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NATIONAL DRUG REPORT 2022

THE DRUG PHENOMENON IN THE GRAND DUCHY OF LUXEMBOURG: TRENDS AND DEVELOPMENTS (key issues)

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With the support of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)
and the Luxembourg Information Network on Drugs and Drug Addictions (RELIS)

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THE DRUG PHENOMENON IN THE GRAND DUCHY OF LUXEMBOURG: TRENDS AND DEVELOPMENTS

2022

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This report presents an overview of the drug phenomenon in Luxembourg, covering drug policy, drug supply and demand, prevalence and patterns of drug use, drug use in prison, health consequences and responses, as well as drug markets and crime. The statistical data and analysis presented in this report refer to 2021 or the most recent year for which data are available and were provided to the Luxembourg Focal Point of the EMCDDA (PFLDT) from routine monitoring by the RELIS network, unless stated otherwise.

1. DRUG POLICY

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1.1. NATIONAL DRUG STRATEGY

The 5th National Drug Strategy and Action Plan 2020-2024, relying on the governmental programme 2018-2023[1], was presented by the Health Ministry and the National Drug Coordinator in 2020 and adopted by the Council of government on October 9th 2020 (Ministère de la Santé, 2020). The National Strategy is based on a holistic approach and addresses illicit drugs, alcohol, tobacco, psychotropic drugs and behavioural addictions. The Action Plan 2020-2024 builds upon the two pillars of drug demand and drug supply reduction, and four transversal themes: (1) harm reduction, (2) research and information, (3) international cooperation, and (4) coordination. Its overall objective is to contribute to achieve a high level of protection in terms of public health, public security and social cohesion.

The Grand-Duchy of Luxembourg evaluates its drug policy and strategy by means of routine indicators' monitoring and specific research projects and evaluations. An external mixed-methods evaluation of the 4th National Drug Strategy and Action Plan was conducted by the Trimbos Institute of the Netherlands in 2019, showing that the majority of the objectives outlined in the 2015-2019 action plan were met and proven to be effective, recommending to pursue the adopted approach and underlying principles of evidence-based policies, with a balanced approach and focus on health and human rights (Kools, van der Gouwe & Strada, 2019). The recommendations of the external evaluation contributed to the elaboration of the current 2020-2024 National Drug Strategy and Action Plan. The 2020-2024 National Drug Strategy and Action Plan is transversal and multidimensional, while its elaboration also involves stakeholders and experts from different fields at both national and international levels.

The current National Drug Strategy and Action Plan reflects the priorities set by the government:

- To provide objective and reliable information on psychoactive substances and the effects and potential consequences of their use;
- To prevent and reduce the initiation to drug use and addictive behaviours;
- To ensure decentralised, diversified and high-quality offers of treatment and harm reduction for people suffering from addiction;
- To reduce the prevalence of drug use and addictive behaviours in the general population, as well as health and social damage generated by illicit drug use;
- To reduce damage caused by drug trafficking;
- To contribute to better housing and rehabilitation offers;
- To enhance collaboration with law enforcement agencies at the national and international level.

The Action Plan 2020-2024 lists around 80 separate actions developed in close collaboration with field actors and ministries that were approved by the "Groupe Interministériel Toxicomanie". The domains of action include universal, indicated and selective prevention with a focus on young people; diversity and high-quality treatment and care offers; socio-professional reintegration; reduction of risks and harms, especially among high-risk groups and expansion of substitution treatment offers; research, evaluation and information; supply reduction; coordination and international relations. Special focus is also given to regionalisation and decentralisation, and thereby to the diversification and improvement of the accessibility of treatment offers. In terms of integration and rehabilitation, the objectives to be achieved are the extension of the existing offers of accommodation and supervised housing, adapted to the situations and needs of (ex-) drug users, and low-threshold socio-professional reinsertion measures. Finally, research in the field of illicit drugs and addictions and the evaluation of specialised offers should be further promoted and supported. The selection of specific actions, projects or programmes is based upon a 6-criteria matrix including pertinence, opportunity, feasibility, cost–benefit/quality factors, quality assurance mechanisms and measurability of results/impact. Like

1 Presentation of « Plan d'action national drogues illicites 2020–2024 » : https://gouvernement.lu/dam-assets/documents/actualites/2020/10-octobre/12-plan-action-drogues/Plan-d-action-Drogues-2020-2024-vf.pdf

previous action plans, the 2020-2024 National Drug Strategy and Action Plan will also be subject to a final external evaluation at the end of its implementation.

1.2. DRUG POLICY COORDINATION

The national drug policy coordination primarily involves five ministries: The Ministry of Health, the Ministry of Justice, the Ministry of Internal Security, the Ministry of Family and Integration, and the Ministry of Foreign Affairs. The Ministry of Health is in charge of drug-related demand and harm reduction, the Ministry of Justice and the Ministry of Internal Security are responsible for supply reduction, the Ministry of Family and Integration is competent in the field of homelessness and related integration measures, and the Ministry of Foreign Affairs deals with international cooperation. The Ministry of Health plays a central role as the National Drug Coordinator chairs the ICD (Inter-ministerial Committee on Drugs). This committee is composed of senior delegates from all ministerial departments involved in the drug field, directors of specialised NGOs and invited experts from civil society. Its main purpose is to organise and follow-up the implementation and effectiveness of the National Drug Strategy and Action Plan, as well as to assess the needs and elaborate national recommendations. A more restricted group, including NGOs, is responsible for drafting action plans and national strategies, to be validated by the ICD and approved by the Council of government.

1.3. DRUG-RELATED PUBLIC EXPENDITURE

The global budget of the Ministry of Health granted to drug demand reduction related services and programmes went up from EUR 2,066,000.- in 2000 to EUR 13,994,013.- in 2018, EUR 20,396,878.- in 2020, and EUR 21,759,094.- in 2021, thus witnessing a progression rate of 6,68% compared to the year 2020. In reference to the year 2005, the global budget dedicated to drug demand reduction related services and programmes by the Ministry of Health was EUR 6,196,000.-, revealing a progression rate of 251.18% to 2021. Overall public expenditures in the field of drug demand and drug supply reduction per year have been estimated at 38,500,000.- EUR (Origer, 2010). Expenditures exclusively allocated to drug demand reduction reached 16,231,609.- EUR in 2012.

1.4. LEGAL PENALTIES FOR PERSONAL DRUG POSSESSION AND USE

The national reference law on drugs dates back to February 19th 1973[2], and addresses the selling of pharmaceuticals and the fight against drugs and drug addiction. The 1973 basic national drug law regulates both, the selling of controlled medicines and the fight against drug addiction. This law prohibits the illicit use, transportation and selling of drugs. It has been amended by the law of April 27 2001[3] and again in 2018[4].

In 2001, the respective law of April 27 introduced the following amendments: cannabis use and possession for personal use were decriminalised at the national level and are since then punishable only by a fine (ranging between 251 and 2,500 euros). Prison sentences are foreseen in case of aggravating circumstances (e.g. transportation of large amounts of substances, use in schools or in the presence of minors). In fact, possession of cannabis for personal use is treated as an offence by all EU Member States, while over one third of the countries - including Luxembourg - do not allow prison sentences for minor offences (see Fig. 1). The national law in Luxembourg further introduced alleviation of penalties for simple drug use, and an enhanced overall differentiation of penalties according to the type of drug offences and the nature of controlled substances involved. Penalties for possession and use of controlled substances other than cannabis include imprisonment between 8 days and 6 months and/or a fine. Prosecution may be halted or penalties reduced if a drug user has taken steps to seek specialised help (see Fig. 2).

2 Official gazette A-12 du 3 mars 1973, Loi du 19 février 1973 concernant la vente des substances médicamenteuses et la lutte contre la toxicomanie, p. 319-324. (Adoption: 19.02.1973. Entry into force: 03.03.1973)

3 Official gazette A-61 du 17 mai 2001, Loi du 27 avril 2001 modifiant la loi modifiée du 19 février 1973 concernant la vente de substances médicamenteuses et la lutte contre la toxicomanie, p. 1180. (Adoption 27.04.2001. Entry into force: 17.05.2001)

4 Official gazette A-638 du 1 août, 2018, Loi du 20 juillet 2018 modifiant la loi modifiée du 19 février 1973 concernant la vente des substances médicamenteuses et la lutte contre la toxicomanie, p. 319-324. (Adoption: 20.07. 2018. Entry into force: 01.08.2018)

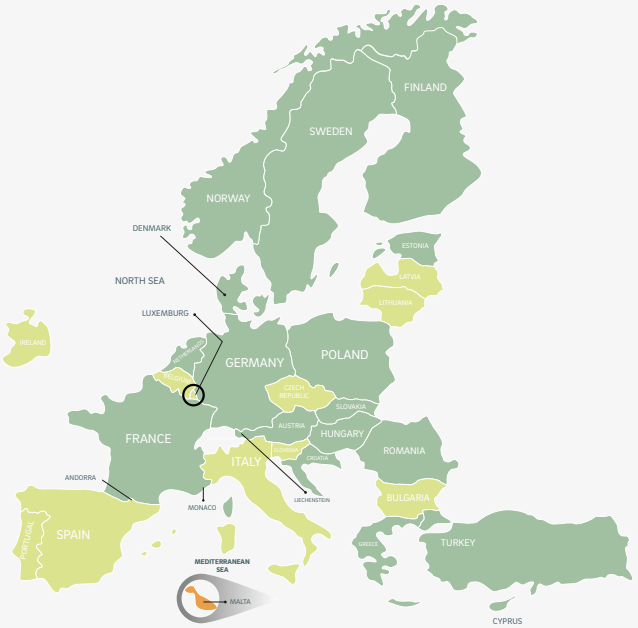


FIGURE 1.

Penalties in law: possibility of incarceration for possession of cannabis for personal use (minor offence) in the European Union, Norway and Türkye (EMCDDA, 2023)

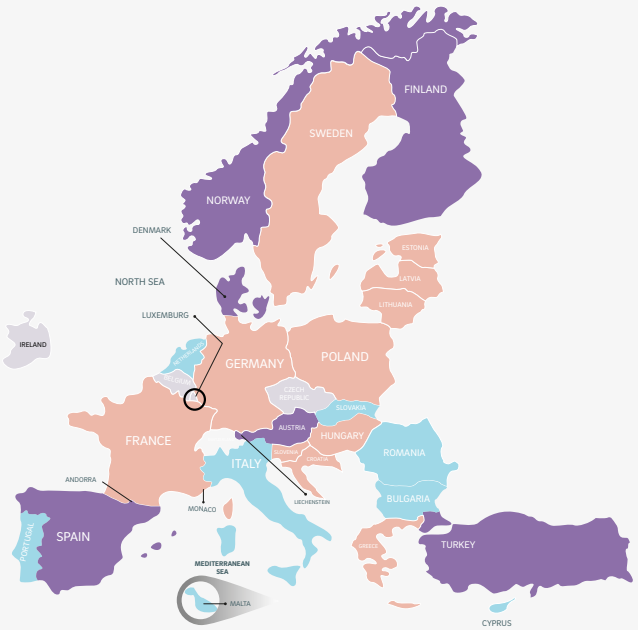


FIGURE 2.

Variation of penalties for drug law offences by drug in the European Union, Norway and Türkiye (EMCDDA, 2023)

The national legislation does not differentiate between small-scale and large-scale drug deals or distribution. Sentences for both currently range from one to 5 years' imprisonment and/or a fine, while a prison sentence of 5 to 10 years can be imposed if the distributed drug has caused severe damage to health. If the drug has fatal consequences for the user, punishment for the provider can be increased to 15-20 years' imprisonment.

New psychoactive substances (NPS) are regulated and controlled by the same legal instruments as other controlled substances. Controlled narcotic, psychotropic and toxic substances are listed by means of various Grand Ducal Decrees.

The law of 27 April 2001 further foresees a legal framework for a series of treatment and harm reduction measures, namely, state accredited drug substitution treatment, needle exchange and supervised drug consumption rooms and Heroin Assisted Treatment (HAT), launched as a pilot programme in June 2017.

1.5. NEW DEVELOPMENTS REGARDING CANNABIS FOR MEDICAL AND NON-MEDICAL PURPOSES

CANNABIS FOR MEDICAL PURPOSES

Legal access to cannabis for medical purposes has been regulated in the Grand Duchy of Luxembourg in 2018. The respective law was modified and entered into force on August 1st 2018 *(« Loi du 20 juillet 2018 modifiant la loi modifiée du 19 février 1973 concernant la vente de substances médicamenteuses et la lutte contre la toxicomanie »*). The Grand Ducal Decree (« *Règlement grand-ducal du 21 août 2018 déterminant les modalités de prescription et d'accès à l'usage de cannabis à des fins médicales, ainsi que le contenu et la durée de la formation spéciale pour les médecins-spécialistes* ») defining the medical prescriptions modalities and respective conditions, as well as the training to be pursued by medical doctors, entered into force on September 28th, 2018[5].

REGULATION OF LEGAL ACCESS TO CANNABIS FOR NON-MEDICAL PURPOSES

By the end of the year 2018, the coalition agreement of the current government included a chapter on a future regulation on legal access to cannabis for non-medical purposes. More specifically, the coalition agreement of the government states that the main purposes of regulating legal access to cannabis for non-medical purposes are to regulate, under conditions yet to be defined, the domestic production as well as the purchase and possession of cannabis for non-medical use for the personal needs of adult residents of the Grand Duchy of Luxembourg. The objectives mentioned in the coalition agreement for regulating legal access to cannabis for non-medical purposes are to reduce the illicit market, to reduce the psychological and physical dangers linked to its use, and to fight crime at the level of supply. The government has agreed on a step-by-step approach, with an initial phase focusing on the drug-related crime prevention component. On October 22nd 2021, the government announced a 'package of measures regarding the problem of drug related crime'. This included an update on the progress towards a national regulation on controlled cannabis production and supply to adult residents, as featured in the government coalition agreement of 2018. On the one hand, it has been proposed that adult residents should be permitted to legally cultivate up to four cannabis plants per household from seeds (not cuttings/seedlings) for personal consumption at home. Consuming cannabis in public will still remain prohibited, but it is foreseen to amend the penalties for small quantities of cannabis use/possession in public. According to the updated proposal, a lighter and more expeditious penal procedure (taxed warnings) is foreseen with regard to adults whose consumption and possession in public, as well as transportation and acquisition does not exceed 3 grams of cannabis

5 Règlement grand-ducal du 21 août 2018 déterminant les modalités de prescription et d'accès à l'usage de cannabis à des fins médicales, ainsi que le contenu et la durée de la formation spéciale pour les médecins-spécialistes et modifiant : 1° le règlement grand-ducal modifié du 19 février 1974 portant exécution de la loi du 19 février 1973 sur la vente des substances médicamenteuses et la lutte contre la toxicomanie ; 2° le règlement grand-ducal modifié du 18 janvier 2005 déterminant le modèle du carnet à souches prévu à l'article 30-1 de la loi modifiée du 19 février 1973 concernant la vente de substances médicamenteuses et la lutte contre la toxicomanie.

(including its derivatives or mixed cannabis products). The fine, which currently ranges between 251 and 2 500 euros, is to be reduced to 25-500 euros and a warning with a penalty of 145 euros may be applied[6]. Discussions and preparations towards the implementation of this approach are ongoing and involve numerous governmental and non-governmental actors. An independent, scientific and impact-oriented evaluation of the project is planned to determine the extent to which the objectives of the proposed government initiative have been achieved. A baseline and subsequent post-policy implementation assessments using a mixed-method design including quantitative and qualitative studies will be conducted to monitor new trends and their impact on public health and crime, in particular with regard to changes in user and acquisition habits, and cannabis-related health consequences and offences. Therefore, a first targeted study among cannabis users will be carried out by the end of 2023.

6 https://gouvernement.lu/fr/actualites/toutes_actualites/articles/2021/10-octobre/22-mesures-criminalite.html

2.

PREVALENCE, PATTERNS AND DEVELOPMENTS IN DRUG USE

2. PREVALENCE, PATTERNS AND DEVELOPMENTS IN DRUG USE

2.1. DRUG USE IN THE GENERAL POPULATION

Drug use among the general population in Luxembourg is assessed by means of the cross-sectional population-based survey "European Health Interview Survey" (EHIS)". The EHIS is implemented in all European Union (EU) Member States and is conducted every five years according to the Regulation 1338/2008 on Community statistics on public health and health and safety at work. A module covering the topic of illicit and new psychoactive substances has been added to the survey by the EMCDDA Luxembourg Focal Point (PFLDT) since 2014. This non-mandatory module assesses the lifetime prevalence, the last year prevalence as well as the last month prevalence of use of several illicit drugs. The latest EHIS wave in Luxembourg took place in 2019.

The data presented in this chapter are based on the 2014 and 2019 EHIS waves. The EHIS measures drugs and NPS' use among the general population aged 15-64 years. In 2019, 3,514 valid questionnaires from respondents of this age category were retained, among those 1,052 valid questionnaires from respondents aged 15-34 years old, and 165 valid questionnaires from respondents aged 15 to 18 years old.

CANNABIS

Cannabis is the drug most commonly used at the national level. Figure 3 compares lifetime, last year and last month prevalence of cannabis use across three age groups. Even though overall data are suggestive of an increase in cannabis use across all age groups between 2014 and 2019, these differences are statistically non-significant:

- Lifetime use – experimental (lifetime) use of cannabis is highest among young adults (15-34 years) with a proportion of 31.5% in 2014, which increased to 32.7% in 2019. Among youngsters (15-18 years), the proportion of lifetime use increased from 16.6% in 2014 to 18.2% in 2019.
- Last year use - recent (last year) use of cannabis among the general population (15-64 years) showed an increase since 2014 (4.8% in 2014 and 5.4% in 2019). This increase is observed among young adults (15-34 years) (9.8% in 2014 and 12% in 2019) and among youngsters (15-18 years) (11.2% in 2014 and 15.2% in 2019). Recent (last year) use of cannabis among young adults (15-34 years) in Luxembourg as assessed in 2019 remains below the EU average – 12.0% in Luxembourg compared to 15.5% EU average as reported in the 2021 European Drug Report (EMCDDA, 2022).
- Last month use – current use (last month) of cannabis increased between 2014 and 2019, notably among the youngest users (15-18 years) – 4.7% in 2014 and 7.3% in 2019 (see Fig. 3).

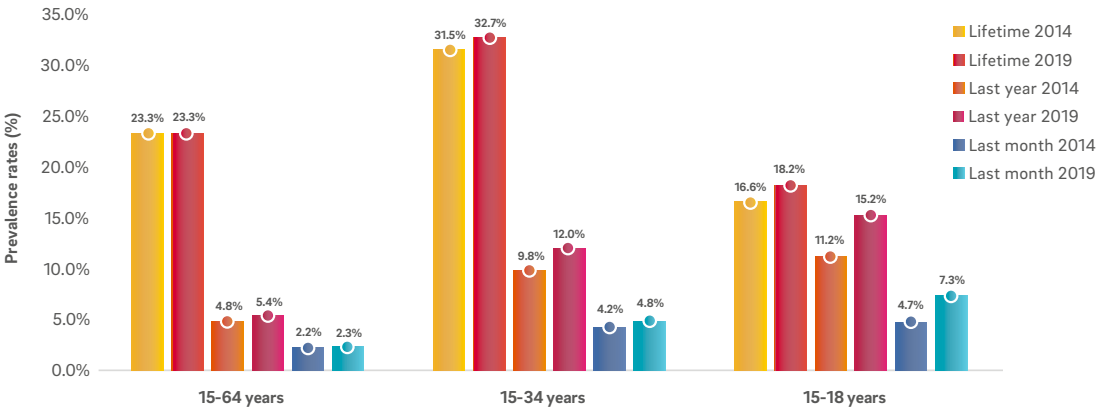


FIGURE 3.

Lifetime, last year and last month prevalence of cannabis use across different age groups: comparison of 2014 and 2019 data (EHIS, 2014, 2019)

Gender differences - gender differences are also worth mentioning. In 2014 and 2019, a higher proportion of men reported cannabis use compared to women (in lifetime, as well as last year and last month):

- Men reported greater recent (last year) cannabis use (7.0% of the entire male population aged 15-64 years and 16.5% of male young adults aged 15-34 years) compared to women (4.0% of all women aged 15-64 years and 9.3% of young women aged 15-34 years).
- With regard to current use (last month), the proportion of young male adults who reported having used cannabis is more than double the proportion of young female adults both in 2014 (6.7% of men and 2.1% of women) and in 2019 (7.9% of men and 3.0% of women) (see Fig. 4).

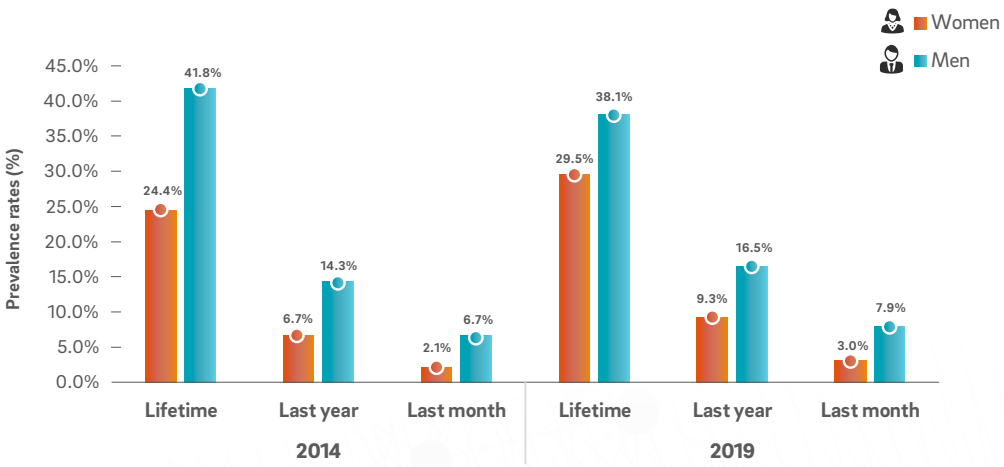


FIGURE4.

Lifetime, last year and last month prevalence of cannabis use among male and female young adults (15-34y): comparison of 2014 and 2019 data (EHIS, 2014, 2019)

OTHER SUBSTANCES

The 2014 and 2019 EHIS waves reveal that stimulants are the most commonly used drugs among the general population, after cannabis:

- Lifetime use - in 2019, a slightly higher proportion of young adults (15-34 years) reported experimental (lifetime) use of ecstasy/MDMA, cocaine and LSD compared to 2014. On the contrary, use of hallucinogenic mushrooms and NPS decreased slightly. These differences are not statistically significant (see Fig. 5).
- Last year use - with regard to recent (last year) use, 2019 data suggest an increase for ecstasy/MDMA, amphetamines, cocaine, mushrooms and LSD use among young adults (15-34 years), and an increase in recent use of ecstasy/MDMA and cocaine when considering the entire population (15-64 years) compared to 2014 data. These differences are not statistically significant though. Recent (last year) use of stimulants among young adults (15-34 years) as measured in 2019 in Luxembourg are below the EU average (EMCDDA, 2022) – ecstasy/MDMA (0.9% in Luxembourg compared to 1.9% EU average), amphetamines (0.3% in Luxembourg compared to 1.4% EU average), and cocaine (0.9 % in Luxembourg compared to 2.2% EU average) (see Fig. 6).

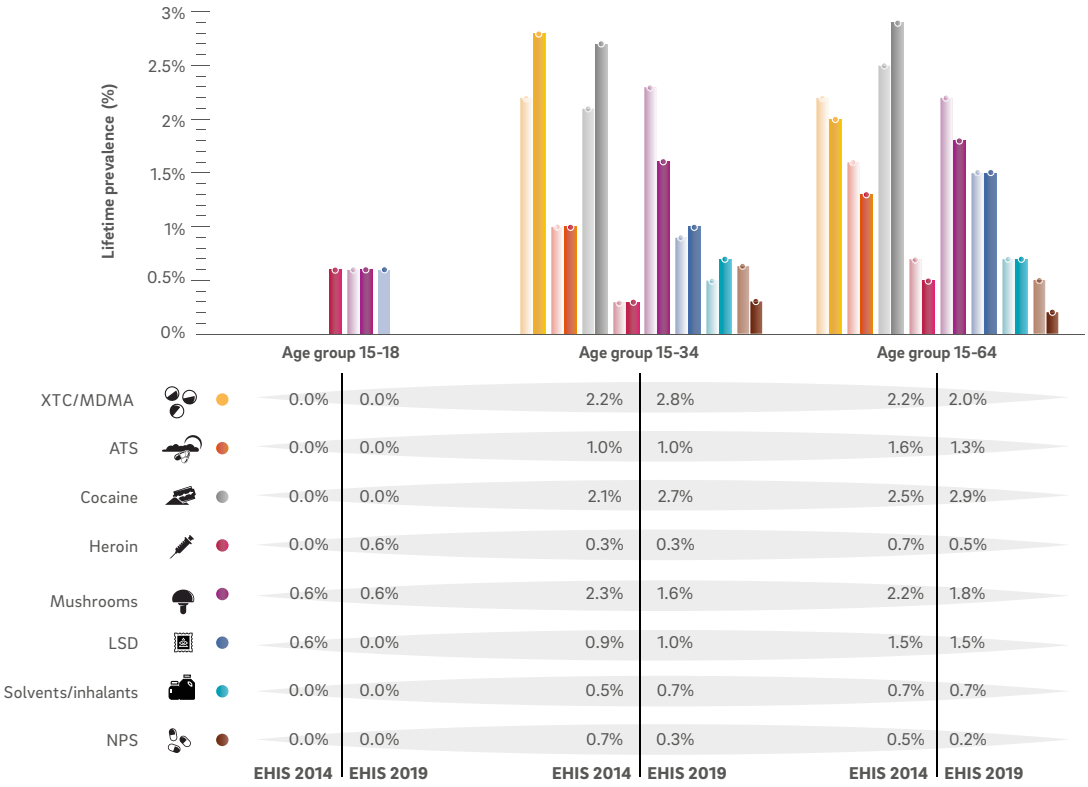


FIGURE 5.

Lifetime prevalence of illicit drugs' use across different age groups: comparison of 2014 and 2019 data (EHIS, 2014, 2019)

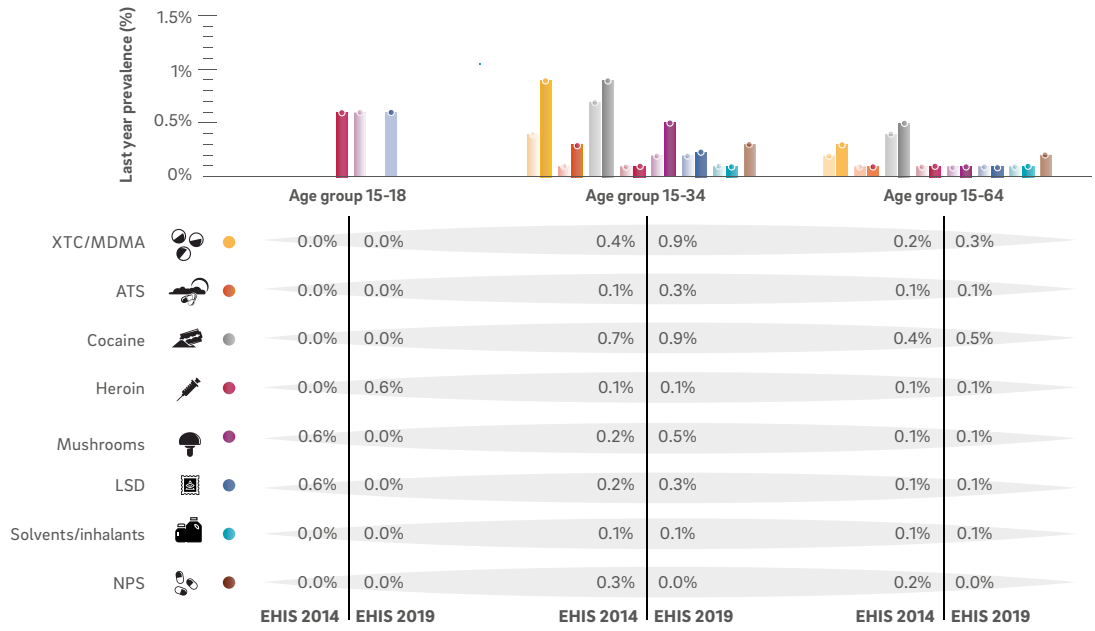


FIGURE 6.

Last year prevalence of illicit drugs' use across different age groups: comparison of 2014 and 2019 data (EHIS, 2014, 2019)

Last month use - as far as current use (last month) is concerned, EHIS data are suggestive of a decrease in the prevalence rates for the majority of drugs. This said, it is important to highlight that in Luxembourg, due to the small size of the population, the subsamples of specific age groups (e.g. 15-18 years) concerned by the questions on recent use (last year) and current use (last month) are small. Hence, the differences in the prevalence rates are explained by very small differences in terms of the number of effective cases (see Fig. 7).

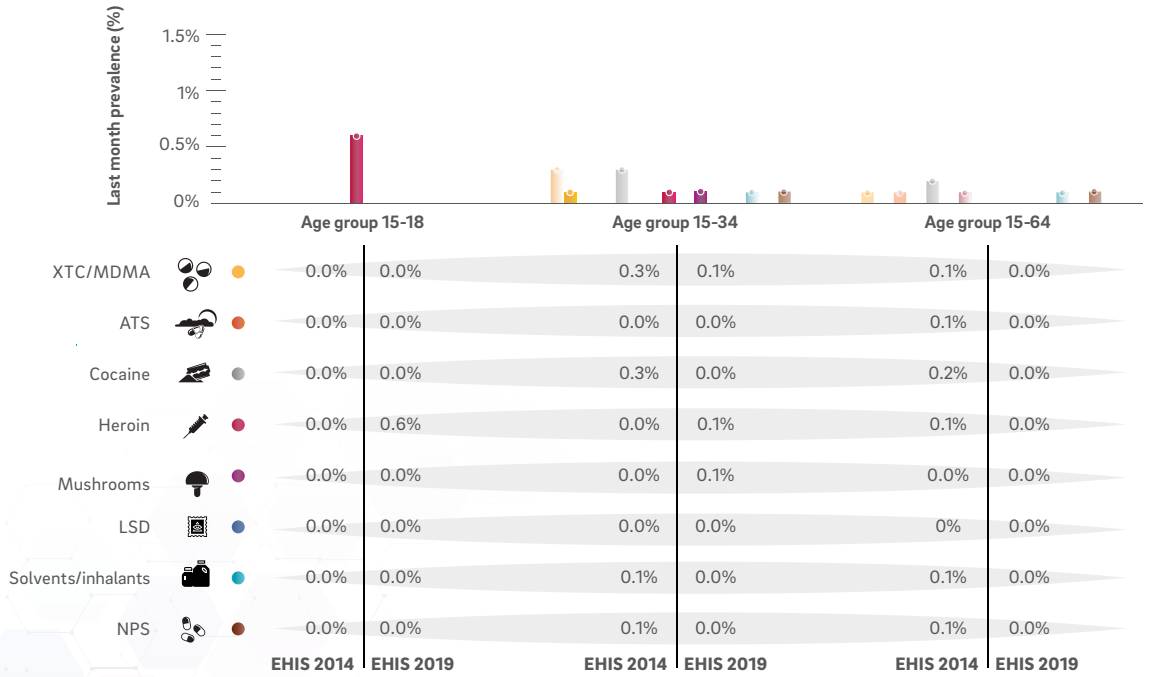


FIGURE 7.

Last month prevalence of illicit drugs' use across different age groups: comparison of 2014 and 2019 data (EHIS, 2014, 2019)

- Average age of first use - cannabis and solvents are the drugs with an earlier average age of first use (cannabis at 19 years and solvents at 17 years of age) (EHIS, 2019). The initiation of using other drugs such as ecstasy/MDMA (on average at 22 years), LSD (on average at 21 years), and NPS (on average at 30 years) appears to occur at a later age. It is relevant to highlight that the average age of first use of heroin (23 years in 2014 and 19 years in 2019) and the average age of first use of amphetamines appear to be decreasing (21 years in 2014 and 20 years in 2019).
- Gender differences - on average, EHIS data from both 2014 and 2019 yield that women report trying drugs at the same age or later than their male counterparts, except for heroin, hallucinogenic mushrooms and solvents.

2.2 DRUG USE AMONG YOUNG SCHOLARS

Drug use among young scholars is assessed through the representative cross-sectional survey "Health Behaviour in School-Aged Children (HBSC)", which is conducted every four years. The HBSC assesses various health behaviours among students aged 11-18 years-old, in both primary and secondary schools. A specific module assessing illicit drug use is presented to those attending secondary schools. The University of Luxembourg scientifically coordinates the HBSC survey in Luxembourg. Five waves have already been conducted in Luxembourg, the first dating from 2006 and the last one from 2022.

Throughout the different HBSC waves, drug-related questions and methodological approaches have been adapted to take into account the challenges of this type of data collection among school-aged children. In all five waves of the HBSC survey, adolescents in secondary schools were consistently asked if they had ever used cannabis in their life (lifetime prevalence) and/or in the past 30 days (last month prevalence). Questions on the use of other illicit substances were not addressed in the 2018 wave. Results related to use of cannabis and use of other illicit substances are hence reported separately. The most recent wave of the HBSC took place in 2022. As data analyses are still ongoing, only cannabis-related results are available and presented here.

The evolution of lifetime and last month prevalence of cannabis use between 2006 and 2018 are presented here as reported in the latest HBSC Luxembourg trends report (Heinz, van Duin, Kern, Catunda, & Willems, 2020), however the present report includes also the HBSC 2022 validated results on cannabis use. Even though the drug questions were presented to all secondary students, only the results for the students aged 15-18 years are reported.

This methodological decision is due to the fact that younger students (below 15 years-old) can be found in both primary and secondary schools. Since the HBSC survey is conducted exclusively in secondary schools, prevalence rates for these age groups (< 15 years-old) would not be representative in general, but only for those who attend secondary schools.

The consumption of other substances are also relevant for the understanding of the overall picture of drug use among this population. The analysis of these data followed different methodological criteria and are reported for scholars aged 13-18 years old and for the period 2006-2014, as presented in the 2018 National Drug Report (Berndt, Seixas, & Origer, 2019). Results of the 2022 HBSC wave regarding consumption of other substances are not yet available.

CANNABIS

> Lifetime and last month use - lifetime use of cannabis among scholars has been relatively stable over the last 16 years (around 30%).

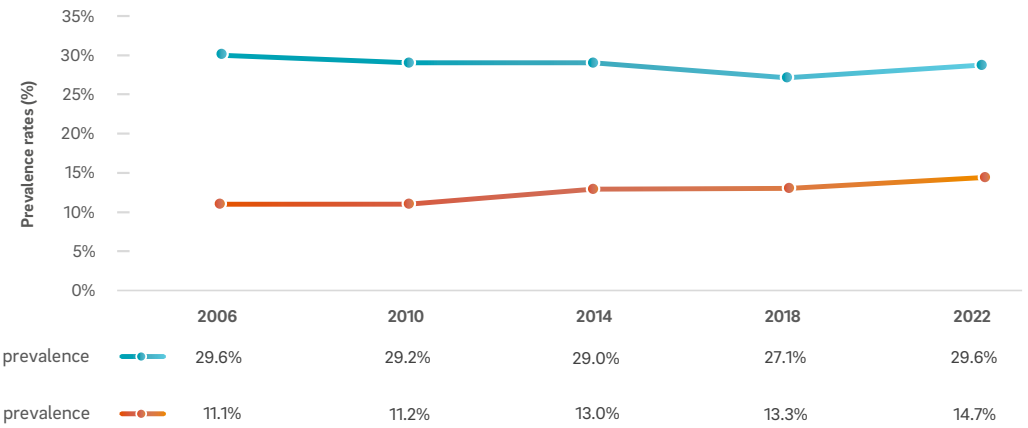
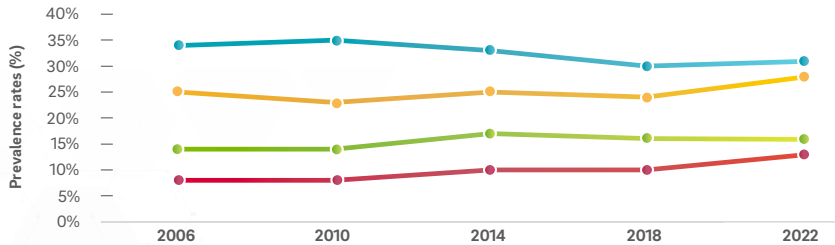


FIGURE 8.

Lifetime and last month prevalence of cannabis use among scholars (15-18 years-old) (valid %) (HBSC, 2006-2022)

- While experimental (lifetime) use has been stable, current (last month) use has been following an increasing trend since 2006 (2006: 11.1%; 2022: 14.7%) (Fig. 8). Lifetime use of cannabis is less meaningful than current (last month) use of cannabis as it covers both experimental and regular use. Considering the more meaningful indicator of last month use, results from the HBSC suggest an overall rise of the proportion of young scholars (boys and girls) who report using cannabis currently (during the last month).
- Gender differences - a closer look into gender differences suggests that the proportion of experimental (lifetime) and current (last month) cannabis users is slightly higher among boys than among girls:
  - For both genders, an increase in current (last month) cannabis use has been observed between 2006 and 2022 - for girls it increased from 8% in 2006 to 13% in 2022, and for boys from 14% to 16% in the same period.
  - The proportion of boys with an experimental (lifetime) use of cannabis has been ranging between 30% and 35% over the past HBSC waves (34% in 2006; 31% in 2022), whereas the proportion of girls with an experimental (lifetime) use of cannabis has been situating between 23% and 28%. Among girls, a slight increase between 2018 and 2022 can be observed (24% in 2018; 28% in 2022) (see Fig. 9).



	2006	2010	2014	2018	2022
Lifetime Prevalence boys	34%	35%	33%	30%	31%
Lifetime Prevalence girls	25%	23%	25%	24%	28%
Last month Prevalence boys	14%	14%	17%	16%	16%
Last month Prevalence girls	8%	8%	10%	10%	13%

FIGURE 9.

Lifetime and last month prevalence of cannabis use among young scholars (boys and girls) (15-18y) (valid %) (HBSC, 2006 – 2022)

- Age differences - prevalence rates of cannabis use are, in general, higher among the older age groups (17-18 years) than among the younger age groups (15-16 years).
  - Among boys, current cannabis use has been slightly decreasing among the youngest (15 years-old) and fluctuating across those with 16-18 years of age. Recent data (2022) suggest a decrease in current use among the oldest boys (18 years-old) and an increase among 16 years-old students (Fig. 10) (HBSC, 2022).
  - On the contrary, among girls, current cannabis use appears to be increasing across all age groups except the 18 year-old girls, whose consumption has remained stable compared to 2018 (Fig. 11) (HBSC, 2022).

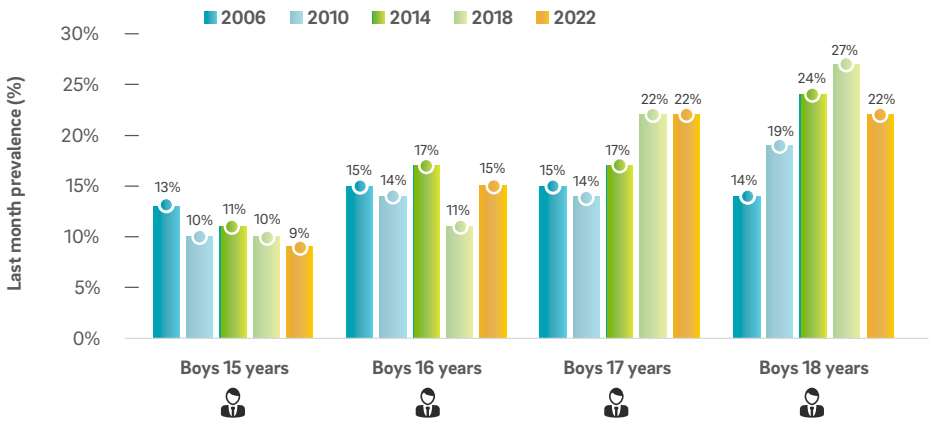


FIGURE 10.

Last month prevalence of cannabis use among boys across different ages (valid %) (HBSC, 2006-2022)

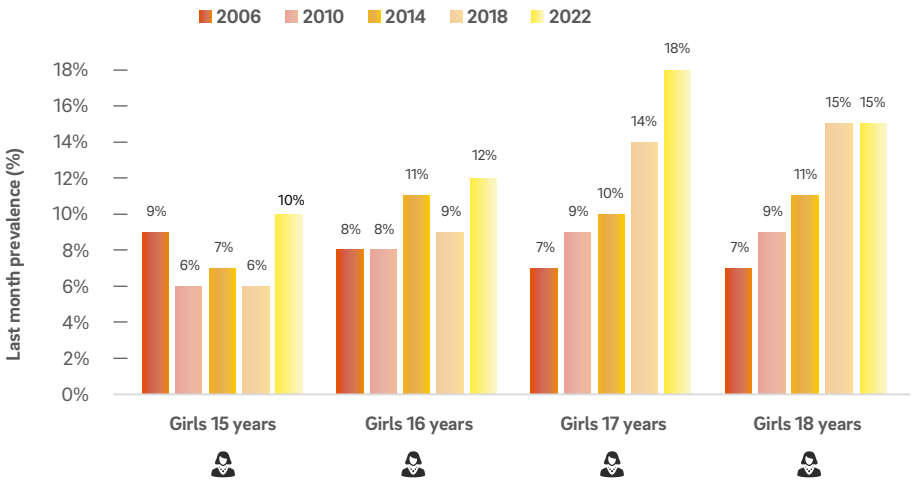


FIGURE 11.

Last month prevalence of cannabis use among girls across different ages (valid %) (HBSC, 2006-2018)

OTHER ILLICIT DRUGS

> Lifetime use – the experimental use of illicit drugs other than cannabis has been assessed in the 2006, 2010 and 2014 HBSC waves:

- Lifetime use of illicit drugs among young scholars (13-18 years) decreased between 2006 and 2014 for a great number of substances – cocaine (2006: 2.1%; 2014: 1.8%); ecstasy/MDMA (2006: 1.7%; 2014: 1.3%); amphetamines (2006: 1.6%; 2014: 1.1%); hallucinogenic mushrooms (2006: 2.1%; 2014: 1.4%); and opioids (2006: 0.9%; 2014: 0.8%) (Origer, Lopes da Costa, & Diederich, 2008; Origer, et al., 2012; Berndt et al., 2019).
- However, with regard to LSD and "abuse of medication to get high", increases were observed during this period – LSD (2006: 0.7%; 2014: 0.9%); "abuse of medication to get high" (2006: 1.9%; 2014: 2.5%) (see Fig. 12).

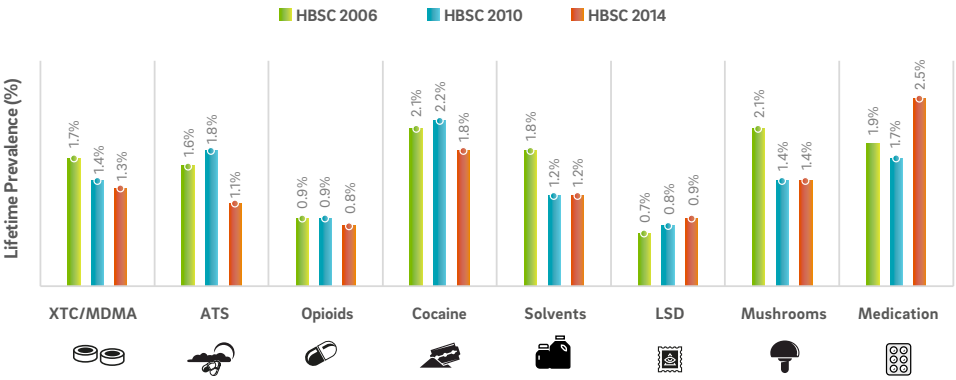


FIGURE 12.

Lifetime prevalence of several illicit drugs' use (age group 13-18 years old) (HBSC, 2006-2014)

> Last year use - regarding recent use of other illicit drugs, the data available date from the 2006 and 2010 HBSC waves:

- Cocaine was the most prevalent drug used by young scholars (13-18y) (after cannabis) – used by 2.1% of the scholars in 2006 and by 1.7% in 2010. Amphetamines, hallucinogens (such as magic mushrooms), ecstasy/MDMA, solvents and opioids were present, although with lower prevalence rates (Origer et al., 2008, 2012) (see Fig. 13).

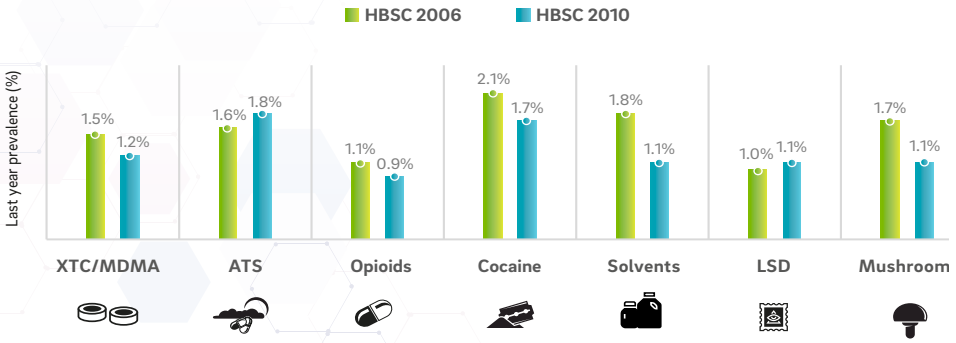


FIGURE 13.

Last year prevalence of illicit drug use among youngsters aged 13-18 years (HBSC, 2006, 2010)

2.3 HIGH-RISK DRUG USE

Some drug users develop more severe forms of use, defined by the EMCDDA as 'high-risk drug use'. High-risk drug users (HRDUs) are considered those persons whose recurrent drug use is causing actual harms (negative consequences) to the person (including dependence, but also other health, psychological or social problems), or is placing the person at a high probability/risk of suffering such harms (EMCDDA, 2019). According to the national definition, HRDU is associated to a high probability of intervention or the need of involvement of a third party from the law enforcement or care/treatment demand sectors. Data on HRDU originate from the national monitoring system RELIS[7], which encompasses both types of data.

7 Réseau Luxembourgeois d'Information sur les Stupéfiants et les Toxicomanies (RELIS)

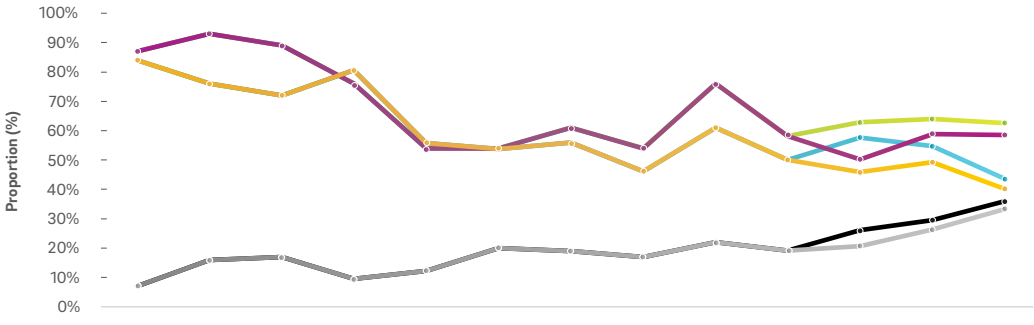
NATIONAL ESTIMATION OF THE NUMBER OF HRDUS

- The annual number of HRDU person contacts indexed by the national institutions (treatment demand and law enforcement) figured 5,221 in 2021 (multiple counts included) (4,917 in 2020; 5,548 in 2019; 5,290 in 2018).
- The latest HRDUs estimations were performed on 2019 RELIS data using the incremental OST multiplier method (IOMM) (Origer, 2018, in National Drug Report 2018 [Rapport RELIS] - Berndt, Seixas & Origer, 2019 ; Seixas, Berndt, & Origer, 2021):
  - According to the estimation from 2019, the national prevalence of HRDUs situates around 2,162 persons (prevalence rate: 5.06 per 1,000 inhabitants aged 15-64y), remaining relatively stable compared to the estimation conducted in 2018 (2018: 2,100 persons; prevalence rate: 5.02 per 1,000 inhabitants aged 15-64y).
  - Among the HRDUs, 1,427 are estimated to be high-risk opioid users (OU), corresponding to a prevalence rate of 3.34 per 1000 inhabitants aged 15-64y (2018: 1,470 OU; prevalence rate of 3.51 per 1000 inhabitants aged 15-64y).
  - Approximately, 822 are injecting drug users (IDUs) with a prevalence rate of 1.93 per 1,000 inhabitants aged 15-64y (2018: 800 IDUs; prevalence rate of 1.91 per 1,000 inhabitants aged 15-64y) in Luxembourg.
  - Although HRDU, OU and IDU prevalence rates remain stable, some indicators point at an increasing marginalisation of certain groups of users. Part of the HRDUs may thus not be in contact with treatment centres or low-threshold facilities (and perhaps neither with law enforcement).

CHARACTERISTICS AND PATTERNS OF USE

- During the last 15 years, the average age of the HRDUs in Luxembourg has been ranging between 30 and 40 years. In 2021 HRDUs were, on average, 38 years of age (2020: 37 years; 2019: 35 years). While the average age of HRDUs remained stable over the last year, an overall increase has been observed in the past ten years.
- The majority of the indexed HRDUs were male (78.8%) in 2021 (79.9% in 2020; 77.3% in 2019). The proportion of female HRDUs was slightly larger compared to previous year (21.2% in 2021; 20.1% in 2020; 22.7% in 2019).
- The majority of the HRDUs report a stable residence (50.2%) in 2021 (50.2% in 2020; 63.2% in 2019), however, the proportion of HRDUs reporting homelessness (21.0% in 2021; 24.5% in 2020; 13.1% in 2019) or instable residency situations (17.7% in 2021; 16.0% in 2020; 12.1% in 2019) has been overall increasing in the past years.
- Around two thirds (65.1%) of the HRDUs are inactive (2020: 57.0%) – among those, approximately one-third benefit from social aids (2021: 26.0%; 2020: 31.4%) and 3.8% receive unemployment benefits (2020: 3.5%). A smaller proportion of the HRDUs report a stable (2021: 14.0%; 2020: 12.3%) or unstable job (2021: 6.4%; 2020: 5.5%), or to be currently studying (2021: 6.8%: 2020: 10.2%).
- In 2021, the majority of HRDUs (65.4%) were born in Luxembourg (64.1% in 2020; 67.2% in 2019), followed by 13.1% born in Portugal (13.9% in 2020; 11.7% in 2019), 4.2% in France (5.1% in 2020; 2.9% in 2019), and 3.8% in Germany (4.2% in 2020; 4.2% in 2019). With 2.1%, a minority of HRDUs were born in Cape Verde (negligible % in 2020 and 2019), and 1.7% in Belgium (3.4% in 2020; 1.2% in 2019). Other countries of birth are negligible.
- With regard to the type of primary drug use among HRDU, it is relevant to note that from 2019 onwards, the RELIS sample started to systematically include adolescents/young adults with high-risk cannabis use (in treatment at the 'Impuls' drug counselling centre). This represents a relevant change in the characteristics of the typical RELIS target group, hence the relative proportions of primary use of opioids and/or cocaine tend to be lower compared to previous years. In order to allow for a comparison with previous years, data since 2019 are presented both in- and excluding respondents from the youth treatment service 'Impuls'. When considering the entire RELIS sample (i.e. people in contact with all drug treatment centres across the country, including 'Impuls'), a comparison between 2019 and 2021 data suggest a decrease in primary opioid use and an increase in primary cocaine use. More specifically:
  - Primary use of opioids shows a discontinuous decrease since 2000 (from 84% in 2000 to 40.2% in 2021). Compared to previous years, the 2021 proportion of HRDUs indicating primary use of opioids decreased significantly (49.4% in 2020; 45.9% in 2019). This trend contrasts with a discontinuous increase in use of cocaine as primary drug (33.2% in 2021; 26.4% in 2020; 20.7% in 2019).

- When 'Impuls' treatment demanders are excluded from the sample analysis, available data reinforce the idea that the primary use of opioids are following a discontinuous decreasing trend, while cocaine is clearly on the rise (see Fig. 14).



	2000	2004	2008	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021
Opioids	84.0	76.0	72.0	80.6	55.8	53.8	55.9	46.1	61.0	50.0	45.9	49.4	40.2
Opioids (excluding Impuls)	84.0	76.0	72.0	80.6	55.8	53.8	55.9	46.1	61.0	50.0	57.7	54.9	43.1
Cocaine	7.0	16.0	17.0	9.5	12.2	19.9	19.0	17.0	22.0	19.2	20.7	26.4	33.2
Cocaine (excluding Impuls)	7.0	16.0	17.0	9.5	12.2	19.9	19.0	17.0	22.0	19.2	26.1	29.6	35.6
Polydrug use	87.0	93.0	89.0	76.0	54.0	54.0	61.0	54.0	76.0	58.2	50.2	59.1	58.3
Polydrug use (excluding Impuls)	87.0	93.0	89.0	76.0	54.0	54.0	61.0	54.0	76.0	58.2	62.9	63.8	62.3

FIGURE 14.

Trends in primary drug use among HRDUs (N=241; % self-reported) (RELIS, 2021)

- Although polydrug use is very prevalent among HRDUs, it has been witnessing a discontinuous decreasing trend since 2004. In 2021, 58.3% of the HRDUs reported polydrug use (59.1%[8] in 2020; 50.2% in 2019). When excluding the high-risk cannabis users and hence a sample comparable to previous years, the proportion of polydrug users reaches 62.3% in 2021 (63.8%[9] in 2020; 62.9% in 2019) (RELIS, 2021).
- During the last years, an overall decrease in heroin use and an increase in the use of cocaine and cocktails (mixtures of heroin and cocaine) have been observed at the supervised drug consumption rooms (CNDS Abrigado):
  - While in 2013 heroin was used in 93% of the consumption episodes, in 2021, this substance was only used in 61% of the consumptions.
  - On the contrary, in 2013 only 4% of the consumption episodes involved cocaine and 3% cocktails, while in 2021 cocaine was used in 18% and cocktails in 21% of the consumption episodes (Fig. 15).
  - Compared to the previous year, in 2021, the proportion of consumption episodes including cocaine use decreased, while the proportion of episodes including cocktails and heroin increased. In 2021, the use of cocktails in the drug consumption rooms at CNDS Abrigado was more prevalent than the use of cocaine.

8 The 2020's proportion of HRDUs with polydrug use has been retroactively corrected.
9 The 2020's proportion of HRDUs (excluding high-risk cannabis users) with polydrug use has been retroactively corrected.

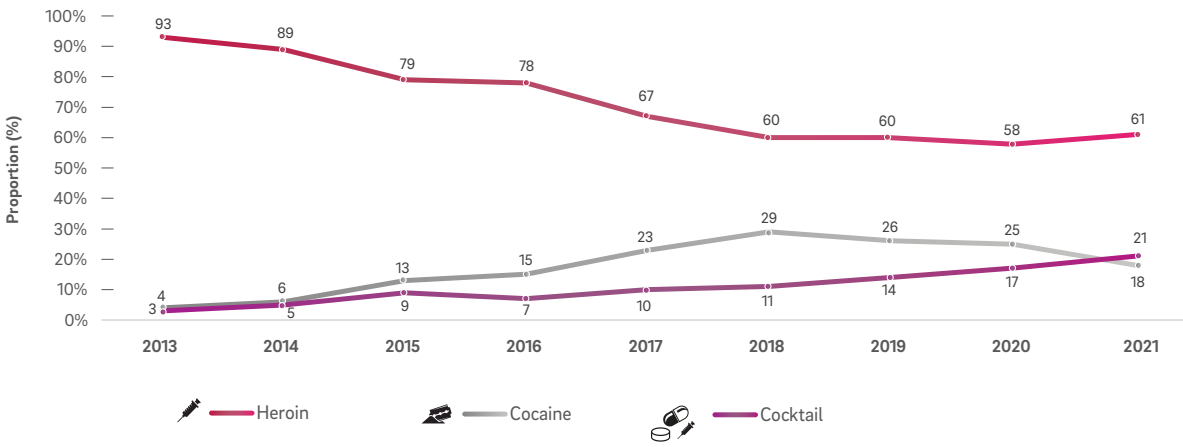


FIGURE 15.

Trends in the proportion of heroin, cocaine and cocktails consumption episodes at the Abrigado drug consumption rooms (%) (CNDS Abrigado, 2022)

> A different pattern has been reported by the supervised drug consumption rooms at the 'Contact Esch'[10]. While in 2020 an increase in the proportion of consumption episodes including heroin, and a decrease in cocaine and cocktails was reported, in 2021 the proportion of heroin use decreased (64.6% in 2021; 79.2% in 2020; 40.0% in 2019), whereas the proportion of cocaine (31.0% in 2021; 16.7% in 2020; 31.0% in 2019) and cocktails (4.5% in 2021; 4.1% in 2020; 10.0% in 2019) increased.

> Inhalation (chasing/blowing) is increasingly frequent and has been the most common route of administration at CNDS Abrigado drug consumption rooms since 2018 – it represented 41% of the consumptions in 2014, 52% in 2020 and 50% in 2021. Injection represented 49% of the consumption episodes in 2021 and nasal/sniffing 1% (Fig. 16).

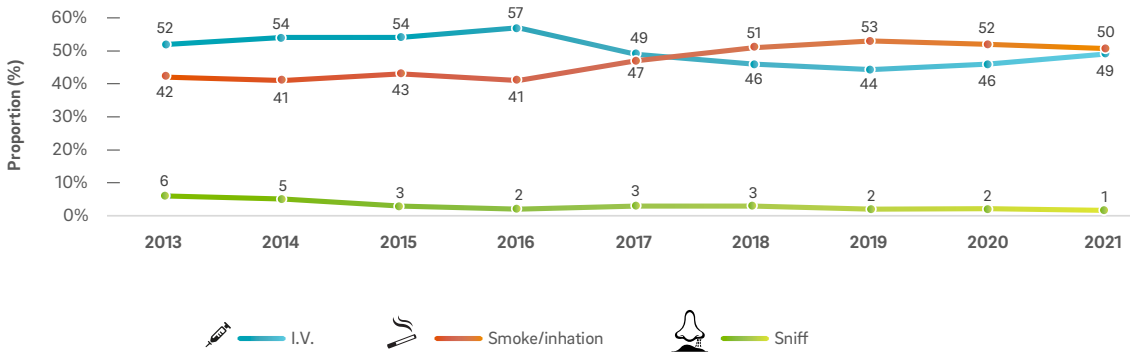


FIGURE 16.

Trends in the proportion of consumption episodes according to their routes of administration at Abrigado drug consumption rooms (%) (CNDS Abrigado, 2022)

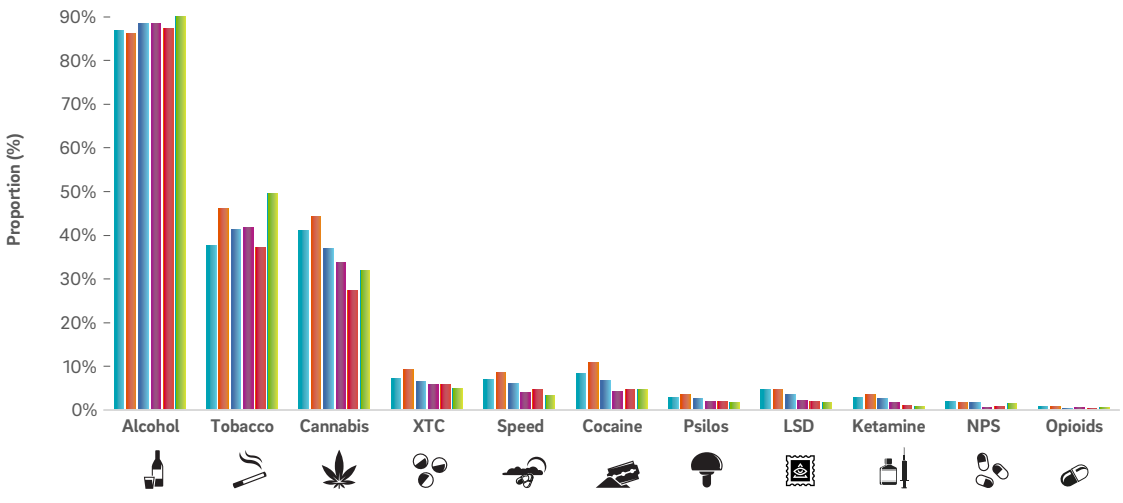
10 A drug consumption facility including an injection room and an inhalation room, run by the Foundation 'Jugend-an Drogenhëllef' (JDH) opened in 2019 at the main harm reduction centre - Contact Esch - in Esch-sur-Alzette, in the South of Luxembourg.

- At the supervised drug consumption rooms at Contact Esch, in 2021, 37% of the clients used injection as their route of administration (29% in 2020; 24% in 2019), compared to 61% who used inhalation (69% in 2020; 75% in 2019), and 1% sniff (2% in 2020; 1% in 2019). This suggests that the HRDU population in the South of the country shows slightly different consumption patterns, compared to Abrigado clients.
- Overall, data are indicative of a positive shift towards safer consumption modes. The information and prevention work done by the staff from harm reduction centres has most probably contributed to this change.

2.4. DRUG USE IN SPECIFIC TARGET GROUPS

DRUG USE IN FESTIVE AND NIGHTLIFE SETTINGS (PIPAPO SURVEY)

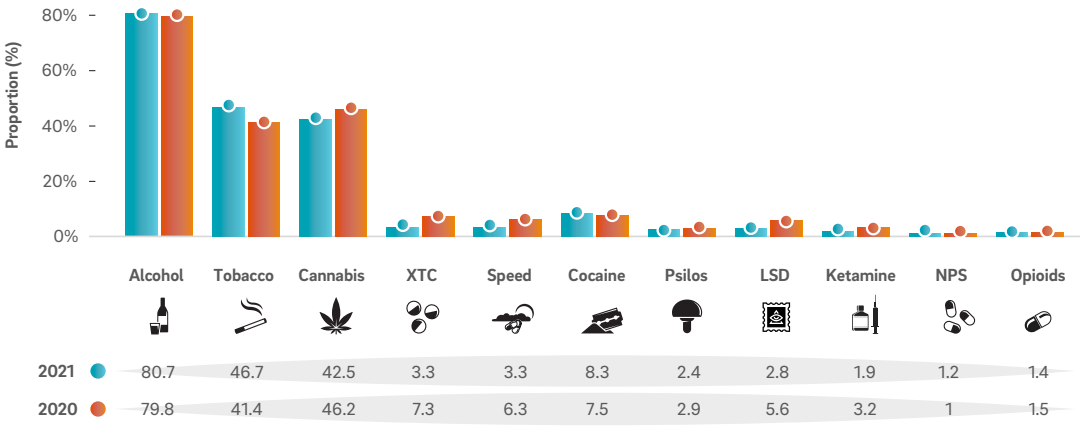
- Drug use in festive and nightlife settings is analysed yearly by the project 'Pipapo' from 4Motion asbl. A rapid assessment survey is implemented at several festive and nightlife venues in Luxembourg. The main goal is to describe the characteristics of the specific group of users attending these events as well as to follow the recreational drug use in festive contexts in Luxembourg.
- Pipapo uses a self-administered paper-and-pencil survey. The questionnaire, addressing drug use "in the last 2 weeks", can be completed on a volunteer basis and no particular exclusion criteria are applied.
- In 2020 and 2021, the COVID-19 sanitary crisis impeded the implementation of the routine Pipapo activities (presence in festivals and nightlife events) and affected their yearly rapid assessment of drug use among "party goers". In order to adapt to the restrictions in place, in 2020 the concept "Party safe" was developed. Since 2020, the rapid assessment survey is also conducted during "Party Safe" interventions. The number of valid responses to the rapid assessment survey in 2020 and 2021 was lower compared to the previous years (N = 576 in 2021; N= 411 in 2020).
- In 2021, the sample consisted of 301 males (52.3%), 252 females (43.8%) and 23 non-binary identities (4%) (44.3% males, 55.2% females and 0.5% non-binary). Results reflect data from previous years: cannabis as the most frequently used illicit substance, followed by cocaine, ecstasy/MDMA and amphetamines/speed.
- Figure 17 presents the evolution of recent illicit drug use among recreational drug users between 2014 and 2019. Data from 2020 and 2021 are not comparable to previous years as nightlife was highly impacted by the COVID-19 sanitary crisis due to the restrictive measures implemented by the government (temporarily closure of bars/clubs, cancellation of events, etc.). Therefore, these data are presented separately in Figure 18.
- In 2019, cannabis was the most frequently illicit drug used in festive settings (41.1%) followed by cocaine (8.3%), ecstasy/MDMA (7.2%), and amphetamines (ATS/speed) (7.1%). Between 2014 and 2018, data suggest an increase in the reported recent use of all substances. However, from 2018 to 2019 a slight decrease was observed regarding the recent use of cannabis, ecstasy, speed, cocaine, hallucinogenic mushrooms (psilos), LSD and ketamine (see Fig. 17).
- As shown in Figure 18, in 2020 and 2021 similar trends were observed. Cannabis was the most frequently used illicit drug in festive settings (42.5% in 2021; 46.2% in 2020), followed by cocaine (8.3% in 2021; 7.5% in 2020), ecstasy/MDMA (3.3% in 2021; 7.3% in 2020) and amphetamines (ATS/speed) (3.3% in 2021; 6.3% in 2020). Between 2020 and 2021, a slight decrease was observed regarding the use of cannabis, ecstasy/MDMA, speed, psilos, LSD, ketamine and opioids. For other substances (alcohol, tobacco, cocaine, NPS), a slight increase was observed.



	Alcohol	Tobacco	Cannabis	XTC	Speed	Cocaine	Psilos	LSD	Ketamine	NPS	Opioids
2019	86.8	37.6	41.1	7.2	7.1	8.3	3.0	4.7	2.9	1.9	0.8
2018	86.2	46.1	44.2	9.3	8.5	10.8	3.4	4.8	3.4	1.6	0.7
2017	88.4	41.2	37.0	6.6	6.0	6.8	2.7	3.6	2.7	1.6	0.4
2016	88.4	41.7	33.7	5.8	4.0	4.3	1.9	2.2	1.6	0.6	0.6
2015	87.3	37.1	27.5	5.8	4.8	4.6	2.1	2.0	1.0	0.7	0.4
2014	89.9	49.6	32.0	4.9	3.3	4.7	1.6	1.8	0.7	1.5	0.6

FIGURE 17.

Evolution of the proportion (%) of recent (last 2 weeks) drug users among visitors of festive and nightlife events (2014-2019 data) (Pipapo survey – Paulos et al., 2020)



	Alcohol	Tobacco	Cannabis	XTC	Speed	Cocaine	Psilos	LSD	Ketamine	NPS	Opioids
2021	80.7	46.7	42.5	3.3	3.3	8.3	2.4	2.8	1.9	1.2	1.4
2020	79.8	41.4	46.2	7.3	6.3	7.5	2.9	5.6	3.2	1	1.5

FIGURE 18.

Evolution of the proportion (%) of recent (last 2 weeks) drug users among visitors of festive and nightlife events (2020-2021 data) (Pipapo survey - Paulos et al., 2022)

> In the past years, males reported higher consumption than females for all substances.

> However, in 2021, females reported a higher consumption of alcohol, while males had a higher consumption for all other substances, similarly to previous years (Fig. 19).

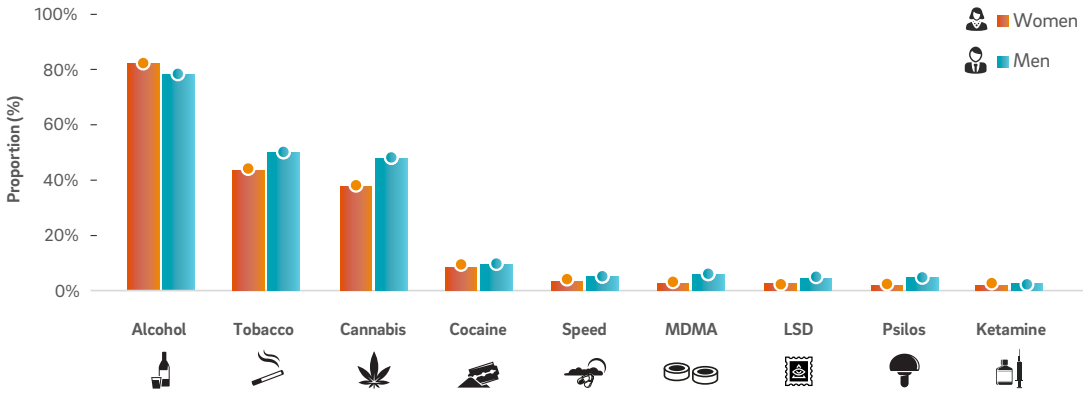


FIGURE 19.

Gender differences in the proportion of recent (last 2 weeks) drug users among visitors of festive and nightlife events (%) (2021 data) (Pipapo survey - Paulos et al., 2022)

DRUG USE AMONG RECREATIONAL USERS: NATIONAL RESULTS OF THE EUROPEAN WEB SURVEY ON DRUGS (EWSD) 2018

> In 2018, the PFLDT participated in the EMCDDA pilot project "European Web Survey on Drugs (EWSD)" aiming to investigate recreational users' consumption habits, attitudes and perceptions towards drug use, as well as to improve knowledge on drug markets at national levels.

> The study relied on a web-based survey launched in three languages - English, German and French. Data were collected between August and September 2018. Participants were recruited via online promotion (Facebook Adds, Google Display and YouTube), distribution of flyers and posters and by direct personal approach in festive and nightlife events. Respondents were selected based on three inclusion criteria: a) aged 18 years-old or above; b) residency in Luxembourg; c) use of at least one illicit drug during the last year.

> In total, a non-representative sample of 1,223 recreational drug users were included in the study - mainly young adults between the age of 18-34 years (67.4% aged 18-24y and 20.8% aged 25-34y) (see Fig. 20), the majority men (69.1% males; 30.1% females; 0.8% transgender) with a secondary or higher education degree (50.1% secondary and 25.2% university). This group of drug users can be described as young recreational users, interested in festivals/nightlife events and connected to online social networks.

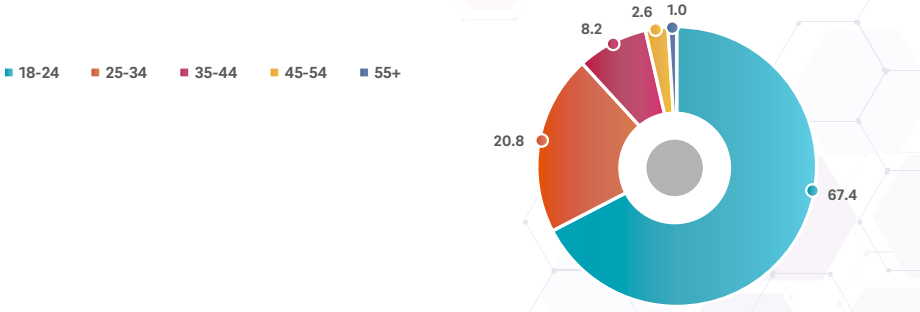


FIGURE 20.

Age categories of the targeted sample of recreational drug users (%) (EWSD, 2018 - Berndt & Seixas, 2019)

PREVALENCE RATES AMONG RECREATIONAL USERS (EWSD, 2018)

- Prevalence rates among this targeted sample of last year drug users were, obviously, much higher than those observed among the general population (see page 10):
  - Cannabis and alcohol were the most prevalent substances both in terms of recent and current use.
  - Cocaine appeared as the second most commonly used illicit drug (recently used by 22.4% and currently used by 13.9% of the respondents) followed by ecstasy/MDMA (recently used by 21.1% and currently used by 10.0% of the respondents).
  - In terms of recent use, other hallucinogens (17.1%) and amphetamines (15.9%) appeared also as relevant drugs, while current use of synthetic cannabinoids (8.6%) deserves further attention (see Fig. 21).
- Use of synthetic cannabinoids and NPS were not negligible (while data from general population surveys and from police seizures suggest only marginal presence of these substances in Luxembourg). Caution is required when interpreting these findings since bias related to participants' conception of NPS cannot be discarded. Further research is needed in order to improve knowledge on NPS' use in Luxembourg.

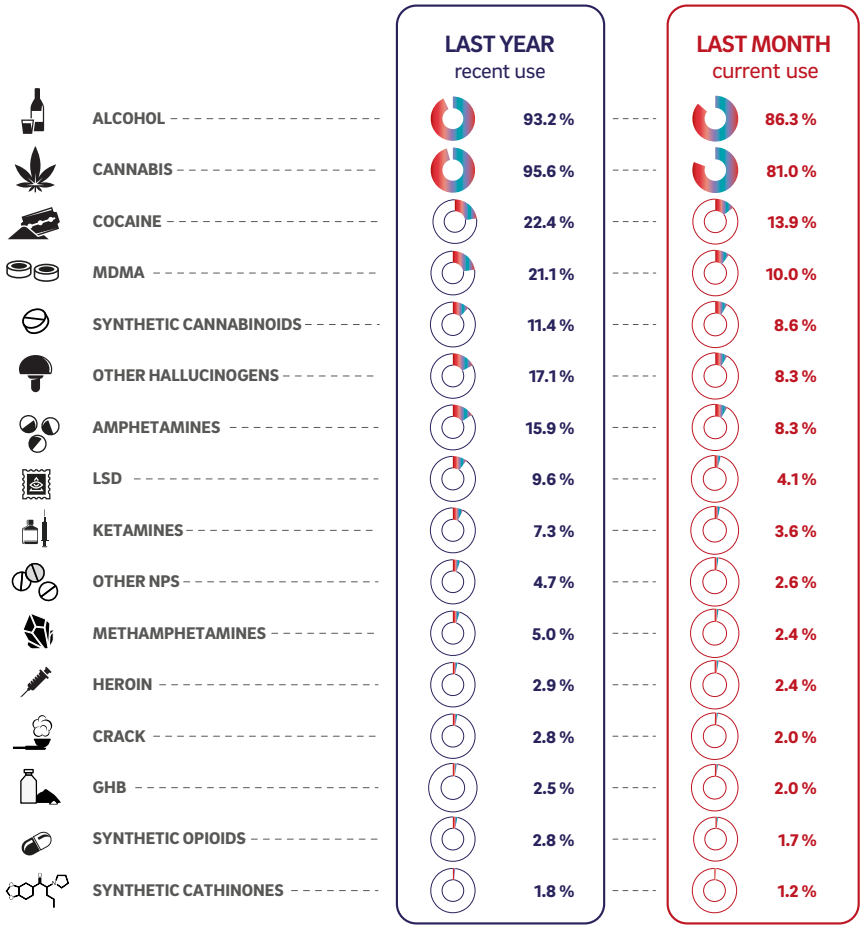


FIGURE 21.

Last year (recent) and last month (current) prevalence rates of drug use among recreational users (EWSD, 2018 - Berndt & Seixas, 2019)

GENDER DIFFERENCES AMONG RECREATIONAL USERS (EWSD, 2018)

> Concerning gender differences among recreational drug users, EWSD 2018 data pointed out that, on one hand, current use of cocaine (χ^2 (1) = 5.92, p <.05) and cannabis (χ^2 (1) = 4.95, p <.05) were significantly more common among men than among women. On the other hand, women tended to use more NPS (χ^2 (1) = 4.44, p <.05) and synthetic cannabinoids (χ^2 (1) = 4.47, p <.05) than men. These findings deserve further investigation. No other significant gender differences were to be reported (Fig. 22).

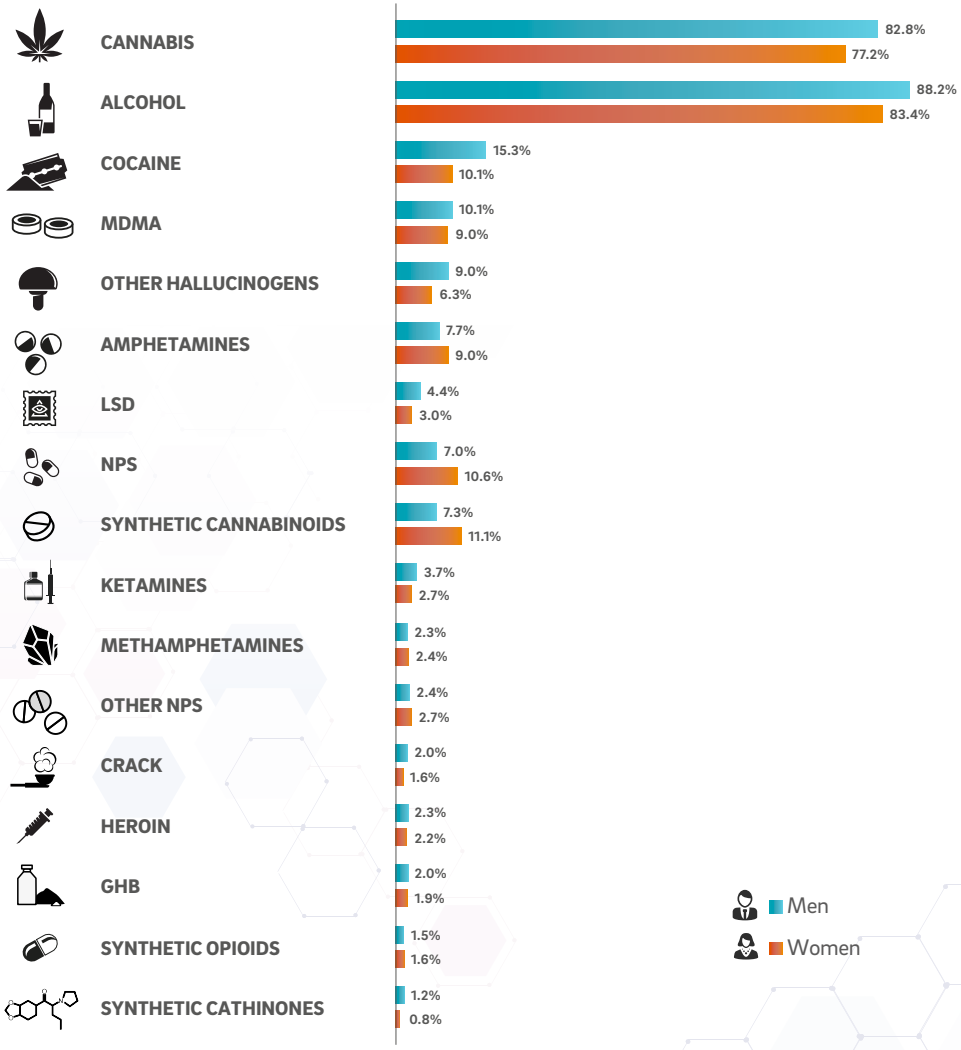


FIGURE 22.

Gender differences in last month prevalence of drug use among the targeted sample (%) (EWSD, 2018 - Berndt & Seixas, 2019)

MULTIPLE DRUG USE AMONG RECREATIONAL USERS (EWSD, 2018)

> Even though single drug use was predominant among the sample of EWSD 2018 respondents, multiple drug use was very common – reported by more than 40% of the respondents. The majority of the multiple drugs users (47.6%) used two different drugs during last year, a smaller number used three (21.7%), four (16.1%) or five up to ten (14.6%) different types of drugs (Fig. 23, 24).

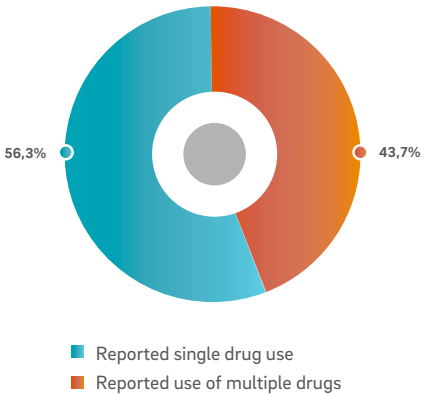


FIGURE 23.
Proportion of multiple drug users among recreational users (valid %) (EWSD, 2018 - Berndt & Seixas, 2019)

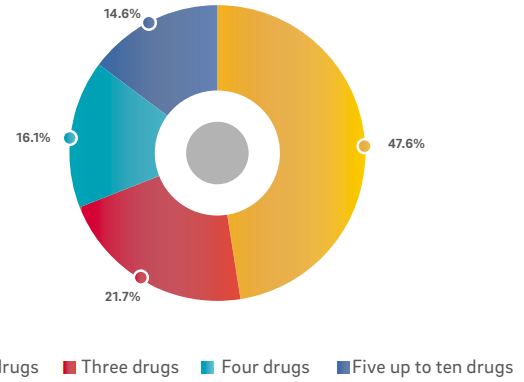


FIGURE 24.
Distribution of multiple drug users according to the number of drugs used (valid %) (EWSD, 2018 - Berndt & Seixas, 2019)

MARKET CHARACTERISTICS AND CONSUMPTION HABITS AMONG RECREATIONAL USERS (EWSD, 2018)

> The EWSD 2018 showed that cannabis was the most frequently used illicit drug – on average, herbal cannabis (weed) was used 16 days per month and resin (hashish) was used 12 days per month. Respondents reported smoking two to three joints of cannabis (herbal or resin) on average on a typical day and tended to buy four up to 4.6 grams of cannabis (herbal or resin) per purchase.

> According to the EWSD 2018 respondents, cocaine appeared to be the most expensive drug and amphetamine the cheapest. Users also reported buying, on average, 2.5 grams of cocaine and nine tablets of amphetamines on a typical purchase.

> Recreational drug users tended to share with other users almost half of the amount of drugs purchased.

> Results of the 2018 EWSD wave further revealed that drugs were predominantly obtained through a dealer and for free. Other means of supply were not significantly reported (Fig. 25).

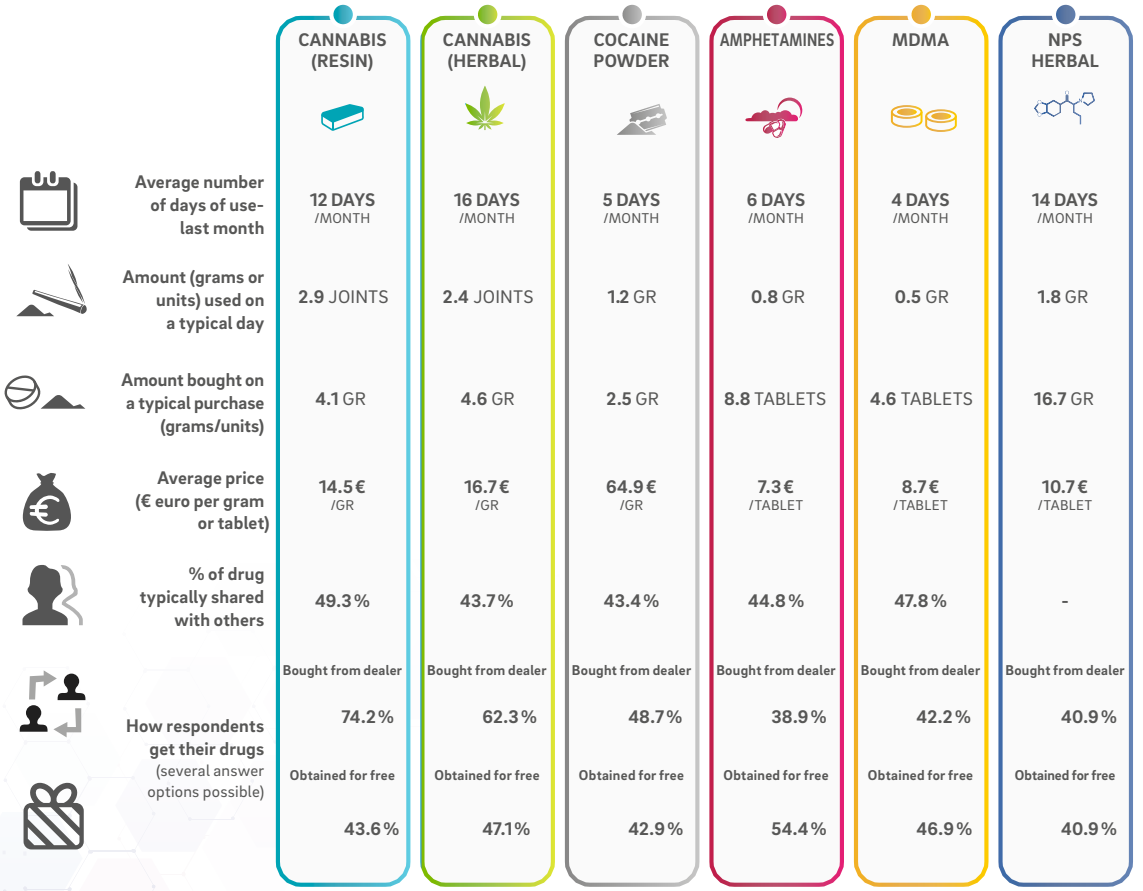


FIGURE 25.

Drug market characteristics and consumption habits among recreational users (EWSD, 2018 - Berndt & Seixas, 2019)

ASSOCIATIONS BETWEEN CURRENT USE OF DIFFERENT TYPES OF DRUGS (EWSD, 2018)

- The use of cannabis was not related to the use of other drugs (except synthetic cannabinoids to which it was only poorly positively correlated: $r = 0.10$, $p < .05$). However, using any other illicit drug increased the likelihood of using other drugs (significant positive correlations across all the other illicit drugs):
  - Cocaine use was strongly linked to the use of MDMA, amphetamines and ketamine.
  - MDMA use was strongly linked to the use of amphetamines and LSD.

ATTITUDES AND RISK PERCEPTION TOWARDS DRUG USE (EWSD, 2018)

- The majority (92.3%) of the EWSD 2018 respondents considered that "people should be permitted to use cannabis (herbal (weed) or resin (hashish))".
- "Smoking marijuana or hashish regularly" was considered less dangerous than "trying cocaine or crack once or twice" or "having five or more drinks (alcohol) each weekend":

- The majority of the respondents considered that "smoking marijuana or hashish regularly" implies *no risk* or only a *slight risk*. "Trying cocaine or crack once or twice" and "having five or more drinks (alcohol) each weekend" were considered behaviours that imply a *moderate risk* or a *great risk* (see Fig. 26).

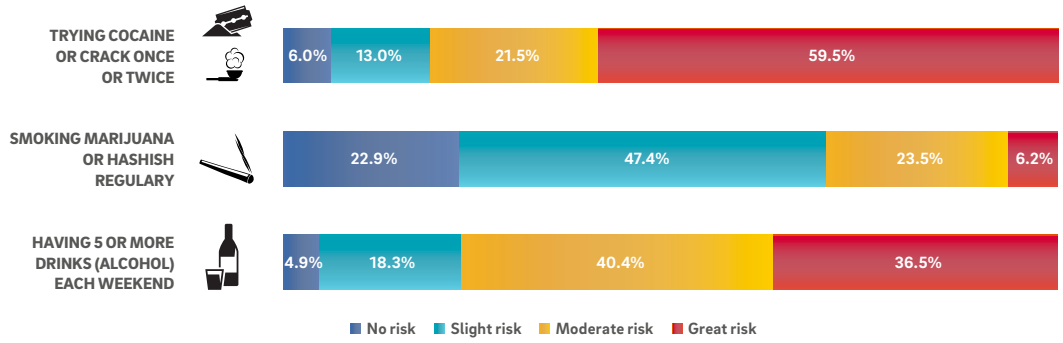


FIGURE 26.

Risk perception associated with the use of cocaine, cannabis and alcohol (%) (EWSD, 2018 - Berndt & Seixas, 2019)

DRUG USE AMONG RECREATIONAL USERS: IMPACT COVID-19 (MINI-EWSD: COVID-19, 2020)

> In the context of the COVID-19 pandemic and the lack of insight on its impact on recreational drug use and the illegal drug market, between April and June 2020 (post-lockdown), an adapted version of the EWSD – the *Mini-EWSD: COVID-19* – was conducted in Luxembourg. The purpose of this study was to assess the impact of the COVID-19 related measures on drug consumption patterns, on drug acquisition behaviours, as well as perceptions on drug market changes (accessibility, price, purity, quantities) among a convenience sample of recreational drug users in the G.-D, of Luxembourg.

> The study followed a similar methodology, recruitment strategy and inclusion criteria as compared to the previous EWSD edition (age above 18 years-old, residency in Luxembourg, and last year illicit drug use). Participation was fully anonymous, confidential and voluntary, as neither IP addresses nor any personal information were collected. In total, 420 respondents provided valid responses to the online survey. The sample included 278 men (66.2%), 132 women (31.4%) (N=10, 2.4% missing values). The majority of the respondents were aged 18-34 years-old (61.7%) followed by respondents aged 35-44 years-old (21.7%) (median age was 29 years-old).

> Detailed results of this study were published in the report "Mini-European Web Survey on Drugs (EWSD): impact of COVID-19 on drug use, acquisition behaviour and drug market in Luxembourg" (Berndt, Paulos, & Seixas, 2021). Highlights:

- Cannabis: 27.1% increased their frequency of use against smaller proportions of users who reduced (7.1%) or completely stopped (4.1%) their use since the implementation of the COVID-19 related restrictions. With regard to the amounts of cannabis used, data suggested that a higher proportion of users increased the amount of cannabis used per session/joint (9.8%) compared to the proportion of users who decreased the amount used (4.5%). These results pointed out that the COVID-19 pandemic affected cannabis users - the proportion of users who intensified their use appeared to be higher compared to those who showed a reduction or interruption in consumption.
- Cocaine and MDMA: The use of cocaine and the use of MDMA appeared to have been most affected. These were the two substances with the highest reported reduction in use – among the respondents, 6.6%

reported a reduction in cocaine use and 5.7% in MDMA use. The reduction of the use of these stimulants was likely related to reduced mobility, the closure of the nightlife and its economy, the cancellation of festive events, and the implementation of stay-at-home measures as implemented by the Luxembourg Government.

- o All illicit drugs: Further analysis of change in the behaviours and patterns of use revealed that nearly half of the respondents (44.5%) declared using the same amount (21.3%) or more drugs (21.3%), compared to a quarter of the respondents (26.0%) who declared using less (12.9%) or not having used illicit drugs at all (13.1%).
- o The reasons reported to the increase in drug use included the relief of both boredom (15.2%) and anxiety or coping with the pandemic (6.9%), but also the stockpile of drugs (3.3%). The three main reasons given for a decreased use were 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%).
- o With regard to perceived changes in purity, price and quantity received per purchase, the majority of the respondents agreed that there was nearly no change in the drug market concerning the purity/strength or the quantity of the drug obtained. Although slightly more than one-quarter (26.2%) reported an increase in price, no clear trend could be retained.

DRUG USE AMONG RECREATIONAL USERS: NATIONAL RESULTS OF THE EUROPEAN WEB SURVEY ON DRUGS (EWSD) 2021

> A new wave of the EWSD was conducted in 2021. The study was based on a similar methodology as the 2018 edition. It was promoted via social network platforms (Facebook, Instagram, etc.) targeting adult recreational drug users living in Luxembourg with drug use during the last 12 months. The survey was made available in four languages: English, French, German and Portuguese. As observed in 2018, the adherence to the survey was high considering the size of the population in Luxembourg (N=709 valid responses). Data were collected between April and May 2021. A first set of results was published by the EMCDDA, followed by a national factsheet highlighting the Luxembourg results, published in 2022 by the Luxembourg Focal Point of the EMCDDA. This factsheet presents indicators such as last year prevalence of use per drug, as well as motivations for cannabis and MDMA/ecstasy use, drug use contexts and the impact of COVID-19 on drug use[11].

> In total, a non-representative sample of 709 recreational drug users were included in the study – mainly young adults between the age of 18-34 years (33.8% aged 18-24 years and 31.4% aged 25-34 years). Compared to the EWSD 2018 sample, the proportion of the age group of 18-24 years was substantially smaller (67.4% in 2018) and the sample included a higher proportion of participants aged 35 and older (34.9% in 2021; 11.8% in 2018) (see Fig. 27). The majority of participants in the sample were male (73.9% male; 25.7% female; 0.4% transgender or non-binary), with a secondary or higher education degree (52% secondary and 37.2% university), similarly to the sample from the EWSD 2018.

11 To access the factsheet, please consult https://sante.public.lu/dam-assets/fr/publications/e/enquete-europeenne-drogues/enquete-europeenne-drogues-2021.pdf

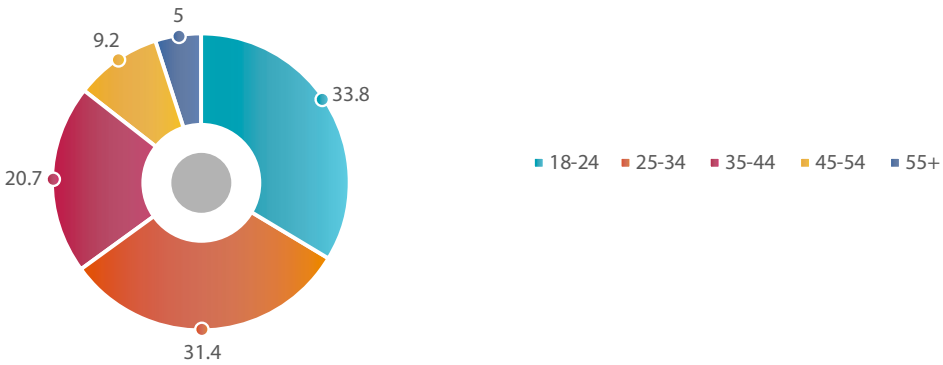


FIGURE 27.

Age categories of the targeted sample of recreational drug users (%) (EWSD, 2021)

TABLE 1.

Last year (recent) and last month (current) prevalence rates of drug use among recreational drug users (EWSD, 2021)

Substance	Last year (recent use)	Last month (current use)
Alcohol	92.7%	82.6%
Cannabis	94.1%	73.5%
Cocaine	25.5%	11.9%
- Powder cocaine	*17.0%*	*9.2%*
- Crack cocaine	*1.7%*	*1.4%*
MDMA/Ecstasy	17.8%	5.5%
Amphetamines	13.1%	5.5%
LSD	10.9%	3.7%
Ketamines	8.3%	3.6%
Other hallucinogens	10.3%	2.6%
Heroin	3.4%	2.5%
GHB	2.5%	1.5%
Methamphetamines	2.4%	1.1%
NPS	15.7%	6.5%
Synthetic cannabinoids	5.1%	2.9%
Synthetic cathinones	2.9%	1.6%

> Prevalence rates among this targeted sample of last year recreational drug users were, obviously, much higher than those observed among the general population (see section 2.1.):

- o As depicted in Table 1, cannabis and alcohol were the most prevalent substances both in terms of recent and current use.
- o Cocaine appeared as the second most commonly used illicit drug (recently used by 25.5% and currently used by 11.9% of the respondents) followed by ecstasy/MDMA (recently used by 17.8% and currently used by 5.5% of the respondents.
- o In terms of recent use, amphetamines (13.1%), LSD (10.9%), other hallucinogens (10.3%) and NPS (15.7%) appeared also as relevant drugs (Table 1).

GENDER DIFFERENCES (EWSD, 2021)

As can be seen in Figure 28, men were significantly more likely to have consumed alcohol ($X^2 = 2.90$, $p \leq 0.1$) and cannabis ($X^2 = 2.64$, $p \leq 0.1$) during the last month. However, women tend to use more ecstasy/MDMA ($X^2 = 10.63$, $p \leq 0.05$) and ketamines ($X^2 = 6.95$, $p \leq 0.05$).

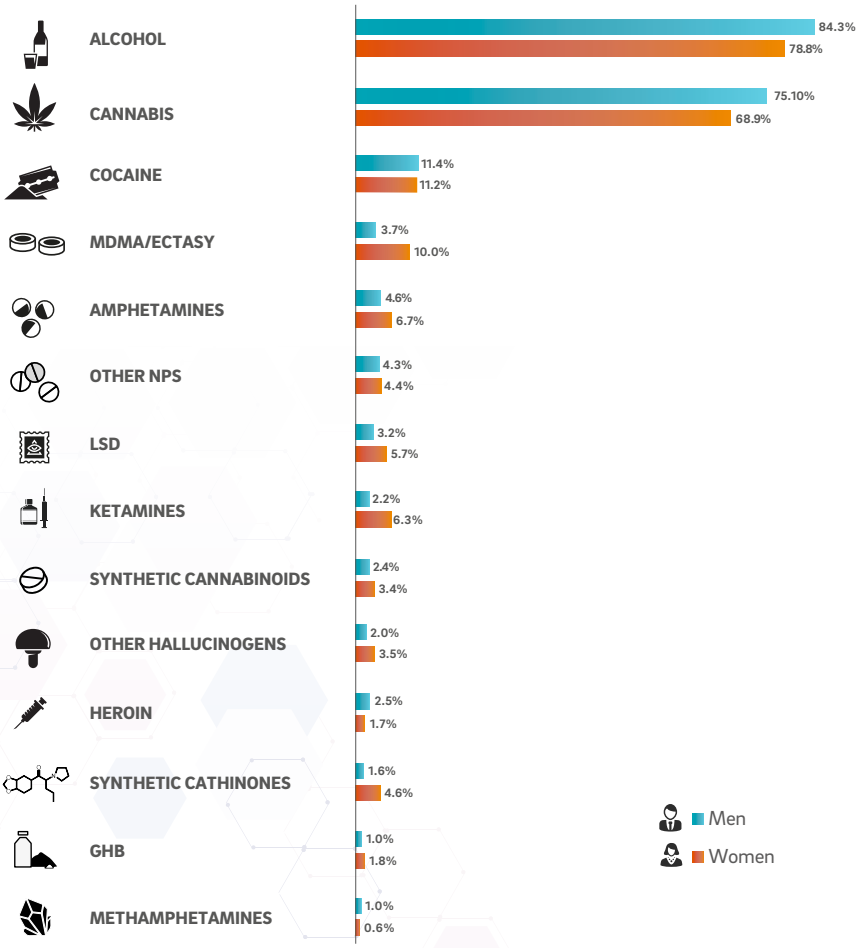


FIGURE 28.

Gender differences in the last month prevalence of drug use among the targeted sample (%) (EWSD, 2021)

MULTIPLE DRUG USE (EWSD, 2021)

Even though single drug use was predominant, multiple drug use was reported by 46.5% of the respondents. The majority of multiple drug users (40.3%) used two different drugs during the last year, a smaller proportion used three (18.8%), four (10.6%), five (10.6%) or more than five drugs (19.4%) (see Fig. 29 and 30).

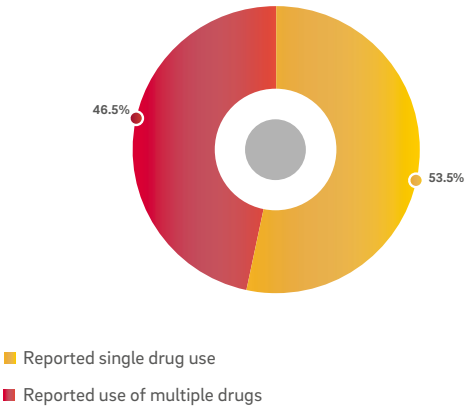


FIGURE 29.

Proportion of multiple drug users among the targeted sample (valid %) (EWSD, 2021)

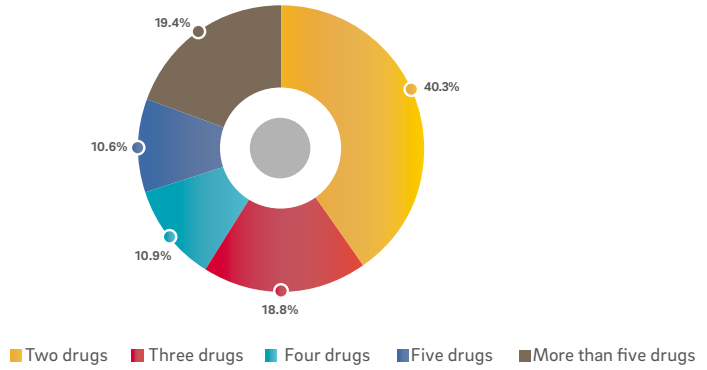


FIGURE 30.

Distribution of multiple drug users according to the number of drugs used (valid %) (EWSD, 2021)

MARKET CHARACTERISTICS, CONSUMPTION HABITS AND ATTITUDES TOWARDS CANNABIS USE (EWSD, 2021)

- Cannabis was the most frequently used illicit drug – on average herbal cannabis (weed) was used 16 days per month and resin (hashish) 12 days per month. Respondents reported smoking two to three joints of cannabis (herbal or resin) on average on a typical day and tended to buy up to approximately 10 grams on average per purchase.
- According to the EWSD respondents, cocaine appeared to be the most expensive drug and MDMA the cheapest. Users reported buying on average 1.8 grams of cocaine and 5 grams of MDMA per purchase.

- Recreational users tended to share with other users almost half of the amounts of drug they purchased.
- Drugs were predominantly obtained through a dealer or for free. Other means of supply were not significantly reported (Table 2).
- Participants were asked about how far they agreed with the following statement "Taking cannabis should be legal". Results of the 2021 wave of the EWSD reveal that 80.0% of the respondents strongly agreed with the statement, 12.3% somewhat agreed, 4.9% neither agreed nor disagreed, 1.1% somewhat disagreed and 1.7% strongly disagreed.

TABLE 2.

Drug market characteristics and consumption habits among the targeted sample (EWSD, 2021)

	Cannabis (Resin)	Cannabis (Weed)	Cocaine powder	Amphetamine	MDMA	NPS
Average number of days of use – last month	12.2 (8) days/ month	15.9 (15) days/month	5.1 (2) days/ month	4.3 (1) days/month	2.1 (1) days/ month	5.3 (2) days/ month
	18.9 (20) days/ month (any type of cannabis)					
Amount in grams or units used on a typical day	2.7 (2.0) joints	2.4 (2.0) joints	0.74 (0.50) gr	0.45 (0.20) gr	0.40 (0.25) gr 1.5 (1) tablets	N.a.
Amount bought on a typical purchase in grams/units	9.8 (3.5) gr	10.6 (5.0) gr	1.8 (1.0) gr	5.0 (2.0) gr	6.7 (5.0) tablets/ 2.6 (1.0) gr	N.a.
Price per gram - unit/euros	9.0 (8.6) euros/gr	10.1 (10.0) euros/gr	72.1 (70.0) euros/gr	12.9 (10.0) euros/gr	7.3 (10) euros/ tablet 31.5 (30.0) euros/ gr	N.a.
% of people who shared drugs with others during their last use	57.9%	62.4%	79.8%	72.2%	90.8%	59.1%
How respondents get their drugs	81.5% mostly buy it 12.8% obtain it for free	73.0% mostly buy it 19.6% obtain it for free	52.9% mostly buy it 43.3% obtain it for free	48.8% mostly buy it 48.8% obtain it for free	51.2% mostly buy it 42.7% obtain it for free	74.1% mostly buy it 14.6% obtain it for free

Note: The median values are presented in brackets.

ASSOCIATIONS BETWEEN CURRENT USE OF DIFFERENT TYPES OF DRUGS (EWSD, 2021)

- As can be seen in Figure 31, the use of cannabis is not related to the use of most other drugs (at a .05 significance level). However, a positive relation between cannabis use and synthetic cannabinoids use ($r = 0.10$, $p < .05$) and a negative relation between cannabis use and heroin use can be observed ($r = -0.10$, $p < .05$).
- Using any other illicit drugs increases the likelihood of using other drugs (significant positive correlations across almost all other illicit drugs).

FIGURE 31.
Associations between current use of different types of drugs (EWSD, 2021)

	Cocaine	MDMA	Alcohol	Amphetamines	Metham-phetamines	Cannabis	Heroin	Benzo-diazepines	GHB	Ketamine	LSD	Mushrooms	Other hallucinogens	NPS	Synthetic Cathinones	Synthetic cannabinoids
Cocaine	Cocaine															
MDMA	0.24	MDMA														
Alcohol	0.12	0.09	Alcohol													
Amphetamines	0.28	0.38	0.08	Amphetamines												
Methamphetamines	0.13	0.21	0.05	0.27	Metham-phetamines											
Cannabis	-0.01	0.06	0.01	-0.01	0.00	Cannabis										
Heroin	0.25	0.12	0.03	0.12	0.32	-0.11	Heroin									
Benzodiazepines	0.18	0.13	0.02	0.23	0.21	-0.01	0.26	Benzo-diazepines								
GHB	0.15	0.19	-0.10	0.36	0.64	-0.07	0.22	0.15	GHB							
Ketamine	0.26	0.26	0.05	0.41	0.32	0.05	0.12	0.22	0.37	Ketamine						
LSD	0.15	0.24	-0.16	0.18	0.21	0.09	0.11	0.05	0.16	0.39	LSD					
Mushrooms	0.09	0.21	0.06	0.11	0.28	0.02	0.13	0.08	0.19	0.27	0.34	Mushrooms				
Other hallucinogens	0.14	0.16	-0.02	0.17	0.31	0.08	0.23	0.10	0.21	0.31	0.33	0.28	Other hallucinogens			
NPS	0.15	0.17	-0.04	0.29	0.32	0.00	0.18	0.20	0.32	0.43	0.33	0.26	0.63	NPS		
Synthetic cathinones	0.17	0.12	0.00	0.23	0.54	-0.06	0.44	0.19	0.49	0.16	0.15	0.17	0.27	0.49	Synthetic Cathinones	
Synthetic cannabinoids	0.10	0.11	-0.01	0.12	0.36	0.10	0.20	0.09	0.20	0.11	0.14	0.12	0.26	0.20	0.33	Synthetic cannabinoids

Note: Numbers in the table represent Phi (φ) coefficients, ranging from -1 (perfect negative association) to 1 (perfect positive association)
White/Uncoloured cells represent non-significant associations

2.5. LOOKING AT DRUG USE ACROSS DIFFERENT GROUPS

Figure 32 below shows the relative importance of certain drugs among different target groups and settings, each entailing unique characteristics. Globally, while cannabis is the most commonly used substance in festive settings by recreational drug users and by the general population, heroin and cocaine are the primary drugs reported by HRDU and less reported among recreational drug users or the general population.

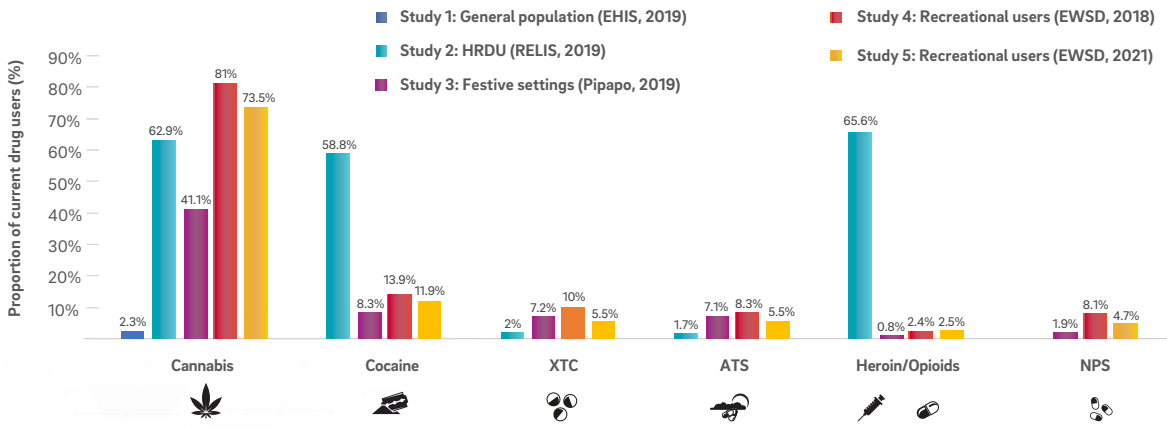


FIGURE 32.

Proportion of current drug use (last 30 days or less) per drug across different user groups (%)

3.

DRUGS AND PRISON

3. DRUGS AND PRISON

The Grand Duchy of Luxembourg counts three state prisons at the national level; the closed prison site "Centre Pénitentiaire de Luxembourg" (CPL) situated in the vicinity of Luxembourg City, the semi-open prison site "Centre Pénitentiaire de Givenich" (CPG) implemented in the East of the country, and the closed prison site "Centre Pénitentaire d'Uerschterhaff" (CPU) that is operational since the end of November 2022 and situated in the south of the country (Sanem). The need to separate remand prisoners, i.e. persons presumed innocent in pre-trial detention, from those sentenced to imprisonment in accordance with international standard, in addition to the risk of prison overcrowding, prompted Luxembourgish authorities to plan the construction of a second closed prison for persons in pre-trial detention. The separation of remand prisoners from convicted prisoners and the reduction of the prison population allow for a penological treatment better adapted to the needs of the prisoners.

The CPL and the CPU are conventional prisons, whereas the CPG may be considered as an alternative to a strict penitentiary regime, as it is defined as a semi-open prison established in a rural setting. During daytime, inmates follow a regular professional activity or participate in one of the centre's workshops (agriculture, animal breeding, kitchen, horticulture, woodwork, locksmith's and duties). After work or participation in one of the workshops, inmates return to their individual cells for the night. Every block at the CPG has its own living room, kitchen, bathroom and laundry allowing inmates to live in more or less autonomy.

National prisons have a total capacity of approximately 1,110 beds (597 in CPL, 113 in CPG and 400 in CPU). The CPL and CPG have separated male and female sections, while the CPU is exclusively for males on remand. In 2021, the average number of prisoners in CPL and CPG sites was 598 (548 in 2020; 642 in 2019) – the average occupation rate of inmates in these penitentiary centres was 84.2% (77.1% in 2020; 90.4% in 2019). In 2021, the CPL had on average 529 prisoners which equals an occupation rate of 88.7% (81.9% in 2020; 95.0% in 2019) and the CPG an average number of 68 prisoners which equals to an occupation rate of 60.6% (52.21% in 2020; 65.5% in 2019). This rate is higher compared to 2020, a period in which additional preventive measures were implemented to mitigate the spread of the COVID-19 virus, and few additional prisoners were released.

In the CPL and CPG, 5.7% of inmates were female during the year 2021 (4.8% in 2020; 5.0% in 2019). On January 1st 2021, the mean age of all inmates was 36.1 years (2020: 38.5 years; 2019: 37.5 years). In 2021, 0.8% of the inmates were minors (0.0% in 2020 and 2019; 0.5% in 2018). The age group of 30 to 40 years – with 34.4% – was the most represented in 2021 (34.7% in 2020; 33.4% in 2019), followed by the age group of 40 to 50 years with 20.9% (28.1% in 2020; 24.4% in 2019). The national detention rate increased in 2021 compared to 2020 data with 94.21 inmates per 100,000 inhabitants (87.52 inmates per 100,000 inhabitants in 2020; 104.58 inmates per 100,000 inhabitants in 2019). In total, 64.0% of inmates were natives from an EU Member states (69.3% in 2020; 67.9% in 2019) (In 2021 among EU inmates: 27.6% Luxembourgish; 13.9% Portuguese) and 36.0% were natives from countries outside the EU (30.7% of non-natives in 2020; 32.1% non-natives in 2019), particularly people with African origins (25.0% in 2021; 18.8% in 2020; 21.1% in 2019) (Ministère de la Justice, 2022).

3.1. DRUG-RELATED OFFENCES AMONG PRISONERS

According to the latest annual activity report from the penitentiary administration from 2021, 1,129 new admissions were registered and among those, 24.1% were drug-related convictions (22.9% in 2020; 26.7% in 2019). Drug-related imprisonment among males (16.8%) slightly decreased compared to the previous year (17.8% in 2020; 15.9% in 2019). Offences involving physical violence represented 32.4% (35.6% in 2020; 37.5% in 2019), whereas offences of sexual violence accounted for 10.4% (9.9% in 2020; 10.0% in 2019) of those committed by convicted male offenders in 2021 leading to imprisonment.

Regarding females, drug offences that led to prison sentences increased substantially in 2021 (20.0%) to a proportion similar to the ones observed prior to the COVID-19 sanitary crisis (7.0% in 2020; 25.0% in 2019). Other types of offences leading to imprisonment among females were related to theft or robbery (20.0% in 2021; 14.3% in 2020; 25.0% in

2019) and physical violence. After a substantial increase in physical violence offences in 2020, the proportion of physical violence offences leading to imprisonment among females decreased again in 2021 to 30.0% (64.3% in 2020; 44.0% in 2019) (Ministère de la Justice, 2022).

3.2. DRUG USE PRIOR TO AND DURING IMPRISONMENT

Drug use in prison remains a reality with major social and health consequences. However, as its use is strictly prohibited in prisons, the extent of the problem remains largely unknown in most European countries. In 2020, a study was conducted by the PFLDT in the closed prison setting 'Centre Pénitentiaire de Luxembourg (CPL)' (Foulon, 2020) aiming at understanding drug use patterns of the prison population in the Grand Duchy of Luxembourg and their risk behaviours. The cross-sectional quantitative study used an anonymous, confidential and voluntary paper-pencil questionnaire based on the European Questionnaire on Drug use in Prison (EQDP) of the EMCDDA. The questionnaire was distributed to the prison population (n=488) at the end of August 2020 in four languages (English, French, German and Portuguese). Of those questionnaires that were distributed, 238 were returned (48.8%). Of these questionnaires, some were either not completed at all, contained refusals to each question, had clear inconsistent responses, or more than 50% of missing values. Following these criteria, 74 questionnaires were excluded, leaving 164 questionnaires for statistical analysis.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

- Regarding the gender distribution of retained respondents (n=164), 138 were male (84.1%) and 17 female (10.4%). Information on gender was missing for nine questionnaires (5.5%). The women's block had 18 prisoners on the day of the distribution of the questionnaire yielding that almost all women (94.4%) completed the questionnaire. Conversely, only 29.4% of the men prisoners (n=470) completed the questionnaire.
- More than half of the respondents were between 30 and 49 years of age (56.7%), 20.1% were below the age of 30 years, 14.6% were aged between 50 and 59 years, and a minority of the respondents (5.5%) were above the age of 60 years.
- In total, 34.8% of the respondents declared being of Luxembourgish nationality, 42.7% declared an European nationality (37.8% from the European Union (EU) and 4.9% from outside EU), and 17.7% declared a nationality from outside Europe (4.8% missing-values).
- More than one-third of the respondents reported not living autonomously in a stable housing prior to their current incarceration (homeless, unstable housing, living in night shelters or in institutions; 32.8%).

LEGAL SITUATION

- Regarding to the legal situation/status, 40.2% of the respondents reported being in pre-trial detention and 51.2% reported being already convicted.
- With regard to the type of offences, 20.1% of respondents reported having committed an offence against property (theft, burglary, etc.) and 30.5% declared a drug-related offence, among them 17.7% related to drug possession or use and 12.8% to trafficking.
- In terms of the length of time currently incarcerated, half of the respondents reported that they had spent less than 1 year in prison, one quarter less than 92 days, and another quarter more than 1,095 days, i.e. just slightly less than 3 years. The rate of recurrent offenders is important among the study population: the average number of previous incarcerations was approximately two, with a minimum of zero and a maximum of fourteen previous incarcerations.

DRUG USE BEFORE AND DURING IMPRISONMENT

- Before imprisonment: among those that participated in the study, the illicit drugs most commonly used before imprisonment are, by decreasing order of prevalence, cannabis (42.1%), cocaine powder (37.8%), crack cocaine (28.0%), and heroin (28.0%) (see Table 3 below). Half of the respondents stated that they continue to use drugs during their stay in prison.
- During imprisonment:
  - the psychoactive substances reported to be most consumed remain unchanged after prison entry: tobacco, alcohol and cannabis (respectively by 21.3%, 20.7% and 21.3% of respondents). Heroin, powder cocaine, and crack cocaine are reported to be used by 15.9%, 15.2%, and 12.8% of the respondents, respectively.
  - for all other substances, the trends are similar: except for consumption of methadone/buprenorphine and benzodiazepines; the number of respondents reporting substance use inside the prison is about half or less than those reporting substance use outside prison. This trend does, however, not apply to substances with low prevalence rates (five users or less), such as volatile substances, synthetic cathinones and other NPS, and other illicit substances (see Table 3) (Foulon, 2020).

TABLE 3.

Number of persons and prevalence (%) by substance before and during imprisonment (*n=164)*

Substance	Before imprisonment n (%)	During imprisonment n (%)
Tobacco	102 (62.2)	89 (21.3)
Alcohol	97 (59.2)	34 (20.7)
Cannabis	69 (42.1)	35 (21.3)
Synthetic cannabinoids (e.g. SPICE)	24 (14.6)	17 (10.4)
Cocaine (powder)	62 (37.8)	25 (15.2)
Cocaine « crack »	46 (28.0)	21 (12.8)
Heroine	46 (28.0)	26 (15.9)
Methadone (Mephenon)/ Buprenorphine (Suboxone)	23 (14.0)	13 (7.9)
Other opioids (e.g. tramadol; fentanyl)	11 (6.7)	7 (4.3)
Benzodiazepines	25 (15.2)	15 (9.1)
Ketamine	10 (6.1)	6 (3.7)
Amphetamines (Speed)	25 (15.2)	7 (4.3)
Methamphetamines	12 (7.3)	6 (3.7)
Ecstasy/MDMA	32 (19.5)	8 (4.9)
LSD/Mescaline/Mushrooms	19 (11.6)	5 (3.0)
Volatile substances (e.g. butane; propane)	5 (3.0)	4 (2.4)
Synthetic cathinones	4 (2.4)	3 (1.8)
Other NPS	5 (3.0)	4 (2.4)
Other illicit substance	5 (3.0)	3 (1.8)

Note: Missing values are excluded of the analyses, hence n<164 for certain variables.

3.3. RISK BEHAVIOUR AMONG PRISONERS

The national study conducted in 2020, assessing drug use before and during imprisonment, further assessed risk behaviour among prisoners (n=164): history of overdose, sharing of equipment and injecting as a consumption mode.

- 23.2% of the participants reported having experienced an overdose outside prison: 10.4% of respondents (n=17) reported an overdose in relation to opioids, and 12.8% (n=21) reported an overdose in relation to other substances.
- The figures for overdose in prison are much lower: only four respondents reported having suffered an overdose in prison in relation to opioids and six in relation to other substances (2.4% and 3.7%, respectively).
- With regard to injecting drug use, 37 respondents indicated that they had injected in the past, corresponding to 22.5% of the total number of respondents. As for sharing equipment (at least once in lifetime), 24 respondents (14.6%) indicated they had ever shared needles or syringes, 35 (21.3%) straws or equipment for sniffing, 34 (20.7%) spoons or cooking equipment, 54 (32.9%) a pipe or other smoking equipment, and 20 (12.2%) said they had shared a tattoo equipment (Foulon, 2020).

3.4. KNOWLEDGE OF HARM REDUCTION PROGRAMMES IN PRISON

The 2020 national study on drug use in prison in Luxembourg further assessed knowledge of and participation in two existing harm reduction programmes specific to the CPL: the Safe Tattoo programme and the syringe exchange programme.

- Of the 164 respondents, 34.1% said they were aware of the Safe Tattoo programme and 9.1% reported having participated in it.
- Similarly, 29.9% said they were aware of the needle exchange programme, but only 6.7% benefited from it.
- These results suggest that both harm reduction programmes may be insufficiently known and that participation rates may be improved (Foulon, 2020). It should nonetheless be noted that responses to these questions, particularly with regard to using the syringe exchange programme, may be considered highly stigmatising and are hence highly permeable to social desirability bias.

A Safe Tattoo programme was implemented in March 2017 at the CPL. This programme is a peer-to-peer project providing the opportunity to make a tattoo under appropriate hygienic conditions, thus preventing the transmission of communicable diseases such as HIV, hepatitis B and C. The Safe Tattoo project is subject to strict regulations. Interested inmates may apply to become official tattoo artists and undergo specific training. The training on hygiene also includes information on various communicable diseases. After passing the exam, the tattooist can make tattoos with professional equipment made available by the prison in the premises provided for this purpose and under the supervision of a member of the prison nursing staff. In 2018, eleven tattoo artists were trained and 70 persons got a tattoo. In 2020, another eleven tattoo artists were trained and 28 persons had a tattoo done. To get these tattoos, 37 appointments were made in 2020. In 2021, 19 tattoo artists were trained and 25 persons had a tattoo done (36 appointments).

3.5 OTHER DATA ON DRUG USE PRIOR TO IMPRISONMENT

Every person arriving at the CPL meets a healthcare professional from the prison psychiatric service (SPMP - Service psychiatrique en milieu pénitentiaire) within the first 24 hours of his or her incarceration. During this check-up, the healthcare professional completes an entry form including socio-demographic data, medical history, and self-declared use of legal and illegal substances. Moreover, the behavior as well as complaints and needs of the prisoner are registered and a preliminary nursing diagnosis is established. A medical checkup is additionally conducted which may be completed by a urine test (quick test analyzing the presence of the most common drugs).

In 2021, 900 new prison entries were recorded through the entry forms, which corresponds to an average of 75 new entrants per month (Maximum: 102 in June, Minimum: 54 in February). Among the new entrants seen by the SPMP in 2021, there were 844 male inmates (93.8%) and 56 female inmates (6.2%) with a mean age of 33.5 years [12] (males: 33.5 y, min: 14y, max: 72y; females: 34.5y, min: 21y, max: 60y). The majority of prison entrants recorded by the SPMP in 2021 were aged between 18 and 40 years (around 60%).

The proportion of illicit substances' users and the number of diverse illicit substances consumed by inmates entering prison during the year 2021 is depicted in Figure 33: upon prison arrival, 55% of the new entrants report using at least one illicit drug. It should be noted that these figures refer to the proportion of intense or problematic drug use upon prison arrival, as declared by the inmate and assessed by the SPMP staff. Past use of illicit substances is not recorded exhaustively but rather in case of problematic use or suspicion of problematic substance use. Furthermore, urine drug screening is not performed systematically and the data rely largely on the self-reported information as registered by the interview. Results reveal that problematic alcohol use was recorded for 27.0% (N=243) of the new prison entrants. Among the problematic alcohol users, 79.8% (N=194) indicated the use of one or more illicit substances.

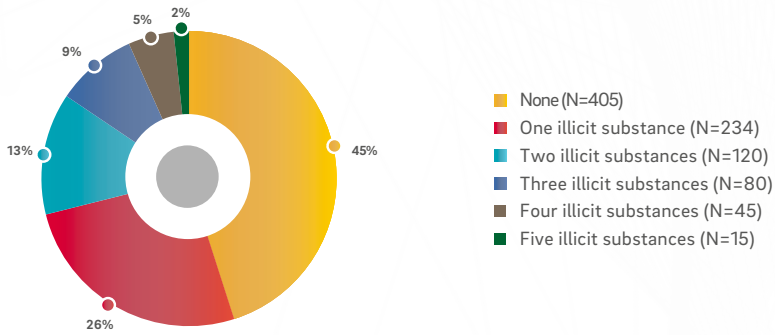


FIGURE 33.

Number of illicit substances consumed by new prison entrants recorded through the SPMP entry forms (2022)

Table 4 below presents the most commonly used illicit substances (or misused medications) including cannabis (36.2%), followed by cocaine (29%), benzodiazepines (14.9%) and heroin (12.1%). In total, 9.8% of new entrants were in opioid substitution treatment (OST) upon arrival in prison, 4.4% showed problematic Lyrica[13] use and 1.3% showed a problematic use of other (illicit) substances (including MDMA/Ecstasy, LSD, amphetamines, synthetic cannabinoids such as spice and opioids, in particular "Tramadol"). New prison entrants who reported use of cannabis, benzodiazepines or Lyrica were younger on average compared to the other prison entrants. New inmates with problematic heroin use and/or in OST were, on average, older than those without problematic heroin use or those not in OST (see table 4 below).

TABLE 4.

(Illicit) substance use among prison entrants at the CPL in 2021 *(N= 899)*

	THC	Cocaine	Benzodiazepines	Heroin	OST	Lyrica	Others	Any substance use
Number of users	325 (36.2%)	261 (29.0%)	134 (14.9%)	109 (12.1%)	88 (9.8%)	40 (4.4%)	12 (1.3%)	494 (54.9%)
Mean age of users (SD)	29.9 (9.1)	34.2 (8.8)	31.6 (10.9)	37.1 (8.3)	37.9 (8.5)	23.5 (7.0)	33.3 (10.0)	31.9 (9.7)

Note: Any substance use refers to the use of one or more of the following (illicit) substances: THC, cocaine, Benzodiazepines, heroin, opioid substitution products, Lyrica and others (including MDMA/Ecstasy, LSD, amphetamines, synthetic cannabinoids such as spice and Tramadol).

12 N = 893

13 Anti-epileptic medication containing the active substance pregabalin

In 2021, the SPMP recorded 130 (14.5%) cases of mood disorders, 110 (12.2%) of anxiety disorders, 53 (5.9%) of personality disorders, 40 (4.4%) of psychotic disorders and 14 (1.6%) of ADHD[14] among prison entrants (see Table 5). Out of the 494 recorded substance users, 32.3% (N = 160) received a preliminary diagnosis of at least one mental health condition, while 26.4% (N = 107) of the 405 people without an indication of substance use were affected by a mental health condition.

TABLE 5.

Mental health disorders among prison entrants at the CPL in 2021 *(N=899)*

	Mood disorders	ADHD	Personality disorders	Anxiety	Psychotic disorders	Any mental health condition
Number of prison entrants with recorded disorder	130 (14.5%)	14 (1.6%)	53 (5.9%)	110 (12.2%)	40 (4.4%)	267 (29.7%)
Mean age of prison entrants with recorded disorder (SD)	35.0 (8.9)	26.5 (8.1)	32.3 (10.6)	33.4 (10.7)	36.5 (12.0)	33.7 (10.6)

Note: Any mental health condition refers to the presence of one or more of the following conditions: Mood disorders, ADHD, Personality disorders, Anxiety and Psychotic disorders.

3.6 DRUG HEALTH RESPONSES IN PRISON

The implementation of health responses builds upon a health check of newly admitted prisoners both at the closed and semi-open national prison setting, which guides further interventions. A voluntary HIV screening test is proposed during the medical counselling session, whereas a simultaneous screening of oher infectious diseases such as syphilis and hepatitis A, B and C is also proposed. In order to meet specific needs on terms of infectious diseases in prison settings, the somatic nursery (CHL) established a specialised communicable disease-counselling offer, which has been operational since 2011.

- In 2021, 708 serological tests were conducted among prisoners (2020: 592; 2019: 734) to detect the presence of HIV, HCV, HBV or syphilis infections.
- 22.3% of the prisoners who tested positive for either of these infections were not aware of their status before entering prison (17.2% in 2020; 17.7% in 2019).
- By the end of 2021, 95 inmates were positive (2020: 101; 2019: 104) for at least one communicable disease (HIV: 22; HCV: 70; HBV: 26; syphilis: 6) (2020: Total: 101 – HIV: 12; HCV: 82; HBV: 13; syphilis: 15).
- To prevent further contamination, vaccination against hepatitis B and A is recommended to those who present a negative serology. In 2021, approximately 70 prisoners were vaccinated for hepatitis A, 140 for hepatitis A + B, and 200 for hepatitis B (Comité de Surveillance du SIDA, 2022).

A structured syringes distribution programme (NSP) has officially been launched in 2005 by the somatic nursery (CHL) in the framework of the global drug care programme in prison. In order to enrol, inmates have to make a written request. After an introductory counselling session, the inmate receives a kit containing two syringes that may subsequently be exchanged at the somatic nursery (CHL). Inmates in possession of a syringe kit are exempted from sanctions for detention of injection paraphernalia. The programme is under medical secrecy and operational while efforts are foreseen to increase the coverage and impact of the programme. Ascorbic acid, filters, stainless steel spoons, sterile

14 Attention Deficit and Hyperactivity Disorder

physiological water, antiseptic wipes and small plasters are further available at the nurseries in prison. Condoms are also available at different discrete spots of the prison. The distribution of these latter materials is not documented.

- In 2021, 16 kits (11 kits in 2020; 19 kits in 2019) were distributed and 800 (590 in 2020; 900 in 2019) syringes were exchanged.
- The NSP in prison continued during the outbreak of the COVID-19 pandemic, however, a strong decrease in demand was reported, particularly during the lockdown in March/April 2020. In 2021, the number of syringes exchanged increased again but remained below the level observed prior to the COVID-19 pandemic (Comité de surveillance du SIDA, 2022).

An opioid substitution programme (OST) is also available in both the closed and semi-open prison setting. Details on the OST programme in prison are presented in chapter 5 "Responses to health consequences".

3.7 PROJECT PRS20: ADDRESS AND REDUCE DRUG USE AMONG INMATES AND EX-INMATES

Luxembourg is currently participating in the PRS20 project, a European project financed by the DG Justice with a focus on understanding drug use in prison and improving the health and quality of life of drug users living in prison. The project started in 2020 and is planned to be concluded in 2023. It builds upon the participation of institutions from Luxembourg, Belgium, Lithuania, Cyprus and Greece. The goals of the PRS20 project are to assess drug use among inmates and ex-inmates, before and during imprisonment, and to gain better insight into the needs of inmates and ex-inmates (including experiences, opinions) with regard to treatment and harm reduction offers in prison (needle exchange, etc.). The project intends to make recommendations to improve the existing offers in prison in terms of treatment and harm reduction for people who use drugs and hence to promote the quality of life/well-being and health of people living in- and outside prison. To achieve these goals, a quantitative and qualitative data collection were implemented during the summer and autumn of 2022 in Luxembourg among inmates and among ex-inmates. The quantitative instrument is an adaptation of the EQDP, a survey instrument developed by the EMCDDA. This project conducts another survey to assess the existing treatment and harm reduction services in prison. Results from this study are expected to be available by the fall of 2023.

The objectives of this study are:

- To measure mental and physical health, and drug use among inmates and ex-inmates, before and during imprisonment by means of quantitative questionnaires distributed among the full prison population at the CPL;
- To gain better insight into the point of view of inmates and ex-inmates (experiences, opinions and needs) in terms of treatment and harm reduction offers in prison (needle exchange, etc.) by means of qualitative interviews among at least 10 prisoners (at the CPL) and 10 ex-prisoners (at two national harm reduction centres that also have supervised drug consumption facilities – Abrigado CNDS and JDH Contact Esch).

The expected outcomes are recommendations for improving the existing offers in prison in terms of treatment and harm reduction for people who use drugs, and to promote the well-being and health status of people living in- and outside prison.

4.

DRUG-RELATED HARMS AND HEALTH CONSEQUENCES

4. DRUG-RELATED HARMS AND HEALTH CONSEQUENCES

4.1. DRUG-RELATED INFECTIOUS DISEASES – HIV

Data on drug-related infectious diseases are collected at the national level by the National Retrovirology Laboratory and complemented by information through the multi-sector national information network on drugs and drug addictions (RELIS). Moreover, data are collected through national research studies by the Department of Infection and Immunity, Infectious Diseases Research Unit, at the Luxembourg Institute of Health (LIH).

> RELIS self-reported data: the HIV prevalence rates based on self-declared data suggest a relatively stable trend between 2017 and 2020, after a peak in 2016 linked to the HIV outbreak among HRDU and IDUs. In 2021, self-reported HIV rates showed a substantial increase among HRDUs and IDUs. In 2021, the self-reported HIV rate was 9.6% among HRDU (2020: 7.3%; 2016: 9.8%) and 16.0% among IDUs (2020: 10.5%; 2016: 13.2%) (See Fig. 34 and 35) (RELIS, 2021).

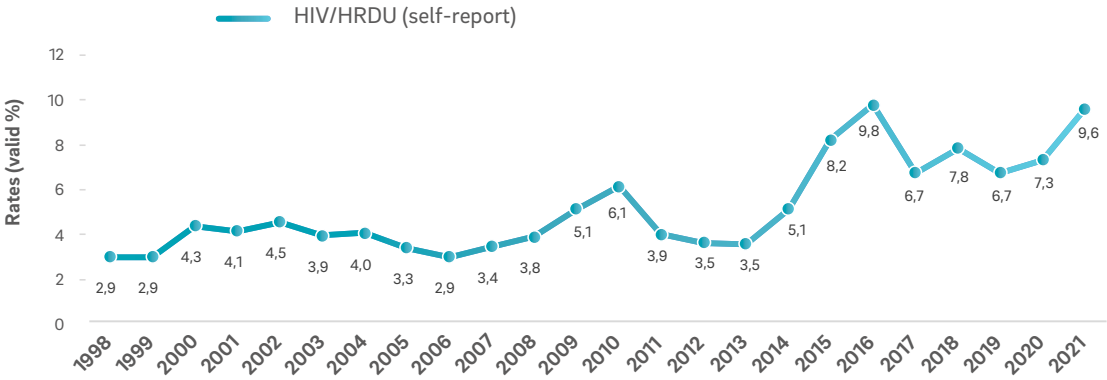


FIGURE 34.

Self-reported data on HIV infection rate among high-risk drug users (HRDUs) (1998-2021) (valid %) (RELIS, 2021)

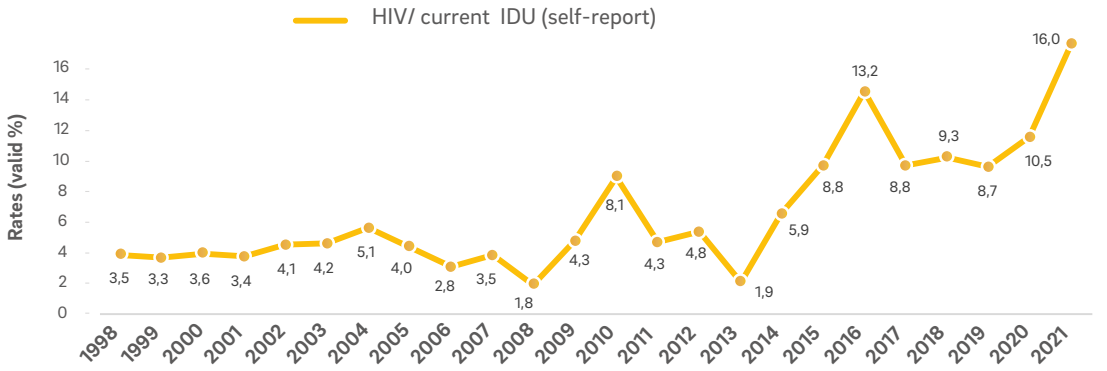


FIGURE 35.

Self-reported data on HIV infection rate among current injecting drug users (IDUs) (1998-2021) (valid %) (RELIS, 2021)

- Serology-based data: most recent data reveal that injecting drug use is the third most reported transmission mode of HIV infections since 1989 (homo/bisexual and heterosexual transmission are currently the first and second cause, respectively). The lowest proportion of IDUs transmission mode ever recorded was observed in 2008 (two cases: 1.8%). HIV among IDUs decreased between the late 90's and 2011. The period between 2014 and 2016 was marked by an HIV outbreak among this group – partially explained by an increase in stimulants' injection (mainly cocaine). Following the implementation of supplementary response measures in the framework of the national drug strategy and action plan, the national HIV and hepatitis action plan, and the recommendations formulated by the EMCDDA and ECDC[15] after their country visit in 2018, the number of diagnosed HIV cases attributed to injecting drug use (IDU) added to the national HIV cohort has been decreasing: it declined from 21 cases in 2016 to ten in 2017 and five in 2018. Since 2019, the number of new HIV cases attributed to IDU in the cohort has been slightly increasing, with three new cases in 2019, six in 2020 and eight in 2021 (see Figure 36).
    - The number of patients added to the cohort of HIV positive infected cases among the general population increased in 2021 compared to 2020 (103 cases in 2021; 83 in 2020; 98 in 2019; 91 in 2018; 102 in 2017; 98 in 2016).
    - Among the 103 cases added to the HIV cohort in 2021, as mentioned above, there were eight cases (7.8%) attributed to injecting drug use (2020: 7.2%; 2019: 3.1%; 2016: 21.4%).

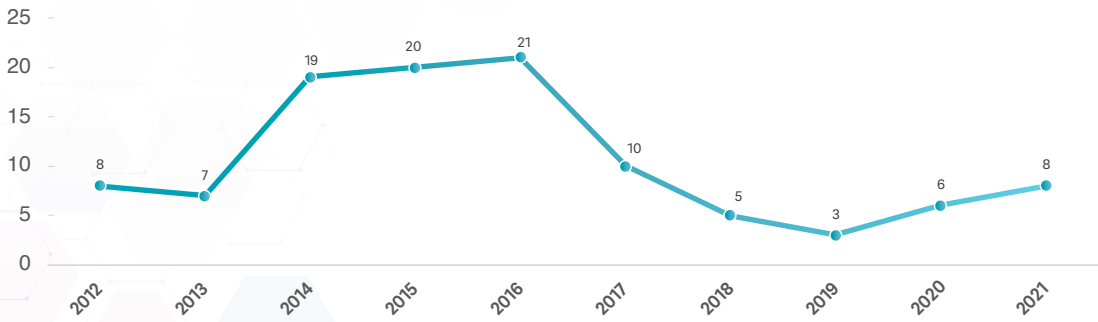


FIGURE 36.

Evolution of positive HIV cases related to injecting drug use added to the national HIV cohort (Comité de surveillance du SIDA, 2022)

- During the year 2021, an increase in the number of patients *newly* diagnosed with HIV has been observed by the National Service for Infectious Diseases: 50 patients newly infected against 33 people in 2020. This increase may be partially explained by the resumption of screening activities which had been strongly affected by the COVID-19 health crisis in 2020 and the first half of 2021 (approximate decrease of 30% of screening activities compared to 2019).
- With regard to *newly* diagnosed HIV cases among IDU, there were zero new cases in 2019, four in 2020 and three in 2021. Hence, the proportion of IDUs in newly diagnosed HIV cases decreased from 12.1% in 2020 to 6.0% in 2021 (Devaux et al., 2022) (see Figures 37 and 38).

15 European Centre for Disease Prevention and Control

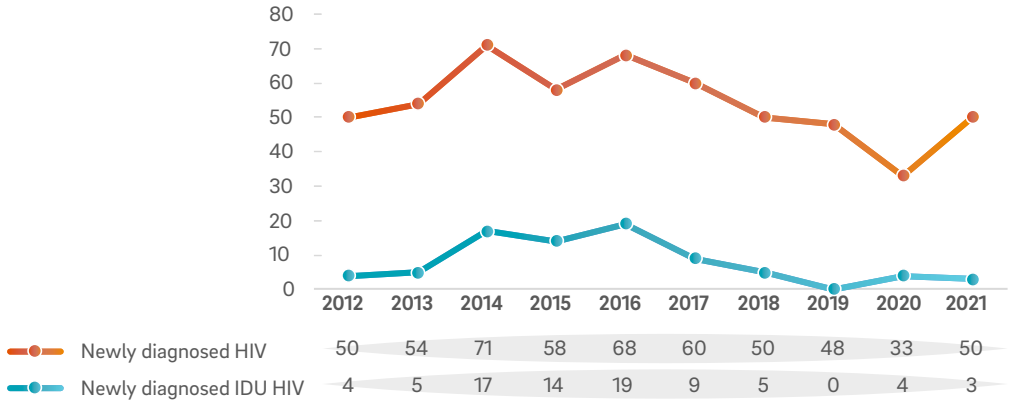


FIGURE 37.

Newly diagnosed HIV infections in the general population and among IDUs (2012-2021) (Comité de surveillance du SIDA, 2022)

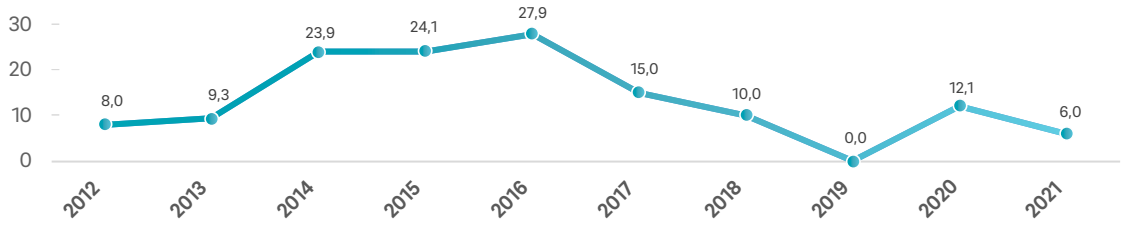


FIGURE 38.

Proportion (%) of IDUs in newly diagnosed HIV patients 2012-2021(Comité de surveillance du SIDA, 2022)

- The recent report published in 2021 suggests that high-risk drug users (HRDUs) perceived the availability of drug-related services as sufficient during the COVID-19 sanitary crisis. This relates in particular to the availability of "safer-use" and "safer-sex" equipment, medications, medical care and substitution treatments, whereas considered insufficient overall in Europe (Berndt et al., 2021).
- With regard to the 90-90-90 objectives from the ECDC, Luxembourg is among the best performing European countries (status 2021), having diagnosed 85% of those infected with HIV. Among these, 93.8% received antiretroviral treatment and 85.1% of those in treatment had an undetectable viral load.
- Luxembourg is continuing its prevention efforts by raising awareness of screening tests. To date, there are several ways to get tested for HIV: by a routine blood test in hospital or laboratory of course, but also by a rapid diagnostic test. Since July 2019, an additional tool complements the existing screening options: the HIV self-diagnosis test, on sale in pharmacies and, since November, in various stores across the country.
- New initiatives have emerged during the COVID-19 sanitary crisis in 2020. Following the temporary interruption of DIMPS mobile screening service (mainly addressing sex workers) during the COVID-19 lockdown (March/April 2020), a new HIV self-test offer - available by mail - was established by the HIV Berodung, which has now become an additional prevention offer (Comité de surveillance SIDA, 2021).

4.2. DRUG-RELATED INFECTIOUS DISEASES – HCV

The HCV prevalence rate among HRDUs and particularly among IDUs has been at a high level since 2004:

- RELIS self-reported data: the HCV prevalence rates among HRDUs and IDUs have been stable at high levels since 2004. Between 2017 and 2018, the proportion of HRDUs infected by HCV decreased significantly from 54.7% to 39.8% and remained relatively stable until 2020. In 2021, the proportion of HCV infections among HRDUs decreased to 33.8% (2020: 36.0%; 2019: 41.6%) and for IDUs the proportion decreased to 51.0% (2020: 60.5%; 2019: 59.6%).
- Serology-based data: in the framework of the national HCV-UD research project[16], serological data have been collected from a random sample of HRDUs since 2017, recruited at drug treatment centres (outpatient), harm reduction services, needle/syringe programmes, and in prison. Latest data from this study suggest an increase in the number of ever IDUs infected with HCV. Whereas in 2019, among 45 persons tested, 32 (71.1%) presented an HCV positive test result, in 2020, among nine persons tested, four presented a positive test result (44.4%) (see Fig. 39). These numbers are to be considered with caution as the impact of the sanitary crisis is clearly reflected in the substantial decrease in HCV screenings and the sample size compared to previous years. These data are not available for 2021.

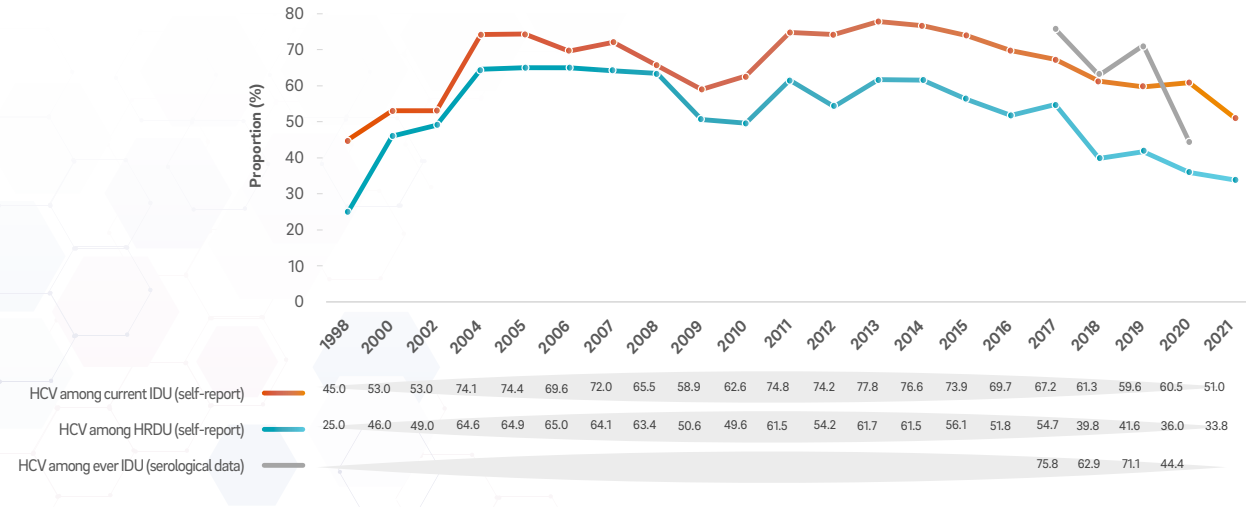


FIGURE 39.

Evolution of HCV rates among HRDUs and IDUs – self-reported and serological data (valid %) (1998-2021)
(Devaux et al., 2021; RELIS, 2021)

Recent efforts have been made towards improvement in testing and linkage to care through harm reduction programmes in prisons and low-threshold agencies:

- Needle (and paraphernalia) exchange programmes (contributing to a decrease in direct contamination), availability of Opioid Substitution Treatment (OST) and Heroin Assisted Treatment (HAT) (contributing to the stabilisation of users and to a decrease of high-risk behaviours);

16 Project HCV-UD « Toxicomanie, hépatite C et substitution: étude épidémiologique, comportementale et clinique au Luxembourg » - https://www.luxclin.lu/Studies/Details/?c=STP3756SUU. The project results from a collaboration between the LIH, the CHL and five harm reduction centres in Luxembourg and it is implemented in several low-threshold sites with the purpose of providing testing and treatment while identifying risk factors and the transmission clusters related to the HCV infection.

- Implementation of a new low-threshold medical service and OST programme at the Abrigado centre at the beginning of the COVID-19 pandemic jointly by the Ministry of Health and several specialised NGOs: marginalised drug users experiencing increased social exclusion have currently the possibility towards easy access substitution treatment, regardless of their social security status.
- Increasing testing and facilitating access to treatment for clients of drug treatment centres (often persons experiencing social exclusion and marginalisation);
- Besides these efforts, responses directed towards a greater stabilisation of the users (such as further developing Housing First offers) are in preparation (Ministère de la Santé, 2020).

4.3. DRUG-RELATED MORTALITY

Anonymised data are available on all direct overdose cases due to illicit drug use documented by contextual and forensic evidence. For each suspected overdose death case, post mortem toxicological evidence is provided by the department of legal medicine from the national health laboratory (Laboratoire national de santé; LNS) confirming or disconfirming the suspected overdose case. Hence, acute drug-related mortality refers to death cases attributed directly to the use of an illicit drug, possibly in combination with other types of substances and/or prescribed medicines. These death cases include overdoses and acute intoxications, voluntary, accidental or of undetermined intent.

- The most recent data indicate that drug-related mortality follows a discontinuous decreasing trend over the last years. Whereas in 2000, 26 acute drug deaths were registered, eight cases were reported in 2017, four in 2018, eight in 2019 and six in 2020. In 2021, a drug-induced mortality rate of approximately 1.13 per 100,000 inhabitants aged 15 to 64 years has been observed with five cases (LU 2021 population size 15-64 years: n=440,482) (2020: 1.38/ 100,000 inhabitants aged 15-64 years: n=435,140) (Fig. 40).[17]

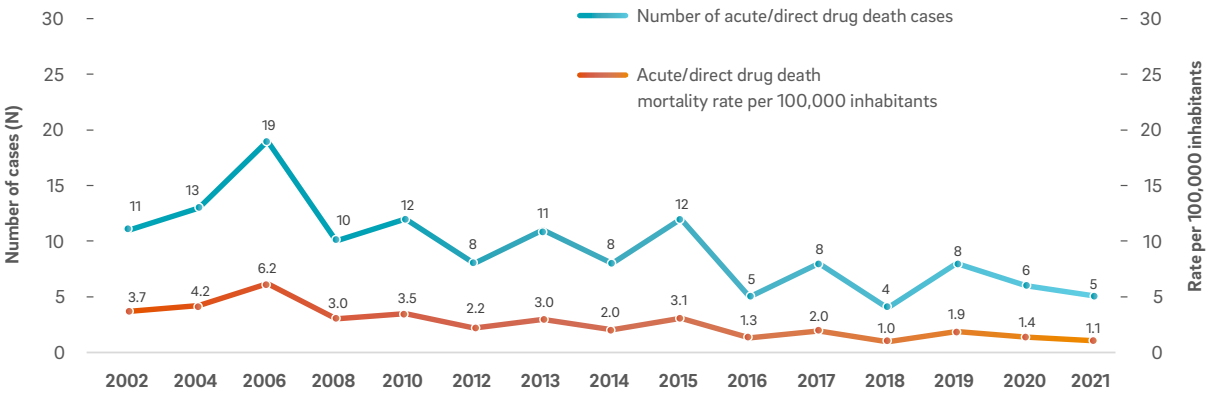


FIGURE 40.
Evolution of direct drug-related death cases and mortality rates per 100,000 inhabitants (RELIS, 2021)

17 As for Luxembourg, the figures for overdoses and infectious diseases are statistically speaking low, positive and negative changes in trends need to be interpreted with caution, as trends are not absolute. To allow more valid trend interpretations, regrouping of data or other methodological standardisation methods may be considered (e.g. regrouping the data by 3 years).

CHARACTERISTICS OF OVERDOSE VICTIMS

> Regarding the gender distribution of overdose victims, male death cases have generally outweighed female death cases. In 2021, four victims were male and one was female.

> The mean age at the moment of death has generally shown a discontinued increasing tendency over the past 27 years. In 2018, the overall mean age of victims was 41.3 years (min: 37 years; max: 45 years). Following the sharp decrease observed in 2019, mainly due to the fact that one case under the age of 20 was reported and absolute figures were low, statistically speaking (34.6 years; min: 16 years; max 50 years). In 2021, the mean age of overdose victims was 41.4 years (see Fig. 41). The overall mean age remained comparable to the previous year (2020: 41.5 years). While the mean age for male overdose deaths increased, the mean age for female overdose deaths was lower than in 2020 - the mean age of male overdose victims being 44.3 years (2020: 38.3 years), and 30.0 years for females (2020: 48.0 years). Nevertheless, the number of victims aged less than 20 years remains relatively unchanged during the referred observation period.

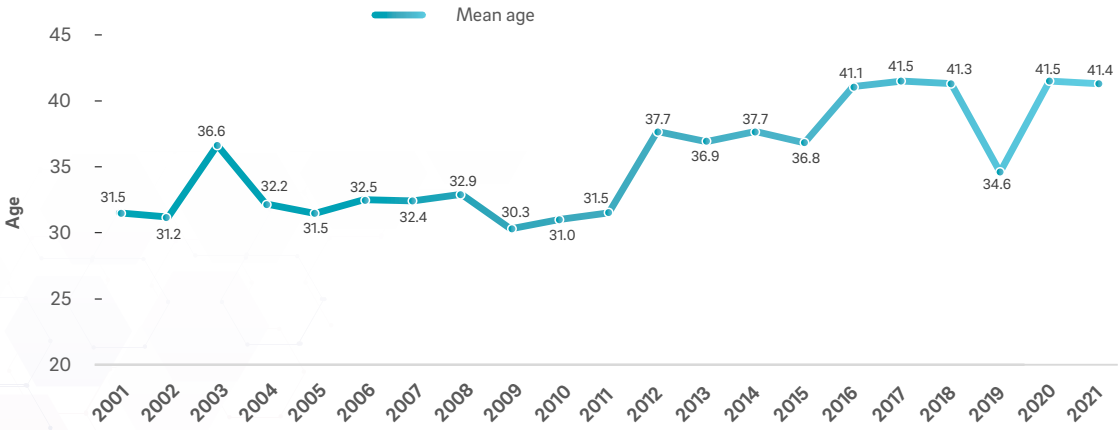


FIGURE 41.

Mean age (in years) of acute drug overdose victims 2001-2021 (RELIS, 2021)

> Also worth mentioning is that a majority of acute drug death victims are known by law enforcement agencies for their 'career' of drug possession and/or use (2021: 80%; 2020 and 2019: 83%). As far as the place of death is concerned, since 2004 approximately 50-65% of overdoses occurred at the victims' homes, followed by public places (such as parking areas, trains or public bathrooms). In 2021, 60% (n=3) of the death cases occurred at home, 20% (n=1) in the street and 20% (n=1) in public places. Regarding the nationality of the fatal overdose victims, around 60% were natives (2020: 66%; 2019: 63%; 2018: 75.5%; 2017: 87.5%; 2016: 60%), whereas 40% were citizens of neighbouring countries. These distributions have to be considered with caution, as absolute figures are small.

> Forensic data by the department of National Toxicology Laboratory on Health[18] show that the most frequently involved substances in overdose cases are opioids (heroin and methadone), followed by cocaine. It is relevant to emphasise that, since 2000, methadone presence in blood samples of overdose victims has been increasing. In 2021, heroin as well as methadone were detected in three cases (60%). Cocaine was detected in four cases (80%), amphetamine type stimulants in one case (20%), z-type drugs in one case (20%), and benzodiazepines in four overdose cases (80%). The majority of the cases (n=4) showed polysubstance use at the time of the overdose.

18 Département de Toxicologie du Laboratoire national de santé (LNS).

> The decrease of direct drug-related death cases is most likely and primarily due to the regionalisation and extension of the OST programme, as well as the development of low-threshold facilities, in particular the opening of supervised drug consumption rooms. Since its opening in 2005, about 2,500 overdose episodes have been assisted at the Abrigado centre in the city of Luxembourg. A second low-threshold centre including two supervised drug consumption rooms, run by the 'Fondation Jugend- an Drogenhëllef' (JDH), is operational since September 2019 in the southern city of Esch-sur-Alzette. Finally, yet importantly, a HAT programme has been launched in Luxembourg in March 2017.

ADDITIONAL INFORMATION ON OPIOID-RELATED DEATHS

Over the past 28 years, the forensic toxicology department of the national health laboratory has investigated the direct death cases related to opioids other than heroin, such as opioid prescription drugs (including OST). Results are presented in Figure 42 below:

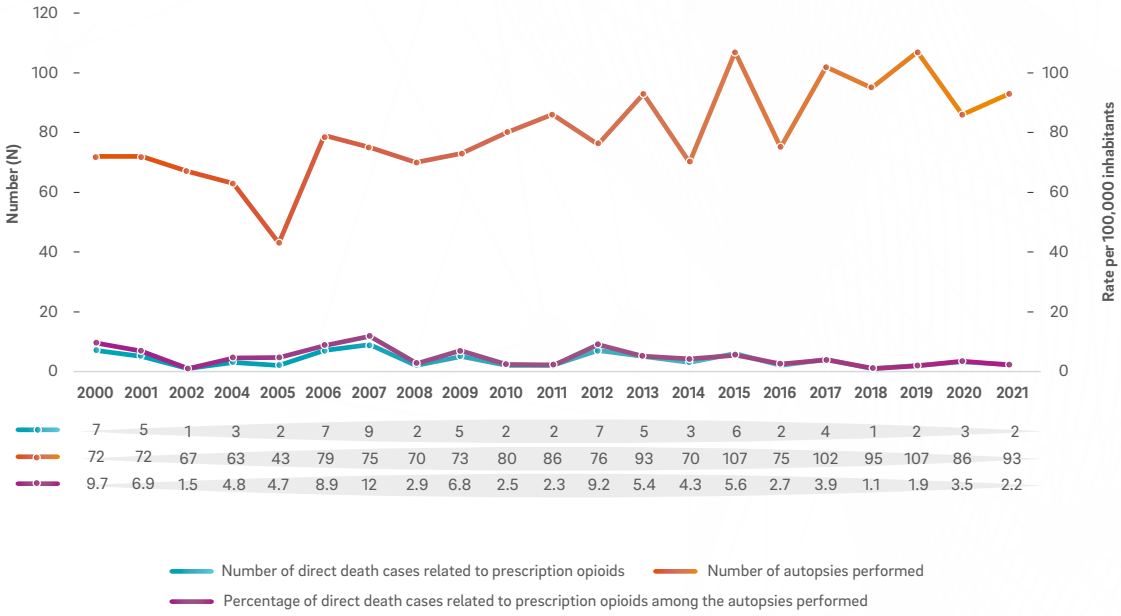


FIGURE 42.

Evolution of direct death cases related to prescription opioids 2000-2021 (LNS, 2021)

These data need to be interpreted in the light of the number of autopsies performed, as these have increased steadily over the years ranging from 72 in 2000, 80 in 2010, 107 in 2019 and 86 in 2020 (a decrease resulting from the COVID-19 sanitary crisis) and 93 in 2021. Overall, direct death cases related to prescription opioids have remained fairly stable over the years, especially when considering developments of three or four years for more valid trend analysis. A decrease may even have occurred as the number of autopsies increased considerably over the years.

4.4 DRUG-RELATED ACUTE EMERGENCIES AND OVERDOSE INCIDENTS

Drug-related acute emergencies data are reported by the main low-threshold centres, both including two supervised drug consumption rooms (inhalation and injection) in Luxembourg City (Abrigado CNDS) and in the South of the country (JDH Contact Esch).

- In 2021, nine acute emergency episodes occurred at the Abrigado centre: seven with loss of consciousness, classified as non-fatal overdose incidents and two without loss of consciousness.
- At the Contact Esch, eleven acute emergency episodes occurred in 2021. Among these, eleven were classified as 'moderate' and none as severe non-fatal overdose incident.

5.

RESPONSES TO HEALTH CONSEQUENCES

5. RESPONSES TO HEALTH CONSEQUENCES

5.1. A FOCUS ON PREVENTION OF DRUG USE AND ADDICTIVE BEHAVIOUR

Prevention is a key pillar of the 2020-2024 National Drug Strategy and Action Plan encompassing a wide range of complementary approaches, areas and actors (Ministère de la Santé, 2021). Preventive interventions of drug use and addictive behaviours generally aim at reducing initiation to drugs, delaying the onset of drug use and promoting protective actions and healthy lifestyles in the general population and in groups at risk, notably young people and their peers. As such, *environmental* and *universal* prevention strategies target entire populations, *selective* prevention strategies target vulnerable groups that may be at greater risk of developing substance use problems, and *indicated* prevention strategies focus on individuals at-risk for developing substance abuse/dependency. *Selective* actions for young people and their peers include prevention measures such as health education and promotion in school settings addressing attitudes and risk perceptions of drug use. The goal of these prevention measures is to increase awareness and critical thinking among adolescents, particularly regarding cannabis use, while also promoting harm reduction among recreational and high-risk drug users.

NEW DEVELOPMENTS, INTERVENTIONS AND EVENTS

The main actor in the field of drugs and addiction prevention is the 'CNAPA' (Centre National de Prévention des Addictions), the National Centre for Addiction Prevention, formerly called 'CePT' (Centre de Prévention des Toxicomanies). The Centre was established in 1995 with the mission of addiction prevention and health promotion by developing and promoting ideas and strategies for a healthy and positive lifestyle.

The mission of the CNAPA consists of:

- the development of a national concept for systematic and structured prevention activities. This goal is to be achieved in close collaboration and exchange with competent national and international institutions;
- the coordination of the work of various specialised institutions aiming to develop proposals for the establishment of new institutions;
- the development of education and continuous training (materials) for interlocutors and multipliers among adolescents, parents, teachers, but also among psycho-socio-educational staff, and others;
- the provision of information to the general public and awareness raising by means of conferences, seminars, films, public events, etc.;
- the development of didactic material and its provision to the public;
- the provision of information to the general public regarding existing treatment and support offers, and to facilitate access to these offers;
- the implementation of epidemiological studies to enable adequate prevention work;
- the ongoing evaluation of the implemented interventions to adapt to trends and developments.

The CNAPA intervenes in a wide range of settings including schools, extra-curricular institutions such as youth centres, or municipalities. Professional training but also teaching materials and projects in the field of addiction prevention targeting different national stakeholders are developed to best fit the needs of the latter, including children and young people. An example of a preventive intervention, specifically addressing cannabis use as developed by the CNAPA, is the "Cannabiskoffer 2.0", which consists of didactic materials and interactive methods to be used in schools and non-formal education institutions among students above the age of 14.

A series of developments occurred in the past years:

- The "Rebound Norden" project - a continuation of a school-based project initiated in 2016 between the CNAPA, the FINDER Academy for Prevention and Experience Based Learning (Berlin) and the German association MUDRA (Alternative Youth- and Drughelp Nürnberg e.V.) focusing on alternative youth and drug care.
- The app called "Suchtberodung Online" was introduced in Luxembourg as a collaborative effort between the CNAPA, the Impuls treatment centre and the JDH Foundation. The "Suchtberodung Online" is a website/app offering online advice and counselling on addiction and related topics available 24/7. Released in December 2019, the app is considered to be an extension of existing services (i.e. outpatient and stationary treatment centres) providing help in addiction-related topics. The app is free and allows users to have a professional online consultation, to ask questions regarding addictions and to track their drug use with a daily journal. Moreover, the app offers habit tracking, as well as information on different addictive substances.
- In 2019, the second conference of the 'Suchtverband' ("National federation of agencies and services specialised in prevention, treatment and harm reduction in the field of addictions") took place. The conference was organised in collaboration with the Ministry of Health addressing the topic of "Prevention in community-based settings: approaches, examples from projects and perspectives" at the University of Luxembourg. Various workshops regarding community-based strategies for prevention work were held, notably the CNAPA workshop named "Addiction prevention in municipalities". Speakers from the University of Luxembourg, the CNAPA, the Ministry of Health, the Ministry of Education, the Suchtverband and local municipalities contributed to this initiative.
- As 2020 was a particular year due to the outbreak of the COVID-19 pandemic, most prevention activities were cancelled or postponed to 2021/2022. In 2020, CNAPA activities mainly focused on the development, revision and/or translation of print and online materials, while relevant prevention activities were provided online (online trainings, interactive workshops and support groups). More people contacted the telephone counselling service from the CNAPA during the year 2020 compared to the previous years, and mostly requested information regarding alcohol and cannabis use.
- The CNAPA launched the "Suchtprävention in der Jugendarbeit" project. This project consists of an inventory and analysis of addiction prevention needs. In 2020, the CNAPA conducted interviews with the staff of youth centres. The interviews continued during 2021 and were then followed by an evaluation and a report that included recommendations in this regard.

In addition to their ongoing projects and activities, the CNAPA conducted the following activities in 2021:

- Continuous trainings focused on addiction prevention in general (through life and social competences), as well as information on psychoactive substances. Due to the COVID-19 pandemic, some face-to-face trainings were cancelled, rescheduled, or held online.
- The CNAPA published a podcast called "Drug Stories" on social media and on the Website "Graffiti, d'Jugendsendungen um Radio ARA". In 2021, fifteen episodes, focusing on different psychoactive substances, were published.
- In cooperation with several municipalities, the following community-based interventions were implemented: "Youth Prevention" in Strassen, "Fit 4 the Future" and "Trampolin" in Luxembourg City and the implementation of a holistic plan for the prevention of addictions in Esch-sur-Alzette. Furthermore, the CNAPA cooperated with the municipality of Kopstal to plan projects to be carried out in 2022.
- Four sessions were organised for parents on different topics ("Children and screen", "Adolescents stuck to screens", "Youth and Alcohol – how to talk about it").
- Thirteen interventions and meetings to plan future project implementations were held in educational settings, addressing either students or psycho-socio-educational staff. On four occasions, the CNAPA participated in school projects, with workshops on alcohol and the promotion of psychosocial competences ("Rauschbrillenparcours", "Tom & Lisa", Sprongkraft am Aldag").

- In 2021, the CNAPA organised eight continuous trainings in educational settings, with 113 multipliers being trained. Furthermore, the CNAPA participated in numerous meetings to present and disseminate their offers, and discuss their potential implementation. In collaboration with the National Education Training Institute (Institut de Formation de l'Éducation Nationale - IFEN) and the National Youth Service (Service National de la Jeunesse - SNJ), several trainings were provided, including the "Power-voll" project, the "Drugs ABC", the "Cannabiskoffer2.0", "CNAPA's pack" and "Tom & Lisa". Other trainings provided in 2021, include "Gesundheitsfördernde Kommunikation" (Health promoting communication), "Resilienztrainer" (Resilience trainer) and "Medienmündigkeit" (Media maturity).
- In addition, thirteen trainings in non-educational settings were provided by the CNAPA, training 57 multipliers. The trainings include practical guides for the management of alcohol and drugs in adolescents (eleven interventions in different settings). Furthermore, two trainings in the framework of the "REBOUND social work" were organised to promote psychosocial competences and risk management. Seven interventions and meetings to discuss future projects were held in non-eduational settings, as well as three workshops.
- In collaboration with the Psycho-social School Support Centre (Centre psycho-social et d'accompagnement scolaires - CePAS), the training "Limited?!" ("Limitiert?!") was provided to 21 classes including 449 students, with the aim of raising awareness on responsible alcohol use in 13-year-old students
- Two new trainings were provided to teachers and people working in the psycho-socio-educational field: "Powervoll" and "Cnapa's Pack":
  - "Powervoll" focuses on the development and strengthening of personal capacities. Young people are expected to develop skills of autonomy and decision-making (universal addiction prevention);
  - "Cnapa's Pack" consists of health promotion and addiction prevention among children aged 3 to 12 years through strengthening of personal competences.
- The "Fro No" telephone service providing information and orientation for the general public.

UNIVERSAL, SELECTIVE AND INDICATED PREVENTION

Universal prevention is mainly implemented in schools, although drug-related information and prevention modules are not mandatory in school curricula. School-based programmes are usually implemented in cooperation with non-governmental organisations, and seminars, trainings and educational tools on addiction prevention and improving life-skills are offered to school staff (on a voluntary basis). Annual thematic/prevention days or adventure weeks aim to give young people the opportunity to experience group dynamics, conflict management, risk assessment and a feeling of solidarity within a group of socially and culturally diverse people. A toolbox developed by the CNAPA assists schools with the implementation of school-based prevention activities. Moreover, the CNAPA published a guide with recommendations for educational professionals on how to tackle cannabis in the school environment. Training modules for professionals working with young people on how to communicate about psychoactive substances in non-formal environments and educational tools that allow for discussion on substance abuse have also been developed.

Trained police staff members periodically visit schools on demand to inform students on drugs and their risks, reaching around 6,000 students every year. Despite the sanitary crisis, the prevention sessions conducted by the police took place in an online format. Some manual-based school prevention programmes are implemented in schools. Other universal prevention programmes have been carried out periodically in community settings, while trainings and seminars are offered to staff in youth centres so they are able to reinforce social competences and prevent substance abuse and addiction among adolescents and young adults. There are also basic information sessions/trainings about drugs (use) and their (side-)effects provided to teachers, staff working in the psycho-socio-educational field, but also directly to adolescents. In 2020, due to the COVID-19 related restrictions, the typical trainings, information sessions and seminars were held online or replaced by videos produced in cooperation with the National Youth Service (Service National de la Jeunesse - SNJ).

Online counselling, e-health and m-health interventions are developed at the national level in order to provide anonymised advice and information regarding drug use, thus functioning as both universal and selective prevention measures.

Universal prevention measures implemented by the CNAPA in 2021 included:

- "Limited?!" (21 classes, 449 students);
- Development of the "You move" project to enable the use of modules by socio-educational services;
- "Drug Stories" Podcast;
- "Powervoll";
- "CNAPAS Pack";
- 4 sessions with parents on youth and screens, and alcohol;
- Cooperation with municipalities.

Selective prevention focuses on crisis interventions in schools for instance and on avoiding social exclusion. Activities are also carried out in recreational settings and with high-risk groups, such as at-risk families, users of multiple drugs and those who show excessive use of alcohol. "Choice" and "Choice 18+" are early intervention programmes offered by the treatment service Impuls (Solidarité jeunes asbl) for juvenile first-time offenders. The "Choice" programme offers youngsters aged 12 to 17 who entered in conflict with drug laws, mostly due to cannabis possession and/or use, an early and short-term group-based and individual counselling intervention in order to prevent further development of drug abuse. The "Choice18+" targets young adults up to the age of 21 years. Both "Choice" programmes offer an alternative to criminal record registration as psychoeducational programmes have been proven to be more effective. Young drug users may be referred by police forces or the public prosecutor to this programme. An increase of offences among young adults regarding possession and/or use of cannabis has been observed in recent years. The "Choice" and "Choice18+" programmes' actions were highly impacted by the COVID-19 sanitary crisis. During the highly restrictive periods, face-to-face interventions (e.g. counselling sessions) had to be replaced by phone, video calls or text messaging.

The NGO 4Motion asbl runs a project called 'Pipapo', which operates an information desk at recreational and festive settings. Their information desk generally provides a wide range of leaflets on sexuality, risks of drug use with regard to various substances, drug use prevention and harm reduction as well as earplugs, condoms, alcohol breath testing and water to visitors and partygoers. The staff of 'Pipapo' is available at their information desk to discuss about concerns or to answer questions from visitors. 'Pipapo' also offers DrUg CheCKing (DUCK) to allow for testing of substances, including NPS, used in these settings. In 2020, 'Pipapo' prevention activities were highly affected due to the cancellation of cultural, nightlife and festive events, in accordance with the COVID-19 related restrictions. As a response, the concept "Party safe" was developed and implemented at the national level, mainly in Luxembourg City, through streetwork interventions. The interventions were conducted by trained staff and aimed at providing key guidelines to "party safe", including in the COVID-19 context. Finally, in 2020 Pipapo launched the project 'Pipapoter", which is a consultation service, offered alongside the drug checking service (DUCK). For further information on this specific harm reduction service, please see section 5.2 below.

New selective prevention interventions by the CNAPA in 2021 included:

- Intervention programmes in case of anti-doping law offences;
- "Suchtprävention in der Jugendarbeit" (Addiction prevention in youth work);
- "Medienmündigkeit & Konsummündigkeit" (Media & consume maturity);
- Addiction prevention and health promotion in youth centres;
- "Rebound Kick-off days" – to promote psychosocial competences and promote risk management competences.

With regard to **indicated prevention**, early detection is a priority for young people showing high-risk behaviour in school settings and at home. Further interventions are provided by psychiatric care services.

As reported in the 2021 annual activity report of the Ministry of Health, the IMPULS service (Fondation Solina) pursues several objectives related to indicated prevention:

- Identify people who have indicators closely associated with an individual risk of dependence (e.g. family malaise, personal malaise, comorbidities or psychiatric disorders, dissocial behaviour, school failure, consumption of psychoactive substances for reasons of self-medication, association with a marginal environment);
- Offer inpatient treatment and psycho-socio-educational support throughout the treatment and facilitate administrative and financial procedures;
- Avoid drug use or reduce the frequency of use. The aim of these interventions is also to prevent the emergence of poly-drug dependence;
- Working closely with the juvenile and adult psychiatry services of Luxembourg;
- Work closely with therapeutic communities in Luxembourg and abroad, in the context of inpatient treatment;
- Provide care for the beneficiary's family during inpatient therapy;
- Provide post-therapeutic individual and/or family care.

5.2. TREATMENT AND HARM REDUCTION RESPONSES AVAILABLE IN LUXEMBOURG

Specialised drug treatment offers in Luxembourg include inpatient and outpatient responses. These responses rely on government support and are provided through specialised harm reduction and low-threshold agencies, hospital-based drug treatment units, outpatient treatment facilities, and an inpatient treatment facility. Treatment units are also available in prisons. Treatment is decentralised and most commonly provided by state-accredited and state-financed non-governmental organisations. Outpatient treatment is provided free of charge, whereas inpatient treatment is covered by the national health insurance. All institutions work in close collaboration and can be viewed as an inter-connected therapeutic chain.

In 2021, the functioning of drug treatment and harm reduction institutions had still been affected by COVID-19 related safety measures. However, as some restrictions were alleviated during 2021, the majority of the activities could be continued and the number of treatment entrants and the capacities could be increased again, even though they remained below the levels observed before the COVID-19 pandemic.

HARM REDUCTION AND LOW-THRESHOLD SERVICES

- Currently two agencies offer harm reduction services for HRDU in the Centre of the country (CNDS: Abrigado and JDH: K28). The JDH Foundation further offers harm reduction services in the South (Contact Esch) and in the North (Contact Nord) of the country. Services include offers such as day and night shelter and supervised injection and inhalation facilities (in the Centre of the country and in the South).
- In July 2005, the first supervised drug injection room opened in Luxembourg City. It was integrated into the low-threshold centre Abrigado providing day care, night shelter (42 beds) and low-threshold services to drug users. In 2015, a specific supervised room for the purpose of inhalation got operational at the Abrigado centre.
- Supervised drug consumption rooms, one for injection and one for inhalation, integrated in the harm reduction facility (Contact Esch) in the southern city of the country Esch-sur-Alzette, opened in September 2019 and are run by the JDH Foundation.

- The supervised injection facility at Abrigado provides eight places, and the blow/inhalation room six places, whereas the supervised injection and blow facilities at Contact Esch provide four places each.
- Another low-threshold offer run by the JDH Foundation was implemented in the northern city of Ettelbruck in 2014 (Contact Nord).

The Pipapo project from the NGO 4Motion asbl acts on both prevention and harm reduction through the DrUg CheCKing (DUCK) project – targeting drug users in recreational/festive settings. The DUCK project allows for testing of substances, including NPS, used in these settings. While users have the opportunity to have a sample of their product analysed anonymously, and express the presumed characteristics and desired effects of the product, the DUCK project provides an opportunity to increase awareness on the risks that are associated with drug use and guides users towards a more responsible use. The samples received by the DUCK service are provided to the National Health Laboratory (LNS) for analysis and destroyed afterwards. The expected characteristics of the sample, as expressed by the user(s), are hence compared with the results of the spectrochemical analyses carried out by the LNS.

Pipapo has recently expanded its services to online counselling and information provision on drugs. Moreover, drug users can now also make an appointment on various weekdays at the main location/building of the Pipapo to get their products tested or to discuss the results of the laboratory analysis in person with one of the trained psychologists of the Pipapo team 'Pipapoter' project.

In 2021, the DUCK team collected 120 samples for the purposes of drug checking (2020: 91), of which 25 were collected in festive settings. The laboratory results generally confirmed the substance expected by the consumer.

Among 16 samples, synthetic cannabinoids were identified. The relevant national and international authorities were informed by PIPAPO, as well as the festive community through social media. The increasing demand for cannabis testing may be partly explained by an increase in the presence of synthetic cannabinoids and CBD cannabis products in the Grand Duchy of Luxembourg.

In 2021, 54 "Pipapoter" consultations were provided (42 in 2020), of which 44 were in person and 10 via the messenger function on social media, telephone or e-mail. In total, 48 people benefitted at least once from the "Pipapoter" consultation offer in 2021 (23 in 2020).

OUTPATIENT TREATMENT SERVICES

The JDH Foundation, created in 1986, is one of the main treatment providers at the national level. It provides various psychosocial, therapeutic and medical care services for consumers of illicit drugs, including HRDUs, drug-dependent parents and their children, mothers and pregnant women providing intervention to strengthen the parenting skills, and their relatives. The JDH Foundation runs three regional antennas that are situated in Luxembourg City (Centre), in Esch-sur-Alzette (South), and in Ettelbruck (North).

The 'Alternativ Berodungsstell' (Alternative Counselling Centre) is a specialised outpatient service implemented in Luxembourg City. Its main objectives are to establish first contact with the drug users searching for treatment and assist them in the development and organisation of a therapeutic project, detoxification, psychiatric/psychotherapeutic interventions, and the provision of informative or therapeutic sessions.

The service 'Quai 57' (Arcus asbl) implemented in Luxembourg City is primarily a social and psychological counselling and referral agency providing help to people who suffer from an addictive disorder (with or without substance abuse) or to family members and/or peers of people with an addictive disorder. The service Quai 57 also offers counselling in other regions of Luxembourg, such as Rédange, Grevenmacher, Mersch, Diekirch, Marnach and Esch-sur-Alzette.

The treatment service Impuls (Solidarité Jeunes asbl) provides, in the framework of youth protection, psychosocial and therapeutic assistance to young people (generally below the age of 21y) and their families when they are confronted with the consumption of legal and illegal psychoactive substances. The treatment service Impuls has its main seat in Luxembourg City, while there are also antennas in the North (Ettelbruck) and South of the country (Esch-sur-Alzette).

HOSPITAL-BASED DRUG TREATMENT UNITS

Detoxification treatment is provided by psychiatric units within the following general hospitals:

- Centre Hospitalier du Nord – CHdN (Ettelbruck - North);
- Centre Hospitalier Emile Mayrisch – CHEM (Esch-sur-Alzette - South);
- Centre Hospitalier de Luxembourg – CHL (Luxembourg City - Centre);
- Hôpitaux Robert Schuman (sites Zithaklinik and Hôpital Kirchberg) – HRS (Luxembourg City - Centre).

INPATIENT TREATMENT SERVICES

The national residential therapeutic centre at 'Syrdall Schlass' called 'Centre Thérapeutique de Manternach' (CTM) managed by the Centre Hospitalier Neuro-Psychiatrique (CHNP) is situated in the East of Luxembourg. The CTM is a therapeutic centre for people dependent on illegal substances. The centre is organised as a therapeutic community and can accommodate up to 25 people. Patients are allowed to follow substitution treatment in-house. Mothers and/or fathers accompanied by their children may also follow a therapeutic programme at the CTM. The goal of the therapeutic community is to help each individual to allow a life without drugs and to reintegrate into society and work. The therapeutic programme of the CTM is divided into three progressive phases. Before admission to the 'Syrdall Schlass', it is mandatory to consult first the 'Alternativ Berodungsstell' orientation office in Luxembourg City. All patients have to go through detoxification before entering the therapy.

In 2021, the CTM engaged in an ongoing reform to adapt their offer to the patients' needs and to reduce waiting lists. The reform is expected to shorten the duration of the therapy for most patients, which so far ranged from 6 to 15 months on average. In many other countries, similar therapies usually last between 3 to 6 months. The CTM aims to implement more individualised, flexible treatment options with an increased focus on psychotherapy. In addition, the value of the therapy outside the therapeutic closed setting is expected to increase, as patients are given more responsibility and fewer restrictions. The CTM furthermore continues to improve the therapy for mothers with children, as their treatment takes longer on average. A working group has been created by the CTM to implement the changes without compromising current patients' therapy.

A specialised residential rehabilitation centre for youngsters (Centre Thérapeutique Putscheid - CHNP) was opened in the beginning of 2007 in the North of the country under the management of CHNP. The rehabilitation centre can accommodate up to twelve people of both genders, between 12 and 17 years old, who suffer from a psychiatric disorder or a social behaviour disorder, sometimes associated with psychoactive substances misuse or a post-traumatic dysfunction. While adolescents usually stay between 4 and 6 months, the centre provides therapeutic counselling to adolescents and facilitates family, school/professional and/or social reintegration.

THERAPEUTIC COUNSELLING TREATMENT SERVICES IN PRISON

The programme 'Suchthëllef' implemented in the closed prison (Centre Pénitentiaire de Luxembourg - CPL) and in the semi-open prison site in Givenich (CPG) has established several psycho-educational activities. It is a therapeutic counselling programme of individualised rehabilitation, not time-limited, allowing clients to participate in activities that are in line with their previously established therapeutic plan. The programme allows the clients to combine drug treatment counselling and other necessary steps towards socio-professional reintegration. The programme 'Suchthëllef' is also operational in the recently opened prison for remand prisoners (Centre Pénitentiaire de Uerschterhaff).

POST-THERAPY / AFTER-CARE

- Post-therapeutic centre in Schoenfels: in 2016, the 'Stëmm vun der Strooss asbl' (Voice of the Street) opened a new post-therapeutic centre in Schoenfels for persons previously treated for substance addiction. It provides post-therapy, time-limited housing and daytime occupation notably to ex-drug or ex-alcohol dependant adults who intend to lead a life without drugs/alcohol. A total number of fifteen people who have successfully completed inpatient drug treatment and therapy can be accommodated for a limited time in the residential centre. The post-therapy centre has two main aims:
  - To offer professional and social reintegration;
  - To avoid accommodation in emergency care facilities after the end of inpatient therapy and provide follow-up in a protected setting.

  During the year 2021, 59 adults (2020: 59) contacted the Post-Therapy Centre either to come and work as a volunteer or under a so-called "integration contract" within the framework of the REVIS[19] or to submit their application for admission. During 2021, 21 different people were accommodated at the Post-Therapy Centre (22 in 2020). At the end of 2021, 29 people were on the admission list enabling them to join the Post-Therapy Centre in 2022 (25 in 2020).
- "Post-Cure Service" (CHNP): the aim of this offer is to provide after-care for people having completed their therapy at the CTM (Therapeutic Centre Manternach) or abroad. The project team provides support to clients living in community housing facilities or in apartments located in several areas of the country (Rosport, Moersdorf, Junglinster, Grevenmacher, Wasserbillig, Berg, Echternach, Ettelbruck, Warken and Ingeldorf). The objectives of the "post-cure service" are: a) abstinence and continuous development of skills towards abstinence from illicit drug use; b) professional/social reintegration and stabilisation through the acquisition and consolidation of personal skills; c) physical and mental stability; d) solidarity across the community/life group; e) support in the education of clients' children; f) provision of professional support to clients beyond their after-care stay. In 2020, 36 housing places were attributed (31 adults and five children) and six clients were followed and received support while living in their own houses. In 2021, 48 housing places were attributed (37 adults and 11 children) and three clients were followed and received support in their own houses.
- Supervised housing services "Les Niches": the supervised housing service from JDH offers a communitarian house for senior drug users. This housing facility allows responding to the specific needs of this group. The number of senior drug users in need of housing services is increasing. In 2021, the number of visits and accommodations increased again. In total, 69 housings were offered (2020: 57) and 87 adults were accommodated (2020: 67) as well as nineteen children (2020: 18). Data from the "Niches" reveal an increasing proportion of aging drug users: while in 2020 16.4% of the clients benefitting from the housing offer were above the age of 55, this proportion increased towards 17.2% in 2021. The proportion of clients above the age of 40 decreased to 78.2% in 2021 (2020: 83.6%).

As shown in Figure 43, drug treatment and re-integration facilities are spread over different regions. All listed services are specialised with the exception of regional general hospitals providing detoxification treatment via their respective psychiatric departments.

19 The Social Inclusion Income (REVIS) is intended to support households on low incomes and to provide a basic livelihood for anyone who meets the eligibility criteria.

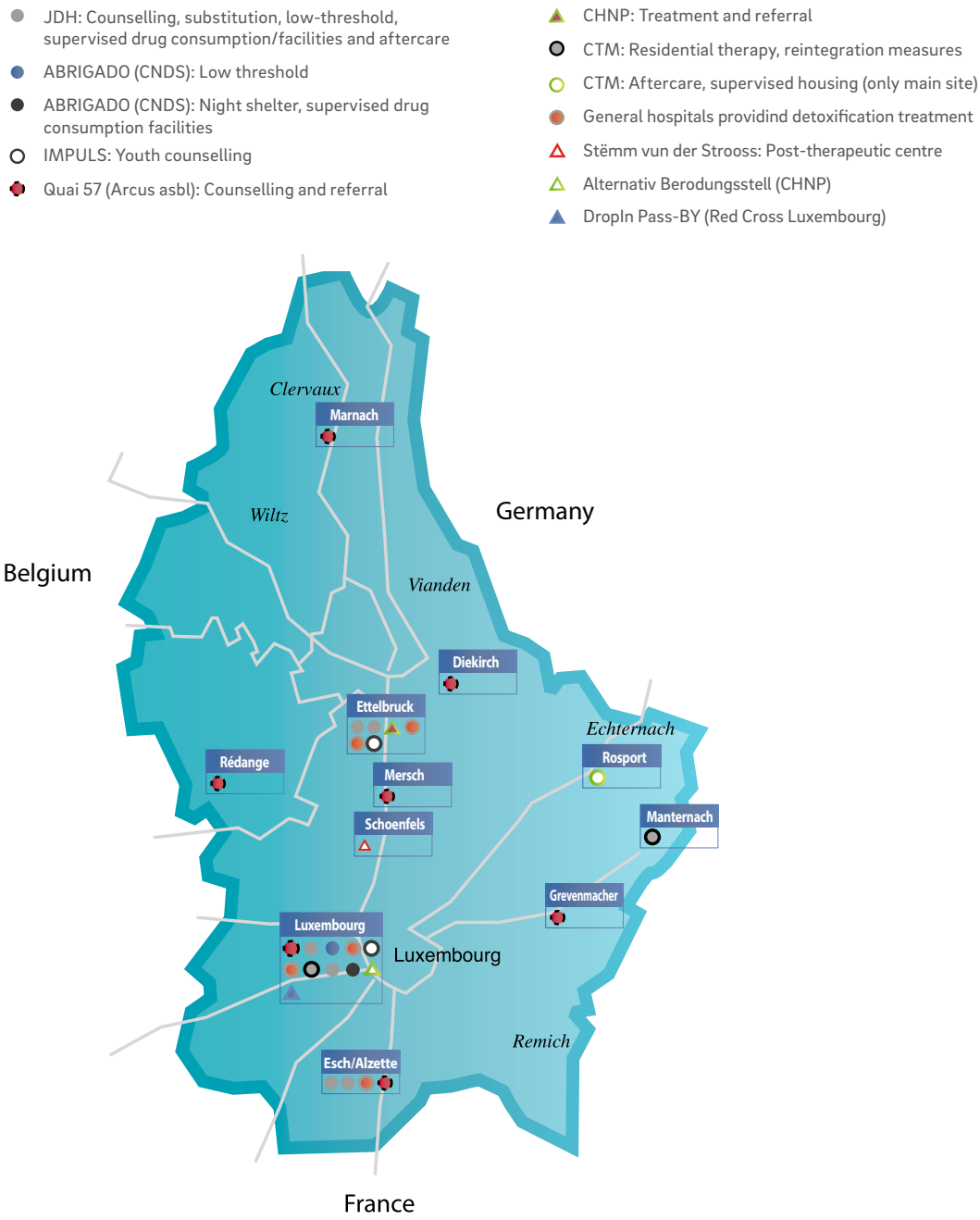


FIGURE 43.

Map of the geographical coverage of specialised drug agencies in the Grand Duchy of Luxembourg (status 2022)

Note: the prison sites in Luxembourg (CPL and CPG) offer both therapeutic counseling services (Suchthëllef) and OST treatment to the inmates who use(d) drugs.

5.3. PROVISION OF DRUG TREATMENT

In 2021, 1,626 clients were reported by specialised outpatient drug treatment units, representing 173 clients more than the previous year (1,453 in 2020). These include the treatment centres of the JDH Foundation (2021: 459; 2020: 435), Impuls (2021: 485; 2020: 449), Quai 57 (2021: 560; 2020: 473), and the Alternativ Berodungsstell (2021: 122; 2020: 96). After the decrease in treatment provision observed in 2020 due to COVID-19 related restrictive measures, the numbers increased again in 2021 as the restrictive measures were partially alleviated. The number of clients in other national in- and outpatient therapeutic and harm reduction agencies is depicted in Table 6, whereas Figure 44 shows how the total number of patients has been evolving over the past decade in both in- and outpatient services.

TABLE 6.

Overview of harm reduction services and drug treatment provision in the Grand Duchy of Luxembourg

				Definition	Number of client-contacts in 2021	Total number of clients in treatment in 2021
Outpatient	Specialised drug treatment centres	Impuls, Quai 57, JDH, Alternativ Berodungstell	Non-government (non-for-profit)	The patient receives drug treatment without staying overnight and can be pharmacologically assisted		1,626
	Low-threshold agencies	Abrigado, JDH-K28, JDH-Contact Esch, JDH-Contact Nord		Agencies offering harm reduction services including: night shelter, needle exchange, supervised consumption rooms, education/ counselling, infectious diseases testing	91,647[20]	
	Outpatient OST	General Practitioners (GPs) and JDH		Opioid Substitution Treatment (OST) is made available to opioid users and can be accessed through the general practitioners (GPs) or the JDH substitution treatment programme		1,027[21]
	Mobile outreach unit	MOPUD/X-Change Project		Mobile van promoting "safer use" and "safer sex" with the ultimate goal of harm reduction and reducing risks of infectious diseases transmission	168[22]	
Inpatient	Hospital-based drug treatment	CHL, CHEM, CHdN, Zithaklinik	Public/ Government	The patient is staying overnight, pharmacologically assisted or not (including detoxification)		377[23]
	Therapeutic communities	Syrdall Schlass - Centre Thérapeutique de Manternach (CTM)		The patient is staying overnight, is provided a psychological, long-term treatment, may be pharmacologically assisted or not (no detoxification). Detoxification is required before entering the community		67
	Prisons	Programme SuchtHëllef (CPL, CPG)		The patient incarcerated in prison can submit a request to enter a specialised drug treatment (SuchtHëllef programme). He/she may be pharmaceutically assisted (no detoxification)		315[24]
		OST treatment in prison (CPL, CPG)		The patient incarcerated in prison can continue a previously prescribed OST treatment or begin OST in prison		132
						3,544[25]

20 Number of client-contacts including multiple counts (the number of individual-clients is not registered).

21 To allow for comparisons to previous years, the DIAM program OST clients (N = 36) and low-threshold OST clients (N = 36) were excluded.

22 Number of client-contacts (the number of individual-clients is not registered): The mobile outreach unit (MOPUD/X-Change) counted 168 contacts in 2021 (15 contacts in 2020; 219 contacts in 2019). In 2020, the MOPUD/X-Change remained suspended in Luxembourg City due to major construction works and it was operational although with limited activity in Esch-sur-Alzette.

23 Please note that the total number of clients for hospital-based residential drug treatment is an accurate estimate based on exact figures provided by three hospitals (CHL n=79; Zitha n=254; CHEM n=22; CHdN = 22).

24 Please note that for prisons, there are two sites: one closed and one semi-open prison. Data from 2021 are an estimation for both sites based on the average number of prisoners in the Suchthëllef program in previous years - the number of clients per site is not available. Both sites (CPL and CPG) offer individual drug counselling therapy, whereas the closed site (CPL) additionally offers group therapy. It is unknown whether clients benefit from both individual and group therapy at once; therefore double counting is not excluded.

25 Data provided by the treatment institutions in their annual activities report. Inter-institutional multiple counts are not excluded meaning that a given client could be indexed twice or more in case he/she used several harm reduction and/or treatment services during a given reporting year.

The number of clients visiting specialised treatment services has been showing a discontinuous increase from 2002 to 2019. In 2020, as a result of the COVID-19 sanitary crisis, the number of registered clients visiting specialised treatment decreased significantly compared to previous years (2020: 3,190; 2019: 3,450) (multiple counts included), but increased again to 3,431 in 2021, reaching a similar level as observed in 2019 (see Fig. 44).

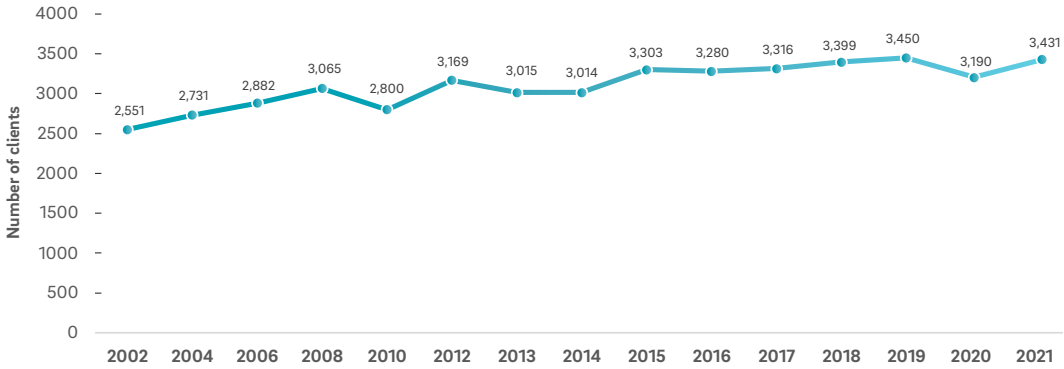


FIGURE 44.

Trend of total number of clients in outpatient- and inpatient treatment 2002-2021 (RELIS, 2021)

5.4. PATTERNS OF USE AND CHARACTERISTICS OF TREATMENT DEMANDERS

At the national level, treatment demands, characteristics of treatment demanders and their drug use patterns are assessed continuously on an annual basis through the RELIS monitoring system, which includes the majority of national out- and inpatient drug treatment centres.

- The primary drugs involved in treatment demand in Luxembourg have consistently been opioids. In 2021, 40.5% (2020: 48.8%) of all treatment demands were related to opioid use (see Fig. 45). More than half (60.9%) of all treatment demanders were treated for opioid misuse in 2017, revealing a decreasing trend of clients in treatment due to opioids over time.
- In 2021, cannabis use was most prevalent among younger treatment demanders (below 25 years), while opioids and cocaine were more commonly reported as the primary drug among older treatment demanders (see Fig. 46). The majority of the treatment demanders reporting cannabis as their primary drug started consuming cannabis before the age of 20. Those who entered treatment primarily due to opioid or cocaine use mostly started consuming these drugs at an age of 24 years or younger, with some clients indicating an older age of first use (see Fig. 47).

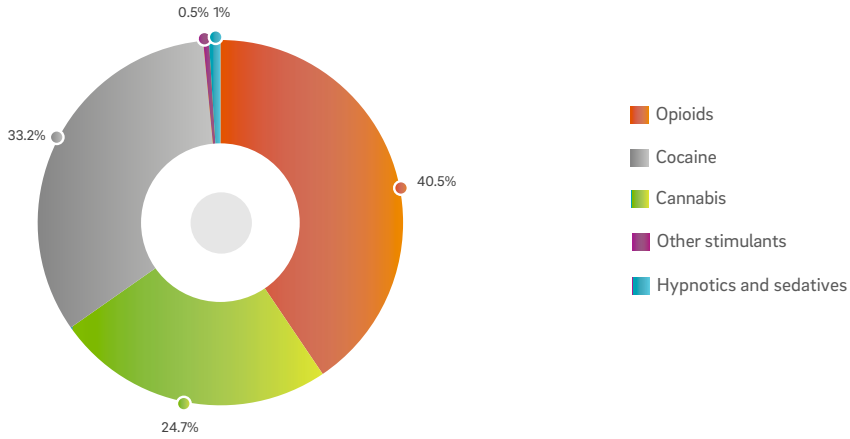


FIGURE 45.

Proportion of treatment demands by primary drug in 2021 (valid %) (RELIS, 2021)

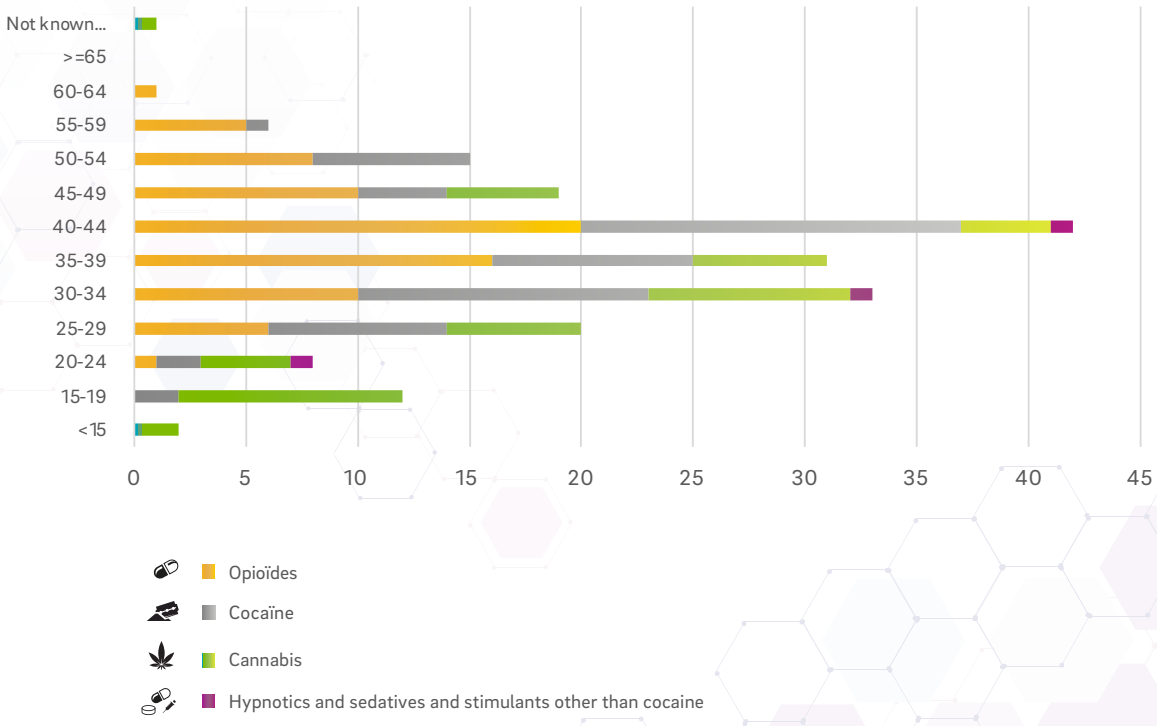


FIGURE 46.

Age of treatment demanders by primary drug in 2021 (N = 190) (RELIS, 2021)

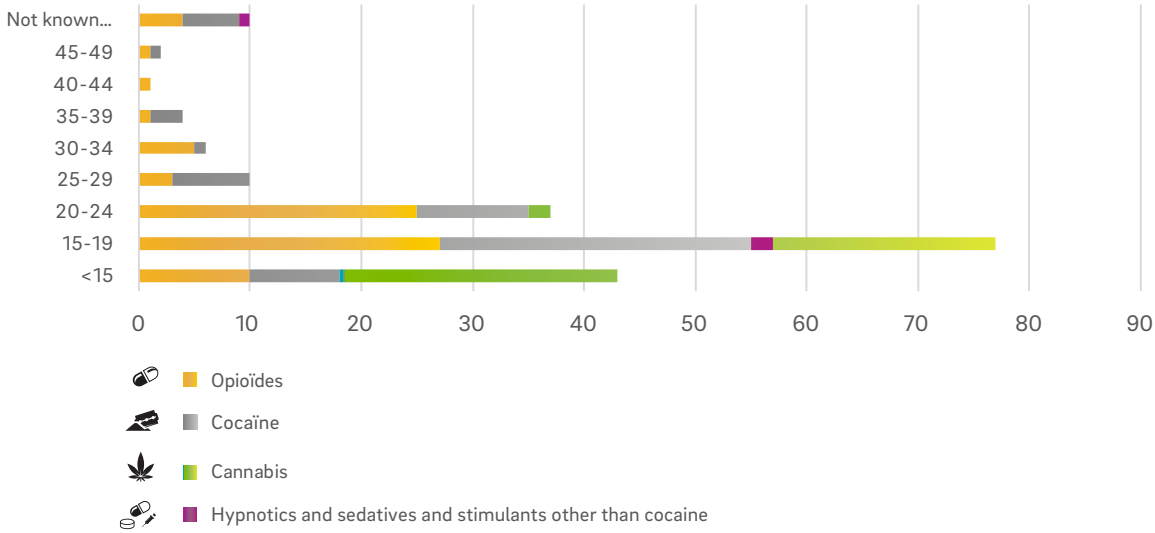
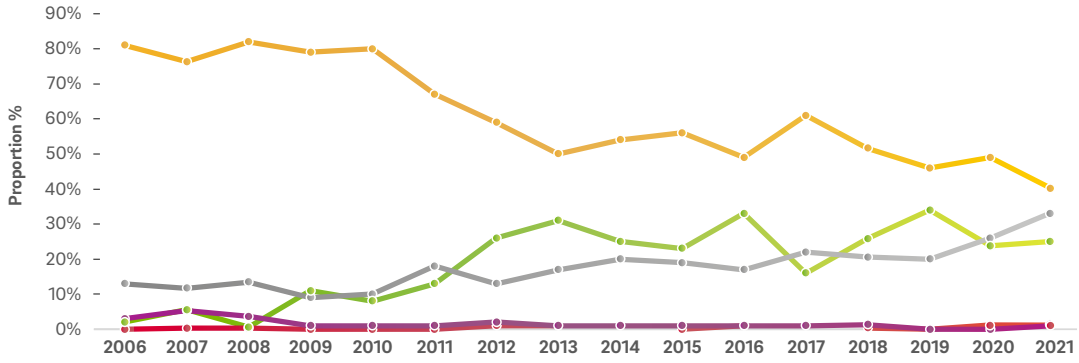


FIGURE 47.

Age of first use by primary drug in 2021 (N = 190) (RELIS, 2021)

- In total, 33.2% of all clients entered treatment for problems related to their cocaine use (see Fig. 45), revealing cocaine as the second most reported drug in treatment demands. This proportion has increased with regard to 2020 (26.4%), confirming the increasing trend observed in previous years (see Fig. 48). Cocaine remains highly prevalent on the illicit drug market.
- In 2019, cannabis was the second most frequent primary drug (33.6%) among the treatment demanders indexed by the specialised treatment and harm reduction facilities. In 2020 and 2021, the proportion of cannabis treatment demands decreased to 23.9% and 24.7%, respectively, which can be at least partially explained by the impact of COVID-19 sanitary crisis. When looking at the past 15 years, a general increase in the number of cannabis treatment demanders becomes evident. The increase in cannabis treatment demanders may be due to higher THC levels identified in cannabis products (see also Chapter 6), which have been related to a higher risk of mental health and social problems.
- Other illicit drugs represent only a small proportion of treatment demands (approximately 0.5% of all treatment demands concern other stimulant drugs such as amphetamines or ecstasy and around 1% reported the use of hypnotics and sedatives as primary drug) (see Fig. 45, 48).

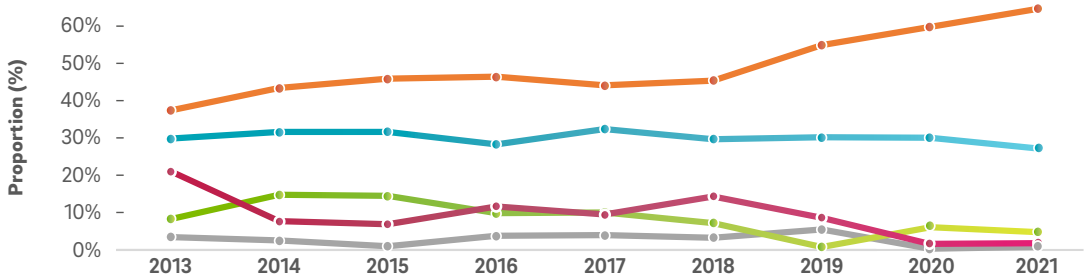


	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Opioides	81	76	82	79	80	67	59	50	54	56	49	61	52	46	49	41
Cannabis	2	6	1	11	8	13	26	31	25	23	33	16	26	34	24	25
Cocaine	13	12	13	9	10	18	13	17	20	19	17	22	21	20	26	33
ATS	0	0	0	0	0	0	1	1		0	1		0	0	1	1
Other drugs	3	5	4	1	1	1	2	1	1	1	1	1	1	0	0	1

FIGURE 48.

Trends in the proportion of clients entering treatment by primary drug used 2006-2021 (valid %) (RELIS, 2021)

- When looking at the primary route of administration of the main drug, the proportion of drug injecting clients in treatment has remained largely stable (about 30%) over the past years. However, in 2021, the proportion of drug injecting clients has decreased to 27.4%.
- The proportion of clients using smoking/inhaling as main route of administration has continuously increased from around 37.4% in 2013 to 64.7% in 2021 (59.7% in 2020). However, this increase also has to be seen in the light of the evolution of the characteristics of the sample (i.e. more cannabis users).
- Other routes of administration are less prominent – sniffing seems to have become less popular over the past years, and there is no consistent trend for swallowing or other routes of administration (see Fig. 49).



Route of administration

	2013	2014	2015	2016	2017	2018	2019	2020	2021
injection	29.8	31.6	31.7	28.3	32.4	29.7	30.2	30.3	27.4
inhalation/smoke	37.4	43.4	45.9	46.4	44.1	45.4	54.9	59.7	64.7
swallowing	3.5	2.5	1.0	3.8	3.9	3.3	5.5	0.5	1.0
sniffing	8.3	14.8	14.5	9.8	10.1	7.2	0.8	7.0	4.7
other	21.1	7.7	6.9	11.7	9.5	14.4	8.7	2.5	2.1

FIGURE 49.

Route of administration by primary drug for all drug treatment entrants (valid %) (RELIS, 2013-2021)

- The proportion of new treatment demanders has been increasing between 2017 and 2019 (2017: 23.0%; 2018: 26.8%; 2019: 35.2%) compared to those who were previously in treatment for substance use related problems. However, the proportion of new treatment demanders decreased in 2020 (28.9%), which may be attributable to the COVID-19 sanitary crisis. The slight increase in new treatment demanders in 2021 (30.0%) might be due to the alleviation of certain COVID-19 restrictions, but remains below the level observed prior to the sanitary crisis.
- The number of new treatment demanders for cannabis reached a peak in 2019 with almost two-third of all new treatment demands being related to the primary use of cannabis (62.7%). However, it should be noted that the relative share of data provided by the Impuls treatment service targeting adolescents/young adults mainly for cannabis related problems increased significantly in 2019 compared to previous years. In 2021, persons showing primary cannabis use represented 38.6%, indicating a decreasing trend of primary use of cannabis in new treatment entrants (2020: 50.0%; 2019: 62.7%).
- In 2021, 29.8% of new treatment demanders were primary opioid users (2020: 29.3%) and 18.1% were primary cocaine users (2020: 19.0%). These data suggest an increasing trend, notably in terms of primary cocaine use.
- The mean age of all treatment entrants has generally been increasing during the last 20 years (2021: 36.8y; 2020: 36.8y; 2019 34.6y; 1997: 28y).
- In 2021, 79.5% of all treatment entrants were male and 20.5% were female (2020: 78.6% male; 20.9% female). In 2021, the proportion of males among the new treatment entrants was higher than the proportion in all treatment entrants (89.5% male and 10.5% female).

5.5. OPIOID SUBSTITUTION TREATMENT

Opioid Substitution Treatment (OST) is a medical assisted treatment provided to opioid dependant persons primarily based on the delivery of opioids' agonists and antagonists (and antagonistic agonists) as substitutes to the drug normally used. As the primary goals of OST are the psychosocial and medical stabilisation of the patients by replacing "street" drugs by quality-controlled substitution drugs, it is typically accompanied by psychosocial care provided at in- and outpatient settings. A structured and multidisciplinary substitution treatment programme is provided at the national level by the JDH Foundation since 1989. Moreover, substitution treatment licenses can be granted to medical doctors, office-based general practitioners and specialised agencies if training requirements are met and by law, licenced MDs are under the obligation to notify substitution treatment demands to the Directorate of Health. The JDH Foundation mainly provides oral methadone whereas freelance state accredited medical doctors may also provide other substitution medications, specified by law. OST medications registered in Luxembourg include methadone, buprenorphine, morphine-based medications and diacetylmorphine (heroin - only in the framework of the national HAT programme). The costs of OST consultations are partly covered by individuals' health insurance, while the government covers pharmaceutical costs and pharmacy fees.

DEVELOPMENTS IN THE NUMBER OF OST PATIENTS

The number of patients receiving prescribed substitution treatment has known a steep increase between 2008 and 2010 (2010: 1,248 patients; 2008: 1,050 patients – multiple counts excluded). Since 2013, a fair stabilisation in the number of OST patients has been recorded, although a slight but continuous decreasing trend might have started in 2018 (2021: 1,027; 2016: 1,085; 2011: 1,128) (Fig. 50).

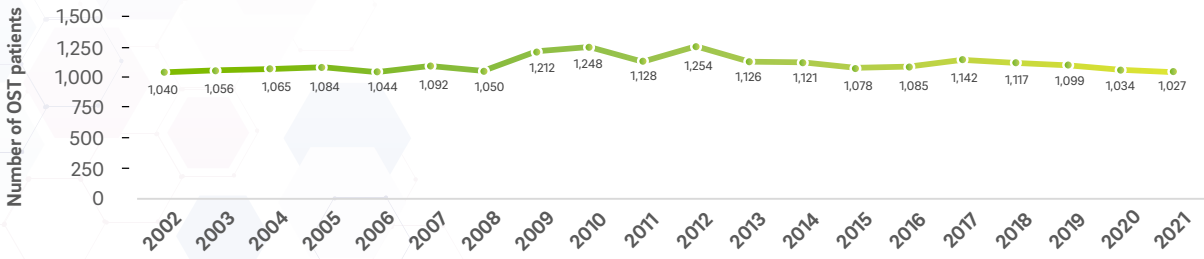


FIGURE 50.

Evolution of the number of opioid substitution treatment (OST) patients 2002-2021 (RELIS, 2021)

Note: for comparability reasons, the number of OST patients reported refers exclusively to the CNS register. For 2021, OST patients in prison are excluded (N=132), as well as OST patients (N=36) in low-threshold facilities and OST patients in the DIAM programme (N=36).

The majority of OST patients are men (approximately 75%) and their average age has been increasing in recent years – (45y in 2021; 44y in 2020; 43y in 2019; 42y in 2017; 38y in 2014), with a majority of OST patients in the age group of 40-44 years. The majority of OST patients receive prescribed methadone followed by buprenorphine and naloxone.

An Heroin Assisted Treatment (HAT) pilot project, coordinated by the Directorate of Health, is run by the JDH Foundation since 2017. The prescription of diacetylmorphine (DIAM) is not to be seen as a low-threshold measure, but as a supplementary form of substitution treatment. In 2021, the JDH OST programme counted a total number of 114 clients (2020: 141 clients); 78 (68.4%) were prescribed methadone or buprenorphine and 36 (31.6%) were prescribed DIAM (HAT) (2020: 76.6% methadone/Mephenon® and 22.7% DIAM).

LOW THRESHOLD OST

In a rapid response to the COVID-19 crisis, the Ministry of Health developed in close collaboration with the CNDS run Abrigado centre, the JDH foundation and the association Médecins du Monde a medical permanence providing low-threshold OST. Since the beginning of the COVID-19 sanitary restrictions, this service provides several weekly medical counselling slots in order to provide medical care and referral. Additionally, there is a nursery open seven days a week. In order to guarantee OST, Abrigado has been working in close collaboration with a local pharmacy providing essential medicines. Marginalised drug users experiencing a situation of increased social exclusion have now access to low-threshold substitution treatment independently of their social security status, while take-home dosages of OST are delivered in particular cases. Some clients come on a daily basis to get their medication; others can take away up to three days' worth of medication at a time. Every client is registered in the service system and each client's treatment journey is documented and adapted as appropriate. The drivers behind the rapid implementation of this first low-threshold OST programme were in particular the risk of an emerging shortage of drugs on the illicit market (linked to the closure of national borders), the higher demand for OST, the risk of lower access to OST associated with tighter controls, and the increased risk of overdoses.

OST PROVISION IN PRISON

With regard to the provision of OST in prison, official figures show that in 2021, 25% of inmates received OST, representing a total number of 132 persons (see Table 7) (2020: 142 persons; 25.9%). In 2021, the average dose of distributed methadone was 34 mg per day (2020: 29 mg per day) for methadone, and 9.0 mg per day for distributed Suboxone® (2020: 10.0 mg per day). The average duration of treatment episodes in 2021 was 132 days for methadone and 187 days for Suboxone® (2020: 111 days for methadone and 245 days for Suboxone®).

TABLE 7.

Number of prisoners receiving opioid substitution treatment (2014-2021)

Year	2014	2015	2016	2017	2018	2019	2020	2021
Methadone	181	165	172	204	159	136	134	123
Suboxone®	66	46	33	26	10	10	8	9
Total (persons)	247	211	205	230	169	146	142	132

Source: Psychiatric service in prison (service psychiatrique en milieu pénitentiaire – SPMP), 2021

5.6 HARM REDUCTION RESPONSES

The harm reduction responses consist of offers such as needle and syringe exchange programmes, HIV/HCV testing, supervised drug consumption facilities, and outreach offers. The national needle and syringe programme in Luxembourg is decentralised and consists of five fixed sites and a series of vending machines situated in the towns most affected by injecting drug use. Clean syringes are available in drug counselling centres, drop-in centres for sex workers and at-risk populations, low-threshold centres such as the supervised drug consumption rooms, outreach offers and in prison. In addition to needles and syringes, testing for blood-borne infectious diseases, vaccinations and counselling on safe use practices are also provided. A mobile medical care unit facilitates the provision of primary medical care at low-threshold agencies. A mobile outreach service specifically designed for drug users in an urban environment was launched in 2017, and a second supervised drug consumption room opened in the most populated city in the South of the country (Esch/Alzette) in September 2019. An additional counter providing materials for safer sex and safer use, including (an exchange of) syringes and needles, is available at the DropIn centre of the Red Cross since September 2021. Low-threshold nursery services are provided in case of medical care needs.

- The number of person-contacts indexed by low-threshold facilities has steadily increased since the opening of the first drug consumption room in 2005 (2005: 47,739). In 2021, 144,967 contacts in various national harm reduction services were registered, comparable to 2020 (146,271), but lower than 2019 (164,420) (presumably due to COVID-19 related restrictions) (see Fig. 51).
- In 2021, all JDH low threshold services reported a total number of 23,394 client contacts including K28 in Luxembourg City, Contact Nord, and the Contact Café Esch (2020: 18,253) which also includes supervised drug consumption facilities. The number of client contacts, including all JDH services, increased by 12% compared to 2020, which may be due to the alleviation of COVID-19 related restrictions. However, the passages of illicit drug users and the exchange of syringes at the Contact Nord decreased in 2021. Contact episodes of clients decreased by 15% in 2021, compared to 2020 (2021: 3,164; 2020: 3,711) and the number of syringes exchanged decreased by 22% (2021: 1,701; 2020: 2,168) at the Contact Nord.
- The low-threshold harm reduction centre Abrigado reported approximately 106,327 client contacts in 2021, including CAARUD (53,175), the medical service (10,729) and client contacts at the supervised drug consumption facilities (42,423) (N.B. these figures do not exclude multiple counting).
- The DropIn service from the Red Cross counted a total number of 12,202 client contacts in 2021 (2020: 20,132).
- The mobile outreach unit is one of the main responses to better reach drug users outside the opening hours of the different services participating in the needle exchange programme. The MOPUD/X-Change offer is a cooperation project between the JDH, the Abrigado centre and the HIV-Berodung of the Red Cross primarily targeting drug users (safer-use and harm-reduction). MOPUD/X-Change has been on hold due to the construction work on the site where it used to be stationed. As of June 2019, a "streetwork" has been set up to analyse the scene and find a new place in Luxembourg City. Numerous construction sites, especially in the station area and the lack of adequate alternatives, have conducted MOPUD/X-Change to stop functioning temporarily in the city centre. Between July 2020 and June 2021, MOPUD/X-change was stationed at different locations in the southern city of Esch-sur-Alzette. The COVID-19 crisis impacted significantly the outreach mobile unit, hence in 2020 a significant decrease in the number of client-contacts was observed (2020: 15; 2019: 214) (N.B. these figures do not exclude multiple counting). In June 2021, the mobile outreach unit received permission to provide their services temporarily at the location of the "Kontakt 28" in Luxembourg City. In 2021, the MOPUD/X-change van has made 29 appearances in Luxembourg City and 21 appearances in Esch-sur-Alzette. The mobile outreach unit (MOPUD/X-change) counted 168 client contacts in 2021 (219 in 2019). It is planned to extend the MOPUD/X-change offer to other cities in 2023, notably in the north of the country.

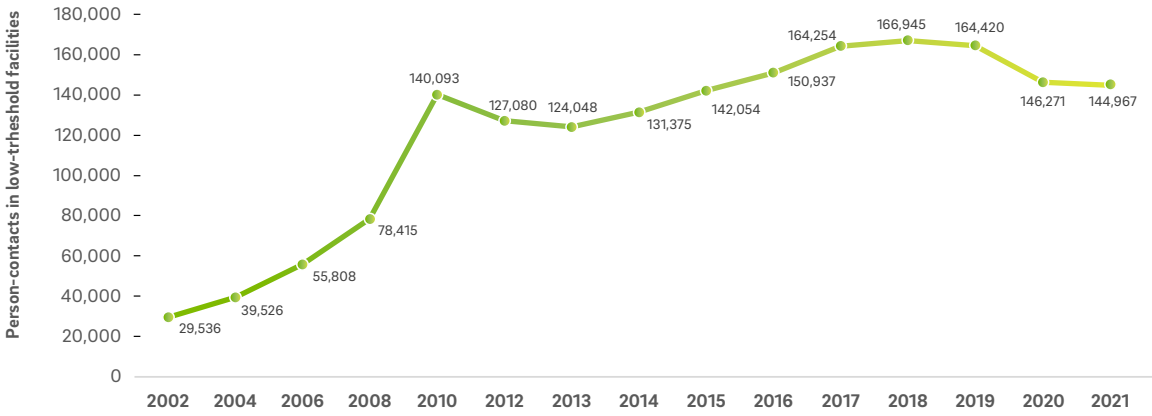


FIGURE 51.

Evolution of the overall number of person-contacts with low-threshold facilities (2002-2021) (RELIS, 2021)

- The number of clean syringes distributed in the framework of the national needle exchange programme reached a first peak in 2004 when more than 435,000 syringes were dispensed and decreased thereafter to less than 200,000 syringes in 2013. Since then, provision has increased again, reaching a historically high level in 2018 with 492,704 distributed syringes.
- In 2020, most likely due to the COVID-19 sanitary crisis, the number of distributed syringes by specialised agencies with needle syringe programmes (NSP) decreased to 394,690. In 2021, figures increased again, with 429,039 distributed syringes (see Fig. 52).
- The vast majority of injectors (2021: 99.2%; 2020: 99.9%; 2019: 99.1%) procure their syringes in specialised agencies (predominantly at the Abrigado centre) followed by pharmacies and decreasingly via automatic dispensers (RELIS, 2021).
- Return rates of used syringes in specialised agencies had been slightly decreasing in recent years. The fact that cocaine users experience more cravings and inject significantly more often than heroin users may lead to higher risk behaviours, such as sharing needles rather than returning and exchanging them.

FIGURE 52.

National distribution of sterile syringes 1996-2021 including specialised agencies, prisons, vending machines and supervised drug consumption rooms (Comité de surveillance du SIDA, 2022)

6.

DRUG MARKETS AND CRIME

6. DRUG MARKETS AND CRIME

6.1. AVAILABILITY AND SUPPLY

Drug markets are of changing nature. They rely on factors such as supply mechanisms, on the economic situation of the country, and on the priorities, activity and efficiency of law enforcement strategies. Availability and supply indicators should be interpreted with caution as they rely on the interplay of these factors. The Luxembourg Focal Point of the EMCDDA (PFLDT) processes anonymous nation-wide data on drug-related offences, prosecution and seizures of illicit substances provided by the law enforcement agencies in collaboration with the specialised drug unit (*section stupéfiants*) of the national Judicial Police Service. Important fluctuations have been observed in the quantities of illicit substances seized over the past 2 decades.

CANNABIS

Cannabis is the most frequently used illicit psychoactive substance:

- The prevalence of cannabis use among treatment demanders increased steadily since 2012 reaching its highest peak in 2019 with 33.6% of clients reporting cannabis as their primary drug of use. A decrease in the proportion of treatment demanders with primary cannabis use was observed in 2020 (23.9%), however, arguably due to the impact of the COVID-19 sanitary crisis on data collection procedures. In 2021, the proportion of treatment demanders with primary cannabis use increased slightly to 24.7%.
- A high prevalence of cannabis use is in line with high seizure figures – the number of cannabis seizures has risen from 167 to 1,315 between 1994 and 2019, while the quantity of cannabis seized achieved a peak in 2019 with 371 kg. The number of seizures (2020: 1,142 seizures; 2019: 1,315 seizures), and amounts seized (2020: 102 kg; 2019: 371 kg) decreased in 2020 compared to 2019, and the quantity seized further decreased in 2021 (53 kg), while the number of seizures remained comparable to 2020 (2021: 1,150 seizures).
- Overall, seizures of cannabis-based products represented 74.1% (1,150 out of 1,552 total seizures) of the total number of seizures in Luxembourg in 2021 (2020: 67.2%).
- 528 seizures of herbal cannabis were reported by national law enforcement authorities with a total of 13.9 kg (2020: 678 seizures with 89.7 kg). Resin has typically been less represented than herbal cannabis in seizures data. However, available data show an overall increasing trend since 2014. In 2018 and 2019, it represented approximately 30% of the total seizures, while in 2020 it represented 18.8% of the total seizures (320 seizures and 11.89 kg seized). In 2021, the number of seizures and quantity of cannabis resin seized increased again. 486 cannabis resin seizures were recorded in 2021, with a total of 39.2 kg seized (31.3% of total seizures).
- Regarding cannabis plants, 76 plants were seized in the context of seven seizures (2020: two seizures of seven plants). In 2021, an increase in the number of seizures and plants seized can be observed.

HEROIN

Although heroin has a long history of use at the national level, the quantities of heroin seized seem to follow an unstable trend:

- According to law enforcement data, heroin availability in Luxembourg increased between 2012 (2.65 kg) and 2015 (8.04 kg), while it decreased again in 2016 (2.49 kg) and 2017 (1.30 kg). 2018 and 2019 data showed a new increase in the quantity of heroin seized (2.86 kg in 2018 and 6.4 kg in 2019). 2020 shows a decrease with 1.5 kg seized in 149 seizures, while the quantity of heroin seized increased again in 2021 (2.2 kg in 81 seizures).

- Most of other opioids seized in 2021 were Mephenon ® (195 g) (2020: 1.4 kg) and methadone in liquid form (11 ml) (2020: 286.2 ml).
- After an increase in the number of speedballs (a mixture of cocaine and heroin) seized in 2020 (n=65), the quantity seized decreased again in 2021 (n=14).

COCAINE

Cocaine seizures are highly variable since the beginning of the nineties and police data refer to high quantities seized in recent years:

- In 2021, the quantity of cocaine seized decreased after an increase in 2020 (2021: 3.7 kg; 2020: 11.2 kg), while the number of seizures increased (2021: 218; 2020: 191). The amount of cocaine seized remains largely below the peak of 2018 when 216 seizures and a record amount of almost 347 kg were seized by the national law enforcement authorities.
- Despite the high variations in the number and quantity of cocaine seized in the past years, the increased proportion of HRDUs and recreational drug users reporting cocaine use suggest a growing availability of the drug on the market.
- The average purity of cocaine has increased compared to 2020 (see subsection 6.3.).
- Crack (cocaine-base) seizures have not been reported to date by national authorities, although freebasing is reported by field agencies.

OTHER STIMULANTS

Ecstasy-like substances (XTC/MDMA) and amphetamine-type stimulants (ATS) are still popular, particular in festive settings, and seizure figures suggest a similar trend:

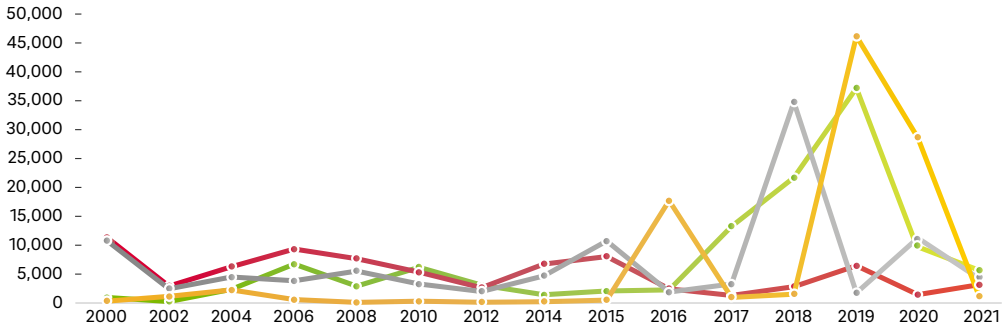
- In 2019, a historic high of 46,059 XTC/MDMA tablets/pills were seized in 32 seizures. In 2020, the number remained high, with 28,696 pills seized in 17 seizures. In 2021, however, the number strongly decreased to 559 pills seized in 6 seizures and an additional 4.3 gr of MDMA (within three seizures).
- In 2020, only marginal amounts of ATS and methamphetamines were seized (9.14 gr of ATS and 19.4 gr of methamphetamines). However, in 2021, 1.95 kg of ATS were seized in 10 seizures, showing a large increase in the seized quantity of such substances, compared to the previous year (see Fig. 53, 54).

HALLUCINOGENIC DRUGS

- Seizures of hallucinogenic drugs are rare, suggesting low presence of these substances on the national market.
- In 2021, 89 ml of LSD were seized.
- More important seizures of psychoactive mushrooms have been reported in recent years, with 105.8 gr of psychoactive mushrooms in 2020 and 1.23 kg in 2019. However, in 2021 only 3.71 gr of psychoactive mushrooms were seized.

OTHER SUBSTANCES

- No evidence exists thus far on the presence of fentanyls or other synthetic opioids on the national street-drug market.
- In 2021, no larger seizures of NPS or synthetic cannabinoids wer reported.

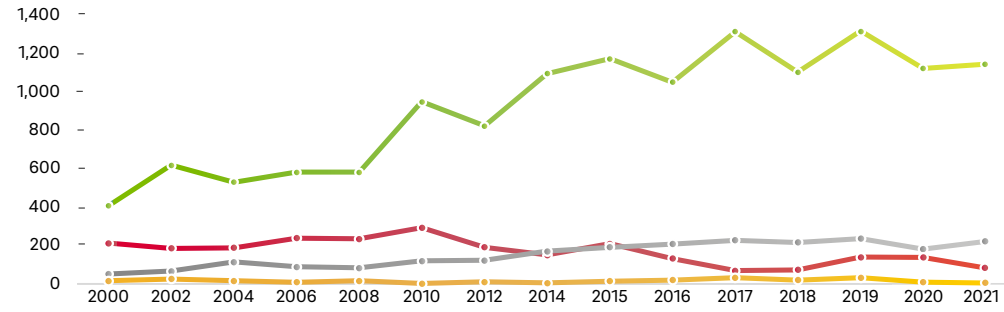


	2000	2002	2004	2006	2008	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021
Cannabis (gr./10)	955	252	2,369	6,700	2,882	6,197	3,084	1,392	2,055	2,248	13,246	21,633	37,099	10,161	5,326
Heroin (gr.)	11,358	2,957	6,255	9,298	7,673	5,297	2,648	6,732	8,041	2,492	1,304	2,863	6,401	1,472	2,213
Cocaine (gr.)	10,757	2,486	4,481	3,825	5,519	3,257	2,013	4,695	10,703	1,862	3,254	34,683	1,751	11,234	3,655
MDMA/XTC (pills)	318	1,139	2,232	555	107	291	137	247	543	17,639	965	1,564	46,059	28,970	559

FIGURE 53.

Total quantities of main national yearly seizures: cannabis, heroin, cocaine, MDMA/XTC (1996-2021)
(Specialised Drug Department of the Judicial Police, 2021)

Note: For 2018, the quantity of cocaine was reported as gr/10 (total seizure 346.828 kg).



	2000	2002	2004	2006	2008	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021
Cannabis	406	616	528	581	580	947	821	1,093	1,170	1,048	1,311	1,101	1,315	1,142	1,150
Heroin	211	185	187	238	234	292	190	150	208	132	69	73	138	149	81
Cocaine	51	66	113	89	83	119	122	169	190	207	226	215	235	191	218
MDMA/XTC (pills)	15	26	15	9	16	2	10	4	14	20	32	20	32	17	6

FIGURE 54.

Total number of main national yearly seizures: cannabis, heroin, cocaine, MDMA/XTC (2000-2021)
(Specialised Drug Department of the Judicial Police, 2021)

6.2. TRENDS IN DRUG PRICES

Ad hoc surveys allow for data on the average market price of illicit street drugs. In 2018 and 2019, these data were collected among two different user groups: HRDUs and recreational drug users. The figures below report the trends regarding average prices of the drugs mainly used by HRDUs (heroin, cocaine, herbal cannabis and cannabis resin) (Fig. 55) and the drugs mainly used by recreational drug users (Fig. 56).

According to HRDUs

- In recent years, prices have been moving within increasingly broader ranges for heroin, cocaine and cannabis, which is partly due to increasing variations in the quality of street drugs.
- Average cocaine and heroin prices per gram have been decreasing since 2010 - the price of cocaine dropped the most (from 143.7€/gr in 2010 to 37.0 €/gr in 2021), which might be linked to a higher availability on the illicit market. Data on prices, however, rely on small sample sizes and may not be representative.
- According to the most recent data available (2018), the average prices of cannabis products on the illicit domestic market (herbal cannabis and resin) have been relatively stable over the last decade (Fig. 55).

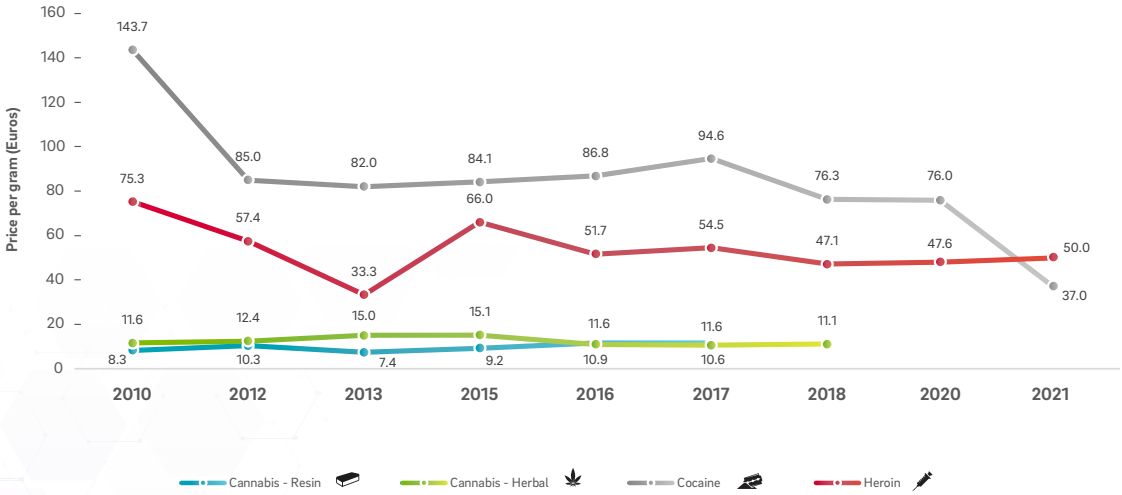


FIGURE 55.

Trends in the prices of illicit drugs assessed among HRDUs in Luxembourg (2010-2021)
(Specialised drug department of the judicial police; CNDS Abrigado, 2021).

Note: Only cocaine and heroin prices were updated in 2021. Latest cannabis resin and herbal average prices were reported in 2018.

Given the outbreak of the COVID-19 sanitary crisis, drug prices (and purity) were expected to be affected, mainly because of the reduced presence of dealers in streets and the assumed decline in cross-border trade (due to border closures and implementation of restrictive measures). However, findings from the mini-EWSD COVID-19 study and a study on the impact of COVID-19 on HRDUs conducted in 2020, complemented by individual statements and oral communications with national experts, suggest that the illicit drug market in the Grand-Duchy of Luxembourg adapted quickly and did not show significant changes in drug prices during and after the lockdown. Only a small proportion of recreational drug users and HRDUs reported a reduced availability and access to common drugs, a decrease of the quality and/or purity of the drugs, and a decrease in the quantity obtained per purchase. Likewise, only few recreational users reported an increase in price, which was confirmed by HRDUs (Berndt, Paulos, & Seixas, 2021; Berndt, Seixas, Teyssier, & Origer, 2021).

According to a targeted group of recreational drug users as assessed by the European Web Survey on Drugs (EWSD)[26] implemented in Luxembourg in 2018 and 2021:

- Cocaine is more expensive (2021: on average 72.1 €/gr; 2018: on average 65€/gr) than all other drugs consumed by recreational users.
- Cannabis prices are on average 9.0 €/gr for resin and 10.1 €/gr for herbal cannabis (2018: 14.5€/gr for resin and 16.7€/gr for herbal cannabis).
- Besides herbal cannabis, MDMA/ XTC (on average 7.3 €/tablet) and ATS (on average 12.9 €/gr) are the cheapest controlled illicit drugs on the national market (2018: MDMA/XTC on average 8.7€/tablet and ATS on average 7.3€/tablet) (Fig. 56).

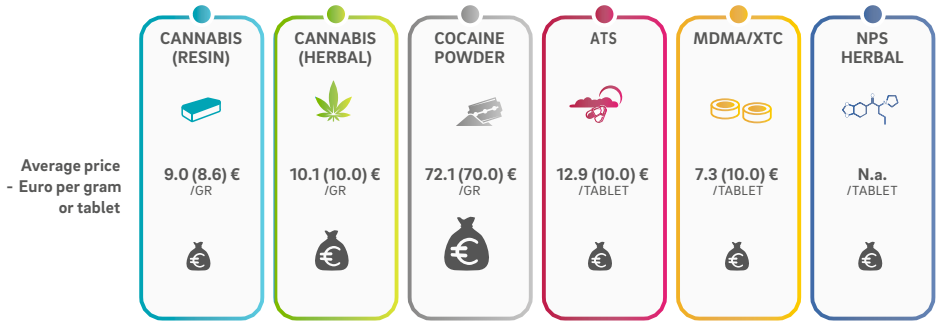


FIGURE 56.

Average prices of illicit substances according to respondents of the EWSD, 2021 (EWSD, 2021)

Note: The median values are presented in brackets.

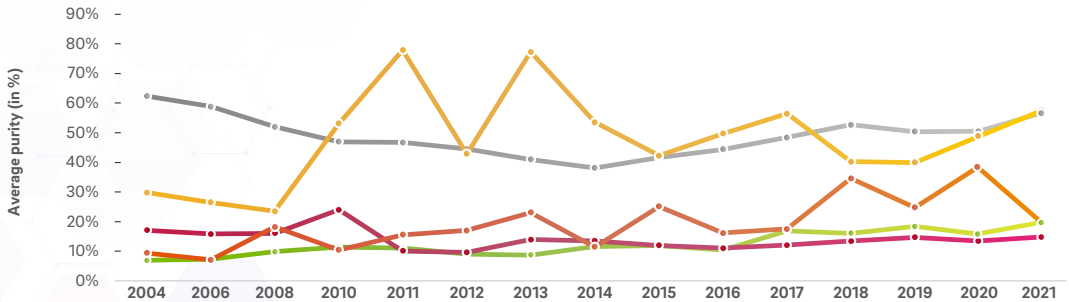
6.3. TRENDS IN DRUG PURITY

The National Health Laboratory (LNS) provides purity data and toxicological analysis of psychoactive substances. This allows for trend analysis of the purity of drugs at the street level in Luxembourg.

- Cannabis: the average purity of THC products seized in Luxembourg has been (discontinuously) increasing at a moderate pace in recent years, with striking differences in minimum and maximum concentration of THC, and a high maximum concentration.
- Considering all types of cannabis products, the average THC concentration was 19.6% in 2021 (2020: 14.5%) and the maximum THC concentration found was 63.0% (2020: 72.7%). Regarding herbal cannabis in particular, in 2021, the average concentration of THC was 13.4% (2020: 11.8%) with a maximum concentration of 50.6% (2020: 37.6%). The average concentration of THC in resin cannabis was 30.6% (2020: 23.8%) with maximum concentration of 63.0% in 2021 (2020: 57.3%).
- In recent years, the presence of CBD-dominant cannabis products (THC < 0.3%) on the market has been increasing and does not ease law enforcement practices by the judicial police in case of suspicion of illicit cannabis possession/use. In order to account for the influence of the rising number of seizures of joints with relatively low THC concentrations (≥ 0.3% although <1%), since 2021 the analysis of cannabis purity is additionally conducted based on the criteria THC ≥ 1%. Taken into account this higher THC concentration threshold, overall cannabis purity was 20.8% with 14.5% for herbal cannabis and 31.2% for resin in 2021 (2020: 15.8% on average: 12.8% for herbal and 25.8% for resin).

26 Trends data are not available since the EWSD study is not a routine survey, and only implemented punctually.

- Heroin: Marked variations in average heroin purity have been observed over the past years (28.2% in 2005; 9.6% in 2012; 11.0% in 2016; 13.4% in 2018; 14.7% in 2019). Looking at recent years (since 2015), average purity of heroin seems to be witnessing a certain stability, ranging between 11% and 15%. In 2021, the average purity of heroin remains within this range, with a slight increase compared to 2020 (2021: 14.8%; 2020: 13.4%; 2019: 14.7%). Past years' analyses suggest that the purity of the heroin available in the Luxembourg illicit drug market varies significantly (in 2021: min: 1.82% - max: 58.9%).
- Cocaine: between 2004 and 2014, the purity of cocaine decreased. Since 2014, cocaine purity has been increasing with average values figuring around 50% in recent past years (2020: 51.0%; 2019: 50.4%; 2018: 52.9%). In 2021, average cocaine purity showed a slight increase to 56.5%. The variations in purity remain high (in 2021: min: 5.57% - max: 100.0%; in 2020: min: 0.12% - max: 100.0%).
- Other stimulants: The average purity of amphetamine-type stimulants (ATS) at the national level has been discontinuously increasing. After a slight decrease observed between 2018 and 2019 (2019: 24.8%; 2018: 34.6%), in 2020 the average purity of ATS reached its highest value since 2004 (2020: 38.6%; 2004: 9.44%). In 2021, however, the average purity of ATS decreased (19.2%), while variations in purity remained high (in 2021: min: 0.83% - max: 92.4%; in 2020: min: 4.23% - max: 98.4)
- With regard to MDMA/XTC, marked variations have been observed over the past 15 years. Between 2019 and 2021, an increase has been observed in the average purity of these substances (2021: 57.21%; 2020: 49.7%; 2019: 40.0%) (see Fig. 57).



	2004	2006	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cannabis (THC)	6.9	7.4	9.8	11.3	11.0	9.1	8.7	11.6	12.0	10.3	16.9	16.1	18.4	14.5	19.6
Cocaine	62.4	58.8	52.0	46.9	46.7	44.5	41.0	38.1	41.6	44.4	48.4	52.7	50.4	51.0	56.5
Heroin	17.1	15.8	16.1	24.0	10.1	9.6	13.9	13.5	11.9	11.0	12.0	13.4	14.7	13.4	14.8
ATS	9.4	7.1	18.2	10.4	15.6	17.0	23.1	11.4	25.1	16.2	17.5	34.6	24.8	38.6	19.2
MDMA/XTC	29.8	26.4	23.5	53.1	77.9	42.9	77.3	53.6	42.3	49.7	56.4	40.2	40.0	49.7	57.2

FIGURE 57.

Trends on average purity of illicit drugs at street level (%) (2004-2021) (LNS, 2021)

6.4. DRUG-RELATED CRIME

The number of police records for presumed offences against the modified 1973 drug law have been showing a discontinuous increase throughout the last 20 years 2020: 2,968; 2001: 1,455). The last 10 years have been marked by important variations revealing an unstable trend with regard to the number of referred police records (see Table 8). In 2021, 2,354 records were registered (2020: 2,968; 2019: 2,994; 2018: 2,284).

In 2021, the specialised drug unit of the Judicial Police reported 1,677 offenders involved in traffic and/or use of illicit substances, a lower number compared to the previous year (Table 8). The majority of the offenders were involved in personal possession or use, (approximately 95%), whereas only a small proportion of the offenders were involved in supply or trafficking of drugs.

TABLE 8.

Number of national law enforcement interventions (2001-2021)

Year	2001	2003	2006	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Drug Law Enforcement Records:																	
S.P.J.	216	239	190	110	121	134	165	44	17	9	80	45	21	51	212	64	22
Police[27]	1,126	1,326	824	881	1,465	1,969	1,643	1,526	1,849	2,651	3,192	2,531	2,358	2,066	2,647	2,798	2,281
Customs[28]	113	95	186	228	328	443	477	232	203	156	113	48	146	167	135	104	49
Total	**1,455**	**1,660**	**1,200**	**1,219**	**1,914**	**2,546**	**2,225**	**1,802**	**2,069**	**2,816**	**3,385**	**2,624**	**2,525**	**2,284**	**2,994**	**2,968**	**2,354**
Offenders:																	
S.P.J.	321	369	248	128	121	131	164	44	17	9	77	44	14	27	127	49	15
Police	1,272	1,753	1,007	1,009	1,459	1,960	1,632	1,517	1,846	2,623	3,158	2,481	1,825	1,583	1,719	1,619	1,613
Customs	182	148	320	350	325	439	407	221	200	147	110	41	130	145	106	58	47
Total	**1,776**	**2,270**	**1,575**	**1,487**	**1,963**	**2,530**	**2,210**	**1,782**	**2,066**	**2,779**	**3,345**	**2,566**	**1,969**	**1,755**	**1,952**	**1,726**	**1,677**

Source: Specialised drug unit of the Judicial Police

Note: in 2021, 2 missing values on PV service.

The number of arrests for drug-related offences show relative variations, but are typically situated between 150 and 200 per year (see Fig. 58). Some years have been marked by particularly high numbers of arrests for drug-related offences, such as the year 2018 (232). Between 2018 and 2020, the number of reported arrests has been decreasing, particularly in 2020 (2020: 119; 2019: 186). In 2021, the number of arrests for drug-related offences showed a slight increase compared to 2020 (2021: 173). Cannabis was the most frequent substance involved in drug-related arrests, followed by cocaine and opioids. This observation is comparable to previous years.

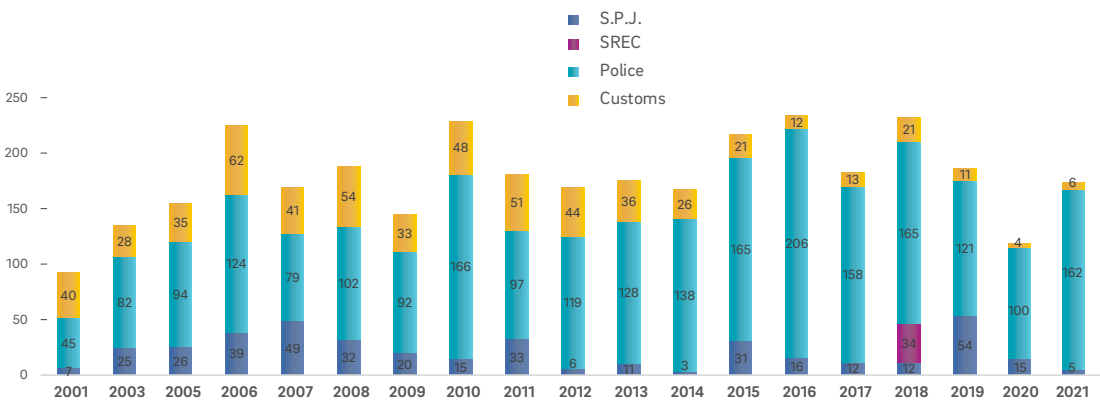


FIGURE 58.

Distribution of the number of drug law offences related arrests per service (2001-2021) (Specialised drug unit of the Judicial Police, 2021)

Note: SREC = Service de Recherche et d'Enquête Criminelle (Luxembourg ville, Esch-sur-Alzette, Diekirch, Grevenmacher).

27 Includes the « Service de Recherche et d'Enquête Criminelle » (Luxembourg ville, Esch-sur-Alzette, Diekirch, Grevenmacher)

28 The original report can be downloaded from : https://gouvernement.lu/fr/publications.html?b=0

CHARACTERISTICS OF DRUG LAW OFFENDERS

- In 2021, the population of individual drug law offenders was composed of 83.8% males (86.9% in 2020), a proportion that has generally been varying between 79% and 90% during the past decade.
- People of foreign nationality (59.0% in 2016; 63.6% in 2017; 62.1% in 2018) represent the majority of drug law offenders (2021: 51.8%; 2020: 53.3%), people with the Luxembourgish nationality represent a bit less than half of the drug law offenders (2021: 40.4%; 2020: 42.6%), and those with unknown nationality a minority (2021: 7.8%; 2020: 4.1%).
- In 2021, the percentage of minors among the drug law offenders increased slightly to 11.6% (2020: 9.0%; 2019: 8.4%).
- In 2021, 19.9% of offenders were aged 19 years-old or below (2020: 20.2%), 38.2% between the age of 20 and 29 years (2020: 42.4%), 22.3% between the age of 30 and 39 years (2020: 21.4%), 16.4% above the age of 40 years (2020: 15.9%), whereas for 3.4% the age was not reported. These figures are comparable to previous years.

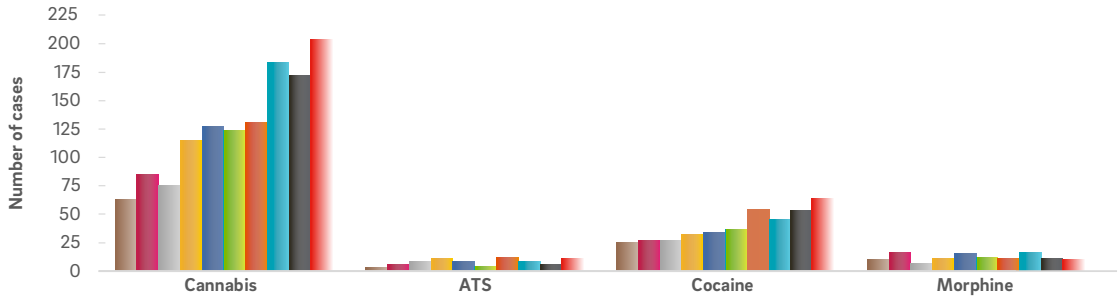
Moreover, the routine data protocol of the national drug monitoring system (RELIS) that records all persons in treatment in a given year includes a series of drug-related offences' items based on self-report. The following results summarise the situation observed in the past years:

- In 2021, 82.1% of drug users indexed by specialised harm reduction or treatment services reported at least one episode of conflict with law enforcement agencies during their lifetime (2020: 83.3%) and 62.5% reported multiple law enforcement contacts (61.8% in 2020).
- 75.9% of the valid RELIS respondents (2020: 79.8%) have shown one or more law enforcement contacts for whom the reason of the law offence is known.
- The proportion of contacts with the law enforcement for other reasons than presumed offences against the drug law (e.g. petty crime such as criminality linked to drug supply or fights) lies between 30% and 40% in recent years (2021: 35.0%; 2020: 37.1%).
- 24.3% of indexed RELIS population already served one single prison sentence during lifetime (2020: 17.4%), whereas the proportion of the RELIS population having served more than one prison sentence reached 39.9% in 2021 (2020: 42.3%), while 32.4% reported to have never been in prison (2020: 40.4%).

6.5. DRUGS AND DRIVING

In Luxembourg driving, operating, or being in control of a motor vehicle while impaired by alcohol or other drugs (including those prescribed by physicians), to a level that renders the driver incapable of operating a motor vehicle safely in traffic, is considered a criminal law offence (Ministère d'Etat, 2011). In collaboration with the national judicial police, the forensic toxicology department of the national health laboratory (Laboratoire National de Santé - LNS) in Luxembourg has been investigating the presence of drugs among (suspicious) driving law offenders in traffic over the past years.

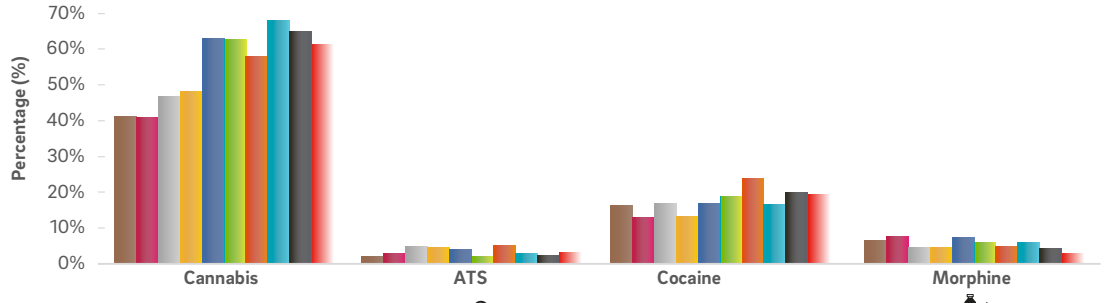
- Results from the years 2012 onwards reveal that among those tests that were performed on delivered samples from the judicial police to detect the presence of drugs when driving, cannabis was mostly detected, followed by cocaine, prescription drugs and amphetamine-type substances (ATS).
- 2021 data reveal that among the 332 examinations performed (2020: 265), 203 (61.1%) tested positive for cannabis (2020: 172; 64.9%), 64 (19.3%) for cocaine (2020: 53; 20.0%), ten (3.0%) for morphine (2020: 11; 4.2%), and eleven (3.3%) for ATS (2020: 6; 2.3%) (see Fig. 59, 60).
- With the introduction of a new drug-test to detect controlled drugs or alcohol by saliva samples among drivers of motor vehicles in traffic by mid-2012 ("Drugwipe 5S"), accompanied by a respective law change (Ministère d'Etat, 2015), both the number and the validity of the tests performed increased (therefore comparisons to data from previous years are to be avoided).



	Cannabis	ATS	Cocaine	Morphine
2012 (N=153)	63	3	25	10
2013 (N=208)	85	6	27	16
2014 (N=160)	75	8	27	7
2015 (N=239)	115	11	32	11
2016 (N=202)	127	8	34	15
2017 (N=198)	124	4	37	12
2018 (N=226)	131	12	54	11
2019 (N=270)	184	8	45	16
2020 (N=265)	172	6	53	11
2021 (N=332)	203	11	64	10

FIGURE 59.

Number of cases tested positive for the presence of controlled drugs when driving 2012-2021 (Service de Toxicologie médico-légale, LNS)



	Cannabis	ATS	Cocaine	Morphine
2012 (N=153)	41.2	2.0	16.3	6.5
2013 (N=208)	40.9	2.9	13.0	7.7
2014 (N=160)	46.9	5.0	16.9	4.4
2015 (N=239)	48.1	4.6	13.4	4.6
2016 (N=202)	62.9	4.0	16.8	7.4
2017 (N=198)	62.6	2.0	18.7	6.1
2018 (N=226)	58.0	5.3	23.9	4.9
2019 (N=270)	68.1	3.0	16.7	5.9
2020 (N=265)	64.9	2.3	20.0	4.2
2021 (N=332)	61.1	3.3	19.3	3.0

FIGURE 60.

Percentage % of the cases tested positive for drugs among the samples tested for presence of controlled drugs when driving 2012-2021 (Service de Toxicologie médico-légale, LNS)

These figures need to be interpreted in the light of the number of tests performed that have been varying, though generally increased, over the past years (Fig. 61). Figure 61 depicts an increasing trend for the proportion of positive cases detected for driving under the influence of drugs from 2012 onwards. For proper interpretation, it needs to be considered that tests are not performed randomly, but in case of suspicion of impaired driving, which explains the high positive rates. Moreover, one needs to keep in mind that on one hand, the number of people in traffic has increased due to a general increase of the population, while on the other hand, the driving license applications and the new registrations of motor vehicles in road traffic also increased significantly during the past years in the Grand Duchy of Luxembourg (STATEC, 2022).

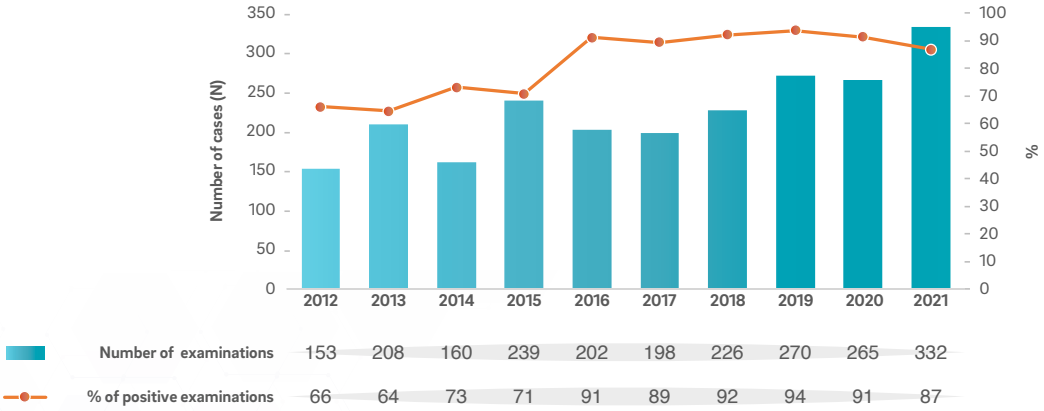


FIGURE 61.

Evolution of driving under the influence of drugs: rate of positive cases (%) among the total number of tests performed (2012-2021) (Service de Toxicologie médico-légale, LNS)

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CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

LIST OF ABBREVIATIONS

ATS	Amphetamine-type stimulants
CAARUD	Centre d'accueil et d'accompagnement à la réduction des risques pour usagers de drogues
CePT	Centre de Prévention des Toxicomanies
CHL	Centre Hospitalier de Luxembourg
CHNP	Centre Hospitalier Neuro-Psychiatrique
CNAPA	Centre National de Prévention des Addictions
CNDS	Comité National de Défense Sociale
CNS	Caisse Nationale de Santé
COVID-19	Coronavirus Sars-CoV-2 2019 Disease
CPG	Centre Pénitentiaire de Givenich
CPL	Centre Pénitentiaire de Luxembourg
CPU	Centre Pénitentiaire de Uerschterhaff
CTM	Centre Thérapeutique Syrdall Schlass Manternach
ECDC	European Centre for Disease Prevention and Control
EWS	Early Warning System on New Synthetic Drugs
EWSD	European Web Survey on Drugs
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
HAT	Heroin Assisted Treatment
HRDU	High-risk drug use/user
HROU	High-risk opioid user
OST	Opioid Substitution Treatment
IDU	Injecting drug user
ICD	Interministerial Commission on Drugs
JDH	Fondation Jugend- an Drogenhëllef
LIH	Luxembourg Institute of Health
LNS	Laboratoire national de santé
NPS	New Psychoactive Substance(s)
PFLDT	Point Focal Luxembourgeois de l'Observatoire Européen des Drogues et des Toxicomanies (OEDT) (Luxembourg Focal Point of the EMCDDA)
RELIS	Réseau Luxembourgeois d'Information sur les Stupéfiants et les Toxicomanies
REVIS	Revenu d'inclusion sociale
REITOX	Réseau Européen d'Information sur les Drogues et les Toxicomanies/European Information Network on Drugs and Drug Addiction
SPMP	Service psychiatrique en milieu pénitentiaire
XTC	Ecstasy (MDMA)

REFERENCES

Alternativ Berodungsstell (2022). *Rapport annuel. Jahresbericht und Statistik [2021].* Luxembourg: CHNP.

Berndt, N., Paulos, C., & Seixas, R. (2021). *Mini-European Web Survey on Drugs: Impact of COVID-19 on drug use, acquisition behaviour and the drug market in Luxembourg*. Luxembourg: Direction de la santé, Ministère de la Santé. Retrieved from: https://gouvernement.lu/dam-assets/documents/actualites/2021/04-avril/07-enquete-europeenne-drogues/Report-mini-EWSDCOVID19-low-quality-16032021.pdf

Berndt, N., & Seixas, R. (2019). *European Web Survey on Drugs: national implementation among a targeted sample of recreational drug users in Luxembourg 2018* [*Enquête Européen sur les Drogues au G.D. de Luxembourg 2018*]. Luxembourg: EMCDDA Luxembourg Focal Point - Point Focal Luxembourgeois de l'OEDT, Service épidémiologie et statistique, Direction de la santé. Retrieved from: https://sante.public.lu/dam-assets/fr/publications/e/etat-drogue-europe-2019-factsheet-en/factsheet-eu-survey-drugs-2019.pdf

Berndt, N., Seixas, R., & Origer, A. (2019). *National Drug Report 2018 (Rapport RELIS) – Grand Duchy of Luxembourg. New developments, trends and in-depth information on selected issues.* Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Service épidémiologie et statistique, Direction de la santé. Retrieved from: https://sante.public.lu/dam-assets/fr/publications/e/etat-drogue-gdl-rapport-relis-2018-fr-en/etat-drogue-gdl-rapport-relis-2018-en.pdf

Berndt, N., Seixas, R., & Origer, A. (2020). *National Drug Report 2019 (Rapport RELIS) – Grand Duchy of Luxembourg. New developments, trends and in-depth information on selected issues.* Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Service épidémiologie et statistique, Direction de la santé. Retrieved from: https://sante.public.lu/dam-assets/fr/publications/e/etat-drogue-gdl-rapport-relis-2019-fr-en/etat-drogue-gdl-rapport-relis-2019-en.pdf

Berndt, N., Seixas, R., & Origer, A. (2021). *National Drug Report 2020 (Rapport RELIS - overview) – The drug phenomenon in the Grand Duchy of Luxembourg: Trends and developments (key issues).* Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Service épidémiologie et statistique, Direction de la santé. Retrieved from: https://sante.public.lu/dam-assets/fr/publications/e/etat-drogue-gdl-rapport-relis-2020-fr-en/etat-drogue-gdl-rapport-relis-2020-en.pdf

Berndt, N., Seixas, R., & Origer, A. (2022). *National Drug Report 2021 – The drug phenomenon in the Grand Duchy of Luxembourg: Trends and developments (key issues).* Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Service épidémiologie et statistique, Direction de la santé. Retrieved from: https://sante.public.lu/fr/publications/e/etat-phenomene-drogues-rapport-relis-2021.html

Berndt, N., Seixas, R., Teyssier, E., & Origer, A. (2021). *Etude de l'impact de la COVID-19 sur les pratiques de consommation et l'utilisation des offres spécialisées par des usagers de drogues à haut-risque au Grand-Duché de Luxembourg*. Luxembourg: Direction de la santé, Ministère de la Santé. Retrieved from: https://covid19.public.lu/dam-assets/covid-19/actualites/2021/02-fevrier/01-lenert-revue-covid19/Points-cles-rapport-UDHRCOVID-19-nouvelle-version-.pdf

Comité National de Défense Sociale (2022). *Statistiques Abrigado 2021 [unpublished document]*. Luxembourg: CNDS.

Devaux, C., Antony, R., Arendt, V., Biwersi, G., Braquet, P., Dario, D., Flies, P., Goedertz, H., Hoffman, P., Kubaj, S., Mortier, L., Mossong, J., Origer, A., & Schlim, J.-C. (*2022*). *Rapport d'activité 2021*. Luxembourg: Comité de surveillance du SIDA, des hépatites infectieuses et des maladies sexuellement transmissible. Retrieved from: https://sante.public.lu/fr/publications/h/hiv-rapport-2021.html

European Monitoring Centre for Drugs and Drug Addiction. (2019). *Key epidemiological indicator: Problem drug use*. Retrieved from: https://www.emcdda.europa.eu/publications/methods/pdu-overview_en

European Monitoring Centre for Drugs and Drug Addiction. (2020). *European Drug Report 2020: Trends and Developments.* Luxembourg: Publications Office of the European Union. Retrieved from: https://www.emcdda.europa.eu/system/files/publications/13238/TD0420439ENN.pdf

European Monitoring Centre for Drugs and Drug Addiction (2021). *European Drug Report 2021: Trends and Developments*. Luxembourg: Publications Office of the European Union. Retrieved from:: https://www.emcdda.europa.eu/system/files/publications/13838/TDAT21001ENN.pdf

European Monitoring Centre for Drugs and Drug Addiction (2022). *European Drug Report 2022: Trends and Developments - Key Issues*. Luxembourg: Publications Office of the European Union. Retrieved from: https://www.emcdda.europa.eu/publications/edr/trends-developments/2022_en

Fondation Jugend- an Drogenhëllef. (2022). *DKR Esch - Statistik allgemein 2021 [unpublished report]*. Luxembourg: Fondation Jugend- an Drogenhëllef.

Fondation Jugend- an Drogenhëllef. (2022). *Traitemet assisté à la diacetylmorphine (TADIAM): projet pilote – évaluation*. Luxembourg: Fondation Jugend- an Drogenhëllef. Retrieved from: http://jdh.lu/wp-content/uploads/Rapport-devaluation-TADIAM.pdf

Foulon, M. (2020). *Etude sur la consommation de drogues en prison au Grand-Duché de Luxembourg* (DU thèse pas publiée). Faculté de Médecine, Université Paris Sud, Paris.

Heinz A., Kern, M. R., van Duin, C., Catunda, C., & Willems, H. (2020). *Gesundheit von Schülerinnen und Schülern in Luxemburg – Bericht zur luxemburgischen HBSC-Studie 2018*. Esch-sur-Alzette, Luxembourg: University of Luxembourg. Retrieved from: https://cepas.public.lu/dam-assets/fr/publications/rapports/HBSC-Endbericht-2018-Web-.pdf

Heinz, A., van Duin, C., Kern, M. R., Catunda, C., & Willems, H. (2020). *Trends from 2006 - 2018 in Health Behaviour, Health Outcomes and Social Context of Adolescents in Luxembourg*. HBSC Luxembourg Trends Report – Health Behaviour in School-Aged Children: World Health Organization collaborative cross-national study. Esch-sur-Alzette, Luxembourg: University of Luxembourg. Retrieved from: https://orbilu.uni.lu/bitstream/10993/42571/1/HBSC%20Trend%20Report%202006_2018.pdf

Kools, J.-P., van der Gouwe, D., & Strada, L. (2019*). Evaluation of the governmental strategy and action plan 2015-2019 of Luxembourg regarding the fight against drugs and addictions*. Utrecht, the Netherlands: Trimbos Instituut. Retrieved from: https://sante.public.lu/dam-assets/fr/publications/e/evaluation-plan-action-drogues-2015-2019-lux/Final-Evaluation-Drug-Action-Plan-2014-2019-Luxembourg.pdf

Ministère d'Etat. (2011). *Memorial : Journal Officiel du Grand-Duché de Luxembourg : recueil de législation –– A N° 246, 1 décembre 2011. Sommaire : alcool et stupéfiants dans la circulation routière*. Luxembourg: Ministère de l'Etat. Retrieved from: http://legilux.public.lu/

Ministère d'Etat. (2015). *Memorial : Journal Officiel du Grand-Duché de Luxembourg : recueil de législation –– N° 92, 28 mai 2015. Sommaire : circulation sur toutes les voies publiques*. Luxembourg: Ministère de l'Etat. Retrieved from: http://data.legilux.public.lu/file/eli-etat-leg-memorial-2015-92-fr-pdf.pdf

Ministère de la Justice. (2022). *Rapport d'activité 2021 du Ministère de la Justice - Partie IV : Rapport d'activité de l'Administration Pénitentiaire*. Luxembourg: Ministère de la Justice. Retrieved from: https://gouvernement.lu/dam-assets/fr/publications/rapport-activite/minist-justice/2021-rapport-activites-mjust.pdf

Ministère de la Santé. (2020). *Stratégie nationale en matière d'addictions et plan d'action gouvernemental 2020–2024 en matière de drogues d'acquisition illicite et de leurs corollaires*. Luxembourg: Ministère de la Santé. Retrieved from: https://sante.public.lu/fr/publications/p/plan-action-national-drogues-2020-2024.html

Ministère de la Santé. (2022). *Rapport d'activités 2021 – Chapitre III Services conventionnées*. Retrieved from: https://gouvernement.lu/dam-assets/fr/publications/rapport-activite/minist-sante/2021-rapport-activite-msan.pdf

Origer, A. (2010). *Update of direct economic costs of national drug policies in 2009. National Report on the state of the drugs problem in the Grand Duchy of Luxembourg*. Luxembourg: EMCDDA Luxembourg Focal Point – Point focal OEDT Luxembourg, Luxembourg Institute of Health.

Origer, A. (2017). *A methodological inventory for the assessment of selected, unlabelled direct public expenditure in the field of reducing drug demand, in EMCDDA Insights: Drug treatment expenditure: a methodological overview*. EMCDDA Insights 24. Luxembourg: Publications Office of the European.

Origer, A. (2020). *Estimation of number of high-risk drug users in the Grand Duchy of Luxembourg: update with 2018 data [unpublished manuscript]*. Luxembourg: Direction de la santé.

Origer, A., Lopes da Costa, S., & Diederich, C. (2008). *National drug report 2007. The state of the drugs problem in the Grand Duchy of Luxembourg*. Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Luxembourg Institute of Health.

Origer, A., Lopes da Costa, S., & Diederich, C. (2012). *National drug report 2011. The state of the drugs problem in the Grand Duchy of Luxembourg*. Luxembourg: EMCDDA Luxembourg Focal Point – Point Focal Luxembourgeois de l'OEDT, Luxembourg Institute of Health.

Paulos, C., Loverre, A., & Hagen, L. (2020*). Enquête PIPAPO 2019. La consommation récréative de drogues au Grand-Duché de Luxembourg*. Luxembourg: 4motion a.s.b.l. Retrieved from: https://www.researchgate.net/publication/352211589_Enquete_PIPAPO_2019_La_consommation_recreative_de_drogues_au_Grand-Duche_de_Luxembourg

Seixas, R., Berndt, N., & Origer, A. (2021). *Estimation of number of high-risk drug users in the Grand Duchy of Luxembourg: update with 2019 data [unpublished manuscript]*. Luxembourg: Direction de la santé.

Service de Médecine Psychiatrique Pénitentiaire (SMPP) (2022). *Statistiques sur la consommation déclarée de drogues licites et illicites à l'entrée au CPL pour l'année 2021 [unpublished data]*. Luxembourg: Centre pénitentiaire de Luxembourg.

Solidarité Jeunes a.s.b.l. (2022). *Rapport d'activités 2021 Service Impuls*. Luxembourg : Fondation Solina. Retrieved from: https://www.solina.lu/app/uploads/2022/06/Rapport-dActivite-2021.pdf

STATEC. (2022). *New registrations of new motor vehicles by vehicle type 1965 – 2021: Table summary*. Luxembourg: STATEC, le portail des Statistiques de Grand-Duché de Luxembourg. Retrieved from: https://statistiques.public.lu/en/publications/series/luxembourg-en-chiffres/2022/luxembourg-en-chiffres-2022.html

STATEC. (2022). *Driving license applications 1991 – 2021*. Luxembourg: STATEC, le portail des Statistiques de Grand-Duché de Luxembourg. Retrieved from: https://lustat.statec.lu/?tm=permis&pg=0

Suchthëllef. (2021). *Rapport annuel Suchthëllef 2020 de Centre Pénitentiaire de Luxembourg et de Givenich*. Luxembourg: CHNP.

4motion a.s.b.l. (2022). *Rapport d'Activités 2020-2021: 4motion education for social change – années 2020-2021*. Luxembourg: 4motion a.s.b.l. Retrieved from: https://www.4motion.lu/wp-content/uploads/2022/07/Rapport_20-21.pdf