Health Research Board

Strengthening Ireland's response to new and emerging trends within the next policy life cycle

The HSE National Social Inclusion Office and the Health Research Board

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An Bord Taighde Sláinte
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1 Introduction

1.1 Purpose

This report provides an overview of recent drug market trends and drug use behaviour in Ireland in order to help inform policy developments regarding drug monitoring and early warning structures as the Department of Health prepares the 2026–2029 national drug strategy.

In response to volatile and evolving drug markets, future strategies should embed a foresight approach and create a dedicated process for long-term strategic planning in order to build resilience. With drug use now positioned as a wider societal issue occurring across all strands of Irish society,[1] the integration of drug and public health strategies is needed in order to support a population health approach.

Policies need to be agile so that countries can adapt to evolving drug markets and healthcare challenges. They should incorporate early warning systems and allocate the resources needed to develop the infrastructure to monitor drug markets, detect threats, and respond to emerging situations.

This report describes the characteristics of the Irish drug use landscape, which has rapidly evolved since the launch of the previous national drug strategy, *Reducing Harm, Supporting Recovery – A health-led response to drug and alcohol use in Ireland 2017-2025*.

This report highlights important features of a changing drug environment as well as the current and emerging public health challenges. It also outlines how the application of science-based knowledge in this area can better inform rapid public health responses to emerging threats and contribute to a reduction in drug-related emergencies, cluster intoxications, and drug-related fatalities.

1.2 Background

Significant shifts have occurred in the Irish drug landscape since the mid-2010s in terms of who is using drugs, how many people use drugs, and what types of drugs are available. With more diverse communities now using drugs, it becomes harder to determine who is 'at risk'. As a consequence, those not captured by traditional service infrastructure become hard-to-reach populations for healthcare providers, even though those using substances are socially integrated and captured through other mainstream healthcare settings. Since the early 2000s, we have seen significant and rapid progressions, with technological advances transforming all aspects of how we live our lives, communicate, and buy goods and services. These technological advances are also a significant factor in how drug cultures and trends are evolving from the cultural margins to the mainstream, with technology not only leading to increased access but also shaping the views and beliefs of young people.

The emergence of substance use in youth cultures is not a new phenomenon. However, the major shift of cultures from the niche or subcultural towards more mainstream activity creates new prevention and healthcare challenges. Challenges still remain for vulnerable and socially excluded groups in our society, which remain most at risk of experiencing drug-related harms. However, we need to expand our definition of who is 'at risk' and recognise that many more people are vulnerable to drug market changes and the dangers posed by new psychoactive substances (NPS), including emergencies or mass intoxications. Policy-makers and healthcare providers need to continue to manage existing issues while preparing for novel public health challenges associated with new profiles of drug users and the evolution of drug markets that now could impact on any strand of Irish society.

1.3 Focus of this report

We will review the current drug landscape in order to inform future policy developments. This report will examine new and emerging trends that developed in Ireland through the last policy cycle (2017–2025). It will review a number of key trends and current responses in detail, and explain how Ireland can better prepare for future public health challenges. It will present the available data on a number of new trends, current responses, and how Ireland can better prepare for future public health challenges within the next policy cycle.

2 The changing drug market

2.1 New psychoactive substances (NPS)

Sudden shifts in the nature and availability of substances on local drug markets are now more likely to occur than in the past, leading to greater uncertainty about the harms to which people taking drugs may be exposed. New substances have become increasingly integrated into Europe's drug markets. These markets target a wide range of consumers, from those whose drug use is episodic to those with problematic patterns of use and who are experiencing social marginalisation.[2]

Since the mid-2000s, the quantity, type, and availability of novel substances has increased dramatically in Europe as the internet provided both the scientific information required to modify existing compounds and a means to facilitate distribution. Most novel substances serve as a short-term replacement for the more established illicit drugs and are quickly replaced by newly synthesised products as their predecessors are controlled or fall out of favour. During the period 2023–24, law enforcement agencies in European Union (EU) member states reported a record quantity of NPS to the Early Warning and Response System of the European Union (EWRS), amounting to 41.4 tonnes of NPS imported or seized. The most recent data show that drug producers continue to create new substances in order to avoid legal controls, with 47 NPS notified for the first time in 2024. This is close to the annual number typically reported between 2016 and 2022. In addition, around 350 previously reported NPS were detected on the market in 2023, albeit typically in small amounts.[2]

Highly efficient and productive drug manufacture and distribution systems can quickly supply new markets. While routine monitoring systems have greatly strengthened the public health response to the drugs phenomenon, there is a need to identify and assess threats to health more quickly, communicate these threats in a clear and targeted way, further improve monitoring, and strengthen preparedness for future events.

2.2 Europe's response to NPS

2.2.1 European early warning networks

The scientific response to the emergence of new drugs in the EU has been highly coordinated. Monitoring bodies, laboratories, and health experts have created an integrated system of early warning systems across the EU, coordinating the work of national networks and building an efficient process of identifying

substances likely to cause harm, reporting adverse events, and providing advice for both health services and regulatory authorities. These early warning networks amplify the knowledge gained through innovative monitoring tools and work as integral parts in the identification, assessment, and communication of threats to public health.

2.2.2 European regulation

The information exchange and early warning step of Regulation (EC) No 1920/2006 is operationalised as the EU Early Warning System on new psychoactive substances. Established in 1997, the EU Early Warning System (EWS) is coordinated by the European Drugs Agency in close cooperation with Europol. The EWS is composed of a multiagency and multidisciplinary network, which includes the EUDA, 29 national early warning systems (27 EU Member States, Türkiye, and Norway), Europol and its law enforcement networks, European Medicines Agency (EMA), the European Commission, and other partners. The European Union Drugs Agency (EUDA) is responsible for collecting, analysing, and communicating the information reported by this network of national early warning systems and various European agencies. Early warning activities are conducted in accordance with the requirements of the Regulation and Council Framework Decision 2004/757/JHA.

A common understanding of the operation of early warning systems is supported by EUDA guidelines on procedures, roles, and responsibilities. The EUDA has also developed a set of common reporting tools to harmonise data collection throughout the network. These resources support interoperable reporting and communication and help to ensure the timeliness, reliability, and comparability of information on NPS. Ultimately, the EUDA uses this evidence to conduct risk assessments and make recommendations for control measures on drugs under surveillance.

2.2.3 New developments in the EUDA

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) became the EUDA on 2 July 2024. Regulation (EU) 2023/1322[3], establishing the new agency, was passed in July 2023 and resulted from the European Commission's recognition that the EMCDDA's existing mandate was not sufficient to provide the type of understanding needed for an increasingly complex drugs phenomenon. The new legislation pays particular attention to monitoring and risk assessment procedures for NPS, in particular producing assessments of threats to public health, safety, and security.

Implementation of the European Commission regulation that established the EUDA will increase the agency's capacity to monitor polysubstance use, build its threat assessment capabilities, and establish a network of forensic and toxicological laboratories to provide forensic and toxicological information to the agency. Each EU member state has nominated three laboratories to be part of this network. Ireland is represented by the State Laboratory, Forensic Science Ireland, and the Health Service Executive (HSE) Emerging Drug Trends Laboratory in the National Drug Treatment Centre. The European Drug Alert System, which will issue alerts when serious drug-related risks appear on the market, carries out threat assessments and will complement the existing EU Early Warning System on new psychoactive substances.

2.2.4 Policy response

Legal classification of NPS is the first step in the policy response to the problem. From early on in their emergence on drug markets, international organisations have agreed to describe NPS as substances not controlled under the United Nations' International Drug Control Conventions, on the basis of which most countries establish their drug control legislation.[4] The volume of new drugs and the frequency of novel syntheses have made legislative responses difficult, and there is considerable variety in the approaches taken by national governments.

2.2.5 Networking and communication on early warning in Ireland

Currently, early warning signal detection and outbreak management in Ireland is coordinated by the HSE and the National Response and Alert Group (NRAG) through scheduled meetings, email, and phone-based communication. The HSE provided initial guidance and developed interim guidelines, which were shared through the National Addiction Advisory Governance Group, Social Inclusion Managers, and directly with services. Some areas initially formed local early warning groups as recommended by the HSE, but at the moment there is no standardised approach applied across all HSE regions, and cases are reviewed on an ad hoc basis. Currently, HSE managers, early warning groups, and a range of community-based services report to the HSE National Social Inclusion Office. They provide frequent updates on new products on the market, cases of concern, and if there have been increases in incidents of overdose.

The Garda National Drugs and Organised Crime Bureau currently reviews emerging drug trends through the Garda PULSE (Police Using Leading Systems Effectively) system and communication with local divisions and with its laboratory, Forensic Science Ireland. Both gardaí and Forensic Science Ireland provide significant support for public health through the movement and analysis of substances of concern. Law enforcement is essential in sample access and the movement of samples, as well as in outbreak response management.

3 The Irish drug use landscape

3.1 Changing sociodemographics of people who use drugs

The Irish drug landscape has gone through significant changes since the emergence of the opioid crisis in the 1990s, with many new user groups emerging that are more broadly representative of Irish social demographics.[1,3] There is still a large opioid-using population[4] that is vulnerable to risks from new drugs, particularly the emergence of new synthetic opioids (such as nitazenes) and diverted or illegally produced sedatives. The profile of this population is changing, with diminishing representation among the younger cohorts. Drug use now occurs across all strands of Irish society, as is evident from population prevalence studies. With increasing social diversity among those who use drugs,[1] it becomes harder to detect who is at risk of short-term health harms (e.g. overdose) and long-term harms (such as dependency). Social class or gender are no longer strong predictors of substance use, as they would have been when opioid use was the dominant concern. This further complicates the identification of who is at risk and how we communicate drug market threats to them. Those at risk may never come to the attention of treatment or harm reduction services. Recent drug market developments have identified service provision gaps, with current structures being more focused on engaging with dependent populations.

3.1.1 New drug trends

New challenges are reflected in prevalence surveys, which document that a wider range of drugs is now being used when compared with previous studies. Overall, the younger age cohort of those aged 15–24 years is the most likely to use drugs, while the use of cocaine is increasing across all age groups.[1] General population data also show that the gender gap among younger populations using stimulant drugs, often known as 'club drugs', is diminishing. Although male use still remains higher than female use, the

prevalence of drug use has doubled among females aged 15–24 years and 25–34 years since the 2002–03 general population survey.[1] The HSE and the Health Research Board collaborated in 2021 and 2024 on the European Web Survey on Drugs to identify current and emerging trends. These data show the current reality of a new drug landscape, with females who use drugs reporting equal amounts of drug use as their male counterparts, and slightly higher rates of use for cocaine and 3,4-methylenedioxymethamphetamine (MDMA), commonly known as ecstasy (tablet form) and molly (crystal form).[5] The data show that alongside traditional drugs, new drugs such as semi-synthetic cannabinoids (SSCs), ketamine, nitrous oxide, and NPS are becoming features of the drug use landscape.

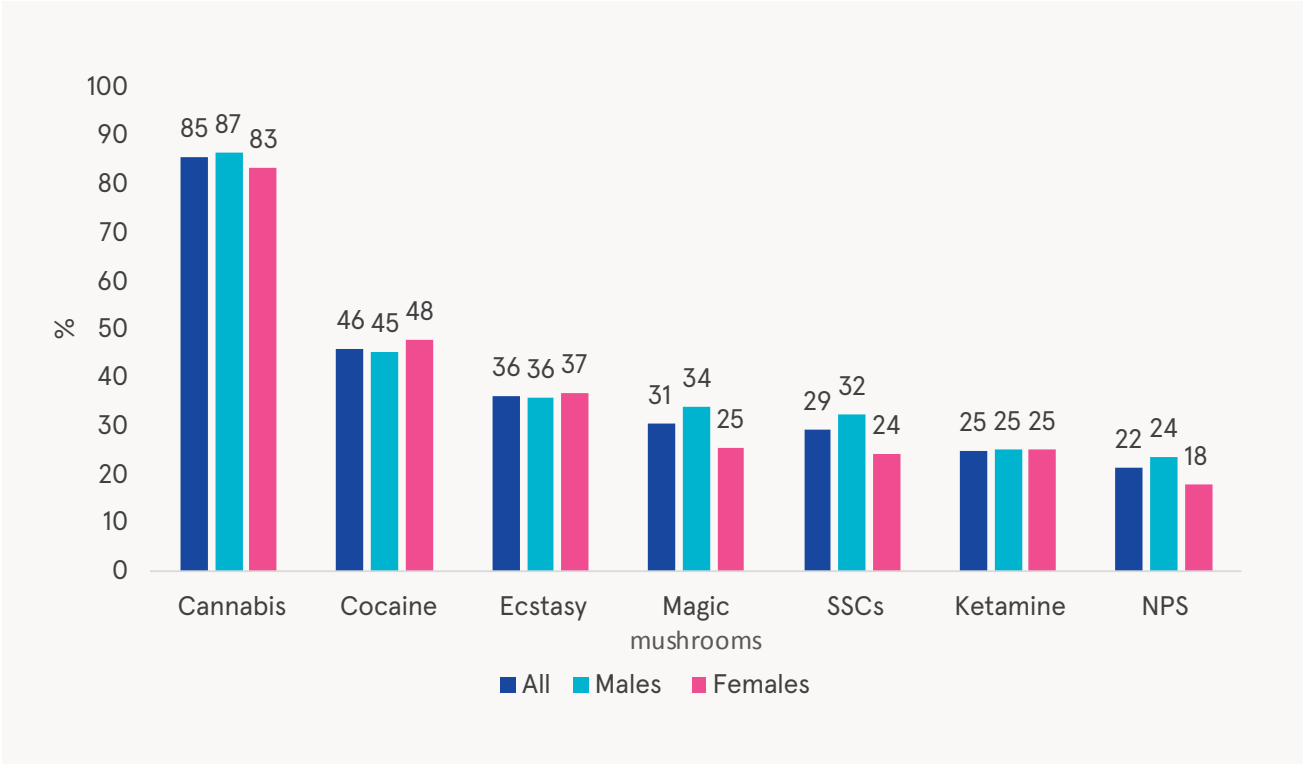

Figure 1: Drug use by sex among Irish respondents to the European Web Survey on Drugs 2024

Source: Mongan *et al.*, forthcoming[10]

3.1.2 Changes in polydrug use behaviour

Polydrug use can increase the risk of fatal and non-fatal overdose. Traditionally, 'high risk' was a term associated with those with dependencies, people who inject opioids, or those who were recently released from prison. However, we now have high-risk behaviours occurring among other user groups, including non-dependent young people. Emerging stimulant and polydrug cultures among new user groups are causes of particular concern for health services.[6] These user groups might not have received formal drug education, have limited knowledge of risk, or have never received a healthcare intervention for their drug use, but have developed behaviours that greatly increase the risk of both short- and long-term harms.

At a general population level, the trend of polydrug use has been recognised, with people now reporting the use of more drugs compared with previous years.1 Further insight on polydrug use behaviours in Ireland has been obtained through web surveys that target non-dependent user populations. In 2019, the HSE and Trinity College Dublin conducted a web survey ('What are you taking?') among people who use drugs at festivals. The survey found that high levels of polydrug use were occurring in this setting, with 86.8% (n=1093) reporting engaging in this practice over the previous year. Respondents reported using a minimum of two and a maximum of eight drugs, including the intentional combination of cocaine and ketamine known as 'CK'.[7] In the 2021 Drug Use in Higher Education in Ireland (DUHEI) survey, 29.6% of recent users reported using two or more drugs on the same occasion.[8]

The Irish component of the European Web Survey on Drugs in 2024 found that 33.4% of all respondents had used four or more drugs in the previous year.[10] Some of the survey respondents felt that they applied harm reduction practices to their use. However, only 38.3% reported the pattern of using one drug at a time. This was fewer than other harm reduction techniques, such as hydrating (80.5%) and reducing the amounts used or 'going low' (78.7%).[10] The 2021 DUHEI survey identified that only 22% of recent users felt they were fully informed about the risk of using drugs,[8] identifying the need to have tailored awareness interventions, with a particular focus on the risks of co-consumption and drug interactions.

A study of respondents (N=4694) in the Growing Up in Ireland Study identified high levels of polydrug use occurring among 20-year-olds (23.2%), with five or more substances documented, including risky use of alcohol, tobacco, cannabis, cocaine, and ecstasy. The heavy polysubstance use class in this study was characterised by more frequent and diverse substance use, notably including ketamine.[11]

At a broader EU level (see Figure 1), various factors may be fuelling increasing reports of polysubstance use, including the integration of the markets for NPS and illicit drugs – for example, hemp mixed with SSCs, stimulants mixed with synthetic cathinones and ketamine, or new synthetic opioids mixed with or mis-sold as heroin or benzodiazepines.[2]

3.1.3 Global impacts on Irish drug markets

The Irish drug market has been impacted by global trends, with several new substances becoming established since the launch of the previous national drug strategy, *Reducing Harm, Supporting Recovery*. These include ketamine, nitrous oxide, and psychedelics such as mushrooms.[5,6,7] There has also been diversification of cannabinoid products with different forms of ingestion emerging, including edibles (jellies, drinks, and chocolate), wax, shatter, and vapes, as well as the emergence of SSCs such as hexahydrocannabinol (HHC).[14] These shifts are occurring as an indirect result of international drug policy shifts and the globalisation of drug use trends, but are having a direct impact on the local market and young people's health in Ireland. Presentations with SSCs are now a regular feature of presentations to adolescent addiction services, with SSC use among these individuals often precipitating mental health problems.

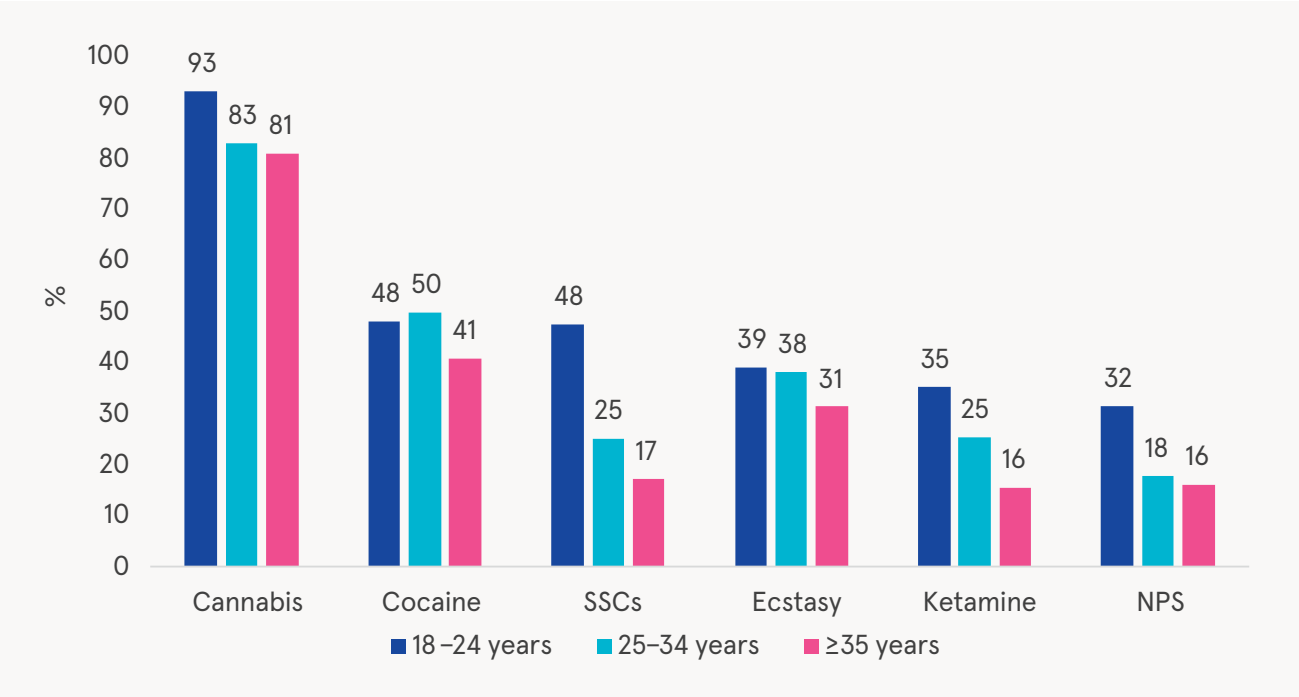

Figure 2: Drug use by age group, European Web Survey on Drugs 2024

Source: Mongan *et al.*, forthcoming[10]

3.1.4 NPS use in Ireland

While the prevalence of NPS use decreased following the closure of head shops as a result of legislative changes, their use was not fully eliminated and has begun to increase among younger and new user groups, with Ireland possibly beginning to experience a second wave of NPS use.[15,16] The European Web Survey on Drugs identified higher levels of use of newer drugs among those aged 18–24 years, including SSCs (HHC), ketamine, and NPS.[10]

The drug market now encompasses a more diverse range of substances, coupled with increasing purity and potency. However, new drug trends are often not represented in general population surveys, youth surveys, or in entries to addiction services.[6]

Surveys are limited in that they cannot identify what people define as an NPS or what an NPS actually contains, and it is difficult to accurately capture the levels of NPS use without robust early warning infrastructure and tailored services to reach hard-to-reach groups such as NPS users. Drug checking services have developed in Europe and have been a valuable tool in monitoring NPS use while engaging with people who use drugs.[17,18] A total of 57 NPS were found for the first time in Ireland from 2021 to 2025. However, many reports are associated with law enforcement seizures, and these cannot identify the intent to purchase the NPS or the user group.

Table 1: Irish NPS notifications to the EUDA Early Warning System, 2021–2025

	2021	2022	2023	2024	2025	2021–2025
	8	15	13	9	13	57
Cannabinoids	5	4	2	2	2	15
SSCs	0	0	1	1	3	5
Cathinones	2	1	0	1	2	6
Benzodiazepines	0	4	2	1	1	8
Opioids	0	2	1	1	0	4
Indolalkylamines (tryptamines)	0	1	0	0	4	5
Arylcyclohexylamines	1	0	2	2	1	6
Other		3	4	1	0	8

A number of notifications to the EWRS from the HSE back-of-house analysis in the HSE Emerging Drug Trends Laboratory have been related to novel psychedelics that were the intended purchase of the consumer, thus identifying that a hidden market exists. In addition, other submissions have been related to NPS that were sold without the person knowing what they were actually purchasing, such as 3-chloromethcathinone (3-CMC) being mis-sold as MDMA and cocaine, 2-fluoromethamphetamine (2-FMA) being present in 'tusi' or 'pink cocaine', and 4-acetoxy-N-methyl-N-ethyltryptamine (4-AcO-MET) emerging in mushroom jellies (unpublished data).

While playing a relatively small part in overall drug-related death figures, NPS continue to lead to harm, with drug-related deaths peaking in 2013 following legislative change and the closure of head shops. Of major concern is the emergence of NPS sold as traditional substances, which can lead to cluster intoxications and fatalities. Seven NPS were implicated in poisoning deaths in 2022, and all were benzodiazepines.[19]

3.2 Cocaine and crack use

3.2.1 Drug use indicators

After cannabis, cocaine is the second most commonly reported drug used in surveys carried out in Ireland and throughout Europe. Ireland's first review of wastewater data in 2024 showed that cocaine was the most commonly identified substance, with significant rates of use detected.[2] Since the 1990s, both cocaine and crack use have peaked and declined a number of times, correlating with economic contexts, availability, and supply. The early 2020s have been a period of increasing availability and use in European and Irish markets, sustained by the availability of cheaper products from South America.[20]

Cocaine is a concern across all strands of Irish society, as reflected in treatment and drug-related death data; in addition, cocaine is the substance most likely to be reported by new entrants into treatment.[21] Treatment demand trends indicate that crack use among people who use opioids is increasing, and that such use is also increasing among younger females.[22] Signals from European markets also indicate the growing use of other stimulants such as methamphetamine and synthetic cathinones in Europe, which requires local monitoring given the market expansion possibilities.[27]

3.2.2 Health consequences of cocaine use

Cocaine use can result in dependency and is associated with a number of adverse physical and mental health consequences, which can include psychosis, overdose, cardiac conditions, and suicidal ideation. Cocaine was the most common substance reported by European Drug Emergencies Network (Euro-DEN) Plus sentinel hospitals surveyed in 2023, being mentioned in 25% (n=1695) of acute drug-toxicity presentations. Around one-half of these presentations were associated with co-ingestion of alcohol. As part of this EU-wide survey, participating Irish hospitals (the Mater Misericordiae University Hospital in Dublin and Our Lady of Lourdes Hospital Drogheda) reported increases in cocaine-related presentations.[28] The long-term health and social impact of crack use on an ageing population of opioid users will require specific consideration across health and social care structures. While opioid use is declining among younger populations, at-risk young people's initiation of cocaine and possibly crack cocaine use is becoming more common, particularly in areas of social deprivation. While cocaine services are provided nationally, from a public health perspective, services will need to further prepare for the continued and sustained use of both cocaine and crack cocaine the impact this can have on the health system over time.

3.3 The evolution of cannabis markets: Increased potency and new products

The evolution of the cannabis market has created new health and policy challenges. In addition to traditional cannabis products, new high-potency products have been linked to acute drug-toxicity presentations in hospital emergency departments across Europe.[28] These products may target new user cohorts that would not traditionally consume cannabis through smoking and can range from vapes to wax, shatter, edibles, and drinks. These developments in cannabis products, and particularly the increased potency of such products, may have consequences for the mental health of those who use them, particularly young people. The extent of the use and health impact of these substances across Irish society is not fully known. The European Web Survey on Drugs 2021 found that young people are more likely to use the newer forms of cannabis.[5]

The rapid spread of vapes and edibles is of concern to healthcare providers. Their accessibility and appeal may attract new, possibly younger, consumers who might not otherwise use or have access to illicit cannabis or want to smoke cannabinoids. In addition, the slower absorption of cannabinoids from edibles and the later onset of initial effects compared with vaping or smoking can lead to users consuming multiple portions, risking toxic doses.[23] This may be compounded by consumers often lacking awareness of proper dosing or consuming more than the recommended amount, further increasing poisoning risks.

3.4 The synthetic and SSC market

In 2024, European countries identified 20 new cannabinoids, 18 of which were SSCs, representing over 40% of the new substances first reported to the EWRS that year.[2] Many products sold on the illicit market in Europe as cannabis may be adulterated with potent synthetic cannabinoids without the consumer knowing, which is a significant risk factor for cluster intoxications.

A review of 114 jelly, sweet, and chocolate products analysed in 2023 showed that only 64% contained the assumed intended purchase of tetrahydrocannabinol (THC), the main psychoactive substance in cannabis. The remaining 36% of products included a range of other synthetic cannabinoids, including MDMB-4en-PINACA, ADB-5'Br-BUTINACA, ADB-BUTINACA, ADB-PINACA, 5F-EDMB-PICA, and HHC, which is an SSC. In January 2023, the HSE issued an alert following concerns about adulterated edible 'gummies' in circulation leading to the hospitalisation of young people.[23]

Recent developments have further complicated this area through the emergence of new types of SSCs. These are synthesised from cannabidiol (CBD), which in turn is extracted from low-THC cannabis (hemp). These products had not been seen previously and therefore there was limited information on their health implications. SSC products were first reported in Europe in 2022, where they were marketed as legal alternatives to cannabis.[25] HHC was the first of these substances to be identified and had been listed as a controlled drug in at least 22 EU member states by mid-2025. Many SSCs are legally available in shops and online throughout Europe, with HHC only being controlled in Ireland as recently as July 2025. SSCs have quickly become a prominent feature in the Irish drug landscape, with data from the European Web[26] Survey on Drugs 2024 identifying that 29.2% of Irish respondents used these substances in the last year, compared with just 14.0% across 25 European countries.[29]

Research on the effects of SSCs on humans is limited. Reported adverse reactions range from mild to severe poisoning, sometimes requiring treatment in hospital. Self-reported effects among Irish participants suggest that high levels of negative effects are experienced by those who use SSCs (89.9%). Among this cohort, 14.7% reported anxiety or panic reactions, 13.4% felt faint or dizzy, and 11.9% reported dissociation or depersonalisation. Hallucinations or psychosis were reported by 3.9%, depression by 3.6%, and withdrawal symptoms by 3.2%.[14] The pharmacological similarity of SSCs to delta-9-THC raises concerns about their potential to trigger psychotic episodes as well as their potential to create dependence.[30]

3.5 Ketamine

Ketamine was one of the first NPS to emerge in Europe during the 1990s, and has become an established feature of the drug market in some countries, much of it supplied from laboratories in India. Ketamine has become established on the Irish drug market over a relatively short period of time and has become a prominent feature of drug repertories used in recreational settings, often used in combination with other drugs for stimulant and euphoric effects when socialising.[32]

A 2019 review of festival drug use found that 63% of respondents to a web survey (n=1093) had used ketamine at an event in Ireland within the previous year.[7] Since that time, high levels of ketamine use have been captured through a number of tailored surveys and new monitoring approaches. The 2021 DUHEI survey identified that ketamine was the fourth most commonly used drug among a sample of 11,592 respondents.[8] High levels of ketamine use were further confirmed in the Irish results of the European Web Survey on Drugs 2024, where 25% of respondents reported ketamine use, positioning it as the fourth most used drug.[10] Use appears to be higher among younger age groups, with this recently being confirmed through the Growing Up in Ireland Study, which referenced ketamine as a key characteristic of polydrug use patterns among Irish 20-year-olds.[11]

The application of wastewater analysis in Ireland for the first time in 2024 identified the actual levels of substance metabolites from samples obtained in the Ringsend Wastewater Treatment Plant. This method of analysis can provide the most accurate insight into drug use at population level. The wastewater analysis results identified that ketamine was the third most consumed substance, following cocaine and cannabis, and positioned Ireland's weekend ketamine use as among the highest within the EU.[33]

Health structures may need to prepare for the long-term public health implications associated with high levels of use and frequent use of ketamine, which include a range of health issues that we have not experienced in the past. Emerging evidence suggests that the frequent and long-term use of ketamine can have an impact on memory, cognition, and mental health; can lead to dependency; and can cause bladder damage.[34]

As ketamine use increases in the United Kingdom (UK), increased treatment demand is being recorded. The number of people in the UK starting treatment for ketamine dependency in 2023–24 was 3,609. In addition, 27% of regular ketamine users in the UK report at least one urological symptom, with severity being correlated with dose and frequency of use.[35]

Specialist addiction services deliver psychosocial interventions that are not substance specific. People who use ketamine report that services lack an understanding of ketamine addiction and offer minimal treatment options that are specific to the drug; as a result, treatment is only partially effective. Their suggestions to increase uptake of treatment include managing physical health sequelae, particularly pain and providing harm reduction supports, including providing advice to avoid the use of shared straws or banknotes, to check drugs, to avoid polysubstance use, and to maintain hydration and nutrition; addressing underlying mental health problems; particularly pain and providing harm reduction supports.[35]

3.6 Emergence of synthetic opioids (nitazenes) on the Irish market

While the European drug treatment landscape was once defined by injecting heroin use, it has been recognised that the number of new heroin treatment entrants is now considered low by historical standards and that these individuals are associated with an ageing cohort of opioid users.[9] Opioids continue to make a major contribution to drug-related deaths and health and social costs, and remain a significant concern for healthcare providers. This problem has been compounded by the emergence of synthetic opioids.

Currently, new synthetic opioids play a relatively small role in the European drug market, but their emergence has created significant uncertainty in terms of countries' capabilities to respond to the public health threats posed by these substances.[39] Their sudden emergence in Ireland highlighted early warning and response gaps and also resulted in a rapid coordinated response, both of which require urgent consideration as part of the next national drug policy life cycle.

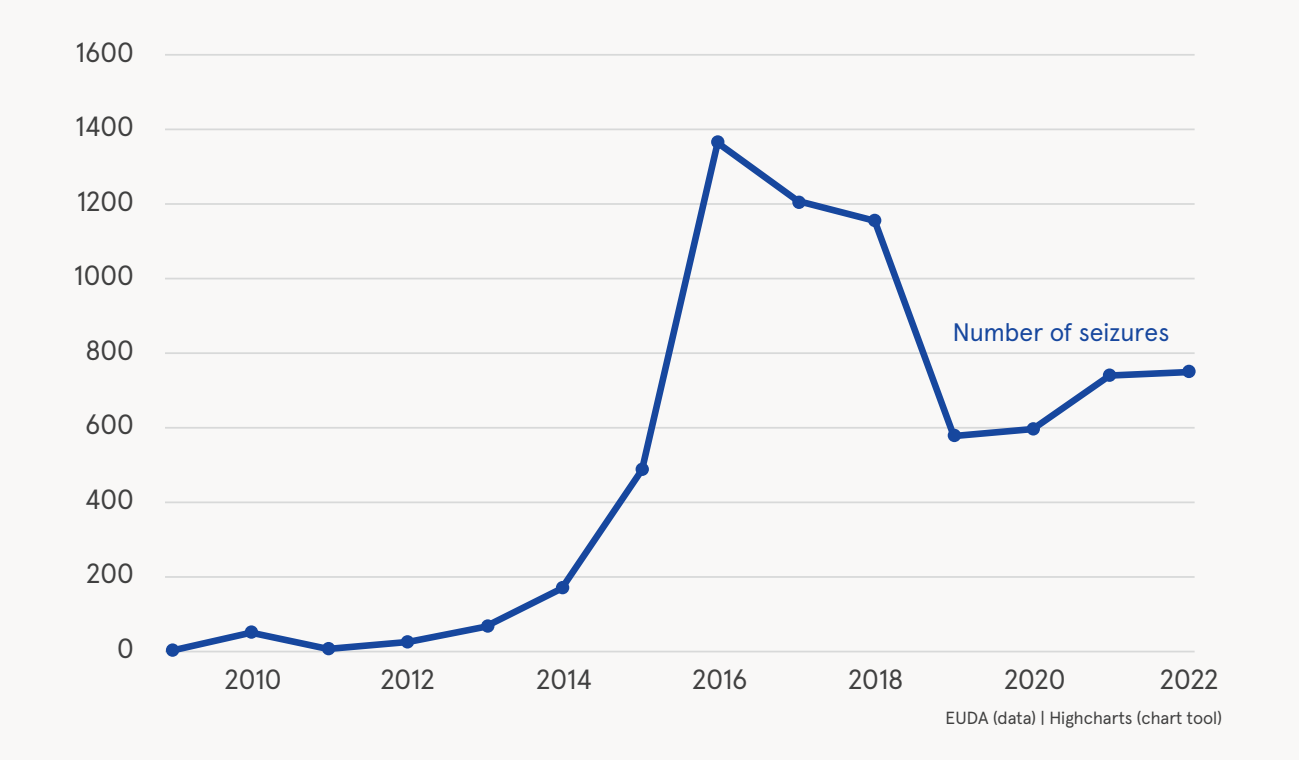

Figure 3: Seizures of new opioids reported to the EWRS: trends in numbers of seizures in the EU, 2009–2022[36]

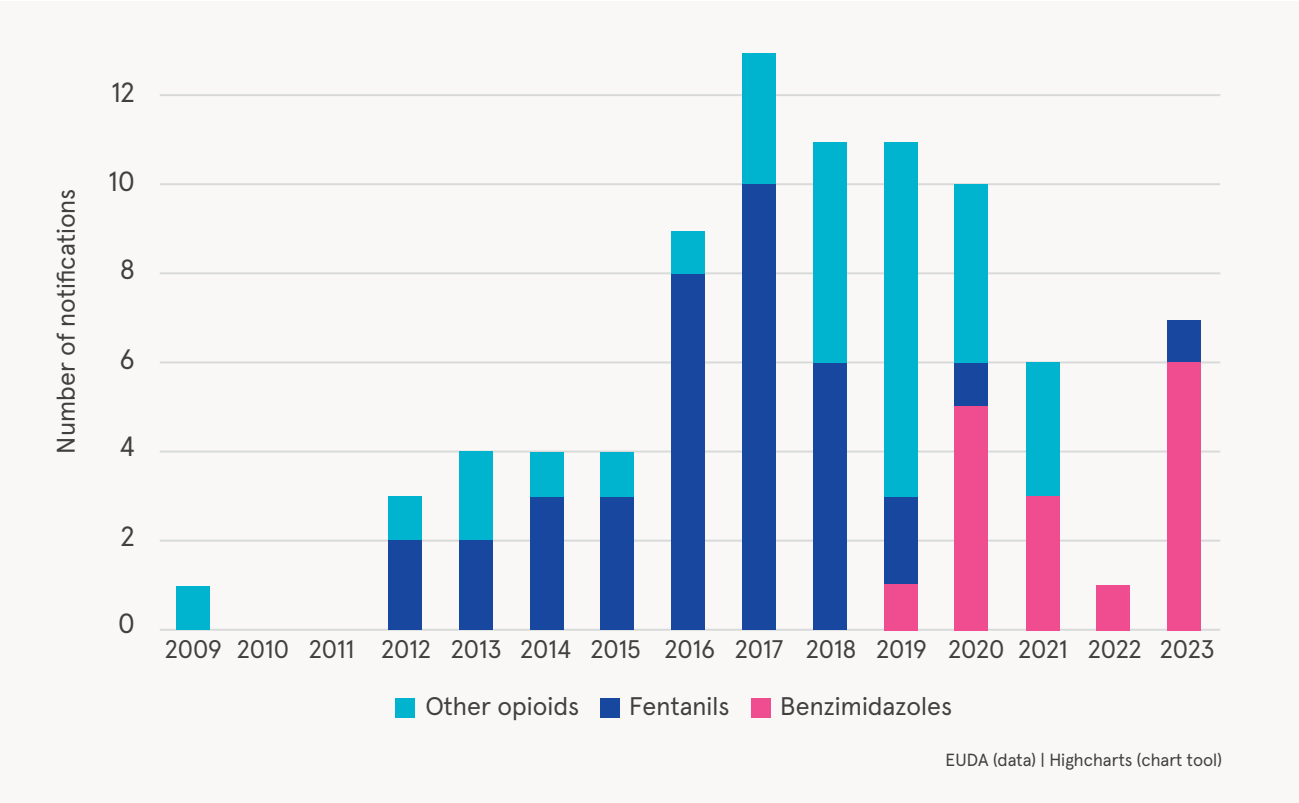

Figure 4: Number and types of new opioids notified to the EWRS for the first time, 2009–2023[36]

Irish health professionals remain on alert since the emergence of nitazenes on the market in November 2023.[37] These substances presented without a warning of drug market changes and resulted in Ireland having to manage Europe's largest outbreak associated with these substances to date. While initial concerns were related to N-pyrrolidino protonitazene being sold as heroin powder to opioid-using populations, the progression of nitazenes to the counterfeit benzodiazepine market (potentially targeting opioid-naive populations) has been a significant and concerning development and a signal of a more complex drug landscape emerging in Ireland.

Overall, Ireland may have experienced fewer nitazene deaths compared with the UK throughout 2023–24, when 193 drug-related deaths were identified.[31] Analytical data confirming the actual number of deaths occurring in Ireland are not yet available, and consequently a full review of the 2023–24 outbreaks cannot be conducted by the HSE. There could also be an underreporting of synthetic opioid deaths due to non-typical cases not coming to the attention of officials and for methodological reasons due to low (below 1 µg/L) concentrations.[38] Capturing non-fatal overdoses in hospital settings and the provision of more timely information on drug-related deaths will have an impact on our capacity to monitor the situation effectively and needs urgent consideration as countries prepare for drug market changes.

Ireland is regarded as a knowledge expert in Europe following the rapid response to manage nitazene outbreaks and has supported a number of countries, such as Norway, the Netherlands, and Spain, in developing their strategies. In addition, Ireland has remained in ongoing contact with a number of other EU countries, as well as the EUDA, the UK, and Australia.

The Irish experience has provided invaluable knowledge from 2023 onwards, but that now needs to be transformed into the development of guidelines and operational structures, which require specific investment and resources. While the Irish response has been recognised internationally, it is not sustainable without additional resources. The HSE recognises that the rapid response was based on key

stakeholder relationships within current service structures that engage with opioid-using populations. However, outbreaks among other user groups may be more complicated to manage within existing structures and systems.

The availability of fake medicines containing nitazenes has also increased throughout Europe, with an increasing quantity of seized tablets being reported to the EWRS by at least 12 countries in 2024 and concerns being expressed about their potential to spread to broader populations without opioid tolerance, including young people.[2]

Current gaps in monitoring, limited engagement with different cohorts of users, and the scale of tablet batches available make it difficult to quantify the impact that this situation could have on non-opioid users in Ireland. It is anticipated that there could be significant market changes within the coming years due to a decline in opium cultivation,[39] but based on recent local experiences, the time frame for change may be much shorter and may impact on a range of drug user groups beyond opioid users. While not yet appearing in Ireland, since mid-2024, there has been concern in Europe following the detection of synthetic opioids belonging to the 'orphine' family. These developments indicate that the synthetic opioid market is likely to continue to evolve which could further challenges for Ireland.[2]

The complexity of this market requires multi-layered monitoring systems and signal detection tools that combine population and individual-level data that can integrate analysis received directly from people using drugs. Improvement of the toxicology capacity – including more and better post-mortem analysis, drug-checking, wastewater analysis, and analytical confirmations from forensic and clinical laboratories – is crucial in order to ensure our preparedness for potent new drugs such as nitazenes. Enhancing preparedness remains critical to Ireland's ability to respond rapidly to poisoning outbreaks related to potent synthetic opioids and other NPS. Immediate attention and priority is required on developing a team and operational structures within the HSE.

4 Responses in Ireland

4.1 Drugs in nightlife and festival settings

The increasing prevalence of drug use in nightlife settings in Ireland is occurring at a time when the purity and potency of substances such as MDMA and cocaine are higher than ever. In response to emerging youth drug use patterns, health and social responses have been implemented in nightlife settings across Europe since the early 1990s. These services range from education, prevention, and harm reduction activities to crisis intervention supports. Services that incorporate both nightlife outreach and drug analysis have the potential to gain the most engagement from young populations.[40]

Work began in this area through Strategic Action 1.3.11 in *Reducing Harm, Supporting Recovery*. A working group was convened to address this action to review the current drug use landscape and the health and social responses to drug use in nightlife settings, as well as the adoption of substance analysis in order to inform early warning responses to drug trends. The working group made a series of recommendations to help improve engagement with new user groups and with drug monitoring and early warning structures in Ireland. In the absence of a specific harm reduction service to engage with new user groups, the working

group recommended that the HSE develop a volunteer-led service, which would include a pilot back-of-house analysis project for festivals.[40] The working group also recommended piloting analytical approaches such as syringe and wastewater analysis.[12]

4.2 Monitoring and harm reduction in nightlife settings in Ireland

4.2.1 The HSE Safer Nightlife Programme 2022–2025

In 2022, the HSE launched the multi-component Safer Nightlife Programme, involving the development of tailored resources, media awareness, a volunteer training programme, and an outreach drug service to support people at nominated events.[6] While the underlying skills of drug workers remain the same regardless of the setting, those working in traditional addiction services in Ireland may not encounter drug trends that present in festival or other nightlife spaces. It was essential that the Safer Nightlife training programme was developed to support the adaptation of this work, with a focus on relevant drug trends, subgroup populations, and tailored harm reduction information. A pilot back-of-house drug checking programme was also developed in collaboration with the HSE Emerging Drug Trends Laboratory at the National Drug Treatment Centre in order to help monitor the market for harm reduction purposes and alert relevant authorities if extra-risky drugs were identified.[6]

The Safer Nightlife Programme was provided at 12 events between 2022 and 2025, 10 of which included the provision of back-of-house analysis. This involved more than 200 hours of harm reduction outreach and education delivered by more than 100 trained volunteers, the analysis of 650 submitted drug samples, and the publication of 16 risk communications. In addition, it undertook the first quantitative analysis of MDMA to confirm the current trend of high-potency MDMA in circulation, and it also identified new trends such as pink cocaine and 2C-B.

4.2.2 Outcomes from the HSE Safer Nightlife Programme

There have been many benefits as a result of the Safer Nightlife Programme and engagement with people who use drugs in festival and nightlife settings. The people using drugs in festival settings often have limited knowledge of the drugs they are using and the associated risks. This programme has attempted to develop a rapport with people who worry about engagement with health services. The programme engages with people to make them aware of the risks of using drugs and how to minimise these risks by providing drug awareness in a new and meaningful way. In addition to harm reduction interventions, volunteers support the overall well-being of festival attendees at events by identifying vulnerable people or ongoing drug emergencies.

While it is difficult to quantify the number of engagements per day at events due to the busy nature of this work, feedback from volunteers and doctors shows that they provide many meaningful interventions and that members of the target group feel safer knowing that supports are available. However, there are many logistical and personnel challenges in delivering temporary drug services at festivals. Engagement with festival-goers has been hampered by misleading media coverage and fear of prosecution, which has sometimes affected the volume of samples submitted at large events. While volunteers note the challenges in obtaining samples, it is an important part of the overall early warning structures in Ireland. This programme has led to the first identification of 15 drugs in Ireland, with a number of NPS still under review by the HSE Emerging Drug Trends Laboratory following numerous submissions in summer 2025.

The programme led to the first quantification of MDMA for public health purposes in Ireland. This has allowed the HSE to monitor trends across this market over 4 years, including its increasing potency.

The most recent HSE data for 2025 show that 48% of samples tested by the HSE Emerging Drug Trends Laboratory contained more than 200 mg of MDMA, which is more than twice the average adult dose (unpublished data, HSE Emerging Drug Trends Laboratory). The HSE also analysed samples of MDMA that contained more than 300 mg of MDMA that were obtained at two events in 2025. Drugs of this potency could lead to cluster intoxications and fatalities, and the HSE used the drugs.ie website and event-related social media to provide information on these possible harms.

The provision of accurate and timely information on drug trends is an important health service. The results of analysis of substances support new styles of engagement through social media posts, media articles, posters, leaflets, and engagement games in order to help create awareness with the public. The HSE recognises the limited nature of this approach and the need to develop the service to reach a larger population outside of nominated events. In order to successfully monitor the market for public health purposes, more samples are needed for review by the HSE Emerging Drug Trends Laboratory.

4.2.3 Engagement with the back-of-house drug checking service

A series of questions about the back-of-house drug checking service were included in a specific module in the European Web Survey on Drugs 2024.[10] While 57.9% of respondents said they would use the service, this is not reflected in sample surrender at events. Each event will vary in terms of engagement, with attendees at dance events submitting the most substance samples. Among those who reported that they would not use the back-of-house drug checking service, the main reasons were fear of prosecution (55.4%) and that substances and results would not be provided back to the individual (45.8%). This reflects the barriers identified by volunteers at festivals. The findings show that there is a desire to engage with harm reduction services and a demand for substance analysis; however, approaches should now be piloted in order to identify how best to maximise reach with this audience.

Table 2: Engagement with back-of-house drug checking among European Web Survey on Drugs 2024 respondents[10]

	Number	Percentage
Willingness to use HSE back-of-house drug checking services		
Yes	1,335	57.9
No	489	21.2
Don't know	480	20.8
If YES, would you use the below options to deposit drugs for back-of-house drug checking at a festival?*		
Bin at entrance to festival (before security check)	373	27.9
Drugs.ie harm reduction tent (covered area)	914	68.5
Bin in health setting – medical tent (covered area)	598	44.8
I wouldn't use back-of-house drug checking	143	10.7
Other	33	2.5
If NO, why would you not use back-of-house drug checking?*		
Fear of prosecution	271	55.4
Don't receive drugs back	224	45.8
Don't receive personal feedback	165	33.7
Other	101	20.7

* Respondents could select more than one option.

4.2.4 Further development of the HSE Safer Nightlife Programme

The capacity of this programme to serve the drug user community is restricted because it has only been possible for the service to attend two or three events each year, despite increasing demand. The Safer Nightlife Programme has been piloted over the course of three summers, and the HSE will evaluate it in order to help identify the benefits, gaps, and challenges in delivering this type of service. There is a need to gain greater access to drug samples in order to observe trends and engage with high-risk groups beyond the festival season.

The HSE is currently developing plans with stakeholders to identify how this programme can be improved in order to be more inclusive and reach broader audiences in an attempt to increase engagement. If the programme operated in city-based locations, it is anticipated that the HSE would obtain a more accurate representation of the drug market, similar to what is observed by The Loop UK through its Saturday service in Bristol.[41] The *Report of the Emerging Drug Trends and Drug Checking Working Group 2021*[34] also noted the benefits of postal services and sentinel sites conducting analysis through various city-based locations, such as in the Netherlands through the Drug Information and Monitoring System (DIMS). These types of approaches could help Ireland better prepare for synthetic opioid outbreaks, with greater access to drug samples and more structures and systems in place to quickly identify and respond to the emergence of new threats as part of wider public health strategies.

5 Emerging drug trends and early warning structures

5.1 Early Warning and Emerging Trends network

Ireland is implementing Regulation (EC) No 1920/2006 on EUDA'S Early Warning System on new psychoactive substances, and the Department of Health provides for an Early Warning and Emerging Trends (EWET) network. The network meets quarterly to exchange information and is used as a vehicle to disseminate formal notifications from the EU Early Warning System on new psychoactive substances. The primary function of EWET is to exchange information on NPS and, through monitoring, to detect, assess, and respond to public health and social threats. This includes threats that may not be directly caused by an NPS but are due to other hazards that are associated with its use.

5.2 Emerging drug trend projects in Ireland

Strategic Action 3.3.38 in *Reducing Harm, Supporting Recovery* identified the HSE is the lead agency to develop a public health alert system for acute health emergencies, such as cluster intoxications or batches of substances that may pose a threat to public health. A review of this task identified the need for improved systems and a national operational structure to collect information on drug markets and acute situations. Information gaps identified included research on emerging monitoring of the drug market, laboratory analysis, and the delay in publishing drug-related deaths data.

A series of emerging trend projects was developed under *Reducing Harm, Supporting Recovery*, and a number of epidemiological monitoring techniques, public health reporting, and communications initiatives were piloted. There have been several important analytical developments, including the establishment of Ireland's first emerging drug trends laboratory to undertake analysis specifically for health purposes. In addition, the National Drug Treatment Centre Emerging Drug Trends Laboratory and community partners arrange an annual syringe analysis, and University College Dublin has been awarded a tender for a 3-year period to conduct wastewater analysis across five regions in Ireland in order to detect temporal and geographic trends.

5.2.1 The National Drug Treatment Centre Emerging Drug Trends Laboratory

In 2022, the Emerging Drug Trends Laboratory was established in the HSE National Drug Treatment Centre to support the application of substance analysis for public health purposes. The laboratory currently reviews samples of concern obtained from service providers, hospitals, or prison settings, and it also conducts analysis of samples obtained during the summer months as part of the HSE Safer Nightlife Programme. In addition, the laboratory has represented Ireland in the European Syringe Collection and Analysis Project Enterprise (ESCAPE) project to conduct analyses of used syringes. This technique can be applied for more frequent monitoring associated with overdoses of concern or outbreaks.[12]

5.2.2 Wastewater analysis

Ireland participated for the first time in the Sewage analysis CORe group – Europe (SCORE) in the 2024 network annual collection to review drug trends in wastewater samples collected across European and international locations. Following the submission of a business case to the Department of Health, funding has been provided to establish a wastewater surveillance programme across regions in Ireland, with this work to capture temporal and geographical trends expected to start in mid-2026. This approach will provide a baseline of new drug trends at the start of the national drug strategy 2026-2029. It can be adapted at set intervals in order to measure population trends, and at the beginning, middle, and end of national drug strategies in order to provide accurate insights into the drug use landscape at specific time points.

5.2.3 The National Response and Alert Group

The National Response and Alert Group (NRAG) was formed in response to the emergence of nitazenes on the Irish drug market. The group comprises key stakeholders who can review 'signals' of change at a national level in order to help identify the threat posed to public health by drug market changes. Data obtained from the member agencies, local review groups, and service providers will be used to determine public health alerts and tailored responses by the NRAG. This cross-sector group is coordinated by the HSE National Clinical Lead for Addiction Services and includes representatives from the National Social Inclusion Office; the HSE National Drug Treatment Centre Emerging Drug Trends Laboratory; the Garda National Drugs and Organised Crime Bureau; Forensic Science Ireland; the State Laboratory; Trinity College Dublin; the Health Products Regulatory Authority; the National Poisons Information Centre; and the HSE Communications Division, as well as the National Ambulance Service Director and a hospital network emergency department representative.

Timely communication with the HSE is essential following the identification of particularly risky substances, batches of substances, or emerging health concerns among the public. The information shared by NRAG members will be triangulated across a number of sources before the necessary action is determined by the National Clinical Lead for Addiction Services. The National Clinical Lead for Addiction Services will

aim to obtain the available information in order to identify the threat posed by the substance/batch of substances, as well as if this risk relates to a specific user group or the wider population.

The National Clinical Lead for Addiction Services may recommend the following actions:

- monitoring the substance among NRAG members and frontline service providers in order to obtain more information
- developing information resources to support professionals, including medical fact sheets
- issuing an advisory notice for substance services, paramedics, and hospitals in order to inform their interventions
- issuing a risk communication (a communication of a trend with a target audience/the level of threat; who is impacted will determine how this information is shared)
- issuing a red alert (highest level of concern with rapid targeted responses required to protect lives).

To help inform early warning structures in Ireland, NRAG member organisations will be asked to:

- review internal information that can help prevent the use of extra-risky substances and progression of outbreaks
- respond to cluster intoxications and outbreaks.

5.3 Risk communications

The back-of-house drug checking system was adopted in an attempt to access samples in order to help inform harm reduction discussions and to provide drug market monitoring in Ireland. The HSE accesses samples through the HSE Safer Nightlife Programme at a small number of events each summer as well as from cases of concern communicated by service providers and other stakeholders. This can involve the HSE reviewing new products on the market, as well as products that lead to increases in adverse health effects and drugs linked with drug emergencies. Through this work, the HSE may issue different types of communication based on the substance identified and the outcome.

When issued in festival settings, risk communications can increase engagement with volunteers and harm reduction discussions, but the impact on behaviour needs to be evaluated. Anecdotal information reported from services during the nitazene outbreaks in 2023 and 2024 suggest that the red alerts issued helped to decrease demand and prevent extra-risky batches from being consumed (HSE, unpublished information). A local addiction service in a Dublin suburb reported the benefits of an individual recognising an alert on display in the service and preventing product use among peers. Rapid substance analysis by the HSE confirmed the presence of nitazenes in the product, which allowed the service to quickly implement wraparound supports locally in order to prevent harm (HSE, unpublished information).

There are many benefits associated with identifying drug trends of concern and issuing alerts, and in the future greater sample access will be required on an annual basis in order to gain deeper insights into the Irish drug market and emerging risks. To help maintain the prominence of a red alert status and reduce alert fatigue, the use of the mainstream media should be maintained for cases of the most extreme risk to public health. However, members of the public and health professionals may need to be informed about all emerging threats on a frequent basis, and a communication platform such as an interactive information hub would be an effective response to current issues and communication challenges.

6 Developing preparedness: What is needed?

Coordinated structures that monitor for, identify, respond to, and mitigate drug-related harms in close to real time are often collectively described as early warning systems (EWSs).[42]

As defined by the United Nations Office on Drugs and Crime (UNODC),[4] an EWS is a multidisciplinary inter-agency network that aims to:

- enable the exchange of information among key actors in the field of drugs
- identify emerging drugs that pose a potential threat to public health
- identify changes in drug markets, e.g. new use patterns, unusual concentrations, or a toxic adulterant
- facilitate assessments of the risks posed by such drugs
- provide evidence to guide effective responses.

Operationally, an EWS should integrate the pillars of trend monitoring and horizon scanning; detection, monitoring, and forecasting to signal detection; network collaboration; and warning communication and timely response.[42]

6.1 Monitoring and risk communication infrastructure

The emergence of new drugs and the rapidly changing nature of drug markets requires a systematic method of monitoring change that can record information relevant to drug-related public health threats and that is capable of making this information accessible in a timely, understandable, and usable form to health service providers, clinicians, scientists, and law enforcement agencies. The development of a risk communication platform can ensure that information is tailored to the requirements of those who need it. The HSE and HRB plan to develop an Irish communication platform where communications are categorised based on the level of threat. Mechanisms should be explored and resources should be provided to expand substance analysis services on an annual basis in order.

6.1.1 Trend validation

Trend validation through substance analysis is central to the development of early warning structures. Although a wealth of anecdotal information is available, this form of information cannot always be analytically or administratively verified. Anecdotal information from people who use drugs and from services can be effective in quickly identifying drug market changes, as demonstrated through the management of nitazene outbreaks in Ireland. However, systems that are based on anecdotal information alone could lead to false alerts, miscommunication, or alert fatigue. Therefore, trend validation will be central to maintaining trust with service providers and people who use drugs and will ensure that accurate and tailored risk communications are issued in order to confirm both the trend and temporal and geographic drug market changes.

Laboratories have played an increasingly central role in providing timely and precise information on the drug landscape. While many significant developments have been highlighted in this supplement, there is a need for greater availability of substance analysis in order to verify trends and as part of the development of early warning structures. Laboratories need to be resourced to obtain relevant drug standards in response to an evolving and complex range of drugs now presenting on the Irish drug market.

Public health alerts are ineffective without timely access to drug samples and the ability to confirm the actual contents of substances. Mechanisms should be explored and resources should be provided to expand substance analysis services on an annual basis in order to meet the needs of the range of user profiles who are at risk as a result of drug market changes.

6.1.2 Engagement with people who use drugs

People who use drugs are often the first to identify drug market changes such as new products, new suppliers, or impacts on normal supply routes. EWSs should identify mechanisms to collate and validate concerns expressed directly by people who use drugs. In Ireland, this can currently occur through drug and peer-based service structures. However, there is limited contact with all user groups across Irish society. This needs to be improved, and increased sample access across a range of people who use drugs will be required in order to inform market monitoring and public health responses. People who use drugs should be involved in system and risk communication development.

6.1.3 Garda Síochána consultation

An Garda Síochána has been central to emerging drug trend, early warning, and crisis overdose responses in Ireland. Currently, gardaí support the review of drug-related overdoses occurring in a community setting; in addition, An Garda Síochána ensures sample access and the movement of substances for public health analysis. EWS development will lead to the increased reporting of trends, and the role of gardaí will need to be further explored. Policies will be required on the movement of substances as part of new early warning structures.

6.1.4 Early warning platform

The current system of monitoring and communication needs to be supported by an online platform that is capable of receiving data reported by stakeholders employed in health services, drug treatment, law enforcement agencies, harm reduction services, hospitals, and laboratories; in addition, it needs to be capable of receiving data reported by service use representatives, paramedics, and people working in the night-time economy.

The platform needs to be capable of storing these data and making them readily available for synthesis with data from other sources. This analysis will inform decisions regarding alerts or other communications, such as fact sheets or regular aggregated reports. Upon review and validation through analysis, the EWS will include information on threats relating to new and risky batches of drugs, NPS, the more familiar plant-based drugs, and prescribable drugs that have either been diverted from therapeutic use or manufactured illegally. In 2023, the Health Research Board (HRB) published an evidence brief that presented case studies of national EWSs supported by online platforms in Scotland, the Netherlands, and Sweden.[43] This report will be of use in developing an online early warning platform in Ireland, and it will include elements of each of the systems studied.

6.1.5 Support for threat assessment and risk communication

The EWS will support the early detection, assessment, and timely response to public health risks both at national and EU level. Such events may also reveal potential public health risks that had previously gone unrecognised. For monitoring purposes, incidents, events, and other occurrences of interest will be referred to as a 'signal'. Signals are reports of events such as seizures or the discovery of a substance, a poisoning or injury reportedly related to a substance, or verbal communication to a stakeholder. If it is decided that the signal is of significant concern, then an outbreak reporting form will be completed. It may be decided that there is not an immediate danger, but that the system should begin the process of description and analysis of the substance or the biological sample on which the signal is based. Based on the information gathered and recorded in the data tabs, the National Clinical Lead for Addiction Services, informed by the available evidence and in collaboration with stakeholders, will decide on an appropriate response based on the level of threat, the user group, and location of the issue. A risk communication may comprise one of the following: an alert, a briefing, or an advisory note.

6.1.5.1 Structures, systems, and policies for early warning in Ireland

Based on experiences of managing nitazene outbreaks in Ireland, the HSE identified a number of areas that will need to be explored when developing a local early warning structure. There is a need for more extensive monitoring for short-term, long-term, and future threats; increased detection, verified with substance or syringe analysis if possible; and more developed service and stakeholder responses. Regional structures need to be developed in order to prepare for potential nitazene outbreaks, with representation from stakeholders and agencies, including first responders. Once guidelines and systems are in place, training will be developed on monitoring drug use, adapting guidelines, and developing standard operational procedures for each region. In addition, scenario-based testing will be conducted with stakeholders across different areas in order to prepare agencies for mass overdose situations.

6.2 Developing new monitoring tools

The projects described in Section 4.2 will continue to provide important information to support timely responses to drug threats and to observe trends over time. While these projects represent considerable progress in a short period of time, there are some important gaps in the data and these need to be addressed in order to ensure comprehensive coverage of drug-related events.

6.2.1 Incident report form for harm reduction key workers and services

The HRB has developed a series of online forms that enable key workers in harm reduction services to report incidents using a phone link. In December 2025, Ana Liffey Drug Project began working with the HRB on a pilot test of these forms. Further development will allow greater flexibility for services to make changes to the forms without compromising comparisons of data from different sources. It will be possible to manage these data on an online platform, and they will be available for HRB and HSE staff to analyse.

6.2.2 Hospital toxicosurveillance

This monitoring project will be a partnership pilot involving hospital emergency departments, the State Laboratory (which would undertake the analysis), the HSE, and the EUDA's Irish National Focal Point in the HRB to trial how data collection and biological analysis can be combined to monitor drug-related emergencies in Dublin. Initially, it is proposed that the project will support a small number of emergency departments in Irish hospitals to undertake a review of biological samples obtained from patients. Data from the State Laboratory will be reviewed for public health monitoring purposes, with no personal

identifiers shared relating to the patient. The project will initially focus on non-typical cases rather than all drug-related cases. The aim will be to detect new trends of concern or if NPS are present, which could pose a public health threat. The threat level and response will be defined by the National Clinical Lead for Addiction Services. Following an initial pilot phase, it is anticipated that a series of recommendations will be made for further expansion, based on the model applied in Australia as part of the Emerging Drugs Network of Australia.[44]

6.3 Building structures to identify emerging trends

Increased investment is required in order to establish an early warning team and system to monitor and respond to emerging drug trends and acute threats. Ireland's highly coordinated and rapid response to Europe's largest outbreak of nitazenes to date has received attention across Europe, with many countries seeking to learn from the Irish experience and increase their own preparedness. The establishment of a sustainable ability to respond to nitazene outbreaks will require investment. Moreover, there is a need for greater capacity to access and analyse drug and biological samples, monitor trends, and coordinate crisis responses. Consultation is required with Public Health Northern Ireland on developing an all Ireland system to support the monitoring of drug trends for the island of Ireland. Further, reporting structures should be established with the UK and with The United Nations Office on Drugs and Crime (UNODC) Early Warning System to support the review of UK and international drug market threats.

6.3.1 Coordination

An early warning team will require a dedicated coordinator who reviews evidence, maps trends, and prioritises cases for review by the National Clinical Lead for Addiction Services. In addition, the coordinator will be required to liaise between all service providers and stakeholders, and to ensure that information is tailored to the different stakeholders' needs. The role of the coordinator will involve applying structures and guidelines while developing stakeholder engagement and establishing vectors of coordination between public health, addiction services, peers and people who use drugs, law enforcement agencies, hospitals, analytical services, and monitoring professionals. Effective stakeholder communication and support is crucial as part of early warning responses for outbreak management. This team will operate in parallel to the existing EWET network, which will continue to facilitate the regular exchange of information and communication with EU agencies in a formal setting. The experience of coordination that supported the response to the 2023 nitazene outbreak provides a useful model for a more permanent resource.

6.3.2 Analytical capacity

Preparedness depends on knowledge around the availability of NPS and the ability to identify substances that may lead to particular health problems, including overdoses and cluster intoxications. Obtaining samples for chemical analysis, or biological samples for toxicological analysis, is often a demanding and resource-intensive task. This process can be facilitated by learning from pilot projects involving key stakeholders, such as An Garda Síochána and hospital emergency department staff. Laboratories have played an increasingly central role in providing timely and precise information on drugs phenomenon. While many significant developments have been highlighted in this supplement, there is a need for greater availability of substance analysis to verify trends and as part of the development of early warning structures. Public health alerts are ineffective without timely access to drug samples to confirm the actual contents of substances. Mechanisms should be explored to expand substance analysis services on an annual basis in order to meet the needs of the range of user profiles who are at risk as a result of drug

market changes. Such developments will also support public health efforts during high-risk situations such as overdose outbreaks.

Postal or drop-off drug-checking services, such as those provided by the Welsh Emerging Drugs and Identification of Novel Substances (WEDINOS) project, would be an important source of samples for the Irish EWS and provide valuable signals of potentially dangerous substances on the market. (WEDINOS) project can provide important insights into early warning structures. However, developments such as these require further discussion as part of future policies.

6.3.3 Develop services that meet the needs of the changing drugs phenomenon

The changing nature of drug-using behaviour requires an innovative and calibrated approach to support those who are using new types of drugs (particularly young people) who may be unlikely to present to established services. Examples of such services are those provided by Crew in Scotland or Jellinek in the Netherlands. Similarly, the increasing prevalence of polydrug use (including alcohol) presents challenges to existing services, and consideration needs to be given to developing models of care for those presenting with increasingly complex needs.

6.3.4 Research

The adaptability of the drug market, both in terms of the types of drugs emerging and in the increasing sophistication of distribution, presents conceptual as well as practical challenges to policy-makers, law enforcement agencies, and service providers. The response will need to be underpinned by expertise in drugs research and analytical thinking. Currently, research work on drugs and alcohol in Ireland is fragmented, often initiated in response to a particular current policy need or the specific research area that an institution or research centre is invested in. There has never been a national attempt at research prioritisation or a strategic analysis of how research should prepare to meet anticipated policy and practice needs.

6.3.4.1 Current research capacity

The HRB is Ireland's National Focal Point to the EUDA. Epidemiologists and social researchers based in the National Focal Point provide the EUDA with data and analysis on key health indicators related to drug use and its consequences. This information is essential for service planning, policy development, and legislative changes related to both alcohol and drug use in Ireland. Through its work in drugs and alcohol monitoring, research, and knowledge brokering, the HRB is established as a trusted and essential part of the evidence infrastructure supporting policy development and implementation. The HRB has developed strong and enduring links with the community of practitioners, advocates, and educators responding to the drugs situation in Ireland. The HRB supports knowledge dissemination through events such as the annual National Drugs Forum, its quarterly research and policy bulletin *Drugnet Ireland*, and the HRB National Drugs Library. There will be opportunities to advance research, but only if Ireland builds on advantages it currently enjoys and prepares a coherent and coordinated approach to developing the necessary evidence base and analytical capacity.

6.3.4.2 Research network

The new EUDA mandate presents real opportunities for researchers, policy analysts, and practitioners, particularly in the areas of threat assessment and competence building. The new agency will be the most important driver of scientific development in drugs and international cooperation in the coming decades. It also presents opportunities for EU member states with a progressive, coherent, and future-focused approach to preparedness to develop the capacity to respond to emerging threats. In order to take advantage of these opportunities and put research-based knowledge at the heart of planning and policy development, Ireland must take an innovative approach to combining scientific knowledge in analytics, epidemiology, and other drug-relevant disciplines. This will be an important task for Addiction Research Network Ireland, which was established in 2025. This network will facilitate the inter-institutional collaboration as well as the international contacts and developments in specialisms needed in order to develop research capacity in Ireland.

6.3.5 Foresight

Time series data and epidemiological systems will continue to play a vital role in increasing understanding of the drugs phenomenon and the development of interventions to counter the expansion of drug markets and reduce demand through behavioural change.[45] Alongside these systems, there has been an increasing emphasis on the need for real-time information and an exploration of methods and research tools that will build anticipatory capacity and enable policy-makers to consider uncertainties and prepare for the future. Strategic foresight develops the capacity to identify weak signals, considering how they may react within a specified environment and determining the level of attention they deserve. As with any complex system, it is problematic to assign significance to a particular variable in the drugs field, especially if it is difficult to discern. Foresight helps us to identify what these barriers are and is a valuable tool for developing anticipatory capacity and considering the range of possible outcomes from currently observable trends. Foresight is an important part of the EUDA's planning and research prioritisation work and will be embedded into strategic thinking in this network.

7 Conclusion

Ireland is emerging from a lengthy period dominated by opioid use and the need to provide effective interventions to deal with high levels of dependency and use. Recent studies have shown that initiation of opioid use among younger cohorts has declined significantly, and the opioid-using population is ageing, thus requiring a different range of interventions.[9] Patterns of drug use behaviour are rapidly changing, and the problems associated with high levels of cannabinoid and stimulant[10] consumption, polydrug use, and greater prevalence in the use of dissociative substances present a new set of challenges for policy-makers and service planners. Ireland also has the highest prevalence of cocaine use among young adults in the EU.[2] Significant changes have occurred within the period of the former drug policy cycle that pose current and future public health challenges.

The dangers posed by newer patterns of drug use and the emergence of new synthetic drugs means that Ireland will need to develop more timely sources of information that are linked to risk communication systems, as well as more responsive harm reduction strategies, particularly in recreational settings and among a diverse range of user groups who are currently not served within existing service structures. This supplement describes the changes that have occurred throughout the policy life cycle of *Reducing Harm, Supporting Recovery* and it anticipates development in the drug market and monitoring system in Ireland and in the rest of Europe. It presents an account of the responses to these changes and the adjustments that have been made to harm reduction interventions, prevention, and drug market monitoring systems.

These have been established through close coordination between health services, law enforcement agencies, and research services, and have proven effective both in terms of early identification of threats and communicating effectively with affected communities. Ireland now needs to build the infrastructure to support a robust and reliable monitoring platform, a trusted and effective system of risk communication that is supported by timely substance analysis for public health purposes, and a workforce with the skills to make effective use of this knowledge in delivering their interventions. Emerging drug trends require a whole-system approach in order to identify, monitor, and determine suitable responses. We anticipate that new drugs will continue to present public health challenges. Future drug policies need to reflect the reality of new drug trends and be agile in nature in order to ensure rapid responses when public health challenges emerge.

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