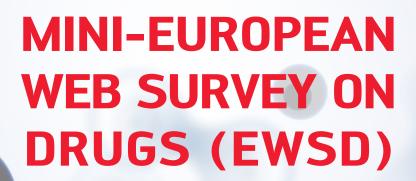






Direction de la santé



IMPACT OF COVID-19 ON DRUG USE, ACQUISITION BEHAVIOUR AND THE DRUG MARKET IN LUXEMBOURG

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INTRODUCTION

The COVID-19 pandemic did not spare the Grand-Duchy of Luxembourg. The measures taken since mid-March 2020 by the Luxembourg Government to constrain the virus had and continue to have an impact on all areas of life, while they are also likely to have a significant impact on people's use of psychoactive substances and illegal drugs. Gathering information on the national situation and the changes associated with the COVID-19 pandemic and its consequences, in order to contribute to the overall analysis of drug consumption behaviours, is highly valuable. Due to the lack of insight on the impact of the COVID-19 pandemic on recreational drug use and the illegal drug market, the current study specifically targeted these topics. Since the outbreak of the COVID-19 pandemic in the Grand-Duchy of Luxembourg, it has been forbidden to organise events gathering an important number of people, and clubs and bars have largely been closed (temporarily), or if open, allowed access with restrictive measures. As such, limits in the number of people in a certain place, sitting at tables, as well as policies requiring wearing a mask when moving around, have become the norm. Additionally, a cancellation of larger cultural, festive and music events has been reported, whereas cultural and recreational institutions have been fully closed or significantly restricted their access. To avoid social contacts, many people have further shifted to teleworking and teleshopping. These factors are assumed to have led to a decrease in the use of those psychoactive substances predominantly consumed in festive contexts (e.g. stimulants such as MDMA or amphetamines), whereas other factors, such as feelings of boredom, loneliness and fear, may have led to an increase in the use of other substances (e.g. alcohol, tobacco and cannabis) (Brissot et al., 2020; Paulos et al., 2020; Schori & De Simone, 2020; Vanderbruggen et al., 2020; van Laar et al., 2020; Cousijn et al., 2021). Moreover, due to a temporal closure of borders of neighbouring countries, reintroduction of systematic border controls and further restrictions related to travelling during the confinement period between March 16 and April 20 and thereafter, less presence of dealers in the streets and a sharp decline in cross-border trade have been observed. It has therefore been expected that the national drug market would also be affected (Ministry of Health, 2020). A possible shortage of supply on the market may have prompted dealers to sell differently, and drug users to buy more online and larger stocks of poor quality products with potential higher prices (EMCDDA, 2020a, 2020b; Schori & De Simone, 2020).

While web surveys are not representative of the general population, they can help to paint a more comprehensive, realistic and timely picture of drug use among specific target groups on national levels (Matias et al., 2019). As many people have been staying at home for a much greater part of their time since the outbreak of the COVID-19 pandemic and increased their engagement with the internet, especially for socialising, working and online shopping, web surveys are considered the most effective tool for data collection purposes on health-related issues during the sanitary crisis.



OBJECTIVES

This online rapid response study investigated the impact of the COVID-19 related restrictions on drug consumption patterns and drug acquisition behaviours among a targeted convenience sample of recreational drug users in the Grand-Duchy of Luxembourg during the post-lockdown period of April to June 2020. The study further examined perceptions of change regarding the drug market including accessibility, price, purity and quantity obtained among the target population. Gaining better insight into the impact of COVID-19 national response measures on patterns of drug use and drug acquisition habits may help to improve health policies and practice responses.

METHODS



STUDY PROCEDURES

To avoid selection bias based on language skills, the standardised online questionnaire *European Web Survey on Drugs (EWSD): COVID-19* as developed by the EMCDDA was made available online through a platform of the European Commission in 21 languages between the 17th of April and the 3rd of June 2020. This study was hence conducted during the state of crisis, pronounced for the period between the 13th of March 2020 and the 24th of June 2020, in the context of the COVID-19 health crisis and the restrictions imposed by the Luxembourg Goverment (Ministère d'Etat, 2020). The study specifically targeted adults aged 18 years or above with experience of illicit drug use over the past 12 months. Thus, all the participants who reported being adult and having residency in Luxembourg were eligible to participate. Participation was fully anonymous, confidential and voluntary, as neither IP addresses nor any personal information were collected.

PROMOTION OF THE SURVEY AND RECRUITMENT PROCEDURES

The national launch of the EWSD was supported by the Ministry of Health and Directorate of Health, and involved partnerships with national drug prevention and treatment institutions, including 4motion asbl (project PIPAPO referring to recreational drug use). For the purpose of the national implementation of the *EWSD: COVID-19*, the promotion and recruitment of participants for the *EWSD: COVID-19* was done by use of online promotion through Facebook® and the launch of Facebook Ads developed in collaboration with a national NGO and PIPAPO. For promotion of the online survey at the national level through Facebook, specific visual images (see images 1 and 2) with Graphics Interchange Format (GIFs) were developed. The images and GIFs used were intended to be both appealing although neutral in the sense of communication of a specific attitude towards drug use. In a first promotion phase (April 17 until May 03), the Facebook Ads specifically targeted younger recreational drug users with interest in music, festivals and clubbing (see image 1), whereas in a second phase (May 04 until June 03), the Facebook Ads targeted a more adult, active working population (see image 2). For further information, we refer to the relevant Facebook webpage that had specifically been developed for the purposes of national EWSD studies:

https://www.facebook.com/EuropeanWebSurveyonDrugsLuxembourg.



Image 1: Background picture used for the specific EWSD Facebook page – phase 1



Image 2: Background picture used for the specific EWSD Facebook page – phase 2

DESCRIPTION OF THE QUESTIONNAIRE

The online survey included different modules, covering few basic socio-demographic factors (age, sex, country of birth), engagement in COVID-19 restrictions (home isolation, physical isolation, home quarantine, hospital admission and other) and modules on drug use, drug acquisition behaviour, and drug market. The module on drug use specifically assessed use of different types of drugs during the past year and past 30 days, frequency of use, change in the type and quantity of drug used, and change in the mode of administration as a result of COVID-19 restrictions (as compared to before). The module on drug acquisition behaviour assessed whether drugs were obtained/attempted to obtain since the outbreak of COVID-19, the types of drugs obtained and difficulties in accessing drugs because of COVID-19, and change of the acquisition mode for obtaining drugs. Finally, the module on drug market assessed perceptions and any observation of change in the purity, price, or amount of drug(s) obtained since COVID-19.

DATA ANALYSIS

During the wave of the *EWSD*: *COVID-19*, 424 respondents completed the online survey in one of the 21 languages available. Statistical recoding and cleaning procedures were conducted on the dataset. Four respondents were excluded from further statistical analysis due to a large number of missing values (≥ 33%), leading to a total number of N=420 valid respondents. Descriptive statistics were conducted using SPSS version 26. Due to missing values on some variables, the N (number of valid respondents) varies for the different types of analyses performed.



424Respondents



21 Languages available



≥ 33% Missing values

RESULTS

Socio-demographic characteristics of the sample (N=420)

The sample is constituted of 132 women (31.4%) and 278 men (66.2%), whereas 10 respondents (2.4%) did not indicate their gender. The median age is 29 years (min: 18y; max: 80y) and the average age is 32.2 years. More than half of the respondents (61.7%) are aged between 18 and 34 years old, followed by the age group of 35-44 years (21.7%), and those above the age of 45 (13.3%). A small proportion (3.3%) did not indicate their age.

Drug use and changes in drug use behaviour

Figure 1 shows prevalence of use of different illicit drugs during the past year and during the past 30 days prior to responding to the web survey. In general, and for all the drugs reported, prevalence rates are lower during the past 30 days compared to the past year.

Prevalence rates are highest for cannabis use – slightly more than three-quarter of the sample (76.9%) reported having used cannabis during the past year. The prevalence rate of cannabis use during the past 30 days is inferior although still high (69.3%). About one-quarter of the respondents (24.5%) reported having used cocaine during the past year, while the proportion of last month cocaine users reaches 11.9%. Past-year use of ecstasy/MDMA is also quite prevalent among the sample (19.8%), whereas only 4.8% reported having used this drug during the past 30 days prior to responding to the survey. Use of all the other drugs, independently of using them during the past year or the past 30 days prior to responding to the survey, were only reported by a relatively small proportion (< 12.0%) of the sample.

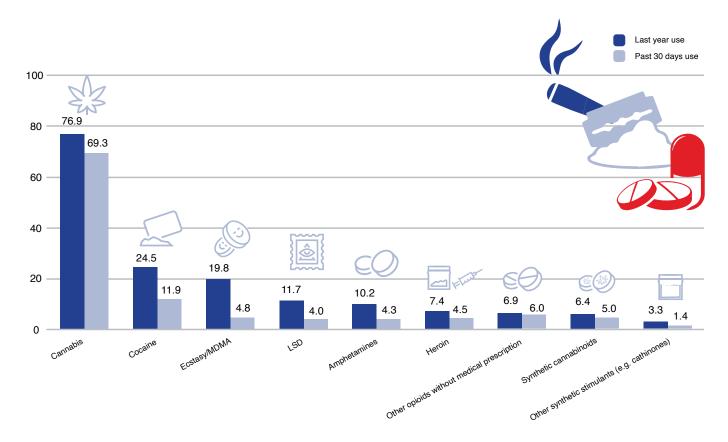


Figure 1. Respondents (valid %) declaring the use of drugs the past year and the past month prior to responding to the survey Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages ≠ 100%.



It appears that prevalence rates of past year use and past 30-days use differ most for cocaine, MDMA, LSD and amphetamines, with past year prevalence rates being more than twice the rates of past 30-days. Use of all the other drugs assessed during the survey seems to be less affected by the timing of use (past year vs past 30 days prior to responding to the survey). Also, after the COVID-19 lockdown (i.e. past 30 days prevalence), cocaine appears to be second most frequent drug after cannabis, followed by ecstasy/MDMA, LSD, amphetamines, heroin, other opioids, synthetic cannabinoids and other synthetic stimulants, respectively (see Figure 1).

Following the drugs used during the past 30 days, participants were asked about their consumption frequency. Figure 2 shows participants' reported frequency of use during the past 30 days. It appears that only 30.0% of the participants reported never or not having used cannabis in the past 30 days prior to responding to the survey. Focusing on cannabis use during the past 30 days, about 44.6% reported having a daily (31.7%) or almost daily consumption (12.9%), while fewer respondents indicated using cannabis more than once a week (10.7%), once a week (4.5%), or less than once a week, but at least once a month (9.5%). With regard to frequency of cannabis use during the past year prior to the survey (data not depicted in Figure), the following declarations were made: 22.4% reported a daily use, 15.0% an almost daily use, 11.9% using more than once a week, and 5.7% reported using once a week. Only 14.1% of the participants reported using cannabis less than once a week in the past year.

With regard to frequency of use of cocaine during the past 30 days, 0.9% reported using on a daily or almost daily basis, 1.9% more than once a week, 3.3% once a week, and 5.7% less than once a week. The other drugs were reported to be used mainly less than once a week during the past 30 days (Figure 2).

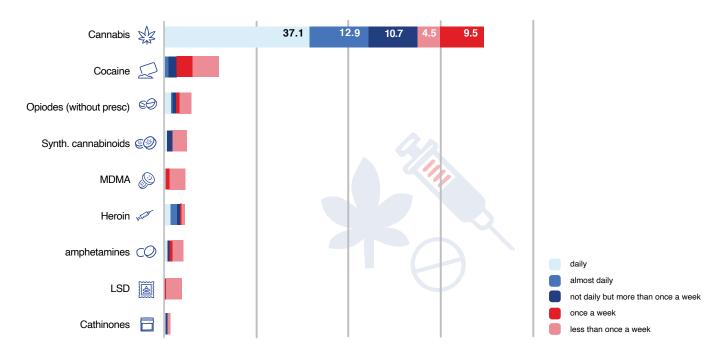


Figure 2. Respondents' frequency rates of drug use (valid %) during the 30 days prior to responding to the survey

Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages ≠ 100%.

Engagement in COVID-19 related measures

Figure 3 shows that the majority of the respondents of our web survey (73.1%) was engaged in home isolation as a consequence of the COVID-19 measures implemented by the Luxembourg Government, followed by physical isolation which related to avoiding public places and social gatherings, and working or studying from home (62.6%). Only a few respondents mentioned that they had been in home quarantine (2.1%). Other protective measures were rarely reported, mostly relating to hygienic measures (4.5%). A minority of the respondents mentioned that they were not involved in any of the COVID-19 restrictive measures (6.4%) at the time the survey was conducted (see Figure 3).

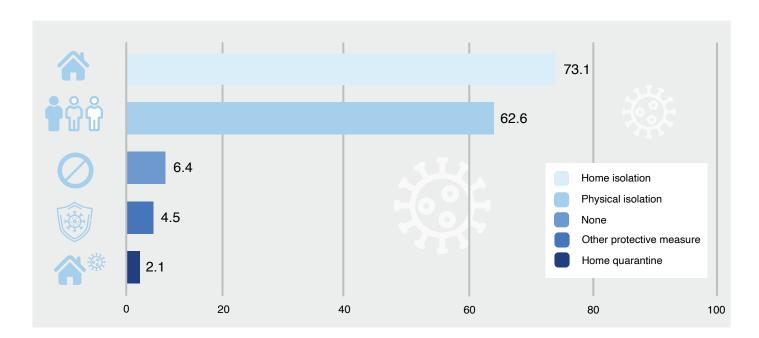


Figure 3. Respondents (valid %) declaring their personal situation related to the COVID-19 restrictions Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages ≠ 100%.

Patterns of cannabis and other drugs use: a focus on reported behaviour change

With regard to the reported change and the impact related to the COVID-19 restrictions on cannabis use in particular, 29.8% of the respondents declared having adapted their cannabis use, and 27.1% reported an increased frequency of use (see Figure 4). A detailed look at the behaviour change patterns shows that 9.8% reported using a greater amount compared to 4.5% using less quantity in session. Few respondents (8.1%) reported the use of alcohol instead, whereas the use of alternative drugs (1%) or psychoactive medicines (2%) seemed too limited and anecdotal. A small proportion of the respondents reduced their frequency of use (7.1%) or fully stopped the use of cannabis (4.3%), most likely due to the nationally implemented COVID-19 restrictive measures.

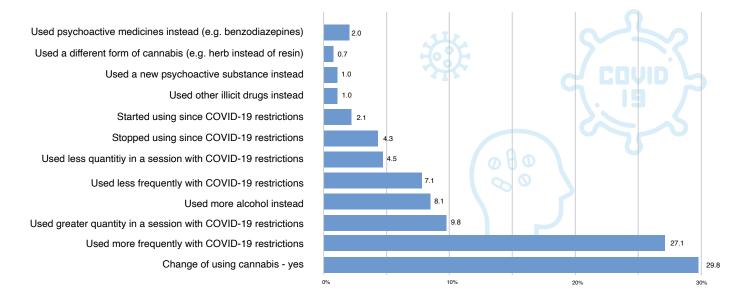


Figure 4. Respondents (valid %) declaring a change of cannabis use since the COVID-19 restrictions

Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages \neq 100%.



Figure 5 depicts that only a small proportion (< 15.0%) of the respondents reported a change in their consumption habits regarding the other reported drugs (please note that prevalence rates for other drugs besides cocaine and MDMA/Ecstasy are low among the sample). The type of change in use was not further specified, meaning that the categories as presented in Figure 5 are mutually exclusive. Overall, few respondents (< 6.6%) declared a reduction in frequency or cessation of use since the implementation of the COVID-19 restrictions. Moreover, a negligible number of respondents mentioned an increase in the quantity or frequency of use (< 1.4%), or use of another illicit drug or psychoactive substance instead (< 1.1%).

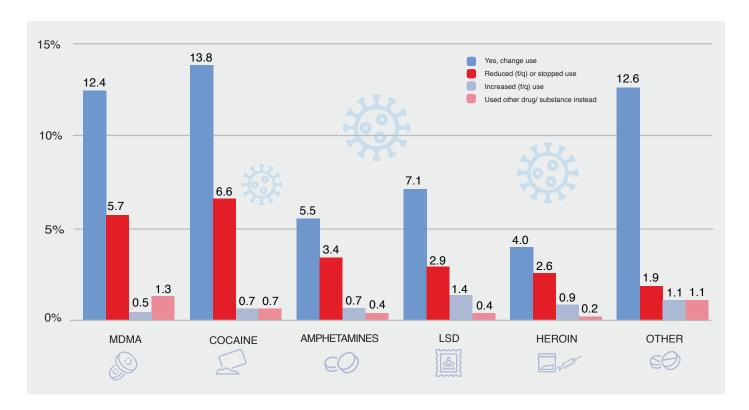


Figure 5. Respondents (valid %) declaring how their use of drugs changed since the COVID-19 restrictions Note: Questions only apply to those who report having used these drugs. Answer categories are not mutually exclusive.

Further analysis of behaviour change and patterns of use reveal that nearly half of the respondents (44.5%) declared using the same amount (21.3%) or more drugs (21.2%), compared to a quarter of the respondents (26%) who declared using less (12.9%) or not having used illicit drugs at all (13.1%) (data not shown in Figure).

Figure 6 shows the three main reasons given for a decreased use: the reduced availability of drugs to buy (7.1%), fewer opportunities to use drugs (6.9%), and/or a reduced ability to obtain drugs (6.4%). Other issues related to health or to living or economic situations, but each of these reasons scored less than 5% among the sample (worried about effects on health: 4.5%; living arrangement make it difficult to use drugs: 3.8%; loss of money/income to buy drugs: 2.6%; saving money due to future financial uncertainty: 1.4%; other: 3.8%) (data not shown in Figure). The main reasons given for an increased drug use are: boredom (15.2%), anxiety or coping with COVID-19 (6.9%), and the stockpile of drugs due to uncertainty on the illicit market (3.3%). Few mentioned an increased use due to the fact that they have more money available (1.7%) or a greater ability to obtain drugs (0.7%). Other reasons were rarely mentioned (< 2.4%). Overall, few responses were obtained explaining the decrease or increase of the drug use as a result of the COVID-19 restrictions.

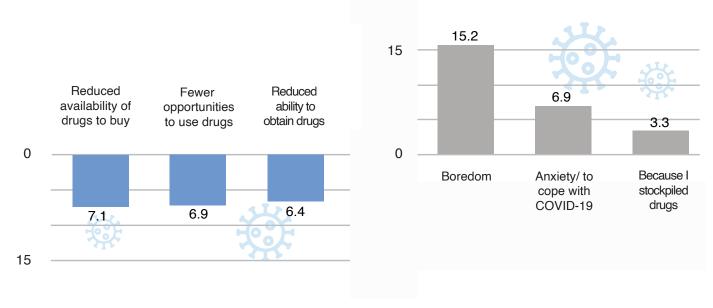


Figure 6. Most frequent reasons (valid %) for increased or decreased drug use as a result of the COVID-19 restrictions Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages ≠ 100%.

As regards change in the mode of consumption, the majority of the respondents declared neither having swallowed (82.6%), snorted (79.0%) nor injected (96.7%) drugs since the first implementation of the COVID-19 sanitary measures. Those who reported these consumption modes mostly reported no change or some decrease in using these consumption modes. About than one-quarter of the respondents mentioned to not use "smoking" as their main consumption mode (25.7%). However, among those who smoked, respondents reported using the same (38.6%), an increase (23.8%) or a decrease (11.9%) in their consumption mode (i.e. smoking) (data not shown not in Figure).

Results of our study further show that about half (50.7%) of the respondents obtained or attempted to obtain drugs since the implementation of the COVID-19 restrictions. Among the total sample, 44.3% attempted to obtain cannabis and 7.6% attempted to obtain cocaine. As past year and past 30 days prevalence rates were overall higher for these drugs, this may coincidence with a drop in drug availability, a reduced access to sources of drug supply or a reduced motivation to consume these drugs. All the other drugs reported were attempted to obtain by less than 5% of the total sample, reflected by the small prevalence rates of use.

Although 39.5% of the respondents declared changing the way they obtained illicit drugs, 16.2% of the total sample affirmed to buy larger quantities on a single occasion and 12.4% buying from a different dealer. In total, 16.7% of the respondents declared not having accessed illicit drugs, and 13.3% reported a reduction in the quantity or frequency they buy. While 4.8% of the sample indicated a reduced face-to-face collection of illicit drugs compared to before, 2.9% of the total sample reported arranging for more home delivery and/or postal delivery since the implementation of the COVID-19 restrictive measures. Other reasons for changes in obtaining drugs were rarely mentioned by the sample (results not shown in Figure).

A focus on change in the national drug market

The survey finally assessed the observation of a change in the purity of drugs, their price or the quantity received since the outbreak of COVID-19 (see Figure 7). Nearly half of the respondents did not provide an answer to these questions. Nevertheless, of those who responded, the majority agreed in the view that there was nearly no change in the drug market concerning the purity/strength or the quantity of the drug obtained. Concerning the price, 21.4% indicated the same, and 26.2% indicated to have experienced an increase in price. No clear trend of change since the outbreak of the COVID-19 can be observed.

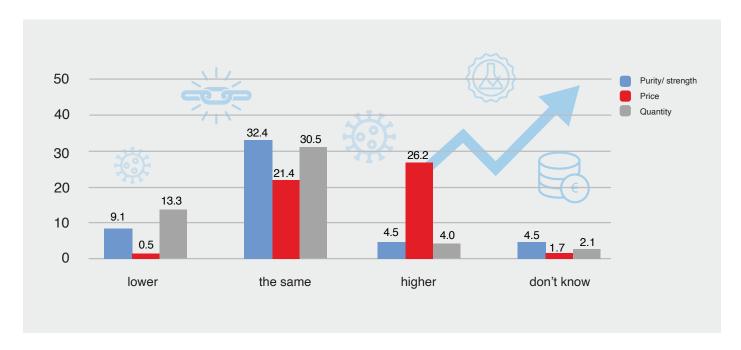


Figure 7. Respondents (valid %) declaring a change in drug market since the outbreak of COVID-19 Note: Answer categories are not mutually exclusive and missing values reported; hence sum of percentages ≠ 100%.



DISCUSSION

Our study sample is predominantly characterised as young recreational drug users: young adults with a greater experience of drug use than reported by the general population (e.g. Berndt, Seixas & Origer, 2020). These demographical characteristics are largely consistent compared to study populations of surveys conducted in festive recreational settings in the Grand-Duchy of Luxembourg (e.g. Paulos, Hagen & Loverre, 2020). Preliminary findings of our nationally implemented web-based survey suggest an overall decline in drug use, or some forms of behavioural adaptation of drug use, among those who responded to the survey, taking into account the modified living conditions and the reduced mobility in Luxembourg during the first month after the COVID-19 related lockdown. A combination of factors could explain this, notably national confinement measures, which have radically reduced opportunities to use drugs within social environments, and the disruption of street drug markets, resulting in a decline in the availability of some drugs or a reduced number of opportunities to buy drugs.

The past 30 days prevalence rates for each drug, particularly regarding cannabis use, revealed to be somewhat lower compared to the past year prevalence rates. This observation may generally suggest that those people participating in our survey did not significantly increase their consumption after the lock-down was implemented by the Luxembourg Government. However, one needs to note that prevalence rates during the past month are generally and naturally lower than prevalence rates during the past year among general populations and recreational users (Berndt, Seixas & Origer, 2020). Yet, in our study, the reported frequency of cannabis use was slightly higher for the past 30 days compared to the past year, which may suggest that users adopted a different consumption pattern during the period of investigation.

The results of our study further reveal that the use of cocaine and the use of MDMA appear to have been most affected. The reduction of the use of these stimulants is most likely linked to the reduced mobility, the closure of the nightlife and its economy, the cancellation of festive events, and the implementation of stay-at-home measures as brought in by the Luxembourg Government.

It is notable that slightly more than one quarter of the respondents reported increasing their use of cannabis during the period under study. The reasons reported include the relief of both boredom and anxiety, but also the stockpile of drugs. Here again, this is most likely due to the situation of reduced mobility. One-tenth of the sample even reported using a greater amount of cannabis in a session, while few switched towards using alcohol or other psychoactive substances instead. The results suggest that those who may generally have had more frequent or intensive patterns of use may have increased their cannabis consumption, while some users – probably those using more occasionally – may have stopped using or reduced their use since the implementation of the COVID-19 restrictive measures.

Some respondents also reported an increase in the frequency of their drug use, but others at the same time a decrease in the quantity used on a single session. This further suggests some users were adapting their consumption patterns to their modified living situation (e.g. reduced mobility, stay at home, a shift of responsibilities). Although these findings are not generalisable to the general population, similar reports have emerged from the special COVID-19 version of the Global Drug Survey (Winstock et al., 2020), from other countries participating in the launch of the mini-EWSD COVID-19 on their national levels (EMCDDA, 2020b), and from individual studies (van Laar et al., 2020; Paulos et al., 2020; Cousijn et al., 2021).

Concerning the availability or the difficulties to obtain illicit drugs, less information was gathered through the online survey. Taking into account single statements and oral communications with national experts, the drug market in the Grand-Duchy of Luxembourg adapted fast and didn't show a lack of availability nor a significant change in the price during the lockdown. Some respondents of our study reported a decrease of the quality and/or purity of the drugs. Similar observations have also been reported by the results of a Swiss web survey (Schori & De Simone, 2020) and another study in Luxembourg conducted in the period post-confinement in 2020 among high-risk drug users (Berndt et al., 2021).

A few limitations of our study and its results need to be borne in mind. Our web-based survey relied on a self-selected sample, and the analysis presented here, particularly with regard to findings on the perceived impacts on recreational drug use behaviours, draws heavily on self-reports from people who use drugs responding to a web survey. This 'convenience' sample based on the availability of participants strongly limits the generalisability of the results, as also indicated by a web survey conducted in 2018 in the Grand-Duchy of Luxembourg (Berndt et al., 2020) and the EMCDDA (Matias et al., 2019). Nevertheless, the views and input of the respondents provide a valuable insight into the experiences of a targeted group of drug users during the COVID-19 sanitary crisis for which it is very challenging to obtain information.

Here we present preliminary findings of a rapid information assessment that can at best provide a snapshot of the state of the subject under consideration during a given period of time. Today, the situation has changed and Luxembourg already adapted it restrictions numerous times. Though nightlife settings remain closed and recreational drug use opportunities are happening at home and during more or less organised parties, or at public spaces in the cities, but also more or less hidden in the countryside. Few information is yet available about this emerging phenomenon urging for additional research.

The results highlight the need to invest in health education and promotion resources to help users to have a less harmful drug or substance use. In addition, many efforts need to be made to keep in touch with the recreational user community through social media and the emerging availability and accessibility of digital tools. It is important to prevent users from adopting an unhealthy or daily drug use pattern that may persist after relaxation of COVID-19 restrictive measures and beyond. Moreover, short and long term trends need to be monitored while follow-up and triangulation with other data sources is required to increase validity and confidence that the findings are applicable to changes in patterns of drug use in Luxembourg as a result of the COVID-19 pandemic and its implemented measures.

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