European Monitoring Centre
for Drugs and Drug Addiction

Impact of COVID-19 on drug markets, use, harms and drug services in the community and prisons

Results from an EMCDDA trendspotter study
April 2021




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Executive summary

On 11 March 2020, the World Health Organization declared COVID-19 a pandemic. Since then, the virus has claimed millions of lives and has transformed nearly every aspect of our individual and collective reality. As with all areas of life, drug consumption, related harms and drug markets have been impacted, as have the services established to respond to drug-related problems. During the first weeks of the pandemic, the EMCDDA instigated two rapid assessment studies to identify the initial impact and implications of COVID-19. These studies identified signs of an overall decline in some forms of drug use during the first 3 months of the pandemic, largely as a result of national confinement measures. In addition, many drug services were forced to close or restrict their access, new measures for hygiene and social distancing were implemented, and there was a shift towards greater use of telemedicine.

Although from June 2020, many European countries gradually eased their lockdown measures, by the end of the year second and even third waves of COVID-19 and associated measures were experienced across Europe. As of March 2021, several European countries find themselves back in strict lockdown situations and with many national vaccination programmes experiencing delays.

This current study, conducted between January and March 2021, is a follow-up to the two previous assessments and aims to revisit the initial findings from the earlier studies and identify any signs of further developments in this area, which may have important implications for policies or responses.

The assessment is based on an established EMCDDA trendspotter methodology which is used to investigate emerging phenomenon where data is limited. It involves the use of multiple methods (survey, literature review, focus groups, etc.) and triangulation of a range of qualitative and quantitative sources. While the lack of comprehensive data means that all conclusions must be made with caution and be regarded as preliminary, it is useful to reflect on our current understanding of developments in this area.

Reports from national law enforcement experts indicate that the drug market has been remarkably resilient to disruption caused by the pandemic, with discovery of synthetic drug production sites and levels of cannabis cultivation in European countries remaining relatively stable. At wholesale level some changes in routes and methods are reported, with more reliance on smuggling via intermodal containers and commercial supply chains. While street-based retail drug markets were disrupted during the initial lockdowns, and some localised shortages were experienced, market adaptation is evident in the form of increased use of encrypted messaging services, social media applications, online sources and mail and home delivery services.

In terms of drug consumption, the available data suggest that, despite some reductions reported during the initial lockdown period, in many cases levels of drug use returned close to previous levels as social distancing measures were eased over the summer period. With some exceptions, overall levels of availability and use for many illicit substances were relatively stable when comparing 2019 with 2020, although reports varied by substance and country.

Study findings indicate a reduced consumer interest in drugs usually associated with recreational events, such as MDMA, and some increased interest in drugs more associated with solitary or home use. However, the easing of restrictions on movement and travel and a return of social gatherings during the summer period in 2020 in a number of cities was associated with a rebound in stimulant drug use, including MDMA, cocaine and amphetamine. There were also reports of increased experimentation with psychedelic and dissociative drugs, including LSD, 2C-B, ketamine and GHB.

There are few indications that the pandemic has made much impact on Europe's cocaine market and large seizures of the drug have continued into 2021. A worrying development here has been the observation that some countries may be seeing an increase in crack cocaine availability and use. Increasing reports of cannabis adulterated with synthetic cannabinoid receptor agonists (SCRAs) emerged during 2020, as well as documented outbreaks of acute harms and deaths associated with these substances.

Finally, specific concerns were also raised about the misuse of benzodiazepines either diverted from therapeutic uses or not licensed for medical use. Increased benzodiazepine consumption was reported in a range of populations including high-risk drug users, people in prison and recreational drug users. In a few countries, concerns about the diversion and misuse of opioid substitution medications were raised, a topic which will require close monitoring in the future.

Drug services across Europe, including low-threshold services, drug consumption rooms, and residential and outpatient treatment services, returned to operation in

most countries from June 2020 onwards, although with strict COVID-19 measures in place and reduced capacity. Documented treatment demands for all substances remained lower during the second half of 2020 than pre-COVID-19 levels, possibly linked with data collection challenges as well as increased used of telemedicine approaches. Overall services reported rapid adaptation, innovation and increased service flexibility. While many professionals reported positive experiences of rapid adaptation and moving services online, some concerns were raised about reduced accessibility of telemedicine for certain client groups and associated challenges for treatment retention. In terms of prevention responses, repeated school closures and online schooling proved challenging for implementing prevention and health-promoting programmes during the pandemic.

Respondents indicated that in most European countries, the provision of drug services in prisons remained reduced throughout 2020, although efforts were made to maintain the provision of opioid substitution treatment as well as testing and treatment for infectious diseases.

In conclusion, these results provide a first glimpse into new developments emerging both during and in response to the pandemic, and which could have important implications for the future. Nevertheless, the findings from this rapid assessment remain preliminary and will require further research and confirmation from additional representative statistical data as these become available over time.

Introduction

From early 2020, European countries have experienced an unprecedented public health threat with the emergence of the coronavirus disease (COVID-19). During the first phase of lockdowns, introduced across most European countries between March and May 2020, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) instigated two studies to rapidly assess how the pandemic (and associated confinement measures) were having an impact on the availability of drugs, on patterns of use and related harms, and on drug services. The studies identified signs of an overall decline in some forms of drug use during the first 3 months of the pandemic, largely as a result of national confinement measures. These measures reduced opportunities to use drugs within social environments and disrupted street drug markets, resulting in a decline in the availability of some substances. Many drug services were forced to close or restrict their access. New measures for hygiene and social distancing were implemented, and there was a shift towards greater use of telemedicine to maintain contact and provide interventions to those in need. However, a drop in help seeking for drug-related problems was also noted, both in treatment and in harm-reduction services across Europe.

From June 2020, many European countries gradually eased their lockdown measures and the general expectation was that society would slowly go back to a relative normality from the summer period onwards. However, towards the end of 2020, second and even third waves of COVID-19 and associated measures were experienced across Europe and, today, COVID-19 is still spreading and in some countries at a much faster rate than previously, partly due to more virulent strains of the virus. By March 2021, several European countries were back in strict lockdown situations.

This current study is a follow-up to the two previous assessments and aims to revisit and review the initial findings from the earlier studies and identify any signs of further developments in this area, which may have important implications for policies or responses.

Study methodology

The study utilises the EMCDDA trendspotter methodology, which is based on the triangulation of a range of investigative approaches and data collection from multiple qualitative and quantitative sources with a systematic analysis incorporating the use of expert opinion (EMCDDA, 2018). Specifically, for this COVID-19 impact study, the methodology was adapted to suit online investigation, taking into account the national emergency restrictions on both the EMCDDA team and the study participants (Figure 1).

This study explores the situation after the first lockdown in the EU countries from June 2020 until February 2021 (see Figure 2), and the changes in drug markets, patterns of use, harms and drug services, including in prisons.

FIGURE 1
Adapted trendspotter methodology, February 2021

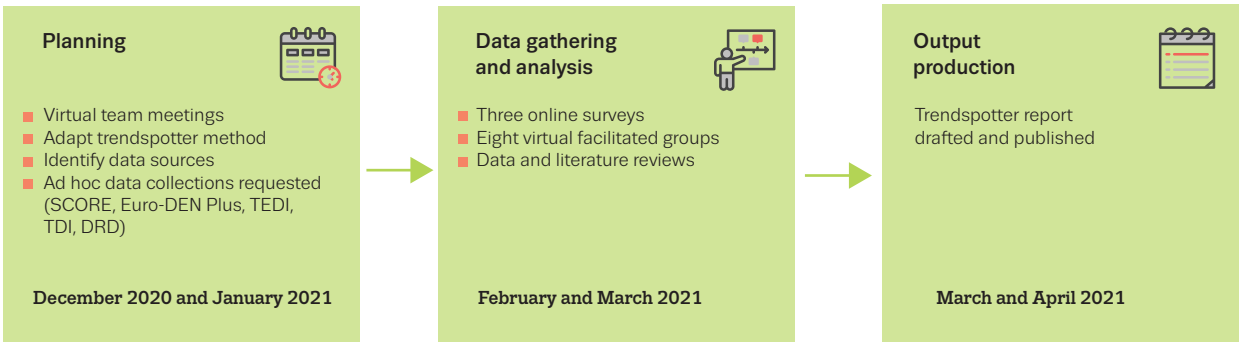
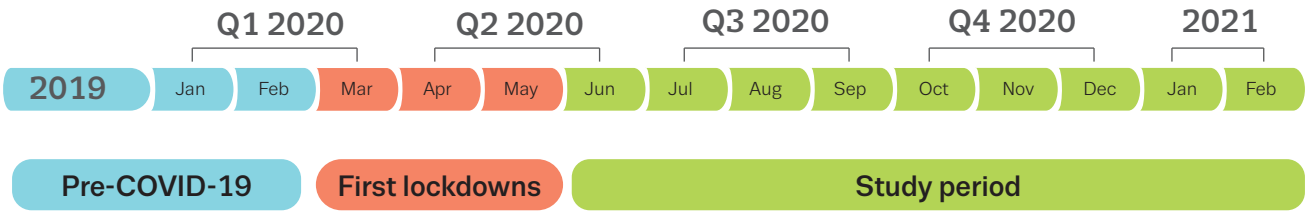


FIGURE 2
Study period



Data sources and limitations

A range of methodological approaches were brought together in this rapid assessment, namely a review of the relevant international literature, including grey literature and media; the collection of available epidemiological data (treatment demands and drug-related deaths); and targeted epidemiological data collections (wastewater, drug content and drug-related hospital emergencies), surveys and facilitated focus groups. Data source and methodological triangulation was employed to enhance the validity of the results, through both confirmatory and complementary analyses.

However, some general limitations need to be taken into account when interpreting the results of this study. First, these are the preliminary findings of a rapid information assessment that can, at best, provide a snapshot of the state of the subject under consideration during the given period of time, which is based on the insights of those participating in the exercise.

As would be expected during a rapidly developing pandemic, the data available for a robust and in-depth investigation are extremely limited. All findings reported here should therefore be regarded as preliminary and will need to be reviewed as more representative datasets become available.

Additionally, the pandemic has caused major disruptions in traditional drug monitoring processes. While efforts have been made to ensure the validity of the data presented in this report, difficulties in the data collection processes, data quality reviews and reporting at national and European levels is likely to have affected the availability, completeness and quality of the data. For this reason, comparison with data from previous years needs to be interpreted with caution, especially when the data are collected from services that are likely to have experienced disruptions to their operational activities during the pandemic, such as hospitals, drug treatment centres and drug-checking services.

Importantly, significant differences exist in the dates, duration and nature of the COVID-19 (de)confinement measures between countries, which will have had different impacts on drug availability, use, harms and service provision in each country. To facilitate comparisons between periods associated with the pandemic, broad time categories, namely yearly quarters, were used to represent the first lockdown period (Q2) and the post-lockdown period (Q3 and Q4; Figure 2). It should, however, be noted that, by March 2020 in Q1, many European

countries had already entered into the so-called first lockdown.

Results regarding changes in drug use behaviours and related harms need to be considered in the wider context of drug availability, markets and distribution mechanisms. At the simplest level, when supply chains are broken or distribution networks cease to function, individuals will not be able to maintain their existing patterns of drug consumption.

Data collections from the analysis of wastewater, drug content and drug-related hospital emergencies are not representative of the general population in a country and should therefore not be generalised to the whole country or to the whole of the EU.

There are also methodological limitations inherent to each of the data sources used in this study, and these limitations may have been exacerbated as a result of the impact of the pandemic.

The following are the data sources used in this study and their limitations.

- A wastewater analysis was carried out in 58 cities from 18 countries (Austria, Belgium, Cyprus, Czechia, Germany, Finland, France, Iceland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Sweden and Turkey). The data covered, when possible, three time periods: the pre-COVID-19 period (between January and February 2020; if these data were not available, 2019 data were used instead), the lockdown period (from March to May 2020) and the post-lockdown period (from June to December 2020). When comparing with 2019 values, the value for 2020 has been calculated as the average of the available data for each city (before, during and\or after lockdown). Depending on the drug, only one data point was available for some cities for the year 2020. All single data points were collected between March and May 2020. For cocaine, 12 cities out of 45 provided only one data point, 5 cities out of 24 for cannabis, 11 cities out of 43 for amphetamine, 12 cities out of 46 for MDMA and 11 cities out of 37 for methamphetamine. Interpretation should therefore be made with caution when comparing available data between 2019 and 2020 due to differences in periods of testing between cities and between these two years. Also, there were different periods of restriction on free movement, the activities allowed, curfews or hours of commerce in the participating cities. There were changes in mass loads of drugs between different periods, which may have also been due to changes in the purity of the drugs analysed.
- Data on monthly drug treatment demands using the treatment demand indicator (TDI) were collected from January to December 2020 in six European countries (Belgium, Bulgaria, Czechia, Croatia, Lithuania and Hungary). Owing to the limited number of countries with available data, the results are not generalisable to the whole of the EU. Fluctuations in reporting treatment centres, changes in types of interventions (e.g. telemedicine) and disruptions in service activity and data collection during the pandemic may have severely affected the reported numbers of clients entering drug treatment in each country. Therefore, observed changes in the data may partially be explained by disruptions in normal service provision and/or data collection, especially during the first lockdown period, rather than reflecting changes in drug use or client characteristics.
- Data on monthly emergency acute drug toxicity presentations were collected from 10 sentinel hospitals of the European Drug Emergencies Network (Euro-DEN Plus) in nine European countries (Sofia (Bulgaria), Munich (Germany), Mallorca and Barcelona (Spain), Msida (Malta), Bucharest (Romania), Gdansk (Poland), Ljubljana (Slovenia), Bratislava (Slovakia) and Oslo (Norway)) between January and September 2020. Observed changes in the data may partially be explained by disruptions in normal service provision and/or data collection from the participating hospitals, especially during the first lockdown period, rather than reflecting changes in drug use, drug-related harms or patient characteristics.
- Data on drug content were collected from drug-checking services in 10 cities by the Trans-European Drug Information (TEDI) network in five countries (Brussels (Belgium), Barcelona, Madrid, Malaga, Mallorca (Spain), Luxembourg (Luxembourg), Innsbruck, Vienna (Austria), Ljubljana and Maribor (Slovenia)) between January and December 2020. Observed changes in the data may partially be explained by disruptions in normal service provision and/or data collection from the participating drug-checking services, rather than reflecting changes in drug availability, drug use or client characteristics.
- Three online surveys were conducted for this study using the EUSurvey platform. These include
  1) An online questionnaire sent to 29 heads of national focal points from the Reitox network (22 countries responded: Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Spain, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Finland and Norway).

2) An online questionnaire was sent to a network of 64 EMCDDA key informants working in the drugs field in Europe (Figures 3 and 4).

3) An online questionnaire was sent to 29 drug-related deaths experts nominated by the national focal points from the Reitox network (15 countries responded: Austria, Bulgaria, Cyprus, Czechia, Denmark, Finland, Hungary, Italy, Lithuania, Luxembourg, Netherlands, Portugal, Slovenia, Spain, Sweden). Additional online questionnaires were sent to emergency doctors from Euro-DEN Plus and to professionals working in the drugs and prisons field from 11 countries.

- Eight online facilitated focus groups were undertaken, involving a total of 57 European experts representing the fields of harm reduction, treatment, law enforcement, research, user representatives, advocacy and other relevant professions and expertise. Expert opinion from frontline professionals provides valuable insights into the current patterns of use, the drugs available on the market and the harms experienced by people who use drugs. However, these insights are limited to their immediate professional environment and are not representative of the situation in a country. This study utilises and systematises the expert opinions of frontline professionals as a complement to and to shed light on the quantitative data, where these exist.
- A literature review of published scientific studies and available national studies from EU countries was carried out focusing on the impact of the pandemic during the second half of 2020 on drug markets, use, harms and drug services. Owing to the recency of the topic and the period covered in this study, only a limited number of published studies were available. Only national studies in languages accessible to the EMCDDA trendspotter team could be reviewed (Danish, Dutch, English, French, German, Italian, Norwegian, Portuguese, Spanish and Swedish). Finally, differences in methodologies, lockdown periods and the timing between national studies, all limit our ability to make comparisons both between studies and with findings obtained from the quantitative data.

The data collected in this study were analysed under four broad themes. These included the impact of the pandemic on drug markets and availability, on patterns of drug use for the main substances generally used in Europe, on levels of harm associated with the use of illicit substances and on drug services, both in the community and in prisons.

FIGURE 3
Distribution of the countries of origin of the key informants that responded to the EMCDDA online survey (n = 64)

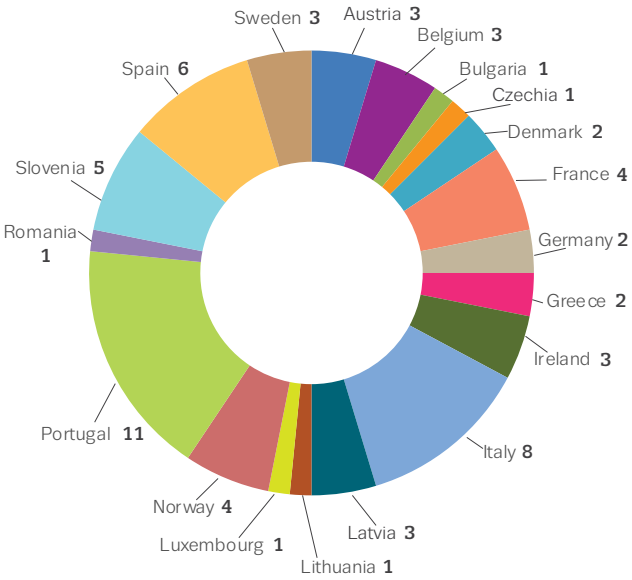
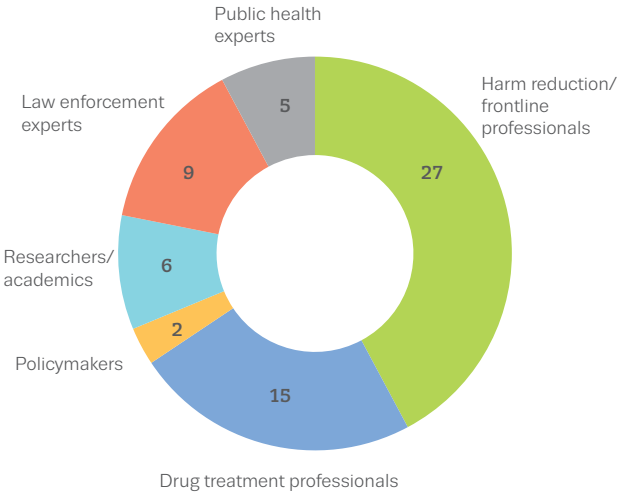


FIGURE 4
Distribution of the professional backgrounds of the key informants that responded to the EMCDDA online survey (n = 64)



Results

Impact of COVID-19 on drug availability, patterns of use and harms

Production and supply: 'business almost as usual'

The available data suggest that domestic drug production in the EU Member States appears to have experienced little effect as a consequence of the COVID-19 pandemic and associated control measures. According to reports from national law enforcement experts involved in this study, cannabis cultivation in European countries appears to have remained relatively stable throughout the pandemic. Furthermore, according to law enforcement sources from Belgium and the Netherlands, both major producing countries of synthetic drugs in Europe, the discovery of synthetic drug production sites remained stable during the second half of 2020. However, the trafficking routes of drugs that are commonly transported into and through Europe via land routes have experienced some disruption because of the closing of borders between countries. Cannabis resin produced in Morocco, which is typically brought into the EU via Spain and then trafficked over land into the rest of the EU, has experienced a shift towards more maritime routes. An increase in maritime seizures has also been reported for heroin, which has typically been trafficked over land via the Balkan route from the Middle East to Europe. For both cannabis resin and heroin, large seizures were reported in a number of European sea ports in the second half of 2020.

It is important to note that, in the last few years, the number and quantity of cocaine seizures has been increasing to record figures. The data currently available suggest that the pandemic has not had a major impact on this trend: while some changes have been reported in the locations in Latin America where the cocaine has been shipped from towards Europe, preliminary data suggest that the quantities seized in European ports remained high in the second half of 2020 and into 2021. For example, Germany recorded its highest cocaine seizure (16 tonnes) in February 2021 at the port of Hamburg, and a further 7.2 tonnes were seized in the port of Antwerp in Belgium in the same month.

Dynamic changes in drug acquisition methods

An EMCDDA darknet market analysis carried out at the onset of the pandemic revealed an increase in online activity levels, mainly related to cannabis products, during the first 3 months of 2020 (EMCDDA, 2020a). The conclusions of the study hypothesised that established buyers or possibly new buyers who were seeking cannabis for personal use were increasing their activities on the darknet in anticipation of the lockdown.

A more recent study analysed almost 300 pieces of user-generated feedback on deliveries and drug quality from transactions on the darknet, based on entries from a dedicated website aimed at users of drug cryptomarkets (Bergeron et al., 2020). Between 1 January and 21 March 2020, successful deliveries of purchased drugs were reported for 60-100 % of transactions. From 21 March, the proportion of shipments that failed to be delivered increased rapidly and, by 28 March, the majority of all shipments failed to be delivered, with successful deliveries representing only 21 % of all transactions.

Nonetheless, data from European drug-checking services on the source of acquisition of drugs submitted for testing show an increase in online purchases based on samples analysed in Q2 and Q3 of 2020. The main drugs purchased online by drug-checking service users in 2020 were 3,4-methylenedioxy-N-methylamphetamine (MDMA), lysergic acid diethylamide (LSD), amphetamine, 2,5-dimethoxy-4-bromophenethylamine (2C-B) and cocaine. At the same time, these data show a decline in purchases from trusted suppliers and acquaintances.

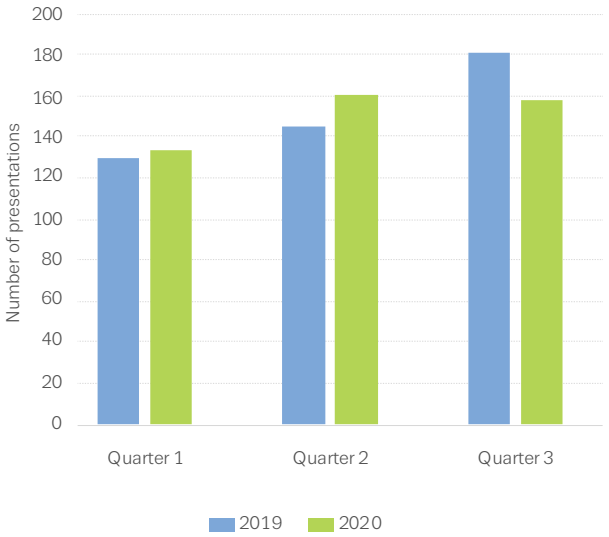
According to professionals working in drug-checking services and broader harm reduction services working with recreational drug users, there was no evidence from their clients that the pandemic resulted in the darknet becoming a mainstream source for acquiring drugs. Instead, the use of encrypted messenger services within dedicated local online communities appeared to become more popular among their clients. Sellers operating within these groups were also reported to be using marketing techniques, such as promoting discounts and lower minimum order quantities, to increase sales.

Little evidence of an impact on cannabis availability and use

Previous EMCDDA studies on the impact of the pandemic reported that the COVID-19 measures appeared to have minimal effects on reported levels of cannabis availability, although differences between and within countries were evident, with some shortages noted during the initial lockdown period. Survey responses from EMCDDA national focal points and key informants indicated that in many cases cannabis availability returned to normal levels after the initial lockdown period, even when countries reintroduced more restrictive social distancing measures.

FIGURE 5

Number of acute drug toxicity presentations with mention of cannabis in 10 selected hospitals during the first three quarters of 2019 and 2020



Source: Euro-DEN Plus.

Data from the European Web Survey on Drugs: COVID-19 (EWSD-COVID) also indicated that, among respondents, cannabis use patterns remained relatively stable during the first lockdown period, with nearly half (42 %) of the cannabis users who participated in the EWSD-COVID reporting no change in their cannabis use compared with the pre-confinement period (EMCDDA, 2020b). Expert opinion from the EMCDDA national focal points indicated that cannabis use appeared to be stable over the second half of 2020, although with some signs of possible increases in the amounts used by more frequent users.

Data on acute drug toxicity presentations with mention of cannabis from 10 sentinel hospitals showed no major changes in the overall number and percentage of annual presentations between January and September 2020 compared with 2019 data of the same period (Figure 5). Findings from wastewater analyses in the loads of 11-nor-Delta(9)-tetrahydrocannabinol-9-carboxylic acid (THC-COOH — a cannabis metabolite) also do not show notable changes during 2020 when compared with 2019 data.

Concern about cannabis adulteration

A number of concerns were raised by surveyed key informants about reports of cannabis adulteration, a subject which has also received some media attention during the period. In March 2021, the EU Early Warning System on new psychoactive substances, operated by the EMCDDA, produced an advisory update on cannabis adulterated with synthetic cannabinoid receptor agonists (SCRAs) in Europe, with Slovenia and Sweden added to a list of countries (Germany, France, the Netherlands and Austria) that had previously detected cannabis adulterated with SCRAs. Sweden reported, for example, 36 seizures of low-tetrahydrocannabinol (THC) cannabis or cannabis resin containing synthetic cannabinoids between September and December 2020. Methyl 3,3-dimethyl-2-(1-(pent-4-en-1-yl)-1H-indazole-3-carboxamido)butanoate (MDMB-4en-PINACA) was the subject of an EMCDDA risk assessment on 7 December 2020 and, on 12 March 2021, the European Commission proposed the control of this substance in the EU.

A number of drug-checking services also reported the detection of cannabis products (mostly low-THC products) containing SCRAs. The number of detections, although low, appeared to be increasing, particularly during the second half of 2020. In some cases, herbal mixes containing solely SCRAs were reportedly sold as cannabis. In December 2020 and early in 2021, for example, the Austrian drug-checking service CheckiT! identified two confirmed cases of MDMB-4en-PINACA, both submitted as herbal cannabis. The drug-checking service PiPaPo in Luxembourg reported that, in February 2021, out of six cannabis samples tested, four contained MDMB-4en-PINACA.

Cannabis products adulterated with SCRAs pose a risk of poisoning users. In Hungary, 25 deaths related to the SCRA methyl 2-({[1-(4-fluorobutyl)-1H-indol-3-yl]carbonyl}amino)-3,3-dimethylbutanoate (4F-MDMB-BICA) occurred between May and October 2020. Although this case involved SCRAs alone, rather than cannabis products contaminated with SCRAs, it highlights the toxicity of some substances in this class.

High cocaine availability and signals of increase after first lockdown

In the past few years, the number and quantity of cocaine seizures has been increasing to record levels in Europe, and the pandemic does not appear to have reversed this trend, with large seizures reported in various European countries in 2020 and 2021. During the first lockdown period in 2020, there were no reports of major difficulties in accessing stimulant drugs. However, there were some indications of reductions in use, which were primarily related to a reduction in drug-taking opportunities owing to COVID-19 measures, rather than a consequence of market-related factors (EMCDDA and Europol, 2020).

Reports from key informants and EMCDDA national focal points continue to suggest that cocaine availability and accessibility remained largely unaffected throughout 2020. Average cocaine purity levels measured by drug-checking services in eight cities throughout 2020 were

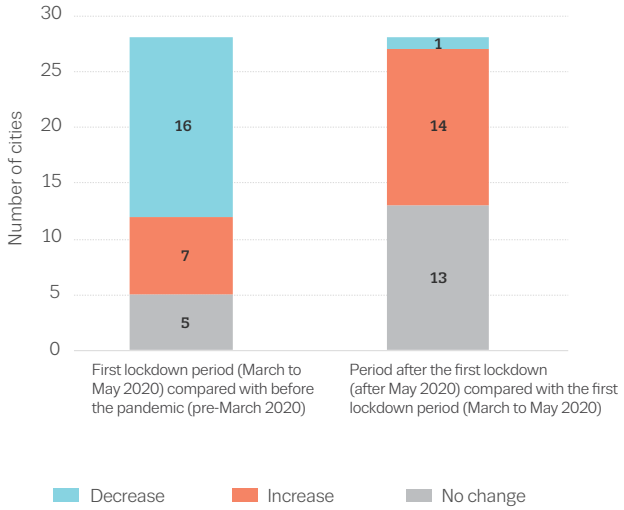
similar to 2019 values (Table 1); however, the number of samples tested by Spanish sites, which usually represent about 60 % of all European data from drug-checking services, was significantly lower in 2020 than in 2019. There were signals that could indicate possible disruption of local markets in some areas, for example, an increase in samples sold as cocaine but with no cocaine present was noted in Q2 and an increase in adulteration was reported in several cities in Q3 and Q4 of 2020.

Survey data from the first lockdown period indicated that stimulants associated with the night-time economy (mainly MDMA and cocaine) probably experienced the sharpest reduction in use during that period. In the web survey EWSD-COVID (EMCDDA, 2020b), around 20 % of MDMA or cocaine users reported having stopped using one of these two drugs during the first lockdown. For the second half of 2020, there are signs of increases during the summer period, possibly resulting from the reappearance of social gatherings and nightlife events organised by party goers.

For example, a comparison of mass loads of benzoylecgonine — the main metabolite of cocaine — in wastewater samples collected before (pre-COVID-19) and during the lockdown period (Q2) in 28 cities indicated a decrease in use in the majority of the cities (16), an increase in seven cities and no change in five cities (Figure 6). After the easing of lockdown measures (Q3 and Q4), 14 cities showed an increase in use compared with use during the lockdown, no change in use was observed in 13 cities and only one city showed a decrease. It should be noted that these data have to be evaluated by taking into account differences in background levels

FIGURE 6

Changes in benzoylecgonine (cocaine metabolite) loads from wastewater analyses in 28 European cities during the first lockdown period compared with before the pandemic (left) and after the first lockdown period (right)



Note: The participating cities had different lockdown periods and restrictive measures in place. Changes have been considered when there was at least a 10 % change in the mean weekly amounts of benzoylecgonine in milligrams per 1 000 population per day between the different periods.

TABLE 1

Average cocaine purity in 2019 and 2020 and quarterly in 2020 based on test results from drug-checking services in eight European cities

City	Purity and sample size	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Vienna	Mean purity (%)	75.9	74.5	78.3	74.7	72	72.6
	Number of samples	245	241	66	61	60	54
Luxembourg	Mean purity (%)	100	77.2	—	100	65	65
	Number of samples	1	9	—	3	4	2
Ljubljana	Mean purity (%)	77.2	76.2	79.5	77.5	71.4	77.1
	Number of samples	161	165	49	28	50	38
Maribor	Mean purity (%)	67.8	65.9	69.6	48.3	69.4	62.8
	Number of samples	40	34	13	3	9	9
Barcelona	Mean purity (%)	66	63.4	64.4	60.3	67.9	57.8
	Number of samples	674	248	162	15	28	43
Madrid	Mean purity (%)	67.8	67.6	67.4	45	—	95
	Number of samples	131	19	17	1	—	1
Malaga	Mean purity (%)	59.5	45	42.3	—	50	47.5
	Number of samples	47	25	15	—	6	4
Mallorca	Mean purity (%)	54.2	65	61.7	—	—	75
	Number of samples	26	12	9	—	—	3

Source: TEDI.

of cocaine use and differences in temporal introduction and easing of confinement measures. This rebound in use observed after the easing of some restrictions may also explain the overall increase in mass loads of benzoylecgonine seen in some cities in 2020 compared with 2019 (Figure 7). Data from hospital emergency presentations between January and September 2020 are also suggestive of a decrease in presentations during Q2 followed by an increase in Q3.

Another consideration here is that findings from available national surveys on the use of cocaine during the different stages of the pandemic did not detect changes in cocaine consumption during 2020 compared with 2019. Online research conducted in the Netherlands (Van Beek et al., 2020) into nightlife and substance use during two periods (the first lockdown in the spring of 2020 and the period of the relaxation of measures during summer) did not find a difference in reported cocaine use between these two

FIGURE 7

Changes in the mean weekly benzoylecgonine (cocaine metabolite) loads from wastewater analyses in selected European cities between 2019 and 2020

Note: The colours represent the percentage change in the mean weekly amounts of benzoylecgonine in milligrams per 1 000 population per day between 2019 and 2020. A decrease (blue) corresponds to a decrease in the mg/1 000 people/day of more than 10 %. An increase (red) corresponds to an increase in the mg/1 000 people/day of more than 10 %. The bubble sizes correspond to the mg/1 000 people/day in 2020 (minimum value = 6,1; maximum value = 1174,9). The value for 2020 has been calculated as the average of the available data for each city (before, during and after lockdown). It should be noted that the participating cities had different lockdown periods and restrictive measures in place.

Source: Sewage Analysis Core Group Europe (SCORE).

periods. A Belgian web survey performed in Q4 of 2020 showed a slight decrease in cocaine use compared with surveys performed in April and in May (Sciensano, 2021), while the average amount consumed on a typical day during this period was higher than that in the period before the pandemic. A survey undertaken between June and August 2020 in Luxembourg among high-risk drug users also found little change in reported cocaine use in this period compared with the pre-COVID-19 period (Berndt et al., 2021), with 30 % of users still reporting cocaine to be the most used substance, although used less frequently. The interpretation of these results needs to consider the extent to which these samples are representative of cocaine users overall and the different observational windows used for the studies.

A worrying development based on observations from experts in several countries (Belgium, Ireland, Spain, France and Portugal) is that the use and/or availability of crack cocaine appeared to be increasing during the pandemic, with one indication that this related largely to paraphernalia for crack use being distributed by harm reduction services during 2020.

There were also some reports of heroin, crack and benzodiazepines being sold in smaller and cheaper units than previously, which is possibly an indication of sellers adapting to reduced financial means among people who use drugs during the pandemic period (see Box 1).

In conclusion and based on the limited data available, it appears that there were some contractions in cocaine consumption during the first lockdown period, but these appear to have been temporary. Overall, the availability and use of cocaine within Europe at the end of 2020 still appeared to be very high by historical standards, with few data currently available to suggest the pandemic has had a major impact thus far.

Box 1. The double effect of COVID-19 confinement measures and the economic recession on high-risk drug users and drug services

The ongoing COVID-19 pandemic is likely to have an impact on the lives of people who use drugs and on the services responding to their needs owing to both restrictive measures introduced to mitigate the spread of the virus and any accompanying economic downturn (Costa Storti et al., 2021). In 2020, the gross domestic product of the EU fell by 7.4 % and a further negative impact on EU economies is expected in 2021. It has been suggested that the most vulnerable will suffer disproportionately from the COVID-19 economic recession (OECD, 2020). Excluded and marginalised populations, which include many people who use drugs, are unlikely to be the primary target for measures intended to mitigate or compensate for COVID-19-related financial hardship. In addition, people who use drugs may be involved in the informal economy and therefore may be disproportionately affected by social distancing measures or contractions in the economy.

Amphetamine use during the pandemic still concentrated in northern and eastern EU

An EMCDDA and Europol report on drug market activity did not identify signs of changes in amphetamine availability in the European market during the first lockdown period (EMCDDA and Europol, 2020). Moreover, based on observations from harm reduction professionals in some countries, an increased use of amphetamine was linked to decreases in heroin availability (EMCDDA, 2020b). In addition, there were also some signs of increased amphetamine use detected through wastewater analyses during the first lockdown period in some northern European cities.

Expert opinion from key informants and national focal points collected for the current study provided some indication of changes in amphetamine availability, with increases mentioned by experts in some countries (Denmark, Estonia, Spain, Italy, Portugal, Finland and Norway). Similarly, increases in the availability of methamphetamine were reported in Greece and Spain. Reports from national experts also indicate localised increased use of amphetamines in the second half of 2020 among some specific groups. Further work would be needed to explore this issue, but a few studies are suggestive of some localised changes. For example, an increase in amphetamine residues were detected in used syringes in Helsinki, Finland. A web survey carried out in Belgium found a decrease in the quantities

of amphetamine used during the first lockdown, followed by an increase in the second half of 2020, accompanied by an increase in online sales of amphetamines, which was not observed for other substances (Sciensano, 2021). In Norway, an increase in the use of amphetamines was reported in the city of Bergen, based on city monitoring (Berg et al., 2020), although, in another city (Trondheim), no change was observed. In contrast, a web survey in the Netherlands mostly aimed at party goers noted a decrease in amphetamine use among this group (Van Beek et al., 2020).

Clearly, drawing any firm conclusions from such disparate data is difficult, especially given the heterogeneity of patterns of use of this drug in Europe. It is interesting to note, however, that wastewater analysis found an increase in the amphetamine loads in more than half of the 43 participating cities in 2020 compared with 2019 levels (Figure 8). Additionally, mass loads of amphetamine in 2020 varied considerably across Europe, with the highest levels reported in cities in the north and east of Europe, with much lower levels in most cities in the south of Europe.

FIGURE 8

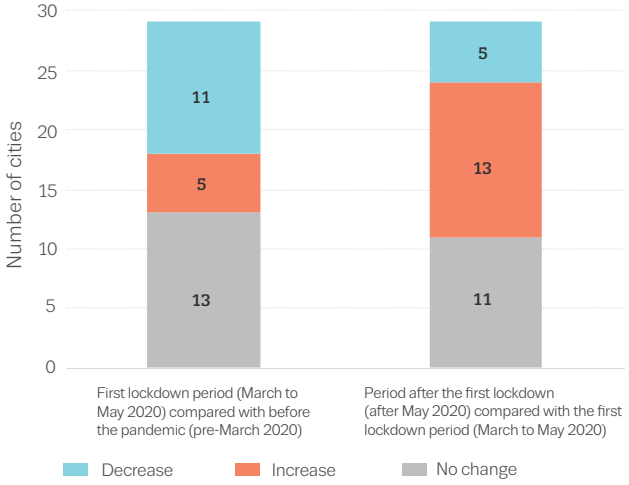
Changes in the mean weekly amounts of amphetamine residues from wastewater analyses in selected European cities between 2019 and 2020

Note: The colours represent the percentage change in the mean weekly amounts of amphetamine in milligrams per 1 000 population per day between 2019 and 2020. A decrease (blue) corresponds to a decrease in the mg/1 000 people/day of more than 10 %. An increase (red) corresponds to an increase in the mg/1 000 people/day of more than 10 %. The bubble sizes correspond to the mg/1 000 people/day in 2020 (minimum value = 0; maximum value = 830,2). The value for 2020 has been calculated as the average of the available data for each city (before, during and after lockdown). It should be noted that the participating cities had different lockdown periods and restrictive measures in place.

Source: SCORE.

FIGURE 9

Changes in amphetamine residues from wastewater analyses in 29 European cities during the first lockdown period compared with before the pandemic (left) and after the first lockdown period (right)



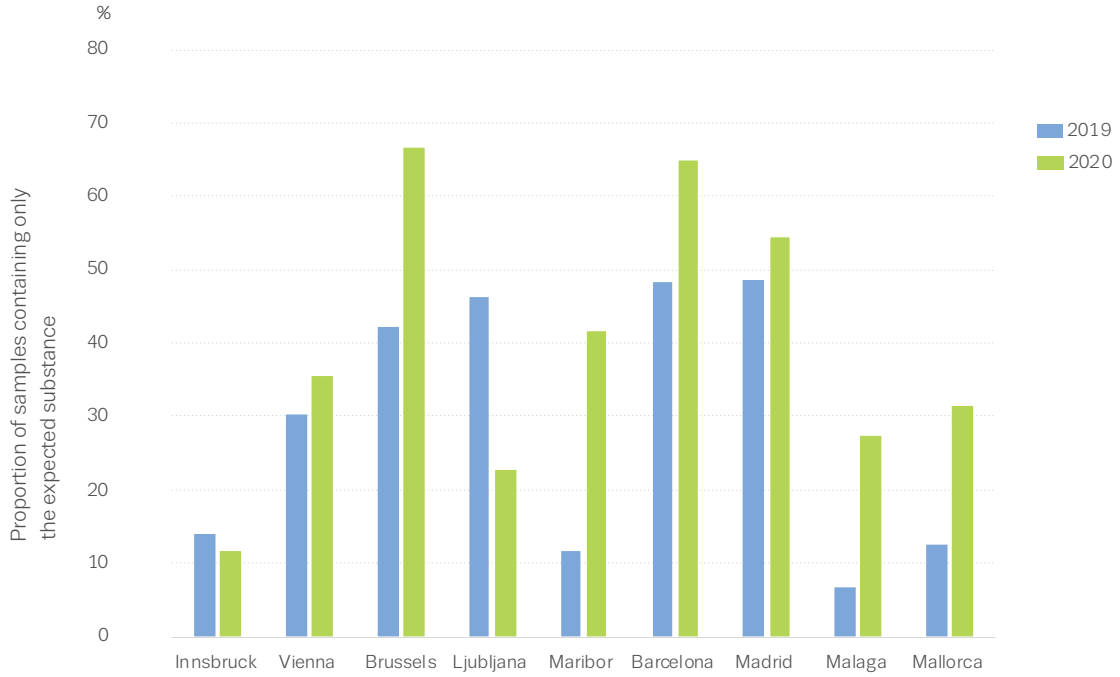
Note: The participating cities had different lockdown periods and restrictive measures in place. Changes have been considered when there was a 10 % change in the mean weekly amounts of amphetamine in milligrams per 1 000 population per day between the different periods.

Among the 29 cities that analysed mass loads of amphetamine in wastewater samples before, during and after the first lockdown, a decrease compared with before the lockdown was visible in nearly half of the cities (11) during the lockdown, and only five cities reported an increase (Figure 9). Subsequently, an increase in nearly half of the cities (13) was observed in Q3 and Q4 compared with before the lockdown. These increases may reflect increased consumption from the summer onwards after the easing of some social distancing measures.

Test results from amphetamine samples submitted to drug-checking services in nine cities in 2019 and 2020 suggested that the average amphetamine purity remained variable, between 30 % and 40 % over the last 2 years. Increased purity levels were reported in Mallorca (Spain), Vienna (Austria) and Ljubljana (Slovenia) during the second half of 2020 and there was an increase in the number of non-adulterated amphetamine samples compared with 2019 (Figure 10).

FIGURE 10

Proportion of all amphetamine samples submitted for testing to drug-checking services containing only the expected substance (amphetamine) in nine European cities in 2019 and 2020



Source: TEDI.

FIGURE 11

Changes in the mean weekly amounts of methamphetamine residues from wastewater analyses in selected European cities between 2019 and 2020

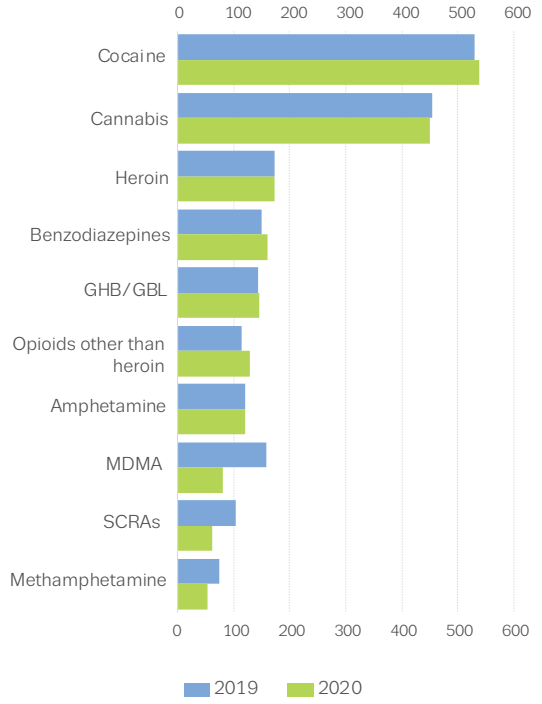
Note: The colours represent the percentage change in the mean weekly amounts of methamphetamine in milligrams per 1 000 population per day between 2019 and 2020. A decrease (blue) corresponds to a decrease in the mg/1 000 people/day of more than 10 %. An increase (red) corresponds to an increase in the mg/1 000 people/day of more than 10 %. The bubble sizes correspond to the mg/1 000 people/day in 2020 (minimum value = 0,03; maximum value = 702,9. The value for 2020 has been calculated as the average of the available data for each city (before, during and after lockdown). It should be noted that the participating cities had different lockdown periods and restrictive measures in place.

Source: SCORE.

Expert opinion from those working in harm reduction services and from the national focal points suggests the possibility that the use of methamphetamine may become more popular in some specific populations, such as some groups of people who inject drugs in Ireland and Spain and among those involved in the chemsex scene in Portugal (Chone et al., 2020). There have also been some concerns over recent years that methamphetamine use, which has historically been concentrated in Czechia and Slovakia, may be diffusing into other parts of Europe. While these possible longer term trends merit further attention, the wastewater analyses reported on here point to not only continuing low levels of methamphetamine consumption in most parts of Europe, but also decreases in mass loads of methamphetamine in 2020 compared with 2019, as seen in 18 of the 37 cities analysed (Figure 11). In 16 cities, increases were noted; however, these tended to be cities where consumption was at very low levels. Methamphetamine does not figure prominently in data from 10 sentinel hospitals providing data on emergency room attendance. A slight drop was seen in acute drug toxicity presentations of methamphetamine in 2020 compared with 2019, but the overall low number of methamphetamine reports makes this observation difficult to generalise (Figure 12).

FIGURE 12

Number and proportion of drugs reported in acute drug toxicity presentations in the first three quarters of 2019 and 2020 among the 10 selected Euro-DEN Plus hospital emergency services



Note: GHB, gamma-hydroxybutyrate; GBL, gamma-butyrolactone.

MDMA availability appears little affected by the pandemic

An EMCDDA and Europol report (2020) indicated that MDMA production and availability during the first lockdown period remained mostly unaffected by the pandemic.

Reports and surveys with national law enforcement experts, harm reduction professionals and national focal points indicate that the availability of MDMA remained relatively unaffected throughout Q3 and Q4 of 2020, with no reports of significant difficulties in accessing MDMA during these periods. Limited data on MDMA purity and adulteration from samples submitted to European drug-checking services in 2020 are also supportive of the view that the availability of this drug has remained high during the pandemic. The average purity of MDMA powder collected by drug-checking services in seven cities did not show significant variations between all four quarters in 2020, remaining consistent with the high purity values reported in 2019 (Table 2). Furthermore, 90 % or more of all MDMA powder samples tested contained only MDMA (with no additional psychoactive substance detected), which is an indication of low adulteration.

TABLE 2

Average MDMA powder purity in 2019 and 2020 and quarterly in 2020 based on test results from drug-checking services in eight cities

City	Purity and sample size	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Vienna	Mean purity (%)	93.4	90.6	86	92.8	88	94.6
	Number of samples	101	93	21	23	23	26
Ljubljana	Mean purity (%)	84.3	83.3	71	85	86.1	88.3
	Number of samples	45	23	5	3	9	6
Maribor	Mean purity (%)	85.5	83.6	83.9	:	70	91.7
	Number of samples	22	14	9	48.3	2	3
Barcelona	Mean purity (%)	81.9	79.2	75.6	77.4	82.2	84.2
	Number of samples	170	113	47	17	25	24
Madrid	Mean purity (%)	82.8	88.1	87.9	90	89	87
	Number of samples	116	29	17	2	5	5
Malaga	Mean purity (%)	83	78.8	77.9	:	79	85
	Number of samples	15	13	7	—	5	1
Mallorca	Mean purity (%)	82.3	72.6	66.7	:	73.8	81.7
	Number of samples	33	17	6	—	8	3

Source: TEDI.

Box 2. Online search interest in drug-related terms in the EU during 2020 — an infodemiological analysis using Google Trends

Google Trends was used to compare the search interest in drug-related terms between 2019 and 2020 in EU countries. Google Trends provides a time series index of the relative search volume (RSV), namely the number of Google searches for a specific term within a particular geographical region and time period divided by the total number of searches in that region during the period being examined. The results are then rescaled to values between 0 and 100.

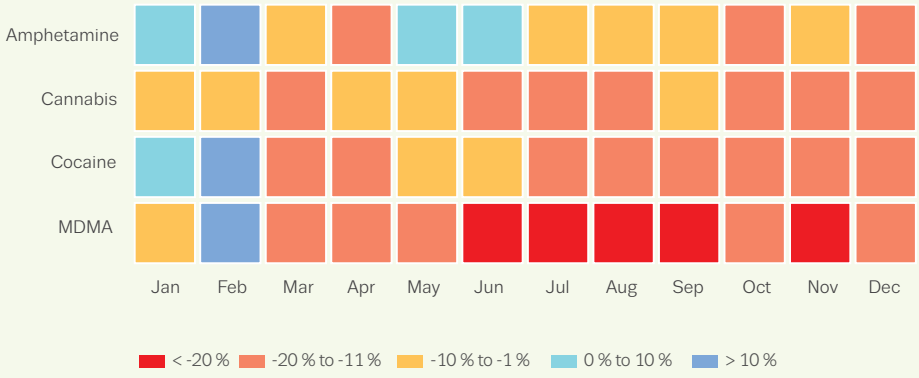
Searches were undertaken for amphetamine, cannabis, cocaine and MDMA between 1 January 2019 and 31 December 2020 for 27 EU countries. Monthly means were computed by averaging the individual weekly RSV values of the countries. The percentage change was then computed by comparing the 2020 monthly RSV averages with the 2019 monthly RSV averages (Figure 13).

Results

For most of the months in 2020, the Google search interest for amphetamine (–3 %), MDMA (–17 %), cannabis (–11 %) and cocaine (–9 %) was lower in 2020 than in the same period in 2019. The overall mean search interest for all four drugs in 2020 fell by 3 % compared with the same period in 2019 (with the percentage change ranging from –17 % to +31 %). In 2020, the most popular drug-related search topics included 'effects' and 'what is amphetamine' for amphetamine; 'hemp', 'seeds', 'smoking', 'plants', 'CBD', 'cannabis growing', 'medical cannabis', 'legalisation' and 'oil' for cannabis; and 'cocaine effects' and 'price per gram' for cocaine. MDMA-related queries were mostly related to side effects and the duration of effects.

FIGURE 13

Percentage change in drug-related search interest — 2020 versus 2019, by month



The average dosage of MDMA tablets also remained relatively unchanged throughout 2020 and was also similar to the average dosage level reported in 2019. Interestingly, the Dutch drug information and monitoring system reported an increasing number of lower dosage MDMA tablets available on the Dutch market in 2020. It is speculated that this could be a possible market adaptation to consumer preferences during periods of home confinement.

Low levels of MDMA use but increases over the summer

In spite of evidence of continued availability, a number of data sources indicate that MDMA use may have declined in many European countries during 2020, particularly during the lockdown period. Large web surveys among people who use drugs conducted during the first lockdown period revealed a decrease between 20 % and 40 % in MDMA use among European respondents (EMCDDA, 2020b; Winstock et al., 2020).

Data from wastewater analyses, emergency presentations and drug-checking services generally support the suggestion that MDMA use was lower in 2020 than in 2019, with some signs of increased MDMA use in the post-lockdown period, again probably reflecting the easing of social distancing measures, especially over the summer period. The Google search interest for MDMA in Europe had decreased the most in 2020 compared with 2019 among the four drugs analysed through this method (see Box 2).

Wastewater data show an overall reduction in MDMA loads in the majority, but not all, of the 46 participating cities in 2020 compared with 2019 levels. More specifically, among the 29 cities that analysed mass loads of MDMA before,

during and after the first lockdown, a sharp decrease was visible in most cities (20) between the pre-lockdown and the lockdown periods. After the lockdown, nearly half of the cities (13) reported an increase. Interestingly, a gradual shift in use from weekends to weekdays for MDMA use was observed in 2020 when compared with 2019 patterns in most participating cities (see Figure 14), which could suggest that the disruption of study, work and socialising patterns has reduced the association previously noted between MDMA use and the weekend.

The number of emergency presentations due to MDMA in 10 sentinel hospitals showed a notable decrease in 2020 compared with 2019 (Figure 12). Looking at the annual pattern, the number of emergency presentations due to MDMA between January and September 2020 shows a drop in Q2 followed by an increase during the summer period. This trend was particularly visible in the participating hospitals from Spain. A small increase in the number of MDMA samples submitted for testing to drug-checking services was also observed between Q2 and Q3 of 2020. Changes in hospital presentations and drug-checking submissions between the lockdown and post-lockdown periods may, however, be partially explained by changes in service activity between these periods.

The rebound in MDMA use observed during the summer period in some countries, especially in the south of Europe, may reflect a return to social gatherings after the prolonged containment. The lifting of travel bans imposed

FIGURE 14

Changes in the mean weekly amounts of MDMA residues from wastewater analyses in selected European cities between 2019 and 2020

Note: The colours represent the percentage change in the mean weekly amounts of MDMA in milligrams per 1 000 population per day between 2019 and 2020. A decrease (blue) corresponds to a decrease in the mg/1 000 people/day of more than 10 %. An increase (red) corresponds to an increase in the mg/1 000 people/day of more than 10 %. The bubble sizes correspond to the mg/1 000 people/day in 2020 (minimum value = 2,8; maximum value = 160,6). The value for 2020 has been calculated as the average of the available data for each city (before, during and after lockdown). It should be noted that the participating cities had different lockdown periods and restrictive measures in place.

Source: SCORE.

by many European countries during the lockdown period saw some destinations becoming hotspots for party goers. Common nightlife settings, such as clubs and music festivals, nevertheless remained closed after the first lockdown throughout 2020 in most EU countries. An increase in illegal raves and/or free parties in several European countries were reported during the summer period. Some examples include a large illegal rave in early July attended by over 1 000 party goers outside Innsbruck, Austria (Tiroler Tageszeitung, 2020), and a rave in August attended by 10 000 party goers in Lozère in the south of France (Ouest France, 2020), while so-called illegal 'corona-raves' were organised on the outskirts of Vienna (Brodträger, 2020) and Berlin (Anarte, 2020). Unlicensed raves in remote places were already common prior to the pandemic and have generated concerns because of the lack of health and safety measures for attendees. In the context of the COVID-19 pandemic, additional public health concerns arose owing to the additional risk of COVID-19 infection among attendees.

Signals of increased use of psychedelics and dissociative drugs linked to boredom and escapism

The prevalence of the use of psychedelic drugs including new psychoactive substances is typically low in the general population in European countries. During the first lockdown, there were, however, signs of people increasingly experimenting with psychedelics such as LSD and various new psychoactive substances such as ketamine and GHB. The EWSD-COVID web survey reported that 10 % of respondents had used LSD in the last 30 days prior to the survey, which was higher than the prevalence levels usually found for that substance prior to the pandemic (EMCDDA, 2020b). This appears to be supported by reports from some countries suggesting that the availability and use of substances, such as ketamine, could be increasing (Gérome and Gandilhon, 2020; Sciensano, 2020).

Survey responses from national focal points and key informants, as well as focus group discussions with key informants carried out for this study, suggested that the use of some psychedelic and dissociative drugs (e.g. ketamine, LSD, 1-propionyl-LSD (1P-LSD) and N-methoxybenzyl drugs (NBOMes)) may have increased during 2020 among some user groups. Data from European drug-checking services also show an increase in submissions of psychedelic and dissociative drugs throughout the year, including for 2C-B, N,N-dimethyltryptamine (DMT) and LSD. Two city monitoring systems in Norway also identified an increase in the availability of LSD in the second half of 2020 (Berg et al., 2020; Øien et al., 2020), with law enforcement sources also reporting an increase in seizures in both cities.

Data from sentinel hospitals indicated that the number of emergency presentations for GHB and GBL remained high between January and September 2020 (146) and did not significantly differ from those observed during the same period in 2019 (144). Presentations for LSD and ketamine, however, appear to have decreased during these 2 years, but the overall low number of reports for these two substances makes these results difficult to interpret. A city monitoring system in Bergen (Norway) reported an increase in responses to GHB-related overdoses during the pandemic (Berg et al., 2020). There was also an outbreak reported by experts of GHB overdoses in Oslo, which is partially reflected in the 2020 data from the hospital in Oslo reporting to Euro-DEN Plus.

Experts participating in this study speculated that the consumption of psychedelic drugs and novel substances could potentially be linked to boredom and more experimentation during the COVID-19 pandemic period. These are preliminary findings and will need to be confirmed when more systematic data become available. However, it would be a concern if the current period had introduced novel drugs and those with a generally low prevalence to new consumers and resulted in greater overall interest in these substances.

Rise in benzodiazepines use — an indicator of the pandemic's psychological impact?

Benzodiazepines are the most widely prescribed group of medicines and they have a wide range of therapeutic uses. Prior to the pandemic, the EMCDDA had already reported on concerns about increases in the misuse of prescription benzodiazepines and the emergence of non-licensed benzodiazepines appearing as new psychoactive substances in European countries (EMCDDA, 2020c; see also Duffin et al., 2020). This topic is covered in detail in an upcoming EMCDDA report to be published in June 2021.

Survey responses from national focal points indicate that there was a perception among people who use drugs of an increased use of benzodiazepines, especially during the second half of 2020. According to observations from harm reduction professionals, increases were observed among marginalised groups and those with established and long-term substance misuse problems. Although this area is difficult to monitor and data are generally limited, current signs point to the need for more surveillance of this issue. Data from emergency presentations in 10 European hospitals between January and September 2020 did show that the number of presentations associated with the use of benzodiazepines was slightly higher in 2020 than in the same period in 2019 (Figure 15), although these data

cannot be considered representative at either the national or the European level.

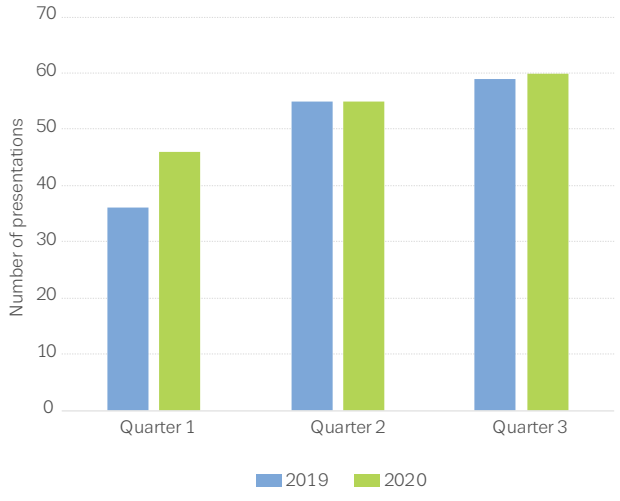
According to a rapid survey carried out by the Hungarian national focal point, an increase was observed in benzodiazepine misuse, especially among high-risk drug users with socioeconomic difficulties. Interestingly, switches in patterns of use were also noted among this group by the surveyed national focal points during 2020, including in Hungary (i.e. switches from SCRAs to benzodiazepines) and in Lithuania (from opioids to benzodiazepines).

In Lisbon, an increase in benzodiazepine injecting among high-risk drug users was also reported by harm reduction services during the lockdown period. In the mobile drug consumption room in Lisbon, benzodiazepines were the most commonly injected drug during that period. This was thought to be associated with difficulties in obtaining heroin and cocaine during the initial lockdown period, and a decrease in injecting of benzodiazepines was reported when heroin availability increased after the easing of the confinement period. An ongoing increase in benzodiazepine misuse alongside crack use throughout 2020 among marginalised groups was reported by Irish harm reduction professionals. The misuse of benzodiazepines was reported to typically take place within a wider polydrug pattern among this group, including co-use of opioids (heroin, opioids and tramadol), crack and, more recently, methamphetamine.

The growing concern regarding the increased use of benzodiazepines during the pandemic has in some cases focused on young recreational drug users. The Austrian national focal point reported increased use of benzodiazepines this group during the pandemic linked to curiosity and experimentation. In the Turin region of Italy, benzodiazepines reportedly became popular during the pandemic among particular groups of young people associated with a particular genre of music (trappers). The increased use and misuse of benzodiazepines among young drug users is not a new trend, but it may have been exacerbated by the situational circumstances of the pandemic (confinement, boredom, escapism, isolation and changes in methods of distributing drugs). In many instances, users were unaware of the content and potency of tablets bought online or through other sources. Among a non-representative sample of nine tablets that users believed to be alprazolam tablets that were submitted for testing to drug-checking services of the TEDI network in the first half of 2020, only two samples contained the expected substance. To date, the acute and chronic harms associated with the non-prescribed use of benzodiazepines during the pandemic remain unclear, but the potential for dependence of benzodiazepines and their toxicity (especially when used with alcohol or other psychoactive substances) means that they have the potential to result in dependence, can be associated with violent or other forms of problematic behaviour, and can play a significant role in overdose events, when used outside medical guidance.

FIGURE 15

Number of acute drug toxicity presentations with mention of benzodiazepine in 10 selected hospitals during the first three quarters of 2019 and 2020



Source: Euro-DEN Plus.

Heroin: limited evidence of impact of the pandemic on use

A majority of EMCDDA national focal points and other key informants surveyed for this study reported that the use of heroin and other opiates remained overall relatively stable during and after the lockdown periods in 2020. Supporting this to some extent, data on emergency presentations from 10 sentinel hospitals show no overall change in the number of presentations associated with heroin between January and September 2020 (172 presentations) compared with values observed during the same period in 2019 (172 presentations) (Figure 12). The exception here was a noticeable increase in presentations mentioning heroin observed in Ljubljana (Slovenia) from January to September 2020, with nearly double the number of heroin-related emergency presentations in 2020 compared with the same period in 2019 (17 in 2019 and 29 in 2020).

This perception was not, however, universal. According to the Danish and Italian national focal points, the availability of heroin increased after the lockdown period, suggesting that the lockdown had disrupted supply at the local level. Similarly, a localised shortage in the availability of heroin in Lisbon was observed during the first lockdown, but this was no longer evident by the summer period. Conversely,

a possible reduction in the availability of heroin after the lockdown period was reported by the national focal points from Spain, Latvia, Luxembourg and Slovenia.

A study performed among high-risk drug users in Luxembourg after the lockdown found that opiates, in particular heroin, remained the drug used most frequently (by about 60 % of the survey participants; Berndt et al., 2021). Study participants did, however, report a reduction in the frequency of heroin use and a reduction in observed overdoses among their peers, as well as increased adulteration, a finding also reported elsewhere (Rigoni et al., 2021).

It is unclear to what extent differing observations may reflect differing national experiences or simply differing perceptions based on the limited information available. It should be noted that, at any time, monitoring trends in opioid use with any precision is extremely challenging. Data from the collection of traditional indicators of high-risk drug use, such as the TDI or drug-related deaths, take time to compile and may also be influenced by disruptions in service provision or data collection processes resulting from the pandemic. While prevalence studies of high-risk drug use do exist, they have limited sensitivity and do not allow any observations to be made of rapid changes in high-risk opioid use over short time periods. Therefore, any assessment of changes in the use of heroin and other opioids during 2020 has to be made with caution.

Some increases in harms linked with opioids

During the lockdown periods, European countries facilitated access to opioid substitution treatment (OST) medications to ensure continued provision. Related to this were some concerns that doing so could also increase diversion and misuse owing to a lack of immediate supervision. There was no overall consensus on this emerging from this study, however concerns were reported from a number of sources and some experts also reported an increased availability after the lockdown period of diverted prescription opioids, such as tramadol, buprenorphine and methadone.

According to the national focal points surveyed in this study, there was little evidence to suggest significant changes in the levels of misuse of OST medications in most countries after the first lockdown, with the possible exception of Denmark and Greece where some signs of increased levels of misuse were reported from national experts. While heroin presentations were relatively stable, however, hospital emergency data collected from January to September 2020 did show an increase in presentations mentioning opioids other than heroin compared with data from the same period in 2019. After heroin, methadone and levomethadone ([1]) were the most commonly mentioned opioids and presentations for both substances showed an increase from 46 cases in 2019 to 60 cases in 2020 (Table 3). However, it should be borne in mind that these preliminary numbers are small and non-representative and should therefore be interpreted with caution. Nevertheless, given the importance of this topic to service delivery, it clearly merits more research attention.

Limited national or city-level data are available on the harms associated with the illicit use of OST medications since the onset of the pandemic in early 2020. A decrease in the illicit use of methadone was reported by two city monitors in Norway (Bergen and Trondheim) between April and September 2020, while, in Bergen, a decrease was observed in the illicit use of buprenorphine and an overall decrease was reported in responses to drug-related overdose events for opioids (Berg et al., 2020; Øien et al., 2020). An analysis of syringe residues collected in several cities showed an increase in the amount of methadone present in syringe residues in Vilnius (Lithuania) in June and July 2020 compared with 2019 data. On the other hand, a sharp decrease in the amount of buprenorphine present in syringe residues was reported during the same time period in Helsinki (Finland), possibly linked to shortages of diverted buprenorphine. This may have

TABLE 3

Number of acute toxicity presentations mentioning opioids other than heroin in 10 selected hospitals between January and September in 2019 and 2020

Drug	2019	2020
Buprenorphine	12	9
Codeine	4	11
Dihydrocodeine	2	0
Fentanyl	3	2
Levomethadone	9	15
Methadone	37	45
Morphine	5	6
Opioid not known	36	29
Oxycodone	3	3
Tilidine	0	2
Tramadol	2	7
Total	**113**	**129**

Source: Euro-DEN Plus.

([1]) Methadone exists as a racemic mixture, which is the most commonly used form for OST in Europe, and as R(–) enantiomer (levomethadone), which is more potent than the racemic mixture and is prescribed only in a few European countries for OST.

been associated with borders being closed during the first months of the pandemic, as diverted buprenorphine medications available on the Finnish illicit market are often trafficked by organised crime groups from France or other countries where this medication is commonly used for therapeutic purposes (EMCDDA, 2021).

A recent study found that the number of severe acute methadone toxicity cases in France slightly increased during the first 6 months of 2020 (74 cases including 21 deaths) compared with the first 6 months of 2019 (59 cases including 20 deaths) (Frauger et al., 2020). To account for reporting delays, the numbers of cases notified and occurring in the same year were compared between both periods. There were 2.2 times more severe acute methadone toxicity cases in the first 6 months of 2020 than in the same period in 2019 (74 compared with 33) and three times more methadone-related deaths (21 cases compared with 7). Most cases were not in methadone treatment and had also consumed other respiratory depressant substances (usually alcohol and/or benzodiazepines) (Frauger et al., 2020; Lapeyre-Mestre et al., 2020).

With regard to other opioids, the Lithuanian national focal point reported a decrease in the purity and potency of illicitly produced fentanyl, which was leading to an increase in the quantity being used by individuals. In addition, a number of fentanyl users in Lithuania reported switching to amphetamines or benzodiazepines and alcohol.

Reduced use of illicit drugs in prisons — restrictions affect availability

Drug availability reportedly reduced in prisons in most countries during the first lockdown period and the available information suggests that availability still remains at levels lower than during the pre-COVID-19 period. The ban on external visits to prisons in most countries to contain the spread of the virus was reported to be the main driver of the reduced access to drugs. Some experts also suggested that restrictions on external goods being brought into prisons and reduced movements both within and in and out of prison were possible explanations. These restrictions were also reported to be associated with an increase in alternative supply routes including the use of drones or throwing drugs over prison walls. Some experts reported that the easing of restrictions after the first lockdown period resulted in the partial reestablishment of more traditional supply routes.

During the first lockdown, there was an overall perception that that decreases in availability of some illicit drugs in the community may have contributed to a more general reduction in the use of illicit drugs in the prison setting (EMCDDA, 2020b). After the first lockdown, however, different trends were reported. Some national experts noted an increase in the number of users and the frequency of drug use in prisons over the summer, while other experts reported that drug use remained at low levels, especially compared with before the pandemic. Differences between countries in COVID-19 measures may partially explain this observation. Experts in some countries also noted that the therapeutic use of benzodiazepines, prescribed within the prison setting, and also the misuse of this class of substances, obtained illicitly, had become more apparent in 2020. It should be noted that the lack of data on the impact of the pandemic in prison settings limits the generalisability of these findings.

Full impact of the pandemic on drug-related deaths in Europe is yet unknown

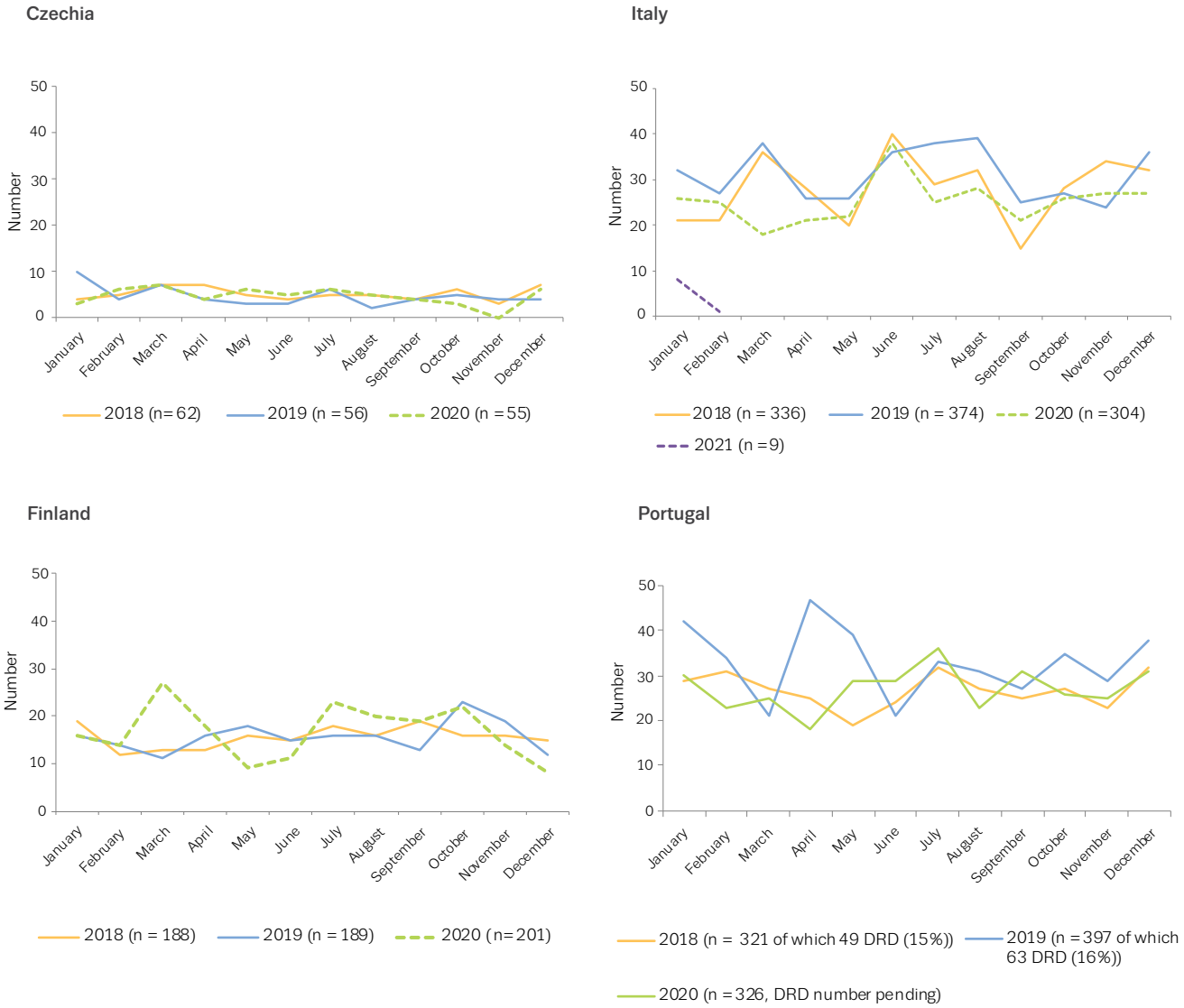
The full impact of the pandemic on drug-related deaths in Europe is not yet possible to ascertain at this stage owing to the time needed for compiling these data at the national level and to additional delays in reporting due to COVID-19. It is also possible that the reporting to registers of drug-related deaths may have been delayed during this period, for example if forensic and toxicological resources were deployed to COVID-19-related tasks.

However, preliminary data from four countries suggest that the overall number of drug-related deaths in 2020 may be lower than in 2019 in two countries (Italy and Portugal), stable in one country (Czechia) and higher in one country (Finland) (Figure 16). In all four countries, the drugs implicated in the deaths mirrored those usually implicated in recent pre-COVID years. The number of drug-related deaths in Italy and the number of positive toxicology examinations in Portugal decreased in 2020 compared with 2019, although there seems to have been some rebound over the summer period when the confinement measures were eased. Provisional data from Finland suggest an increase in the number of drug-related deaths during 2020, reportedly associated with buprenorphine and amphetamine, usually in a context of polydrug use (Mariottini et al., 2020). In Finland, the peak was observed during the first national lockdown month in March, followed by a drop.

In Hungary, an outbreak of 30 deaths related to the SCRA 4F-MDMB-BICA occurred between May and October 2020. In all but one case, the death involved a combination with other drugs including other synthetic cannabinoids. The mean age of the deceased persons was 28.5 years and all cases were males. Many of the cases involved people who were homeless and had a history of imprisonment, poverty and/or living in deprived areas.

FIGURE 16

Preliminary monthly number of drug-related deaths (Czechia, Italy and Finland) and positive toxicology examinations for one or more drugs (Portugal), 2018-2020



Note: Data collected in February 2021. All data for 2020 and 2021 is preliminary (dashed line) for Czechia (for which 2 of the 13 laboratories are missing), Italy and Finland.
DRD, drug-related deaths.
For Portugal, the data represent positive toxicology examinations for one or more drugs.

Sources: Czechia, special registry (forensic medicine and toxicology departments); Finland, forensic laboratory; Italy, Central Directorate for Antidrug Services; Portugal, INMLCF, National Institute of Legal Medicine and Forensic Sciences.

Potential drop in testing for HIV/viral hepatitis during lockdown — no incidence data yet available

An extensive survey assessing the impact of COVID-19 on testing and the continuum of care was conducted by the EuroTEST consortium (Simões et al., 2020). While not specifically targeting drug services, these services were included in the survey, and many 'community-level sites' include populations who use drugs among their service users. The authors concluded that their 'preliminary results show that 95 % of respondents from 34 countries reported testing less than half the expected number of people during the first months of the COVID-19 pandemic between March and May 2020'. This continued, although to a lesser degree, between June and August 2020. While highlighting an important decline in testing volume, the results also show how testing services adapted, with wider promotion of self-testing and remote counselling.

No blood-borne virus outbreak or major prolonged disruption of HIV and hepatitis testing was reported by respondents in this study, although further research will

Box 3. Changes in alcohol consumption patterns throughout the pandemic

Preliminary data from studies on alcohol consumption patterns during the pandemic, including among people who use drugs, suggest that alcohol consumption declined during the first lockdown period. Subsequent periods appear to show a return to normal or possibly even higher alcohol consumption levels, even during new lockdowns.

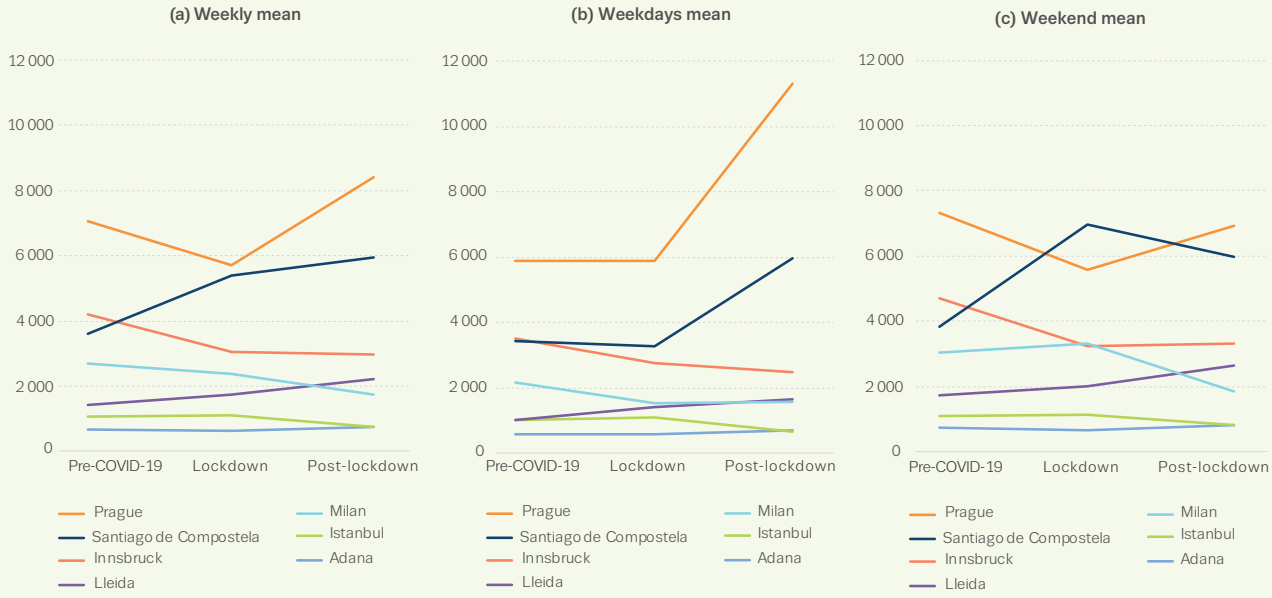
Thus, a large cross-sectional study on alcohol use assessing the impact of the pandemic in 21 European countries, suggested that alcohol consumption decreased on average during the first months of the pandemic in Europe. Overall decreases in drinking were reportedly largely driven by a reduced frequency of heavy episodic drinking (Kilian et al., 2021).

Repeated web surveys among people who use drugs during different periods of the pandemic in Belgium first observed a 20 % decrease in the average quantities of alcohol consumed during the first national lockdown period (3.1 units of alcohol) compared to the period before the pandemic (3.7 units). Subsequently, the reintroduction of stricter COVID-19 prevention measures between mid-September and early November was associated with a 20 % increase in the average quantities consumed with an average of up to 4.3 units of alcohol used. Findings from the EWSD-COVID showed that in some cases, the increased use of alcohol among people who use drugs was associated with polydrug use, for example alongside greater consumption of prescription medicines including benzodiazepines (EMCDDA, 2020b).

Limited data from wastewater analyses on alcohol residues is available and is not directly comparable with studies of people who self-report using drugs and alcohol. A comparison of alcohol residues (ethyl sulphate) in wastewater samples collected before (pre-COVID-19) and during the lockdown period from 7 cities show a decrease in three cities of more than 10 % in alcohol residues (ethyl sulphate) (Figure 17). Two cities show an increase and two cities show no change between these two periods. After the easing of the lockdown measures in most European countries, four cities show an increase compared to the lockdown period and two cities show a decrease. The increase in alcohol residues after the lockdown period was more pronounced during weekdays than during weekends.

FIGURE 17

Changes in the amounts of alcohol residues (ethyl sulphate) from wastewater analyses in seven cities before March 2020, during the first lockdown (March to May 2020) and after the first lockdown (June to December 2020): (a) mean weekly amounts, (b) mean amounts during weekdays and (c) mean amounts during weekends



be needed to confirm these observations. However, delays were mentioned, as were more difficulties than usual in referring patients with hepatitis C infection to hospital-based hepatology consultation.

While, from preliminary results, it seems that the positivity rate for HIV tests in 2020 remained consistent with that in 2019, it is too early to comment on the overall impact of lockdowns and reduced services on HIV incidence.

Are people who use drugs at a higher risk of COVID-19 and severe outcomes?

There is currently a dearth of reliable information on the relative risks of COVID-19 for people who use drugs. However, a seroprevalence study conducted in Czechia during the first wave of the pandemic (April 2020) among 4 255 clients from drug services showed a prevalence of SARS-Cov-2 antibodies of 0.26 % in this population. Although this finding appears to suggest that the risk of getting COVID-19 was not higher among drug users than in the general population, it should be noted that the study was undertaken early on in the pandemic when the incidence rate was lower than during the subsequent COVID-19 waves and when more virulent variants of the virus were not yet reported. A more recent study appears to suggest an increased risk of COVID-19 diagnosis/symptoms among people who inject drugs (Croxford et al., 2021), with one in nine (11%, 29/260) PWID in the study reported testing positive for SARS-CoV-2 or experiencing COVID-19 symptoms.

Recent studies from Belgium, Canada, France and the United States also suggest an increased or high risk of severe COVID-19 outcomes among people with overall substance use problems, including alcohol problems (Baillargeon et al., 2020; Simard, 2020; Wang et al., 2020; Schrooyen et al., 2021; Semenzato, 2021) (see box 3). Besides patients with chronic liver disease, in particular those with non-alcoholic liver disease, patients with cirrhosis and chronic hepatitis C infection were found to be at an increased risk for COVID-19 and, when infected, at a higher risk of hospitalisation and death (Wang et al., 2021). Considering the high prevalence of undiagnosed or untreated hepatitis C infection among people who are using drugs in Europe, this highlights the importance of protecting these populations from exposure to virus infection.

Mental health issues, anxiety and violence – hidden harms associated with the pandemic?

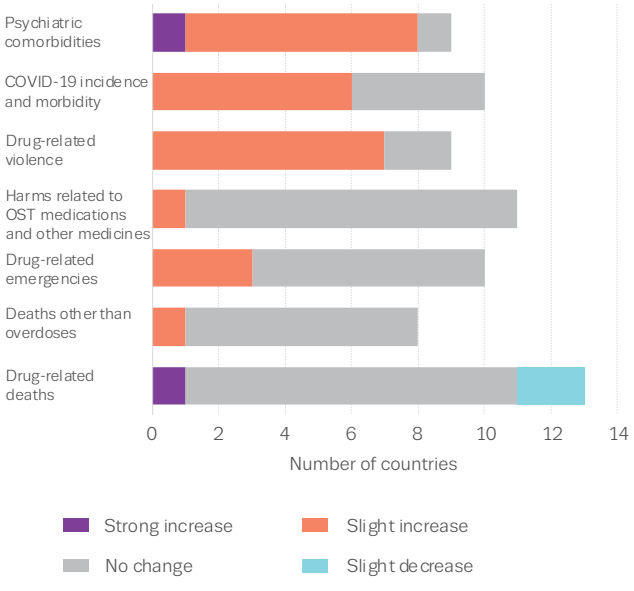
There are increasing concerns regarding the implications of the COVID-19 pandemic on mental health in the general population (WHO, 2020). Anxiety, depression, stress, self-harm, suicide attempts and suicides are reported as consequences of fear, isolation, unemployment, financial difficulties and relational breakdowns combined with a reduced offer of mental health services (Holmes et al., 2020; Torales et al., 2020). A recent survey among high-risk drug users across Europe confirmed a reduced accessibility to mental health services during the pandemic and an increase in psychiatric problems experienced by this population (Rigoni et al., 2021). Similar observations during the second half of 2020 were reported in our survey among national focal points (Figure 18).

A survey carried out from mid-September to early November 2020 among people who use drugs in Belgium found that more individuals reported more mental health problems than in a similar survey conducted during the first lockdown period (Sciensano, 2021). Mental health problems were related to anxiety and depression and were most frequently reported among women and those reporting more frequent drug use.

Among people with dual diagnosis, multiple mental health disorders may aggravate both their drug addiction and their psychiatric condition leading to a worse prognosis of both types of disorders. Several national experts mentioned reports of decompensated psychosis, relapse into drug and alcohol use after long-time treatment and exacerbation of socioeconomic difficulties leading in turn to increased mental health and drug problems.

FIGURE 18

Changes in drug-related harms among people using drugs between the period June-December 2020 and the first COVID-19 lockdown period in the EU and Norway, based on reporting from Reitox national focal points (n = 22)



Key informants surveyed in this study also reported that suicides and suicide attempts were rising during the pandemic among people who use drugs, whether through intentional drug overdoses or by other means. These reports concerned individuals in both the community and custodial settings.

Concerns about a rise in harms related to robbery and violence among people using drugs and towards this group by other community members was reported by key informants. An increase in negative emotions and violent behaviours (arguments and fights) towards high-risk drug users since the onset of the pandemic was observed in a recent study in Luxembourg (Berndt et al., 2021). Greater visibility of public drug taking, difficulties in respecting confinement measures and an overall fatigue among the general population associated with the social consequences of the pandemic were all suggested as possible explanations for the perceived deterioration in public attitudes towards high-risk drug users. Furthermore, a heightened risk of gender-based violence has been a subject of concern in the EU Member States as a consequence of the pandemic (EIGE, 2021). This increased risk may particularly affect women with drug problems subjected to intimate partner and street violence (Tirado-Muñoz et al., 2018). There is currently still insufficient evidence to show that the pandemic has been associated with an increase in gender-based violence (Abdo, 2020). However, based on anecdotal information collected by a number of experts involved in this study, concerns were raised about domestic violence among women using drugs and street violence among sex workers, including women and transgender persons. This topic clearly merits more focused research.

Impact of COVID-19 on European drug services

Findings from the initial EMCDDA study carried out in March and April 2020 (EMCDDA, 2020d) suggested a decline in the availability of European drug services during the first two months of the pandemic, with an associated decline in both new treatment entrants and all other treatment entrants. With nearly 700 000 people receiving OST in Europe annually, service providers and national authorities had to act rapidly and change the way that OST was provided, both to ensure access to medications for those already in treatment and to respond to new treatment demands. Questions emerged on what the 'new normal' would be for drug services and their clients once strict national lockdowns were lifted.

Drug services forced to rethink old ways of operating

A survey of national focal points suggests that most drug treatment and harm reduction services were operational from June 2020 onwards, although under difficult circumstances. Similar information was reported by European health professionals participating in this study who mentioned a gradual normalisation of their operations while maintaining a high degree of awareness and protection towards COVID-19 infection risks (see Box 4).

Box 4. Therapeutic communities in times of COVID-19: some observations, concerns and challenges

At the onset of the COVID-19 pandemic, many therapeutic communities (TCs) across Europe initiated a process of evaluating and redefining their core treatment priorities, while simultaneously trying to reduce harm and protect their clients. Some of the challenges reported during this period included a disruption to the TC approach, which often involves physical presence, proximity and human contact, and also the experience of isolation, loneliness, frustration and fear, when stricter quarantine measures were implemented. Innovations were also reported including the use of online platforms for maintaining group therapies.

The pandemic has also raised some fundamental issues for TCs. The lockdown process brought to the fore the vulnerability of those in aftercare settings, especially with increasing unemployment associated with the pandemic. In order to better respond to this, TCs will need to review and redesign the re-entry services for their clients. In this difficult economic context, assuring sustainable funding for services, including TCs, targeting the most vulnerable groups of society will be particularly challenging. TCs and other services will need to contribute to convincing policymakers of the necessity of these services.

Finally, TCs, together with other recovery services, are discovering that certain managerial and therapeutic activities can be conducted online, thus reducing certain costs considerably. Furthermore, there are discussions on establishing an e-TC, mainly for the benefit of those who live in remote areas with limited access to physical treatment services.

Source: Phaedon Kaloterakis, President of the European Federation of Therapeutic Communities (EFTC)

Face-to-face consultations resumed within most drug services. These had been heavily limited during the first lockdown. Similar to other health services, treatment and harm reduction drug services implemented strict prevention protocols that enabled activities to resume. Learning from the first COVID-19 wave, staff were reported to be better equipped and knowledgeable on the risks and practices to prevent infection among staff and clients, with measures routinised and more widely implemented across services.

However, it was reported that the overall capacity in many services was reduced. The implementation of essential prevention measures meant that fewer clients could be served than in pre-pandemic times and longer waiting times for face-to-face consultations were reported. In response, a number of service providers are reported to have implemented new triage procedures, especially within specialised treatment services. These could guarantee more rapid clinical assessments at entry, reduce waiting times and prioritise clients according to severity. In general, professionals in this study reported that the restrictions pushed services to re-evaluate long-established working procedures. In some cases, this resulted in increased efficiency and innovation in service provision.

Harm reduction services remain a key frontline actor after the first lockdown

Harm reduction services played a crucial frontline role during the first lockdown period and found themselves at the forefront of the response to COVID-19 for people with more severe forms of problem drug use (see EMCDDA, 2020d). According to survey responses from the national focal points, low-threshold agencies (e.g. drop-ins, needle and syringe exchange programmes, and drug consumption rooms) also resumed or increased their office-based activities in most countries. Harm reduction professionals in this study also reported that outreach work and increased distribution of harm reduction materials continued to play a key role in the response to the impact of the pandemic. According to harm reduction service users involved in a study between May and June 2020 in Luxembourg, the availability of clean and sterile syringes and other injection equipment, hygiene materials, essential medication, medical care, condoms, and food and beverages was reported as more than sufficient (Berndt et al., 2021). Preliminary data reveal that over a million more clean syringes were distributed in Czechia to people who inject drugs in 2020 than in 2019. However, some unverified signs of shortages of syringes were also reported in Paris and Oslo.

According to national experts, all drug consumption rooms across Europe were operational during the second half of 2020, although access remained restricted due to COVID-19 measures (Rigoni et al., 2021). The maximum number of persons inside the building at a given time was restricted in all consumption rooms, and the time allocated for injections per client was reduced. In the Netherlands and elsewhere, smoking rooms in the drug consumption rooms remained closed to maximise the capacity of the injection rooms.

The availability of naloxone over the counter distributed to high-risk drug users remained limited in most EU countries throughout 2020, despite the risks predicted at the onset of the pandemic (Rigoni et al., 2021). In some countries, such as Ireland and Cyprus, efforts to increase the availability of prescription naloxone were reported, as was the promotion of harm reduction campaigns to provide information about the risks associated with opiate use.

Shelters and emergency accommodation provided some respite during the 2020 European winter

Shelters continued to play a key role in accommodating homeless people, including high-risk drug users, during the second half of 2020. The prolonged winter of 2020 into 2021 was reported to have particularly affected client groups living in precarious social conditions. Many public places offering warmth and hygiene facilities (e.g. shopping centres and libraries) remained closed or had restricted access, while shelters reached full capacity in some countries. In some cases, new shelters were established (e.g. in two Greek cities: Athens and Thessaloniki) and, in Lisbon, four emergency shelters were set up at the start of the pandemic and are still in operation. Despite these efforts, the provision of accommodation and shelter during the pandemic remains challenging in many countries (Rigoni et al., 2021).

With large groups of unrelated people gathered in close confinement, shelters can be high-risk environments for COVID-19 infections. In Lisbon, between March and August 2020, about 100 COVID-19 tests were performed on staff and clients at the four shelters in Lisbon (Fuertes et al., 2021) with only two positive cases identified. However, a shelter in Copenhagen experienced an outbreak, with a significant number of residents becoming infected with the virus, highlighting the challenges for the staff and residents of these essential facilities during the pandemic.

Drug-checking services adapted to the closure of the night-time economy

From the onset of the pandemic, drug-checking services were heavily affected. Testing at music events (e.g. festivals and clubs) stopped altogether and there was an overall drop in clients using these services. A 26 % decrease in the total number of samples submitted for testing in European drug-checking services was reported in 2020 compared with 2019, with the largest drop observed in Q2 of 2020. During the first lockdown, most drug-checking services operating in fixed locations, and drop-in centres were closed. Some adaptations were implemented to maintain a minimum service level. For example, a new cooperative relationship was established in Vienna between community pharmacies, which remained open, and the drug-checking service. Thus, clients could submit their samples at the pharmacies, which would then be collected and tested by the drug-checking service. In Barcelona, the drug-checking service oriented its testing activities primarily to the drug consumption rooms that remained open during the lockdown. After the lockdown, most drug-checking services reopened their offices, but most were operating on an appointment-only basis. Notably, submissions of drug samples via mail to drug-checking services increased in all quarters of 2020 compared with 2019.

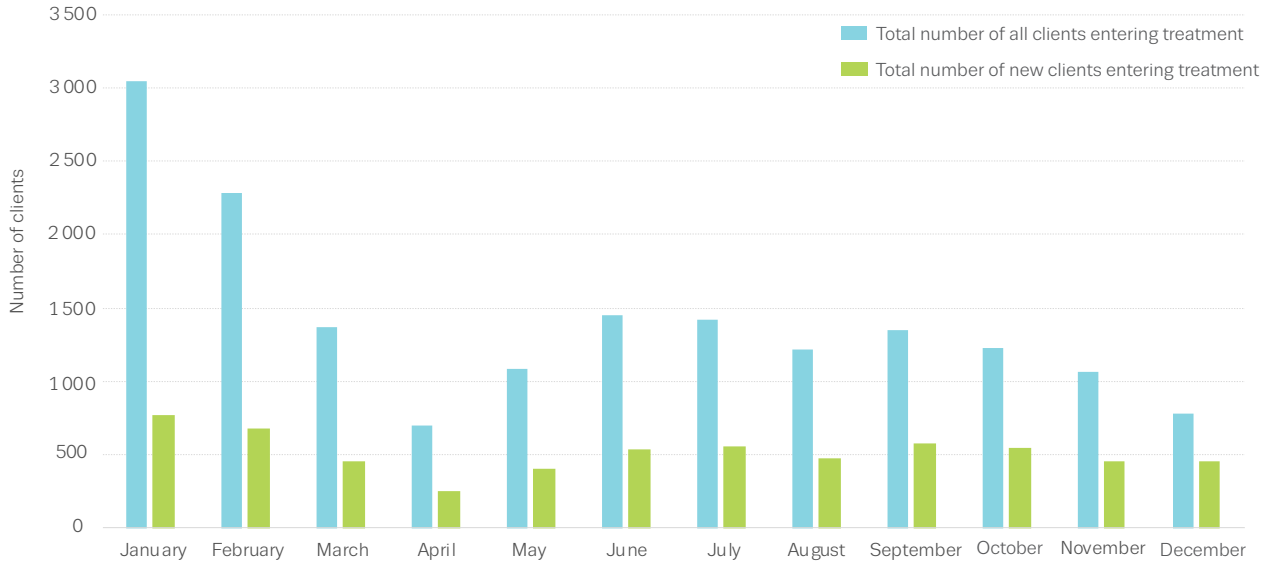
Drug treatment services catching up on treatment demands during the second half of 2020

Preliminary data on treatment demands from specialised treatment services between January and December 2020 in six EU countries provide an insight into the impact of COVID-19 on drug services and help seeking. Although clearly not representative of, or generalisable to, the whole of the EU, the data from these countries indicate an overall reduction of nearly 80 % in clients entering drug treatment between January and April 2020 (Figure 19). Treatment demands increased from May onwards as lockdowns were lifted, and face-to-face consultations resumed, but demands did not return to pre-COVID levels during any of the subsequent months. A reduction was again observed in the last months of 2020, possibly explained by the emergence of the second and even third waves of COVID-19 infections, with newly imposed restrictions in several EU countries during that time.

The observed decreases in and lower numbers of both new and all clients entering drug treatment in these countries in 2020 compared with 2019 could be attributed to several factors. In addition to the reduced capacity of treatment services due to COVID-19 measures, remote consultations increased in many areas, and these are generally not accounted for in these data. Some experts also reported that clients may have avoided seeking help out of fear of infection.

FIGURE 19

Preliminary monthly breakdown of all clients and new clients entering specialised treatment between January and December 2020 in six EU countries



Source: Snapshot of the TDI, February 2021. Data from Belgium, Bulgaria, Czechia, Croatia, Lithuania and Hungary.

While the overall reduction in treatment demands was particularly marked for heroin users in these six countries, reduced rates were also observed for users of other substances. Demands for cannabis treatment show the largest recovery among the drugs considered in most of these countries. One explanation reported by several national experts is that treatment as an alternative to criminal procedure (most commonly observed for cannabis users) was generally suspended during the first lockdown and remote interventions were not provided as an alternative. As a consequence, a 'catch up' of cases subsequently occurred, which led to an accumulation of persons in cannabis-related cases accessing treatment once the lockdowns were lifted. In Hungary, for example, the annual case numbers of clients referred by the criminal justice system is assumed to not have changed much for the whole of 2020, but important variations in the monthly distribution, especially after the first lockdown, can be observed.

The provision of OST continued to remain high, and adaptations made during the first months of the pandemic — greater use of electronic prescriptions, greater quantities for take-home use, online supervision and low-threshold access — were maintained after the first confinement period according to national focal points and published reports (e.g. Rigoni et al., 2021). Preliminary data on new clients and all clients who received OST throughout 2020 in three countries indicate that, after a drop of about 20 % between January and April 2020, the number of clients remained relatively stable throughout the year, indicating sustained provision of this treatment. Similar findings were reported from other countries during a recent EMCDDA meeting of European treatment demand experts.

A novel treatment option in Europe — pharmacological maintenance treatment with methylphenidate for amphetamine dependence — was introduced in Czechia during the first months of the pandemic. By the end of 2020, this novel treatment option was being provided to clients in four treatment centres.

Telemedicine: a new essential tool, but risks of patient drop-out exist

As face-to-face counselling and visits to clinics were generally stopped or significantly reduced during the first lockdown period, telemedicine by phone or video became a frequent alternative for keeping services operational during the confinement period (EMCDDA, 2020d). According to a survey among national focal points, there was an increase in the use of remote counselling between June and December 2020 by treatment and harm reduction services. According to health professionals surveyed in this study, the wider adoption of telemedicine was related to increased proficiency in the use of remote technologies by staff and clients, but also increased confidence in its utility. It proved beneficial in reaching new clients by extending service coverage, especially to remote areas where physical services were limited. It was also reported as an efficient way to connect with other professionals and relevant health and social services, thereby improving client referral. Telemedicine was also mentioned by several experts as having played a key role in maintaining treatment provision to inmates in prisons during the pandemic.

A number of challenges were, however, highlighted, including difficulties for some client groups to use this technology, such as older drug users, clients referred by the criminal justice system or clients with severe mental health issues and complex comorbidities. The decrease in face-to-face contact was also seen to exacerbate social isolation among certain client groups. Problems were also identified with the use of technology in the context of group or family therapy, as were difficulties in carrying out clinical pre-assessments via video for new treatment demands. In addition, respondents highlighted inequalities in digital literacy and internet penetration between urban and rural areas for service providers, but also for clients. Issues were also raised around client privacy and confidentiality, with the legal background of online/phone treatment provision remaining unclear in most countries. Some of these challenges have resulted in a yet unknown number of clients having to gradually drop out from treatment as reported by several professionals in this study. While the benefits of the use of remote interventions are evident, the cost of risking losing or neglecting certain patient groups should not be underestimated.

How did prevention programmes adapt to COVID-19 measures after the lockdown?

The implementation of prevention programmes followed similar adaptations to other services, with training material and delivery adapted to online platforms. In France, for example, the large-scale implementation in schools of the 'Unplugged' prevention programme was made possible through online training provided to teachers and prevention professionals.

However, the implementation of prevention interventions in schools generally requires long-term planning, with these interventions developed based on the needs of identified target groups. The repeated closure and reopening of schools and the use of online technologies heavily disrupted the planned activities. Additionally,

some established prevention programmes are based on principles that address the environmental risk factors and systemic elements surrounding individuals (e.g. family-oriented prevention programmes). Major changes in the environment of young people during the pandemic (increased time at home with parents, closure of the nightlife economy, etc.) and the difficulties of adapting interventions via online tools constituted major challenges for prevention professionals (see Box 5).

A challenging 'new normal' for staff and drug services

Despite efforts to keep services accessible, many drug services reported psychological distress and burnout among staff. This was due to fear of becoming infected when working (e.g. Thylstrup et al., 2020) and increased workload exacerbated by staff shortages resulting from working in shifts and staff being infected or in quarantine.

Many drug services were reported to be ill-equipped in managing clients with severe comorbidities before the pandemic, and this became even more problematic during and after lockdown. Staff reported an increase in the complexity of the needs among several client groups, characterised by a deterioration of both their mental health and their socioeconomic situation during the pandemic.

At the onset of the pandemic, a general sense of solidarity within the wider community towards more vulnerable members was reported, with efforts being made to protect all citizens from the risk of infection. Possibly due to the lengthy duration of the pandemic, and the associated fatigue, there is now a general perception among professionals and user representatives of a decline in solidarity towards people who use drugs and more broadly towards certain drug services. There were reports of increased pressure from residents to remove field shelters set up in various European cities, as well as reports of cases of physical aggression towards outreach workers.

Box 5. Challenges in delivering prevention programmes and health promotion in communities during the pandemic

In October 2020, during the 11th conference of the European Society for Prevention Research, prevention specialists discussed the direct and indirect (through containment measures) consequences of the pandemic on the delivery of prevention programmes and health promotion in communities. Experts identified three of the major unintended consequences associated with the closure of schools in European countries, and these consequences may be equally transferable to other children's and adolescents' health services and social welfare systems.

The first of these consequences is reduced access to preventive services and programmes, as many universal and selective prevention interventions take place in schools as part of their institutional mandate, such as health education classes, specific programmes for behaviour modification, health visits and vaccinations.

The second consequence is reduced exposure to health-promoting environments. Schools act as inherently health-promoting environments because of their role in children's and adolescents' cognitive development, learning, socialisation and sharing of community values. It has been anticipated that the disruption of these influences when young people are kept away from school may, in the short term, negatively affect mental wellbeing (Marroquín et al., 2020) and may have long-term consequences on trajectories of employment and community integration (Tamesberger and Bacher, 2020). It is also worth mentioning the interrupted exposure to other beneficial features of schools, such as curricular physical activity, healthy meals and ergonomics.

Perhaps more importantly, both of the processes described above are likely to play a role in the third consequence: increased social inequality in health and risk distribution. In fact, the pandemic has revealed and deepened the unequal distribution of health, ranging from the risks of COVID-19 infection and disease to its social consequences (Magnani et al., 2021). In this specific example, children who need more support to fully develop their learning potential, to achieve a healthy lifestyle and to become full members of their community are also those likely to pay the highest price for the disruption of school-based prevention.

Determining how to balance health protection and health promotion, and how to design remedial actions for missed opportunities, is the ultimate challenge for any community in COVID-19 times.

Source: Maria Rosaria Galanti, MD PhD, adjunct professor of epidemiology, Department of Global Public Health, Karolinska Institutet, Solna, Sweden.

Innovations and challenges in drug service provision in European prisons

Between March and June 2020, most of the 15 countries with available data reported severe disruptions to drug services in prisons, including psychosocial counselling, group therapies, peer-led interventions and services provided by external service providers (EMCDDA, 2020b). COVID-19 containment measures in prisons were generally maintained in most countries after the lockdown, resulting in a continued disruption of the availability of drug services (Montanari et al., forthcoming).

However, in some countries, drug-related interventions were scaled up again from June 2020. Examples include renewed access by in-reach services in prisons in France and therapeutic interventions in smaller groups in Luxembourg. From the onset of the pandemic, efforts were made to maintain the provision of pharmacologically assisted detoxification and OST in prisons, which have continued until now. An increased demand for pharmacological support in terms of benzodiazepines and OST was observed, especially among new inmates required to quarantine prior to prison entry. Infectious diseases testing and treatment in prisons was maintained in most countries with available data, but some concerns were expressed that the increased focus on COVID-19 testing together with reduced provision of harm reduction interventions may shift the attention away from this intervention.

Innovations in drug service provision in custodial settings largely involved the use of IT tools. For example, some prisons in France and Croatia introduced electronic prescriptions of OST for inmates. Like in community drug services, online interventions were increasingly used in some prisons for psychosocial counselling, some forms of health- and medical care, linkage to external care and training. For example, in Luxembourg, people could go to the health units in prison and connect remotely via video with external health and social professionals; in several countries, phone calls were increasingly used for brief interventions. Some structural changes were also introduced to reduce the risk of infection. In Luxembourg and Slovenia, OST was distributed in prison cells instead of in the health unit and, in several prisons, glass panels were set up to maintain a safe distance between therapists and patients.

There are reports of a reduction in availability of health staff owing to the reassignment of personnel to the management of the COVID-19 crisis, which represents a challenge for adequate service provision. Furthermore, concerns were expressed about the quality of the therapeutic relation, suggesting that it may be compromised by the need to adopt preventive protection measures.

To address prison overcrowding, measures for the early release of inmates were introduced by new regulations in 21 out of 27 European Member States (European Parliament, 2020). By June 2020, this resulted in an overall decrease of the European prison population by around 10 %. This measure mainly targeted people with a short amount of time of their sentence left to serve and generally excluded people sentenced for sex or terrorism offences. According to available information, around 25 % of early released inmates were sentenced for drug law offences, while the percentage of people sentenced for drug law offences in prison is on average 17 %. Some countries set up specific interventions in preparation for those early releases, including information sessions and linkage to external care.

However, very little is known about the actual implementation of those measures and their impact on social reintegration of those released early, recidivism, and drug use and related harms. More information is needed in the medium and long term. The need to reduce the prison population raises the issue of increased use of alternatives to incarceration for people sentenced for minor offences, including minor drug law offences, as effective interventions to reduce drug-related problems.

Ongoing COVID-19 vaccinations for people who use drugs and healthcare workers

As of March 2021, multiple COVID-19 vaccines have already received market authorisation in Europe, but supply remains limited. Chronic conditions that are risk factors for COVID-19 hospitalisations and deaths (for any age group) — which are therefore criteria for inclusion in the early phases of the vaccine campaign in many countries — include some conditions that are highly prevalent among high-risk drug users, such as chronic pulmonary diseases, chronic liver diseases (e.g. chronic hepatitis B and C) and HIV infection. These conditions are known to be risk factors for severe COVID-19 outcomes, as described by international guidelines.

In addition, other risk factors are highlighted that disproportionately affect people who are using drugs. Poverty and living in deprived areas are associated with a higher risk of infection and severe outcomes of COVID-19 (Haute Autorité de Santé, 2021). Some psychiatric disorders (including drug dependence) are also identified as independent risk factors for severe outcomes. Scientific authorities (e.g. in Belgium and France) have recommended that severe mental health disorders (including addiction in some cases) be included as criteria for vaccine prioritisation (in waves 2 or 3). Scientific authorities have also recommended including 'vulnerable populations'

as a priority group on ethical grounds; in some cases, for example in Belgium, this category explicitly includes drug users, homeless people, people in prison and sex workers (CSS, 2021; Haute Autorité de Santé, 2021).

Besides vaccinating people who are using drugs, vaccinating healthcare workers who are in direct contact with patients is also a priority (essential services). These professions conduct services that are considered essential and that, in some cases, require face-to-face interaction with many people. A rapid poll during the last week of March 2021 among our network of national focal points revealed that, in the majority of European countries, healthcare professionals in drug treatment and harm reduction services are considered essential workers and have been or are in the process of being vaccinated.

Additionally, some drug services (e.g. in Belgium) are reported to be actively involved in the national vaccination strategies, as these services have privileged contacts with groups within the community that may not be easily accessible to health authorities, such as homeless citizens or undocumented migrants. It is crucial to closely monitor the situation to ensure that all groups of society, including those living at the fringes, have access to the COVID-19 vaccine.

Conclusions

Since early 2020, the COVID-19 pandemic has had a dramatic impact on the way we live, with European countries having to introduce unprecedented measures to protect public health. Europe's drug-related challenges, including drug supply, consumption and related harms, have also been heavily impacted by this crisis.

Findings from this rapid assessment point to a number of new developments and trends that warrant further research and close monitoring. In the future there will be a need to pay close attention to the psychological and socioeconomic impacts of the pandemic, as well as longer term changes in patterns of illicit drug use and risk behaviours among the wider population. Furthermore, the shift to the greater use of online platforms both for drug supply at the retail level, but also for the clinical management of drug problems will undoubtedly persist beyond the pandemic. This will likely require innovation in monitoring and research methods in the drugs field to capture the 'online dimension' of the European drug situation. Finally, despite its informative value, this rapid assessment highlighted the lack of (representative) data as well as some of the limitation of the data collection tools, raising questions as to what will be needed to confidently monitor a fast-evolving situation. Efforts are needed to improve the availability and validity of and confidence in developmental indicators of drug use, including those used in this study. Nonetheless, this study provides a valuable first glimpse into the new developments emerging from the pandemic, one which could have important implications for the future as we (hopefully) move into a post-COVID-19 period.

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About this publication

Since early 2020, the COVID-19 pandemic has had a dramatic impact on the way we live, with European countries having to introduce unprecedented measures to protect public health. As with all areas of life, drug consumption, related harms and drug markets have been impacted, as have the services established to respond to drug-related problems.

During the first weeks of the pandemic, the EMCDDA instigated two rapid assessment studies to identify the initial impact and implications of COVID-19. This current study, conducted between January and March 2021, is a follow-up to the two previous assessments and aims to revisit the initial findings from the earlier studies and identify any signs of further developments in this area. The results from this study provide a first glimpse into new developments emerging both during and in response to the pandemic, and which could have important implications for the future.

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 25 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.

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