3 (8)	19.3 (28)	39.5 (17)	14.3 (1)	46.4 (13)
Hungary (2)	2015	1.2	0.9	2	2.7 (112)	3 (83)	1.8 (20)	1.8 (2)	0 (0)	10 (2)
Malta	2013	0.5	–	3	14.6 (263)	34.2 (90)	11.3 (173)	10.7 (28)	3.3 (3)	14.6 (25)
Netherlands	2016	5.9	3.7	2	24.3 (2 675)	20.8 (1 357)	29.6 (1 318)	0.4 (5)	0.1 (1)	0.6 (4)
Austria	2015	3.0	0.4	2	8.5 (311)	11.2 (180)	6.3 (131)	6.5 (19)	1.7 (3)	13.6 (16)
Poland	2014	1.3	0.4	4	2.3 (155)	2.4 (73)	2.3 (77)	0.7 (1)	0 (0)	1.3 (1)
Portugal	2016	1.2	0.3	2	13.3 (366)	15.7 (272)	9.2 (94)	4.3 (14)	3.8 (9)	5.9 (5)
Romania	2016	0.7	0.2	3	1 (36)	1.3 (31)	0.4 (4)	0 (0)	0 (0)	0 (0)
Slovenia	2012	2.1	1.2	2	6.3 (17)	14.9 (7)	4.5 (10)	11.8 (2)	–	20 (2)
Slovakia	2015	0.7	0.3	2	1.2 (36)	2.1 (28)	0.4 (7)	9.7 (3)	8.3 (2)	14.3 (1)
Finland	2014	1.9	1.0	1	0 (0)	0 (0)	0 (0)	– (0)	– (0)	– (0)
Sweden (1,3)	2013	–	1.2	1	1.2 (438)	2.4 (300)	0.6 (138)	–	–	–
United Kingdom (1,4)	2016	9.7	4.0	2	15.5 (18 008)	19.5 (7 492)	13.5 (10 490)	1.4 (174)	0.5 (28)	2.1 (141)
Turkey	–	–	–	–	1.8 (198)	1.5 (79)	2.2 (119)	0 (0)	0 (0)	0 (0)
Norway (1)	2016	3.8	1.3	1	1.2 (66)	1.7 (45)	0.7 (21)	–	–	–
European Union	**–**	**5.1**	**1.9**	**–**	**14.5 (67 113)**	**17.1 (30 195)**	**12.8 (34 253)**	**5.3 (3 597)**	**1.9 (567)**	**7.9 (2 947)**
EU, Turkey and Norway	**–**	**–**	**–**	**–**	**14 (67 377)**	**16.4 (30 319)**	**12.5 (34 393)**	**5.2 (3 597)**	**1.9 (567)**	**7.9 (2 947)**

Prevalence estimates for the school population are extracted from ESPAD Survey 2015, except for Belgium (2016; Flanders only), Spain (2016), Germany (2011), Italy (2016), Luxembourg (2010; age 15 years), Sweden (2016) and United Kingdom (2014; England only, age 15 years). Due to uncertainty of data collection procedures, data for Latvia may not be comparable.
Data on entrants into treatment are for 2016 or most recent year: Czech Republic, 2014; Denmark, Spain, Netherlands and Turkey, 2015.
(1) Age range for prevalence estimates for the general population: 16–64, 16–34.
(2) Age range for prevalence estimates for the general population: 18–64, 18–34.
(3) Data for clients entering treatment refer only to hospital-based care and specialised outpatient care facilities.
(4) Prevalence estimates for the general population refer to England and Wales only.

TABLE A3

AMPHETAMINES

	Prevalence estimates				Entrants into treatment during the year					
	General population			School population	Amphetamines clients as % of treatment entrants			% amphetamines clients injecting (main route of administration)		
	Year of survey	Lifetime, adults (15–64)	Last 12 months, young adults (15–34)	Lifetime, students (15–16)	All entrants	First-time entrants	Previously treated entrants	All entrants	First-time entrants	Previously treated entrants
Country		%	%	%	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)
Belgium	2013	–	0.5	2	9.3 (978)	7.2 (282)	10.9 (672)	11.1 (88)	2.5 (6)	14.8 (80)
Bulgaria	2016	1.5	1.8	6	11.4 (195)	15.3 (27)	3 (17)	17.6 (9)	7.4 (2)	23.5 (4)
Czech Republic	2016	3.0	1.7	1	69.7 (7 033)	75.1 (3 550)	65 (3 483)	78.1 (5 446)	73.8 (2 586)	82.6 (2 860)
Denmark (1)	2017	7.0	1.4	1	6.4 (275)	6.5 (131)	6.5 (139)	1.6 (4)	0.8 (1)	2.4 (3)
Germany (2)	2015	3.6	1.9	4	16.9 (14 714)	19.4 (5 210)	15.8 (9 504)	2.1 (706)	1.6 (189)	2.4 (517)
Estonia	2008	–	2.5	2	3.8 (11)	6.9 (6)	2.5 (4)	50 (5)	66.7 (4)	33.3 (1)
Ireland	2015	4.1	0.6	3	0.6 (55)	0.7 (24)	0.6 (29)	12.7 (7)	16.7 (4)	10.3 (3)
Greece	–	–	–	2	0.7 (28)	0.8 (14)	0.6 (14)	10.7 (3)	14.3 (2)	7.1 (1)
Spain	2015	3.6	1.0	2	1.4 (674)	1.6 (382)	1.2 (243)	1.1 (7)	0.8 (3)	1.7 (4)
France	2014	2.2	0.7	2	0.4 (182)	0.4 (57)	0.4 (68)	11.6 (18)	–	13.6 (8)
Croatia	2015	3.5	2.3	3	–	4.8 (37)	–	–	–	–
Italy	2017	2.4	0.3	2	0.3 (126)	0.4 (87)	0.1 (39)	2.5 (3)	1.2 (1)	5.7 (2)
Cyprus	2016	0.5	0.1	3	5.1 (44)	3.9 (18)	6.7 (20)	4.5 (2)	0 (0)	5 (1)
Latvia	2015	1.9	0.7	3	15.8 (139)	19.2 (89)	12 (50)	63.6 (77)	57.7 (45)	74.4 (32)
Lithuania	2016	1.2	0.5	1	2.7 (64)	5.2 (17)	2.2 (44)	30 (18)	41.2 (7)	41.2 (7)
Luxembourg	2014	1.6	0.1	1	0.8 (2)	3.1 (2)	–	–	–	–
Hungary (2)	2015	1.7	1.4	3	12.4 (507)	13.1 (366)	10.5 (114)	6.3 (31)	6.1 (22)	7.2 (8)
Malta	2013	0.3	–	2	0.2 (4)	0.8 (2)	0.1 (2)	25 (1)	–	50 (1)
Netherlands	2016	5.3	3.6	2	7.4 (817)	7.5 (487)	7.4 (330)	1.3 (4)	1 (2)	1.9 (2)
Austria	2015	2.2	0.9	3	5.5 (203)	7.3 (117)	4.1 (86)	3.8 (7)	3.7 (4)	3.9 (3)
Poland	2014	1.7	0.4	4	27.7 (1 841)	29.9 (915)	26 (889)	3.9 (70)	1.8 (16)	5.8 (51)
Portugal	2016	0.4	0.0	1	0.2 (5)	0.3 (5)	–	0 (0)	0 (0)	–
Romania	2016	0.3	0.1	1	0.6 (22)	0.6 (14)	0.7 (8)	0 (0)	0 (0)	0 (0)
Slovenia	2012	0.9	0.8	1	1.9 (5)	4.3 (2)	1.4 (3)	40 (2)	–	66.7 (2)
Slovakia	2015	1.4	0.8	1	40.5 (1 231)	44.2 (592)	36.3 (579)	30.1 (350)	27.6 (157)	33.3 (182)
Finland	2014	3.4	2.4	1	20.4 (135)	25.2 (62)	17.5 (73)	70.8 (92)	49.2 (29)	88.7 (63)
Sweden (1,3)	2013	–	1.3	1	5.9 (2 152)	7.4 (937)	5.1 (1 215)	–	–	–
United Kingdom (1,4)	2016	9.2	0.7	1	2.4 (2 828)	3 (1 144)	2.2 (1 679)	20 (353)	14.6 (99)	23.3 (253)
Turkey	2011	0.1	0.1	–	1.8 (196)	2.5 (133)	1.1 (63)	0.5 (1)	0.8 (1)	0 (0)
Norway (1)	2016	3.4	0.5	1	13.2 (756)	9.4 (254)	16.7 (502)	–	–	–
European Union	**–**	**3.6**	**1.0**	**–**	**7.4 (34 270)**	**8.3 (14 576)**	**7.2 (19 304)**	**15.1 (7 303)**	**16.7 (3 179)**	**14.1 (4 088)**
EU, Turkey and Norway	**–**	**–**	**–**	**–**	**7.3 (35 222)**	**8.1 (14 963)**	**7.2 (19 869)**	**15.1 (7 304)**	**16.6 (3 180)**	**14 (4 088)**

Prevalence estimates for the school population are extracted from ESPAD Survey 2015, except for Belgium (2016; Flanders only), Spain (2016), Germany (2011), Italy (2016), Luxembourg (2010; age 15 years), Sweden (2016) and United Kingdom (2014; England only, age 15 years). Due to uncertainty of data collection procedures, data for Latvia may not be comparable.
Data on entrants into treatment are for 2016 or most recent year: Czech Republic, 2014; Denmark, Spain, Netherlands and Turkey, 2015. Data for Germany, Sweden and Norway refer to users of 'stimulants other than cocaine'.
(1) Age range for prevalence estimates for the general population: 16–64, 16–34.
(2) Age range for prevalence estimates for the general population: 18–64, 18–34.
(3) Data for clients entering treatment refer only to hospital-based care and specialised outpatient care facilities.
(4) Prevalence estimates for the general population refer to England and Wales only.

TABLE A4

MDMA

	Prevalence estimates				Entrants into treatment during the year		
	General population			School population	MDMA clients as % of treatment entrants		
	Year of survey	Lifetime, adults (15–64)	Last 12 months, young adults (15–34)	Lifetime, students (15–16)	All entrants	First-time entrants	Previously treated entrants
Country		%	%	%	% (count)	% (count)	% (count)
Belgium	2013	–	0.8	2	0.5 (48)	0.8 (31)	0.3 (16)
Bulgaria	2016	2.1	3.1	5	0.7 (12)	1.1 (2)	0 (0)
Czech Republic	2016	7.1	4.1	3	0 (4)	0.1 (3)	0 (1)
Denmark (1)	2017	3.2	1.5	1	0.7 (28)	1 (21)	0.3 (7)
Germany (2)	2015	3.3	1.3	2	–	–	–
Estonia	2008	–	2.3	3	0.3 (1)	–	0.6 (1)
Ireland	2015	9.2	4.4	4	0.6 (51)	1.1 (39)	0.2 (11)
Greece (2)	2015	0.6	0.4	1	0.2 (10)	0.4 (7)	0.1 (3)
Spain	2015	3.6	1.3	2	0.3 (157)	0.6 (131)	0.1 (19)
France	2014	4.2	2.3	2	0.4 (187)	0.6 (85)	0.3 (53)
Croatia	2015	3.0	1.4	2	–	1 (8)	–
Italy	2017	2.8	0.9	2	0.2 (79)	0.2 (40)	0.1 (39)
Cyprus	2016	1.1	0.3	3	0.2 (2)	0.2 (1)	0.3 (1)
Latvia	2015	2.4	0.8	3	0.1 (1)	0.2 (1)	0 (0)
Lithuania	2016	1.7	1.0	2	0.2 (4)	0.6 (2)	0.1 (2)
Luxembourg	2014	1.9	0.4	1	0.8 (2)	1.5 (1)	0.7 (1)
Hungary (2)	2015	4.0	2.1	2	1.8 (73)	1.8 (50)	1.7 (18)
Malta	2013	0.7	–	2	1 (18)	–	1.2 (18)
Netherlands	2016	9.2	7.4	3	0.7 (80)	1 (67)	0.3 (13)
Austria	2015	2.9	1.1	2	0.9 (34)	1.4 (22)	0.6 (12)
Poland	2014	1.6	0.9	3	0.3 (17)	0.2 (5)	0.4 (12)
Portugal	2016	0.7	0.2	2	0.2 (6)	0.3 (5)	0.1 (1)
Romania	2016	0.5	0.2	2	0.6 (21)	0.8 (19)	0.2 (2)
Slovenia	2012	2.1	0.8	2	–	–	–
Slovakia	2015	3.1	1.2	3	0.2 (6)	0.4 (5)	0.1 (1)
Finland	2014	3.0	2.5	1	0.3 (2)	0.8 (2)	0 (0)
Sweden (1)	2013	–	1.0	1	–	–	–
United Kingdom (1,3)	2016	9.0	2.6	3	0.5 (599)	1.1 (404)	0.2 (193)
Turkey	2011	0.1	0.1	–	1 (106)	1.4 (77)	0.5 (29)
Norway (1)	2016	2.7	1.6	1	–	–	–
European Union	**–**	**4.1**	**1.8**	**–**	**0.3 (1 442)**	**0.5 (951)**	**0.2 (424)**
EU, Turkey and Norway	**–**	**–**	**–**	**–**	**0.3 (1 548)**	**0.6 (1 028)**	**0.2 (453)**

Prevalence estimates for the school population are extracted from ESPAD Survey 2015, except for Belgium (2016; Flanders only), Spain (2016), Germany (2011), Italy (2016), Luxembourg (2010; age 15 years), Sweden (2016) and United Kingdom (2014; England only, age 15 years). Due to uncertainty of data collection procedures, data for Latvia may not be comparable.

Data on entrants into treatment are for 2016 or most recent year: Czech Republic, 2014; Denmark, Spain, Netherlands and Turkey, 2015.

(1) Age range for prevalence estimates for the general population: 16–64, 16–34.

(2) Age range for prevalence estimates for the general population: 18–64, 18–34.

(3) Prevalence estimates for the general population refer to England and Wales only.

TABLE A5

CANNABIS

	Prevalence estimates				Entrants into treatment during the year		
	General population			School population	Cannabis clients as % of treatment entrants		
	Year of survey	Lifetime, adults (15–64)	Last 12 months, young adults (15–34)	Lifetime, students (15–16)	All entrants	First-time entrants	Previously treated entrants
Country		%	%	%	% (count)	% (count)	% (count)
Belgium	2013	15.0	10.1	18	33.9 (3 565)	51.7 (2 016)	23.7 (1 456)
Bulgaria	2016	8.3	10.3	27	4.7 (80)	8.5 (15)	2.1 (12)
Czech Republic	2016	26.6	19.4	37	11.8 (1 195)	16.4 (776)	7.8 (419)
Denmark (1)	2017	38.4	15.4	12	69.6 (2 983)	76 (1 529)	62.9 (1 345)
Germany (2)	2015	27.2	13.3	19	39.5 (34 292)	56.2 (15 097)	32 (19 195)
Estonia	2008	–	13.6	25	1 (3)	2.3 (2)	0.6 (1)
Ireland	2015	27.9	13.8	19	26.6 (2 381)	41.2 (1 450)	16.8 (852)
Greece (2)	2015	11.0	4.5	9	23 (984)	39.7 (687)	11.7 (295)
Spain	2015	31.5	17.1	31	33.1 (15 676)	47 (11 185)	17.7 (3 448)
France	2016	41.4	21.5	31	62.5 (28 998)	77.9 (11 601)	42.3 (7 240)
Croatia	2015	19.4	16.0	21	-	59.5 (458)	-
Italy	2017	33.1	20.7	19	20.3 (9 872)	29.6 (6 394)	12.9 (3 478)
Cyprus	2016	12.1	4.3	7	57.5 (501)	73 (333)	32.2 (96)
Latvia	2015	9.8	10.0	17	22.1 (194)	34.1 (158)	8.7 (36)
Lithuania	2016	10.8	6.0	18	6.7 (159)	27.1 (89)	3.2 (66)
Luxembourg	2014	23.3	9.8	16	32.8 (87)	67.7 (44)	24.8 (36)
Hungary (2)	2015	7.4	3.5	13	56.7 (2 323)	63 (1 763)	40.7 (441)
Malta	2013	4.3	–	13	10.7 (193)	31.2 (82)	7.2 (111)
Netherlands	2016	25.2	15.7	22	47.3 (5 202)	55.5 (3 625)	35.4 (1 577)
Austria	2015	23.6	14.1	20	30.9 (1 136)	45.8 (734)	19.4 (402)
Poland	2014	16.2	9.8	24	30 (1 995)	38 (1 164)	22.8 (780)
Portugal	2016	11.0	8.0	15	38.7 (1 066)	53.5 (925)	13.8 (141)
Romania	2016	5.8	5.8	8	48.5 (1 719)	64.6 (1 564)	13.4 (149)
Slovenia	2012	15.8	10.3	25	4.1 (11)	14.9 (7)	1.8 (4)
Slovakia	2015	15.8	9.3	26	24.3 (739)	35.9 (481)	15 (239)
Finland	2014	21.7	13.5	8	19.8 (131)	35.4 (87)	10.6 (44)
Sweden (1,3)	2016	15.1	7.3	5	10.9 (3 958)	16.7 (2 112)	7.8 (1 846)
United Kingdom (1,4)	2016	29.6	11.5	19	25.2 (29 350)	45.2 (17 342)	15.3 (11 916)
Turkey	2011	0.7	0.4	–	6 (653)	7.7 (416)	4.3 (237)
Norway (1)	2016	20.6	8.6	7	29 (1 660)	37.6 (1 021)	21.3 (639)
European Union	–	**26.3**	**14.1**	–	**32.1 (148 793)**	**46.3 (81 720)**	**20.9 (55 625)**
EU, Turkey and Norway	–	–	–	–	**31.5 (151 106)**	**45.1 (83 157)**	**20.5 (56 501)**

Prevalence estimates for the school population are extracted from ESPAD Survey 2015, except for Belgium (2016; Flanders only), Spain (2016), Germany (2011), Italy (2016), Luxembourg (2010; age 15 years), Sweden (2016) and United Kingdom (2014; England only, age 15 years). Due to uncertainty of data collection procedures, data for Latvia may not be comparable.

Data on entrants into treatment are for 2016 or most recent year: Czech Republic, 2014; Denmark, Spain, Netherlands and Turkey, 2015.

(1) Age range for prevalence estimates for the general population: 16–64, 16–34.

(2) Age range for prevalence estimates for the general population: 18–64, 18–34.

(3) Data for clients entering treatment refer only to hospital-based care and specialised outpatient care facilities.

(4) Prevalence estimates for the general population refer to England and Wales only.

TABLE A6

OTHER INDICATORS

	Drug-induced deaths (aged 15–64)	HIV diagnoses related to injecting drug use (ECDC)	Injecting drug use estimate		Syringes distributed through specialised programmes
Country	cases per million population (count)	cases per million population (count)	year of estimate	cases per 1 000 population	count
Belgium	8 (60)	0.3 (3)	2015	2.3–4.6	1 131 324
Bulgaria	4 (21)	3.1 (22)	–	–	214 865
Czech Republic	4 (30)	0.7 (7)	2016	6.1–6.4	6 477 941
Denmark	49 (181)	1.6 (9)	–	–	–
Germany	24 (1 274)	1.5 (127)	–	–	–
Estonia	132 (113)	22.8 (30)	–	–	2 070 169
Ireland (1)	70 (215)	4.4 (21)	–	–	393 275
Greece	– (–)	7.4 (80)	2016	0.5–0.8	335 903
Spain (2)	13 (390)	2.4 (113)	2015	0.2–0.5	1 435 882
France (1)	7 (291)	0.7 (49)	2015	2.1–3.8	12 314 781
Croatia	20 (56)	0 (0)	2015	1.8–2.9	278 791
Italy	7 (263)	1.6 (96)	–	–	–
Cyprus	10 (6)	2.4 (2)	2016	0.2–0.4	22
Latvia	14 (18)	31.5 (62)	2012	7.3–11.7	720 494
Lithuania	56 (107)	28.7 (83)	2016	4.4–4.9	240 061
Luxembourg	13 (5)	33 (19)	2015	3.8	424 672
Hungary	4 (26)	0.3 (3)	2015	1	171 097
Malta	17 (5)	2.3 (1)	–	–	333 135
Netherlands	19 (209)	0.1 (1)	2015	0.07–0.09	–
Austria	28 (163)	1.7 (15)	–	–	6 205 356
Poland	9 (237)	0.8 (30)	–	–	53 028
Portugal	4 (26)	2.9 (30)	2015	1.0–4.5	1 350 258
Romania (3)	1 (19)	4.2 (83)	–	–	1 495 787
Slovenia	29 (40)	0.5 (1)	–	–	567 233
Slovakia	5 (19)	0.2 (1)	–	–	357 705
Finland	53 (184)	1.1 (6)	2012	4.1–6.7	5 781 997
Sweden	88 (543)	2.6 (26)	–	–	386 953
United Kingdom (4)	70 (2 942)	1.6 (107)	2004–11	2.9–3.2	–
Turkey	15 (779)	0.1 (8)	–	–	–
Norway	81 (278)	1.5 (8)	2015	2.2–3.1	2 919 344
European Union	**22.4 (7 443)**	**2.0 (1 027)**	**–**	**–**	**–**
EU, Turkey and Norway	**21.8 (8 500)**	**1.8 (1 043)**	**–**	**–**	**–**

Caution is required when comparing drug-induced death statistics due to issues of coding, coverage and under-reporting in some countries.
(1) Syringes distributed through specialised programmes refer to 2014.
(2) Syringes distributed through specialised programmes refer to 2015.
(3) Drug-induced deaths: sub-national coverage.
(4) UK syringe data: England, no data; Scotland 4 742 060 and Wales 3 100 009 (both in 2016): Northern Ireland 309 570 (2015).

TABLE A7

SEIZURES

	Heroin		Cocaine		Amphetamines		MDMA	
	Quantity seized	Number of seizures	Quantity seized	Number of seizures	Quantity seized	Number of seizures	Quantity seized	Number of seizures
Country	kg	count	kg	count	kg	count	tablets (kg)	count
Belgium	99	2 098	30 295	4 369	43	2 833	179 393 (29)	1 692
Bulgaria	582	30	84	19	94	30	283 (181)	16
Czech Republic	19	73	40	131	94	1 403	47 256 (3)	255
Denmark	16	568	119	4 115	387	2 445	13 810 (7)	1 104
Germany	330	3 061	1 871	3 592	1 533	13 680	2 218 050 (0)	4 015
Estonia	<0.01	2	3	111	33	403	36 887 (13)	449
Ireland	–	758	–	364	–	63	– (–)	204
Greece	219	2 306	166	526	3	132	9 522 (2)	74
Spain	253	7 205	15 629	41 531	520	5 004	394 211 (–)	3 486
France	1 080	4 312	8 532	9 480	352	1 152	1 236 649 (–)	3 461
Croatia	120	148	13	400	23	772	– (10)	847
Italy	497	2 436	4 136	7 101	15	244	12 587 (10)	378
Cyprus	3	6	182	111	0.3	54	1 248 (0.4)	19
Latvia	0.2	103	34	93	18	741	2 232 (0.5)	180
Lithuania	28	296	3	67	10	253	– (8)	101
Luxembourg	3	132	2	207	0.5	6	17 639 (–)	20
Hungary	2	34	25	229	25	840	79 702 (2)	461
Malta	0.3	46	21	202	0.4	28	3 739 (–)	73
Netherlands	–	–	–	–	–	–	– (–)	–
Austria	69	677	86	1 316	92	1 162	29 485 (6)	754
Poland	9		449		961	–	149 921 (0.3)	–
Portugal	57	774	1 047	1 127	7	64	124 813 (3)	279
Romania	4	342	2 321	138	2	112	14 871 (0.2)	355
Slovenia	7	273	3	178	3	–	2 908 (2)	–
Slovakia	0.06	48	1	36	5	762	8 705 (0.02)	84
Finland	0.3	146	19	263	192	1 814	127 680 (–)	745
Sweden	34	599	106	2 939	450	5 365	80 559 (15)	1 848
United Kingdom	844	11 075	5 697	18 875	1 356	4 043	513 259 (2)	3 483
Turkey	5 585	8 179	845	1 476	3 631	4 048	3 783 737 (–)	5 259
Norway	13	998	104	1 233	465	6 051	38 353 (12)	1 030
European Union	**4 275**	**37 548**	**70 883**	**97 520**	**6 221**	**43 405**	**5 305 409 (295)**	**24 383**
EU, Turkey and Norway	**9 874**	**46 725**	**71 832**	**100 229**	**10 317**	**53 504**	**9 127 499 (306)**	**30 672**

Amphetamines includes amphetamine and methamphetamine.
All data are for 2016 or most recent year.

TABLE A7

SEIZURES (continued)

	Cannabis resin		Herbal cannabis		Cannabis plants	
	Quantity seized	Number of seizures	Quantity seized	Number of seizures	Quantity seized	Number of seizures
Country	kg	count	kg	count	plants (kg)	count
Belgium	723	5 706	686	26 587	328 611 (–)	1 046
Bulgaria	220	8	1 624	62	2 740 (26 088)	122
Czech Republic	7	96	722	4 777	57 660 (–)	518
Denmark	3 819	15 364	346	1 589	14 719 (532)	450
Germany	1 874	6 059	5 955	32 353	98 013 (–)	2 167
Estonia	548	22	46	575	– (79)	28
Ireland	–	192	–	1 049	– (–)	182
Greece	155	248	12 863	7 076	39 151 (–)	735
Spain	324 379	169 538	21 138	158 810	724 611 (–)	2 675
France	52 735	77 466	18 206	31 736	126 389 (–)	737
Croatia	7	566	1 321	6 459	10 051 (–)	256
Italy	23 896	9 623	41 647	8 148	464 723 (–)	1 689
Cyprus	2	20	171	753	311 (–)	37
Latvia	3	96	44	872	– (50)	22
Lithuania	551	54	68	654	– (–)	0
Luxembourg	1	173	21	875	359 (–)	16
Hungary	4	149	494	2 673	6 482 (–)	153
Malta	109	193	12	146	88 (–)	6
Netherlands	–	–	–	–	883 000 (–)	–
Austria	166	2 598	913	14 030	24 166 (–)	508
Poland	33		2 569		108 516 (–)	–
Portugal	7 068	4 676	264	620	4 634 (–)	231
Romania	35	212	143	2 140	– (2 846)	97
Slovenia	3	109	458	3 103	14 006 (–)	167
Slovakia	0.5	15	40	1 303	376 (–)	17
Finland	78	298	254	1 179	18 900 (127)	607
Sweden	1 489	10 972	1 327	8 828	– (–)	–
United Kingdom	6 281	12 093	12 615	103 695	340 531 (–)	9 583
Turkey	36 046	4 659	110 855	31 189	– (–)	3 318
Norway	3 026	10 912	563	3 190	– (48)	216
European Union	**424 186**	**316 546**	**123 947**	**420 092**	**3 268 037 (29 723)**	**22 049**
EU, Turkey and Norway	**463 258**	**332 117**	**235 365**	**454 471**	**3 268 037 (29771)**	**25 583**

All data are for 2016 or most recent year.

Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:
– by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
– at the following standard number: +32 22999696 or
– by email via: https://europa.eu/european-union/contact_en

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications at: https://publications.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, both for commercial and non-commercial purposes.

emcdda

About this report

The Trends and Developments report presents a top-level overview of the drug phenomenon in Europe, covering drug supply, use and public health problems as well as drug policy and responses. Together with the online Statistical Bulletin and 30 Country Drug Reports, it makes up the 2018 European Drug Report package.

About the EMCDDA

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is the central source and confirmed authority on drug-related issues in Europe. For over 20 years, it has been collecting, analysing and disseminating scientifically sound information on drugs and drug addiction and their consequences, providing its audiences with an evidence-based picture of the drug phenomenon at European level.

The EMCDDA's publications are a prime source of information for a wide range of audiences including: policymakers and their advisors; professionals and researchers working in the drugs field; and, more broadly, the media and general public. Based in Lisbon, the EMCDDA is one of the decentralised agencies of the European Union.

Publications Office