

# FENTANYL IN SPAIN

## EVIDENCE, PERCEPTIONS AND REALITIES



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**Funded by:**



**Title: Fentanyl in Spain. Evidence, perceptions and realities.**

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**ISBN: 978-84-09-54072-3**

**Citation criteria:** Martínez-Oró, D. P. (2024). *Fentanyl in Spain. Evidencias, percepciones y realidades*. Episteme Social.

**Conflicts of interest:** none. **Contact:** davidpere@epistemesocial.org

**The views expressed in this document are not necessarily those of the Government Delegation for the National Plan on Drugs or the Ministry of Health.**

## ACKNOWLEDGEMENTS

In the first instance, we must thank the Documentation Centre of the [Government Delegation for the National Plan on Drugs](#) for kindly responding to our requests for news on opioids. The reports provided were the starting point for us to ask questions and begin to analyse the phenomenon.

Thanks are also due to all the people interviewed. First of all, to all those who have collaborated from the other side of the Atlantic. **Elías Camhaji**, journalist for El País in Mexico, for sharing his experience of Mexico and the socio-political analysis at three levels: public health, supply control and organised crime. **Jaime Arredondo Sánchez Lira**, Canada Research, Chair on Substance Use and Health Systems at the University of Victoria in British Columbia, is a well of wisdom, as we say colloquially, for sharing his knowledge on the implementation of harm reduction strategies in politically complex contexts such as Mexico's northern border. **Valentín Islas**, academic professor of Chemistry, Facultad de Estudios Superiores Zaragoza, UNAM, the interview almost turned into a fentanyl chemistry class. He taught us the differences and the pros and cons of each of the three methods of fentanyl synthesis. **Fernando Montero Castrillo**, a postdoctoral researcher at Columbia University, his knowledge of fentanyl and xylazine highlighted the abysmal differences between the illegal drug markets in Philadelphia and Spain. **Sam Quinones**, journalist and author of the *best-selling book* Dreamland, kindly shared documentation on the new trends in fentanyl and other opioids in the United States.

In the Asia team, thanks are due to **Ernest Robelló**, director of the EU's CADAP7 programme (FIIAPP), for kindly sharing detailed information on such complex countries as Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, especially with regard to these countries' capacity to increase opium poppy cultivation. **Alexandre Nobajas Ganau**, expert on illicit crops (UNODC), a valuable interviewee because he provided first-hand information on the opium production situation in Afghanistan. **Benedikt Hofmann**, Deputy Regional Representative South-East Asia and the Pacific, UNODC, and **Reiner Pungs**, Programme Officer, Precursors Trafficking, Southeast Asia and the Pacific, UNODC, for providing valuable information on the global situation of fentanyl, nitazenes and precursors of both opium families.

At the European level, special thanks are due to **Teodora Groshkova**, Principal Scientific Analyst, drug supply indicators, EMCDDA, for helping us to focus on the answers to complex questions, especially regarding heroin stockpiles, seizures and variations in trafficking routes. **Anneli Uusküla**, University of Tartu Professor, Department of Family Medicine and Public Health, for detailing the fentanyl crisis in Estonia since 2002, the process of replacing fentanyls with nitazenes since 2019, and also for providing the main literature on synthetic opioids in the Baltic countries.

We owe the knowledge generated on the supply side to the **Centre for Intelligence against Terrorism and Organised Crime (CITCO)**, State Secretariat for Security, for providing us with valuable updated data. **Sotsinspector Albert Llana**, Cap de l'Àrea Central d'Anàlisi de la Criminalitat. Comissaria General d'Investigació Criminal. Mossos d'Esquadra for all information on drug-related criminal activity in Catalonia. **Sergeant Àngela Sánchez**, Central Unit of Forensic Chemistry. Mossos d'Esquadra for information on police chemistry and seizure analysis systems. **Alejandro García Pérez**, local police of Valencia, his point of view has allowed us to reflect on the hypothetical evidence of the presence of illicit fentanyl in the contexts of consumption.

We owe the results on the media impact of fentanyl to **Nieves Salinas**, head of health at El Periódico de España. **Santiago F. Reviejo**, journalist, drug policy specialist, Público newspaper. **Verónica Pavés**, science journalist, El Día newspaper. **Pol Pareja**, journalist, El Diario. **Víctor Méndez**, journalist specialising in drug supply control, Diario de Pontevedra and creator of Narcodiario.

On the treatment and demand reduction side, we would like to thank **Joan Colom i Farran**, Subdirector General d'Addiccions, VIH, ITS i Hepatitis Víriques, Departament de Salut, Generalitat de Catalunya, for offering us his wisdom at all times, for providing us with extremely high quality reflections, as well as for his continuous support. **Elena Adán and Laia Gasulla**, Subdirecció General d'Addiccions, VIH, ITS i Hepatitis Víriques, for the conversations on the fentanyl phenomenon, as well as for helping us to choose the best professionals to interview. **Òscar Parés Franquero**, for sharing his knowledge about crypto-markets and fine-tuning the point dedicated to "Abastecerse en la red oscura". **Aura Roig**, anthropologist, founder and director of Metzines, for providing us with contextualised knowledge of harm reduction in the dark web.

Raval neighbourhood (Barcelona) and women who survive violence. **Francina Fonseca**, psychiatrist. Head of the Addictions Programme of the Mental Health Institute of the Hospital del Mar and Department of Medicine and Life Sciences of the Universitat Pompeu Fabra, always available to collaborate with our studies, for providing a privileged vision on addiction care and harm reduction strategies, and especially for offering us on 22 February 2024 the complete and accurate data for the year 2023 of the resources she directs.

To the **ABD Group** team. **Ester Aranda**, Harm Reduction Directorate, Drugs and Health Area, for her detailed knowledge of demand, her privileged expert vision and for all the notes made to the chapter dedicated to demand. **Mi-reia Ventura**, Director of the Analysis Service of Energy Control; it is a pleasure to have the reflections of one of the world's leading experts on markets from the demand side. **Claudio Vidal**, State Director of the Energy Control programme; whenever we have a study in hand, we always end up calling Claudio because his 360° vision of the drug phenomenon turns the interviews into real master classes.

**Alicia Alonso Cardaño**, coordinator of the Opioid Group of the Spanish Pain Society and specialist in anaesthesiology at the University Hospital of León, for her important contribution on the clinical uses of fentanyl as a drug. **Ana Isabel Henche Ruiz**, medical expert in addictions at the Addictive Behaviour Unit of the University Hospital of Toledo, for inviting us to reflect on different aspects, especially on the presence of fentanyl as an adulterant of cocaine. **Fran-cisco Javier Mena de Mira**, president of the Coordinadora Alternativas del Campo de Gibraltar, for offering us a strategic vision in an area as sensitive as the Campo de Gibraltar. **Andreu Cueva Suller**, anaesthesiologist from the Vithas Group, for offering his knowledge of the anaesthetic uses of fentanyl.

And if the Documentation Centre comes first, we must especially thank Dr **Joan Ramon Villalbí**, Government Delegate for the National Plan on Drugs, because, beyond quickly finding a generous slot in his busy schedule, his reflections and shared knowledge have been of great value in assessing the phenomenon of synthetic opioids in Spain.





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## ACRONYMS AND

**AEMPS:** Spanish Agency for Medicines and Health Products.

**CADAP:** Central Asia Drug Action Programme.

**CDC:** Centers for Disease Control and Prevention.

**CND:** Commission on Narcotics Drugs.

**CIMA:** Centre for Medicines Information Online.

**CITCO:** Centre for Intelligence against Terrorism and Organised Crime.

**DEA:** Drug Enforcement Administration.

**DGPNSD:** Government Delegation for the National Plan on Drugs.

**EMA:** European Medicines Agency.

**EMCDDA:** European Monitoring Centre for Drugs and Drug Addiction.

**FDA:** Food and Drug Administration.

**FCSE:** State Security Forces and Corps.

**FundéuRAE:** Fundación del Español Urgente.

**IFAD:** International Fund for Agricultural Development.

**INCB:** International Narcotics Control Board.

**MED:** Morphine-equivalent dose. **NIDA:**

National Institute on Drug Abuse. **NPS:**

New Psychoactive Substances.

**OEDA:** Spanish Observatory on Drugs and Addictions.

**WHO:** World Health Organisation.

**GDP:** Gross Domestic Product.

**EU:** European Union.

**SEAT:** Spanish Early Warning System.

**AIDS:** Acquired Immune Deficiency Syndrome.

**SIGAR:** Special Inspector General for Afghanistan Reconstruction.

**UNODC:** United Nations Office on Drugs and Crime.

**HIV:** Human Immunodeficiency Virus.



## GLOSSAR

This glossary includes only the opioids, precursors, slang nomenclatures and rare non-opioids used in the report, as well as a few terms that require definition. In a study whose objectives are socially oriented, including all synthetic opioids, beyond being tedious, makes no sense. [The UNODC website](#) dedicated to NPS is available to those interested in the substances, their chemical composition and pharmacological effects. The site provides detailed information on synthetic opioids. They can also consult the [INCB document](#) that compiles the substances under control until July 2023.

Opioids containing links in the names are linked to the UNODC NPS database. Some links lead to websites that UNODC keeps under password protection for security and precautionary reasons. On [this link](#), any addiction professional can register. UNODC will authorise it in less than a day, at least in our case.

The aim of this glossary is to provide readers with a basic understanding without the need for external literature. Clearly, each of the substances and concepts presented here has a much broader definition. Occasionally, the definition we provide may be insufficient. Because of this, in some cases we include links to reference websites.

Before continuing, a conceptual clarification. When we refer to 'synthetic opioids', we mean the fentanyl family, the nitazenes, the other five [synthetic opioid](#) families and the orphan opioids. We alternate the term fentanyls (plural) or fentanyl family as synonyms.

In the text, the term nitazenes prevails over [opioid benzimidazoles](#). The passage in the text makes it clear whether we are talking about [pharmaceutical fentanyl](#) or [illicitly produced fentanyl](#). When semantics require it, we explicitly differentiate between the two to avoid misunderstandings. We should also specify, as you have already noted at this point, that this report incorporates links to both the original sources and the glossary definitions. This study addresses the socio-cultural phenomena associated with synthetic opioids. Despite the social focus, the nature of the object of study forces us to present dozens of chemicals. It is our wish that experts in chemistry and pharmacology

We apologise for any inaccuracies that may be contained in the definition of a particular substance. That said, let us look at the glossary.

**1-boc-4-AP.** Tert-Butyl 4-(phenylamino)-piperidine-1-carboxylate. It is an intermediate precursor of fentanyl as well as other fentanyl analogues. Subjected to physicalisation as of March 2022.

**3-methylfentanyl (3-MF).** Fentanyl analogue. One of the most potent synthetic opioids. Depending on the isomer, it is between four and sixty times more potent than fentanyl. Since the late 1990s, its presence has been common in the Baltic countries. In Estonia, it was present from the collapse of the Soviet Union until 2017. In Spain, the FCSE seized two grams of 3-MF in 2022 and five grams in 2019.

**4-AP.** N-Phenyl-4-piperidinamine. It is an illegal precursor of fentanyl and its analogues. Under control since March 2022.

**6-monoacetylmorphine (6-MAN).** It is one of the three metabolites of [heroin](#). For the purposes of our study we are interested in 6-MAN because it can also be detected in aged heroin. Over time, heroin degrades into 6-MAN.

**[α-Methylfentanyl](#).** Fentanyl analogue. Sometimes sold as [China White](#). Like fentanyl, it was discovered by Janssen.

**[Acryl fentanyl](#).** Fentanyl analogue. Slightly more potent. It is especially resistant to [naloxone](#) due to its acrylamide-like structure.

**Opium poppy (*Papaver somniferum*).** It is an annual herbaceous plant. It is native to the Mediterranean basin, although it is now endemic in different regions of the world. The 1961 Convention allows authorised cultivation for the pharmaceutical industry. Afghanistan has historically been the leading country for the cultivation of opium poppy for illicit purposes.

**[Alfentanil](#).** Analogue of fentanyl. It is five times less potent than fentanyl, short-lived and fast-acting. It is an opioid drug widely used as an anaesthetic in fast-track surgery.

**Alprazolam.** A potent benzodiazepine with anxiolytic effects. Widely used for the treatment of anxiety disorders. Marketed in the United States as Xanax® and as Tranquimazin® in Spain.

**Tar (tar or black gum).** It is a form of [diacetylmorphine](#) produced exclusively in Mexico. Due to the synthesis process, it remains in the heroin.

black impurities of opium. Despite the colour, it is a heroin of remarkable quality, appreciated by consumers. In the past decade, tar has been replaced by clandestinely produced fentanyl. Its production in Mexico has declined and it is now difficult to find in

North American markets. **Fentanyl analogues.** Fentanyl analogues are substances with a chemical structure similar to fentanyl. The analgesic capacity, duration, dosage and consequences differ between the different analogues and their isomers. They act

so-

The UNODC's Laboratory and Scientific Service Portal on NPS lists ninety-five fentanyl analogues as of 26 March 2024. The [UNODC Laboratory and Scientific Service Portal on NPS](#) lists 95 fentanyl analogues as of 26 March 2024. The most popular analogue is [carfentanyl](#).

**ANPP.** 4-anilino-N-phenethylpiperidine. Controlled as of March 2017. Not an opioid. No known use other than as a precursor for fentanyl. This situation facilitates international control.

**Benzimidazole.** It is a heterocyclic aromatic organic compound whose hundreds of derivatives are used, among other applications, in both the food and pharmaceutical industries. Its derivatives are grouped into eight major families, one of which is the opioid benzimidazoles, better known as nitazenes ([AEDs](#)).

**Benzodiazepines.** These are psychotropic drugs with sedative, hypnotic, anxiolytic, anti-epileptic, amnesic and muscle relaxant properties. They are divided into three families: short-, medium- and long-acting. The most popular in Spain are [diazepam](#) and [alprazolam](#). For more information on benzodiazepines, see [the EMCDDA fact sheet](#).

**Benzo-dope.** A mixture of [benzodiazepine](#) and [xylazine](#). Counterfeit Xanax® ([alprazolam](#)) tablets containing xylazine are sold in some areas of the United States. In Europe, xylazine in fake benzodiazepine tablets has been detected particularly intensively in the last six months in the Baltic countries and the UK.

**Beta-Hydroxy-3-methylfentanyl.** Opioid analgesic analgesic analogue of fentanyl. Used in medicine as an analgesic.

**Bromazolam.** It is a triazolobenzodiazepine that was never marketed. It appeared as an NPS in 2016, with similar effects to [alprazolam](#).

**Brorphine.** It is a piperidine of similar potency to fentanyl. Controlled since 2022. In the United States, traffickers have used it both as an adulterant to fentanyl and in fake benzodiazepine tablets.

**Buprenorphine.** An opioid derived from [thebaine](#). It is used as a substitute for opiates in the treatment of opioid withdrawal. In Spain, although present, it is less widely used than methadone.

**Butonitazene.** First detected in 2021. Nitazene under control since March 2024. Although research on nitazenes is still incipient, butonitazene is estimated to be ten to forty times more potent than fentanyl.

**Carfentanyl.** Because of its colossal analgesic potency, it is the best known analogue of fentanyl. It is twenty to a hundred times more potent than fentanyl. It is one of the most widely available fentanyl analogues in both the European and US illegal markets. Its analgesic capacity has made it an anaesthetic for large mammals .

**Synthetic cathinones.** It is a family of NPS with stimulant effects. Press reports referred to them as "bath salts". In 2007, they entered the European drug markets as substitutes for ecstasy. Since then, they have established themselves as recreational drugs, especially among certain groups.

**China White.** This is what drug users historically called [heroin hydrochloride](#) (white heroin). During the 1970s and 1980s, it came mainly from Southeast Asia. Because of its effects and properties, it was highly valued by users in the West. In the United States during the 1970s, it was replaced by Mexican heroin, especially [tar](#). In Europe, Afghan [diacetylmorphine](#) took over the monopoly. White heroin requires a further synthesis step, with the corresponding extra precursor, to synthesise. As a result, criminal gangs have all but abandoned its manufacture and marketing. In the past decade, Mexican cartels have used the *China White* concept to substitute fentanyl for heroin. Today, a powdered form, consisting of a tiny percentage of fentanyl or other synthetic opioids, adulterated with various substances, is sold in North America as *China White*. Occasionally, some journalists have used the term *China White* to refer to [α-Methylfentanyl](#).

**Cyclopropyl fentanyl.** Fentanyl analogue. In the second half of 2017, it appeared in Sweden as a heroin adulterant. It caused 59 deaths ([EMCDDA](#), 2018b: 12) .



**Clonazepam.** Benzodiazepine with anxiolytic and hypnotic effects. It is one of the most commonly used benzodiazepines by drug addicts. Rivotril® is the most common brand name in Spain .

**Codeine.** It was the second, after morphine, opium alkaloid isolated in 1832.

It is widely used as a cough suppressant and analgesic.

**Desomorphine.** Morphine analogue. It was popular in Russia at the turn of the century because it could be clandestinely synthesised from over-the-counter drugs containing [codeine](#). As a substance of abuse, it was dubbed *krokodril* in the media.

**Diazepam.** It is one of the most widely used benzodiazepines in Spain under the trade name Valium®. It is used for different purposes, most notably as an anxiolytic.

[Etazene.](#) Nitazene controlled from March 2023.

[Etonitazepine.](#) The only nitazene detected in Spain in 2022. Controlled since March 2023.

**Fentanyl family.** The family of synthetic opioids consisting of fentanyl and its 95 known analogues.

**Fentanyl (pharmaceutical fentanyl).** Fentanyl is an opioid drug widely used in anaesthesiology and clinical pain management. It was first synthesised by Paul Janssen in Belgium in 1960. It is an opioid- $\mu$ -receptor agonist analgesic. It is about fifty times more potent than heroin and a hundred times more potent than morphine. The lethal intravenous dose, in non-tolerant individuals, is two milligrams. On 25 March 2023, according to the AEMPS [CIMA](#) database, Spain had 153 authorised and marketed fentanyl drugs and 177 authorised but not marketed. Fentanyl drugs are synthesised under the strictest quality and safety controls set by both the AEMPS and the EMA. Like other opioid analgesics, the effects of fentanyl are: euphoria, lethargy, relaxation, vomiting, nausea, confusion, constipation, miosis, sedation, drowsiness, pain relief, breathing problems, loss of consciousness. For more information on fentanyl and its analogues, see [the EMCDDA](#) and [NIDA fact sheet](#).

**Illicitly produced fentanyl (IPF).** Illicitly produced fentanyl is the substance sold on illicit drug markets, especially in North America. It can be produced in China in high-tech illegal enterprises with results of almost 100 % purity. It can also be produced in clandestine and precarious laboratories. In such cases, the synthesis process is flawed and

is barely 50 % pure. In addition, cooks adulterate it at source with various psychoactive substances and traffickers do the same again before marketing it wholesale. The composition of the illicitly produced fentanyl that reaches consumers in North America is highly variable, containing between one and five per cent fentanyl. In recent years, most fentanyl doses in the United States have been adulterated with [xylazine](#). In powder or tablet form, M-30s are the most popular tablets, sometimes marketed as substitutes for drugs such as [oxycodone](#) or [alprazolam](#). For more information on IPF in the United States, see [the CDC fact sheet](#).

**[Furanilfentanyl](#)**.. Analogue of fentanyl. It has the effects of fentanyl, although it is five times less potent than fentanyl.

**Heroin** (diacetylmorphine). After a synthesis process, morphine is transformed into diacetylmorphine, diamorphine or brown heroin. It is the opiate par excellence in Europe in general and in Spain in particular. For more information on heroin, see [the EMCDDA fact sheet](#).

**White heroin** (heroin hydrochloride or heroin number 4). Through a chrySTALLISATION process, diacetylmorphine is converted into heroin hydrochloride. In Spain, although unusual, users can obtain white heroin from the usual outlets. For more information on the process of trans-formation of opium into white heroin, see the [EMCDDA's outreach video](#).

**Hydrocodone**. Opioid derived from [codeine](#) with potent analgesic effects. It was the second drug, after oxycodone, responsible for the opioid drug crisis in the United States.

**[Isotonitazene](#)**.. So far, it is the most common nitazene in both Europe and the United States, although in Spain we are not aware of its presence. It has been under control since 2021.

***Jarib***. A traditional unit of land measurement in the Middle East, Southeast Asia and other parts of Asia. Although there are differences between countries, in Afghanistan one *jarib* is two thousand square metres. Five *jaribs* is one hectare.

***Kompot* (Polish heroin)**. It is an injectable liquid preparation made by the users themselves from poppy straw. *Kompot* contains, in varying amounts, diacetylmorphine (heroin), 6-monoacetylmorphine (6- MAN), 3-monoacetylmorphine, morphine and small amounts of codeine. It was the only opiate available in the Soviet Union and the Iron Curtain countries.

With the collapse of the Soviet bloc and the opening of the Northern Route for heroin trafficking, *kompot* lost its popularity and is only consumed in some rural areas in Eastern countries, especially in Belarus.

**Methamphetamine.** A potent adrenergic agonist stimulant. In recent years, it has gained presence in Spanish illicit drug markets, especially in large cities. For more information on methamphetamine [see the EMCDDA website.](#)

**[Morphine-equivalent twelve](#)** (MED). Unit of measurement for the analgesic potency of opioids. Morphine is the reference opioid with a value of 1. It is used especially for comparisons between adulterated opioids.

**Methadone.** It is a synthetic opioid. In Spain it is the main substitute drug for the treatment of opiate addiction. The WHO includes it in the "[List of essential drugs](#)".

**Methylenedioxypyrovalerone** (MDPV). It is a stimulant substance of the cathinone family.

**Mephedrone.** It is the most popular and well-known [cathinone](#). It appeared on European markets in 2007. Since then, it has been used as a stimulant in recreational contexts.

**[Metonitazene](#).** Nitazene controlled from March 2022.

**Micron.** In marginal contexts, a unit of measurement for heroin, cocaine or [rebujito](#). It is usually worth ten euros, in the villages it can be worth five, and the weight varies, although it is around a tenth of a gram.

**Morphine.** It is the main opium alkaloid from which heroin is produced.

**Naloxone.** It is an opioid receptor antagonist. It is used to reverse opioid overdose. The dose of naloxone depends on the opioid, being higher in fentanyl and nitazenes. In Spain, naloxone has been authorised by the AEMPS since 1978.

**Narcan®.** The brand name of the first naloxone drug marketed under medical prescription in the United States. In 2023, the FDA authorised the nasal spray form for over-the-counter sale.

**[Nitazenes](#).** Benzimidazole opioids, also called nitazenes, are a class of synthetic opioids with a [benzimidazole](#) structure. They were first synthesised in the 1950s by CIBA Pharmaceuticals when they were looking for alternatives to morphine. Nitazenes are selective  $\mu$ -opioid receptor agonists. They can have a potency up to several hundred times greater than that of morphine.

morphine. Their potency makes them comparable to fentanyl, although they are structurally unrelated. They have never been used in clinical medicine because of their considerable risk of overdose. This makes, unlike fentanyls, the diversion of drugs to informal markets impossible. Nitazenes are currently used as adulterants for heroin, fentanyl and benzodiazepines. Occasional reports of clonitazene and etonitazene occurred in the United States between 1999 and 2004. Since 2019, according to the DEA, nitazenes have been detected in 4,300 samples of controlled drugs. In Europe, notifications of nitazenes started in 2019.

**Norfentanyl**. It is a precursor and metabolite of fentanyl with no psychoactive effects.

Audited as of April 2022.

**NPP**. N-phenethyl-4-piperidine. Precursor of fentanyl. Controlled as of April 2022.

**Opiates**. Opiates are the natural derivatives of opium. That is, opium poppy cultivation is required to obtain them. Opium, morphine, codeine, thebaine, papaverine and heroin are opiates.

**Opium**. Opium is the latex obtained from incisions made in the hard capsule of the opium poppy after the petals have fallen off. Fresh opium is the opium obtained immediately after harvesting, which progressively dries out and increases both the concentration of alkaloids and the price on the illegal market. The analgesic alkaloids in opium are morphine, codeine and thebaine. From opium, morphine is obtained in the first instance, followed by heroin.

**Opioids**. Opioids are natural, semi-synthetic and synthetic chemicals that are agonists of the endogenous opioid system. The term 'opioid' has sometimes been reserved for "opioid" to refer exclusively to synthetic opioids. In this report we reserve the term 'opioid' to refer exclusively to natural opioids and 'opioids' to include natural, semi-synthetic and synthetic opioids.

**Synthetic opioids**. Substances synthesised in laboratories without the need for poppy cultivation that affect the endogenous opioid system. There are currently more than 300 synthetic opioids. They are grouped into seven families plus some orphan opioids. These are: anilidopiperidines (fentanyl and its analogues), opioid ben- zimidazoles (nitazenes), phenylpiperidines, diphenylpropylamine derivatives, benzomorphan derivatives, oripavine derivatives, morphine derivatives. Among the orphan opioids, tramadol stands out.

**Oxycodone, hydrochloride.** A semi-synthetic opioid drug derived from [tebain](#) used extensively in clinical pain management.

**OxyContin®.** The most popular brand name for oxycodone hydrochloride. Co-marketed by Purdue Pharma in the United States. It has been identified as the crisis-inducing drug of choice for opioid drugs in North America. The original formulation allowed injection after dissolution of the tablets.

**[Para-fluorofentanyl.](#)** Analogue of fentanyl. It was one of the first to be detected in Europe.

**Percocet®.** A drug composed of oxycodone and paracetamol. It also played a notable role in the American opioid drug crisis, although the presence of paracetamol made it difficult to abuse and impossible to inject.

**Pregabalin.** Antiepileptic and analgesic psychopharmaceutical. The trade name in Spain is Lyrica®. Young drug addicts, especially those who spent their adolescence in a juvenile centre, have a strong preference for this drug as a drug of abuse.

**[Protonitazene.](#)** Nitazene controlled from 2023.

**Rebujito** (*speedball* or mixture). In the slang of drug users it is a mixture of heroin and cocaine. Most buy the mixture already prepared from dealers. The proportions vary, although non-psychoactive adulterants prevail. The standard price is ten euros per [micron](#).

**[Remifentanil.](#)** A fentanyl analogue commonly used in anaesthesiology.

**Sufentanil.** One of the most popular fentanyl analogues. Commonly used to induce anaesthesia.

**Thebaine.** Natural alkaloid of opium.

**Temazepam.** Benzodiazepine of medium duration, used for insomnia and as an anxiolytic.

**THC** (Tetrahydrocannabinol). It is the main psychoactive cannabinoid in cannabis.

**Tramadol.** Atypical (orphan) opioid analgesic. It is the [most prescribed](#) opioid drug [in Spain](#). It does not require a narcotic prescription, but does require an ordinary medical prescription.

**Tranq-dope.** Mixture of some fentanyl with [xylazine](#). The most common presentation in North America is fentanyl with xylazine and a variable proportion of other adulterants. In the last two years, tranq-dope presentations have appeared in which the opioid in the mixture is a nitazene.

**U-47700.** Fentanyl analogue o.

**Tusi.** It is a substance that is a product of the consumer society. Drug traffickers eager to innovate and introduce new drugs into the recreational drug markets began selling a mixture of psychoactive substances. It has sometimes been thought to be 2-CB, but it is a concoction of varying composition, mainly ketamine with MDMA and caffeine and, to a lesser extent, *speed* or cocaine.

**Vicodin®.** The main brand name for hydrocodone.

**Xylazine.** Xylazine is a potent sedative, myorelaxant and non-narcotic analgesic for animals. Ethnographer Fernando Montero demonstrated that xylazine has been used as a heroin adulterant in Puerto Rico since 2010. In the United States, fentanyl adulterations with xylazine began in the Kingston neighbourhood of Philadelphia. The sedative effect prolongs the effects of fentanyl, so addicts usually use less. However, in Montero's opinion, this adulteration devised by drug traffickers to increase their fentanyl stockpiles was a bad idea for their profits. Because the effects last longer, addicts consume less and the cheap liquid is slower to reach them. In terms of the market, pushers should withdraw xylazine as an adulterant, although this is difficult to do now because some addicts are also addicted to xylazine.

## SYNOPSIS. THE STUDIO IN FIFTEEN MINUTES

The purpose of this section is to provide an overview of the highlights of the report 'Fentanyl in Spain: evidence, perceptions and realities'. This summary contains almost five thousand words. As a person reads about 300 words per minute, we estimate the reading time to be about fifteen minutes. With this time, the reader will be able to obtain the key elements of the results and conclusions of the study.

This synopsis is divided into three parts. First, we present [fifteen questions](#) and answers. The aim is to offer a concrete response to the questions that have been raised about fentanyl in Spain. We also look at what we believe to be suggestive questions about opium production in Afghanistan and the emergence of other synthetic opioids, such as [nitazenes](#), in the international context. We continue with [fifteen interesting facts](#) to grasp the phenomenon and end the epitome with the executive summary.

### FIFTEEN QUICK ANSWERS TO COMPLEX QUESTIONS

#### Will fentanyl cause a public health crisis in Spain?

Of fentanyl, no. For two reasons. The first is because, as long as heroin is available, fentanyl will lack a market and demand. The complementary reason is that Asian traffickers prefer to sell increasingly scarce fentanyl precursors to Mexican cartels to supply the North American market. China's ban in May 2019 and the international community's continued efforts to control fentanyl, its analogues and precursors have led to a clear reversal of the fentanyl family in international illicit substance markets.

#### 2. Will fentanyl be bought and sold in Spain?

In Spain, fentanyl sales by individuals unconnected to organised crime can be detected in the short term. In view of the fentanyl press, small-scale traffickers may divert fentanyl drugs to a demand stimulated by the media spiral. In any case, the sale price would be more expensive.

than heroin and would be purchased by initiated users detached from marginalised contexts who want to experiment with the potent opioid. The most vulnerable users will not demand fentanyl, especially if it is more expensive than heroin.

### **3. Will heroin disappear from Spanish markets?**

No, at least not in the short or medium term. Afghanistan's low levels of opium production in 2023 are unlikely to be repeated in the 2024 harvest. The Taliban ban is complex to maintain, especially in regions where the regime is weak. Afghanistan is a multi-ethnic country economically dependent on opium poppy cultivation. Opium production accounts for up to 15 % of Afghan GDP. The Taliban's rise to power aggravated the terrible economic crisis. The 2023 harvest has resulted in a loss of some \$1.25 billion for Afghan farmers. The situation is so desperate that many farmers, albeit on small plots and in a very clandestine manner, have planted opium in the 2023-2024 season. Therefore, an increase in production is to be expected in this harvest. If opium processing remains at low levels, the humanitarian consequences will be dire, from famine to the migration of millions of people, to popular uprisings.

### **How long will heroin stocks last?**

In the event that opium production remains at the levels of the 2023 harvest or is reduced to almost zero, we estimate that stocks will reach at least October 2025 and at most June 2028. Spain will be one of the last, if not the last European country to run out of heroin, because it is the most expensive country on the continent to wholesale heroin. During 2023, Spain has shown no signs of heroin shortages; indeed, seizures have increased. According to CITCO data, in 2023 the FCSE seized 315 kilos of heroin, compared to 199 kilos in 2022. This represents an annual growth of 57.91 %.



### 5. Can any country fill Afghanistan's role as an opium producer?

In the short term, it is materially impossible for any territory to reach Afghanistan's pre-2023 production levels. Burma<sup>1</sup> has increased its production. For the time being it lacks the capacity to supply Europe, although in the medium term, Burma and the Golden Triangle may once again play an important role in international markets with their [heroin number 4](#). Opium production in Mexico, due to the substitution of heroin by fentanyl, is languishing towards disappearance. Mexican heroin is insufficient to supply North American markets, let alone countries on the other side of the Atlantic. Pakistan is the only region with some capacity to expand opium production, although it would take decades to reach Afghanistan's former levels.

### 6. How do we know that fentanyl and other illicitly produced synthetic opioids are not available in Spain?

Beyond the fact that reports have been anecdotal, there has been no increase in opioid overdoses in Spain. The overdose indicator (Mortality indicator, OEDA) will show the presence of synthetic opioids. So far, the number of overdoses is stable and none can be attributed to illicitly produced synthetic opioids. For example, in the assisted venipuncture room in La Mina (Barcelona), 99 overdoses occurred in 2022. In 2023 there were 100, none fatal. In other words, no evidence of new synthetic opioids among users.

### 7. Will criminal gangs adulterate heroin with fentanyl?

No, but more because of inability to dispose of fentanyl than willingness. Adulterations are inherent to illegal drugs. In periods of shortage, traffickers intensify adulteration. In the event that heroin becomes scarce, adulteration is intensified by traffickers.

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<sup>1</sup> Following the criteria of the Diccionario panhispánico de dudas (2005), "although the official name of this Asian country has adopted the vernacular form Myanmar, the use of the traditional toponym Burma is still the majority and preferable in Spanish".

quality will drop. If criminal organisations, as they did in the United States, want to adulterate heroin with a substance that increases analgesic potency, they are more likely to use nitazenes, xylazine or any other synthetic opioid than fentanyl. It is currently more feasible to buy nitazenes than fentanyl on international markets.

#### 8. Do nitazenes pose a threat?

Yes, at least more than fentanyl. The shortage of fentanyl in the light of China's ban has led to the emergence of nitazenes, some of which are still legal. In any heroin shortage scenario, nitazenes are more likely to appear than fentanyl. Despite this, as long as Spain is supplied with heroin, nitazenes will have little room for manoeuvre. But this is an uncertain scenario that requires further research.

#### 9. Will traffickers use marketing strategies such as China White's to introduce fentanyl?

Traffickers can implement marketing strategies with uncertain results. In any case, if they want to apply the [\*China White\*](#) tactic in Spain, they will fail. Spanish consumers are familiar with the effects of white heroin.

#### 10. Will benzo-dope appear in Spain?

Unlikely, although we cannot rule it out, especially since deaths involving xylazine have been reported in the UK. Despite this, the demand for benzodiazepines by vulnerable drug users is covered by the National Health System. In Spain, the illegal trade in benzodiazepines is in the hands of the users themselves. They sell them at such low prices, between half a euro and one euro, that it is hardly a business of interest to organised crime.

**Could Spain face a synthetic opioid crisis?**

Yes, without a doubt. Spain has a magnificent addiction treatment network, a committed, resilient and responsive third sector and highly qualified professionals, some of whom participate at the international level in leading scientific discussions. Spain has substitute programmes for the treatment of opioid addiction. Methadone programmes are the cornerstone and buprenorphine treatments are increasingly common. Twelve naloxone drugs are authorised by the AEMPS, including the nasal spray format. The FDA authorised the nasal spray form of naloxone in 2015, when overdose deaths since 1999 already exceeded 300,000. These and other reasons give us confidence in addressing any synthetic opioid challenge.

**12. What will happen if heroin starts to be adulterated with fentanyl?**

In the event that heroin is adulterated with fentanyl, overdoses would increase. The health emergency would trigger a rapid response to mitigate the most deleterious effects. In addition, users would modify their behaviour to avoid overdoses.

**13. How would Spanish demand react to the adulteration of heroin with synthetic opioids?**

In the United States, the substitution of heroin for fentanyl was progressive among people who exclusively demanded opioids. In Spain, poly-drug use is the dominant pattern among heroin users. For most of them, it would be feasible to do without heroin. It is therefore to be expected that demand will reject heroin adulterated with synthetic opioids and shift to other drugs. Polydrug users seek a 'balance' between stimulant and depressant substances. In the absence of heroin, they will use cocaine and methamphetamine as stimulant drugs and benzodiazepines and even alcohol as depressants. Despite their marginalised situation, addicted drug users retain the capacity for agency to survive in high-risk contexts. It should be recalled that the majority of heroin users

has been surviving addiction, illnesses of all kinds and marginalisation for some thirty years.

#### 14. Why has Spain experienced a media storm with the phenomenon when its consumption is non-existent?

Spain has suffered a media crisis with fentanyl because of audience fear and the business interests of media groups. The media logically began to report on the terrible public health crisis caused by fentanyl in North America. Fentanyl was a subject that aroused the curiosity of the Spanish audience. The images provoked fear and, at times, a certain morbid curiosity. Consequently, the stories about fentanyl "worked" because they obtained a large number of views, and by extension, advertising revenue. Because they worked, and because the subject matter has many edges, for example, the aberrant uses of fentanyl drugs, the media intensified the number of stories about fentanyl. The spiral grew to the point where it was claimed that illicit fentanyl was already being consumed in Spain. The cyber-bait media have made a huge profit from illicit fentanyl, despite its absence on Spanish streets.

#### 15. Should we step up efforts to control and monitor synthetic opioids?

Epidemiological surveillance and supply control mechanisms have proven adequate and effective. The threat of synthetic opioids may not materialise in the short term, although it may be opportune to have anticipatory response guidelines. In any case, **methamphetamine** is the substance that deserves the most attention because it represents a global threat, including for Spain.

## FIFTEEN KEY FACTS

1. Between 2017 and 2022, we estimate Afghanistan's opium production at **39,200** tonnes. This amount can produce between **2,825** and **4,473** tonnes of heroin.
2. Afghan farmers lost **\$1.25** billion<sup>2</sup> to stop growing opium in the 2023 harvest ([UNODC](#), 2023: 31).
3. In Afghanistan, in 2021, a working person earned an average annual income of **7,391** ([World Bank](#)). One hectare of opium poppy before 2023 would provide an annual income of about **ten thousand dollars**.
4. If the price of opium in Afghanistan reaches 1,000 dollars per kilo by 2024, one hectare of opium will yield **24,500 dollars**. A single hectare would yield more than three times the average annual salary of a working person in Afghanistan.
5. A minimum of **two years** elapses between the harvesting of opium and the arrival of heroin in Europe ([EMCDDA](#), 2024).
6. We estimate that heroin stocks from Afghanistan will be exhausted by **October 2025** at the earliest. It may be as high as **June 2028**.
7. In 2022, Spain reported [etonitazepine](#), the **only nitazene** detected in Spain, as listed in the UNODC database.
8. The lethal dose of fentanyl, in non-tolerant people, is **two milligrams**.
9. One kilogram of fentanyl can potentially kill **500,000 people**.
10. In 2021, **70,601 people** died of synthetic opioid overdoses in the United States ([NIDA](#)). In Spain, **17 people** died that year in the presence of pharmaceutical fentanyl.
11. Between 1999 and 2021, **645,000** people died from **opioid** overdose in the United States ([CDC](#)). In Spain, **1,046** people died in 2021 from acute reactions to the use of **any** psychoactive substance ([OEDA, 2023](#)).
12. In 2021, **174 people** with iatrogenic addiction were admitted to treatment for fentanyl in Spain ([OEDA](#), 2023: 35).
13. In Spain, we estimate that there are **50,000** severely addicted drug users in a situation of social exclusion.

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<sup>2</sup> Throughout the report the word dollars refers to US dollars.

14. Spain has not notified **any** opioids in the fentanyl family to the UNODC Early Warning Advisory since 2018. In 2018, SEAT notified **three** fentanyls to UNODC: butyrfentanyl, cyclopropylfentanyl and ocfentanyl.
15. In 2023, the Spanish press published **1,037 news items** with the term fentanyl in the headline.

## EXECUTIVE SUMMARY

The report "Fentanyl in Spain: evidence, perceptions and realities" is divided into seven chapters: the introduction, four chapters on results, conclusions and recommendations.

### INTRODUCTION

#### **Chapter 1. Fentanyl substitution for heroin. By way of introduction.**

In the introduction we present the starting point of the study, the basic methodological aspects and the objectives. For years now, the public health crisis caused by illicit fentanyl in North America has been causing concern in Spanish society in general, and addiction professionals in particular. From September 2022 onwards and, with particular intensity, during the summer of 2023, the media published countless news stories about the arrival of fentanyl in Spain. In some cases, the medical system for prescribing opioid drugs was called into question. In the introduction, we pointed out that this is inaccurate and unfair. Spain maintains strict controls on the dispensing of opioid drugs and diversions to illegal markets are, for the moment, anecdotal. With this background, we turn to how the media storm intensified the substitution hypothesis. This hypothesis argues that fentanyls, being easier to produce and more profitable than heroin, will replace the opiate in illicit drug markets. We discuss how the hypothesis is more complex and difficult to fulfil. We end the introduction with a brief presentation of the report's chapters.

### RESULTS

#### **Chapter 2. Afghanistan. The cornerstone of opioid supply in Spain.**

The chapter on Afghanistan is central to the survey's conclusions. On 5 November 2023, the UNODC published the report '[Afghanistan opium survey 2023](#)' in which it reported a 95 % reduction in opium production in Afghanistan. Such a statement reinforced the substitution hypothesis, because if European drug markets were to run out of heroin, fentanyl would inevitably take its place. In the chapter we present the precedent of 2001, when during the first Taliban regime, the fundamentalists banned poppy cultivation. This ban had no impact on European markets, let alone on the European markets.

Spanish. We continue with a section dedicated to the analysis of heroin stocks from the bumper harvests of the years 2017 to 2022. Currently, heroin stocks along the transit route between Asia and Europe are considerable. We estimate that heroin stocks could supply European markets at least until October 2025 and probably up to June 2028. Moreover, if heroin shortages are severe, the first markets to be underserved would be Asian and African markets. Spain would be one of the last to run out of heroin, because it is the European country that pays the most for heroin wholesale. In the second section we outline the processes that make it impossible for Afghanistan to continue without opium production. The factors that explain why the Taliban ban will fail are: the economic crisis, the humanitarian drama, the high price of opium, the multi-ethnic dimension, corruption, power sharing, internal Taliban rifts and the punitive regime for disobeying the ban. Overall, the Taliban regime is unable to maintain the ban throughout the country. The famine is terrible. Evidence has already emerged from different parts of Afghanistan that cultivation has increased, albeit in a hidden way, during the 2024 harvest. The current price of opium is very tempting for Afghan farmers in extreme poverty. At the end of February 2024, the price per kilo of opium was \$1,000. In this year's harvest, one hectare of opium will yield around 24,500 dollars, which is more than three times the average annual wage of a working person in Afghanistan. For the time being, Afghanistan is far from returning to the production levels of the 2022 harvest, although our hypothesis is that it will soon return to levels sufficient to supply European heroin markets.

In the third and last point, we analyse the capacity of other countries to increase the opium production in the light of the Afghan crisis. Afghanistan's current weakness is an opportunity for other countries. Soaring opium and heroin prices in Eurasia are a boon for impoverished economies. The countries under scrutiny are five countries bordering Afghanistan: Turkmenistan, Uzbekistan, Tajikistan, Iran and Pakistan. We also look at Burma and Mexico, plus a brief note on Laos. Of the eight countries, Pakistan and Burma are the most likely to grow opium poppy crops. Our hypothesis is that Afghanistan will not take long to regain its hegemonic position, although new players may emerge in the lucrative illegal drug markets. In any case, these dynamics will allow Europe to continue to be supplied with heroin.



### Chapter 3. The supply of synthetic opioids.

The chapter on supply is divided into three sections. In the first section, we present the supply of fentanyl in Europe from the first indications in the mid-1990s to the present day. We show the few reports of illicit fentanyl in Spain. The central element of this chapter is that fentanyls are on the decline and their place is being taken by nitazenes. We compile the data that demonstrate this change in trend. It should be noted that, globally, reports of fentanyls to the UNODC Early Warning Advisory show a marked downward trend. In 2022, there were 56, in 2023 there were only 16. In contrast, the first notification of nitazenes was in 2019 and in 2023 they reached 14. Detections of nitazenes in Europe have been a constant since June 2023, especially in the British Isles, the Netherlands, the Baltic Republics and some Eastern European countries. The emergence of nitazenes is a product of the international control process and China's ban on fentanyls and their precursors from May 2019. The shift of all production to illegal industries has meant that what little fentanyls and precursors China produces are used to supply US markets. The era of nitazenes could last for a long time, because their precursors are commonly used in licit economies. The drug scene, and more specifically the NPS scene, is changing and changing radically in a short period of time. As the international community intensifies the control of nitazenes, the illicit chemical industries, in search of synthetic opioids that are still legal, will put other families of synthetic opioids and even any other NPS on the market. In Spain, the space for nitazenes or any other synthetic opioid is minimal as long as its markets are supplied by Afghan heroin.

In the second section, we analyse the operations of organised heroin crime. We show how criminal gangs will find it impossible to shift their business to fentanyl or other synthetic opioids. They are more likely to show an interest in other illegal markets. The conversion of the heroin business to synthetic opioids is a pipe dream as long as they have heroin to traffic. We also look at why Mexican cartels have not introduced fentanyl into Europe as they do in North America. The reason is low demand and the complex European criminal ecosystem that makes it difficult for them to operate in opioid markets.

The third section is devoted to Estonia. The Baltic country has been living with fentanyl for thirty years. The public health problems were terrible. In 2017, the variety of fentanyl diversified. Since 2019, nitazenes have been increasingly present. Since then, [xylazine](#) has also been used as an adulterant. Data from the Baltic countries in general and Estonia in particular re- force the hypothesis of global substitution of fentanyl by nitazenes. The Estonian case, for our purposes, serves to show that fentanyl has been circulating in Europe for decades without having had an impact on Spanish markets. Moreover, the fentanyl abuse in the Baltic country can also be explained by the absence of a solid addiction care network. Estonia shows us that Spain is prepared to deal with a hypothetical arrival of fentanyl or other synthetic opioids.

#### **Chapter 4. The demand for fentanyl among consumers**

In this chapter we discuss how heroin users might behave in the face of the advent of synthetic opioids such as fentanyl. We also consider future scenarios and the difficulties involved in buying drugs on the dark web for the potential opioid seeker.

Central to rejecting any presence of synthetic opioids in Spanish illicit drug markets is the number of overdoses. The number of overdoses is the key indicator for claiming that Spanish streets are free of fentanyl and other synthetic opioids. Overdoses will become irrefutable evidence in case of a massive circulation of synthetic opioids. For the time being, the number of overdoses remains stable and, among those that do occur, we have no evidence that synthetic opioids are involved.

In the first section we analyse the characteristics of demand and its relationship with opioids. Spain has around sixty thousand regular heroin users, fifty thousand of whom live in a situation of extreme marginalisation. The profile of the majority is that of the elderly and poly-drug user. The characteristic of the poly-drug user is central to understanding that, if heroin adulteration with synthetic opioids occurs, people may use other drugs and reject heroin use. In addition, Spain has a strong addiction care network. Having the network in place is the best guarantor against any threat caused by drugs, be they synthetic opioids or any other drug.

another family of drugs. Most, if not all, people addicted to heroin remain in contact with the care network, either in a treatment centre or in a treatment centre,

either in a harm reduction resource. A very large proportion are involved in methadone maintenance programmes, or may use buprenorphine as a substitute. People who use drugs more intensively, in certain territorial areas, usually have naloxone available. All the resources and programmes offered by the excellent Spanish addiction care network are a strong protective factor against any eventuality or health emergency. The network is attentive to innovations in drug markets and to the emerging needs of users, especially in new or minority profiles.

In the second section we consider three scenarios of how fentanyl could reach Spain. **The first.** Consumers demand heroin, but traffickers sell them a substance with a higher or lower percentage of heroin, adulterated with a synthetic opioid, or they sell a substance without heroin and with synthetic opioids. **This scenario is remote** because heroin markets are disconnected from synthetic opioid markets. **The second.** Users buy stimulants (cocaine, ecstasy or methamphetamine) that are unknowingly adulterated with synthetic opioids. **Such a scenario is very unlikely**, because in informal markets, fentanyl is proportionally more valuable than cocaine. **The third. The most likely.** Consumers explicitly demand fentanyl and buy a substance whose composition is not known, although to a greater or lesser extent it contains some synthetic opioid. Fentanyl has been widely publicised in the media. They have also claimed that illicit fentanyl is already available in Spain. Some small-scale traffickers may think it is sensible to start selling fentanyl because they believe that consumers are demanding it. The supply routes for these small-scale traffickers are threefold: dark web, drug diversion and deception. We rule out, for the moment, organised crime supplying synthetic opiates to Spanish illicit drug markets.

We conclude the fourth chapter on the marginal role that the dark web will play. as a source of supply of synthetic opioids among existing opioid users. This is not because the dark web lacks a supply of synthetic opioids, but because it would be materially impossible for this profile to certify a buy-sell transaction. The requirements are too demanding for this profile.

## Chapter 5. Fentanyl in the eye of the media storm.

The last chapter of the results is devoted to the media storm with the phenta-nile at its centre. Such a media spiral started in September 2022, peaked in the summer of 2023 and, although softened, is still continuing in May 2024. The chapter is divided into two parts. First, we analyse the causes of the media storm. In the second part, we reflect on the consequences of so much fentanyl exposure.

We divided the causes of the media storm into two categories. The first was thematic, i.e. everything related to fentanyl was of interest. The second was structural, i.e. a product of the way the digital journalism business works. We found four main thematic causes. The first, and original cause, is the public health crisis caused by opioids in North America and all its derivatives. The second, the use of opioid drugs in Spain: prevalence, control systems, deviations, patients with iatrogenic addiction, etc. The third refers to news about fentanyl in a generic way, without geographical location, focussing on its effects, its analgesic potential and very specifically on the harm it causes. The fourth, the hypothetical arrival of fentanyl in Spain.

The structural causes of the media storm are a product of the functioning of digital journalism. Media outlets look for stories that "work" because they are well-received by the audience. News that "works" translates into tens of thousands of views, thus producing corresponding advertising impressions, i.e. generating revenue. We analyse how fentanyl has been an attractive topic for cyber-hookers in the maelstrom of digital journalism. We present how social media trends and Google Trends monitor the topics of interest to audiences and how media professionals use these tools to feed themselves with content to write new news stories. Fentanyl was the top trend in Google Trends between 30 July and 5 August 2023, resulting in unparalleled media activity. Media outlets sought to position themselves to gain a substantive number of hits. Some professional journalists have published unfortunate, at best, news stories. Most were unable to foresee the impact of the fentanyl media storm. But, even if not as an unintended consequence, the multitude of stories published on such a sensitive and shocking issue has altered social reality.

In the second part we present the analysis of the consequences of media impact. We identify five consequences of the information storm. **The first one** is very tangible. It refers to all the training and preventive strategies that have been put in place. Although there is no illicit fentanyl in Spain, the fear provoked by the hypothetical arrival of illicit fentanyl has catalysed somewhat exaggerated responses. **Second**, the media spiral has required professional attention, and not only in attending to the media, but so much news about fentanyl has occupied the frame of mind of different professionals, because the North American antecedents required it. But the attention was unjustified if we look at the indicators and the social reality. So much attention has led to the neglect of other relevant issues, for example, methamphetamine use. **The third**, making the whole Spanish population aware of the more sordid side of illicit fentanyl, has led to confusion with the drug. The advertising of fentanyl has led to uncertain consequences for patients and for society in general. **Fourth**, difficult to assess, but it is questionable to what extent medical professionals are now more resistant to prescribing opioid drugs or more insistent on withdrawing dosing regimens that might be justified. **Fifth**, and most important, are the seizures of fentanyl drugs diverted from licit channels. The media storm has made some people want to take this much-talked-about potent drug. Drug pushers have not hesitated to supply themselves with fentanyl from pharmaceutical diversions. The media storm has made the prophecy self-fulfilling, because it has stimulated demand among people who would never have known about the potent opioid without the news.

## CONCLUSIONS AND RECOMMENDATIONS

### Chapter 6. The persistence of heroin. By way of conclusion.

The conclusion of the study 'Fentanyl in Spain: evidence, perceptions and realities' is that Spain will not suffer a public health crisis from synthetic opioids, nor will the hypothesis of heroin substitution by fentanyl be fulfilled. There are four reasons for this. The **first reason** is that heroin produced from Afghan opium will continue to supply European markets because organised crime has stocks and Afghanistan has returned to opium cultivation for the 2023-2024 season. The **second reason** shows that fentanyls are in sharp decline on world markets. The hegemony is now held by nitazenes, most of which are still legal, and which are still in the market.

require precursors that are commonly used in licit economies. In Spain, in the hypothetical case that a clandestinely produced synthetic opioid does appear, it is more likely to be a nitazene than a fentanyl. **The third reason** is the low demand for opioids. Fentanyl has been talked about too much without posing a real threat. Methamphetamine is more likely to be an addiction trend-setter in the coming years. **The fourth reason** is that, should synthetic opioids become a reality, Spain's powerful addiction care network could provide effective, efficient, effective, efficient and quality responses to the demands of these new substances.

### **Chapter 7. Recommendations. Serenity and professionalism.**

We conclude the report with some brief recommendations regarding the aspects to be assessed in a hypothetical reception of synthetic opioids. The recommendations are divided into the following areas: training and awareness-raising, care network, harm reduction resources, monitoring and surveillance, research and dissemination. The importance of the availability of naloxone in the event of an increase in the use of fentanyl or other synthetic opioids should be emphasised.

At the end of the document, you will find the bibliographical references, as well as the annex with the methodological notes used in this report.

# 1. REPLACING HEROIN WITH FENTANYL. BY WAY OF INTRODUCTION

On 22 December 2023, as it has done every year since 2013, FundéuRAE [published](#), in alphabetical order, the twelve candidate words to become the word of the year 2023: amnesty, ecosilence, euribor, FANI, fediverse, **fentanyl**, war, humanitarian, macro-fire, polarisation, seismic and ultra-false. FundéuRAE justified the selection of fentanyl because "the crisis unleashed by this drug in various countries, especially the United States, has multiplied the appearance of the word *fentanyl* [sic] in the news". The word of the year was finally polarisation, although the selection of fentanyl is indicative of the impact, at least in media terms, of this potent opioid in Spanish society.

Fentanyl is an opioid drug with extraordinary anaesthetic and analgesic properties. It is not insignificant that the WHO includes it in the "[List of Essential Medicines](#)". [Fentanyl](#) 0.05 mg/ml solution for injection has been available in the Spanish pharmacopoeia since 1 November 1965, almost sixty years at the service of Spanish medicine. Fentanyl as a drug is indispensable in medicine, particularly in anaesthesiology and pain clinic. The problem, and hence the need for this study, is when [illicitly produced fentanyl](#) is used as a drug of abuse. So far, we have no evidence of its presence in the Spanish illicit drug markets. Another minor but worrying issue is the diversion of pharmaceutical fentanyl to informal markets.

Despite the absence of illicit fentanyl in the psychoactive panoply of Spanish addicts, we addiction professionals live with unease the disastrous events in North America. We are deeply concerned about any negative data, any news of young people who have lost their minds, or any new scientific publication that reveals the misdeeds of illicit fentanyl. It makes us uneasy, because at the heart of it all is the question: to what extent will illicit fentanyl reach Spain? And if it does, what will be the extent of the damage to the social fabric?

One of the arguments for a hypothetical fentanyl crisis in Spain has been the increase in the prescription of opioid drugs. If the backdrop for the media activity has been the opioid crisis in the United States, some authorities, either out of ignorance or interest, have conceptualised the misuse of opioid drugs as the catalyst for an impending public health crisis. This

This idea represents a total disregard for the National Health System, and almost a lack of respect for health professionals in general and medical professionals in particular. At the same time, a large number of news reports implied that [illicitly produced fentanyl](#) is the same substance as [fentanyl](#) drugs. Both have fentanyl molecules, but for all practical purposes they are two incomparable substances. It is true that in the last ten years [there has been an increase in](#) the prescription of opioid drugs, especially fentanyl. This reality is not inherently problematic. The explanatory factors can be summarised in two. The first is a higher survival rate of cancer patients. The second is a more comprehensive and more people-oriented approach to pain management. Two factors that are direct indicators that cancer patients gain, on the one hand, cancer survival rates and, on the other hand, people suffering from chronic pain want a better quality of life. The use of opioid drugs is fully controlled by different formal and informal mechanisms, as we explained in detail in [Opioids in Spain five years ago](#) ([Martínez-Oró, 2019: 99-105](#)).

Since then, Spain has redoubled its efforts to avoid the unnecessary prescription of opioid drugs. One example is the ["Plan to optimise the use of opioid analgesics in chronic non-oncological pain in the National Health System"](#), or the health visa for prescribing drugs with [immediate-release fentanyl](#). In addition, awareness-raising strategies aimed at professionals have been implemented to ensure the fair and necessary prescription of opioid drugs. All these control mechanisms are in addition to drug prescribing, epidemiological surveillance and perennial medical ethics. The aim of the control systems is to continue to work to correct the inevitable inaccuracies in opioid prescribing. In Spain, the aberrant use of opioid drugs is proportionally very low. The health community is working to reduce them to zero. Those patients who have developed an addiction through the use of opioid drugs have received unprecedented media attention. There is no doubt that iatrogenic addictions must be addressed. In short, opioid drugs can never cause a new opioid crisis because the control mechanisms make it unfeasible. Having made these brief but clear arguments, throughout the report there will be some discussion of the role that pharmaceutical fentanyl may play in illegal markets, but in any case its role will always be marginal and tangential.

[Episteme Social's](#) interest in carrying out the present study stems from the desire to understand why the media published so many news stories about



fentanyl when illicit fentanyl use was low, if not non-existent. We could sense the causes, but we were concerned about what the consequences might be. On the one hand, it was clear that fentanyl is a potent opioid that, in the United States since 2017, has induced two hundred and fifty thousand deaths. But on the other hand, all evidence pointed to its non-existence in Spanish illicit drug markets. From September 2022 onwards, the Spanish press intensified its interest in fentanyl. The media peak came in the summer of 2023. Every piece of news coming from the United States intensified the disquiet. Each piece of news provoked greater interest among the Spanish audience. Each news item projected the idea that fentanyl would fill Spanish streets with pain. Each news item generated more fear. Fear is the emotion that allows us to understand why we have been so concerned about a substance far removed from the Spanish reality. Fear evoked the thought that fentanyl czars could once again mow down another generation of young people.

Given the threat posed by fentanyl and the global activity of organised crime, it was difficult to maintain a reassuring discourse. We lacked a strong case that Spain would avoid a synthetic opioid crisis. We knew that a replication of the US crisis was implausible. We knew because we learned too much from the terrible heroin crisis of the 1980s. We knew it because we have an excellent addiction treatment network. We knew it because we have epidemiological surveillance systems. We knew it because we have substitutes such as methadone and buprenorphine, as well as naloxone as an antidote. But we also understood that fentanyl is a threat to public health, to social cohesion, and also to public safety. We had many doubts about the extent to which fentanyl could replace heroin in Spanish illicit drug markets. Now, as this report has shown, we have the evidence and the arguments to maintain an encouraging discourse.

Substitutions of one substance for another are recurrent in the field of addictions. The drug phenomenon is dynamic and changing. The replacement of one substance by another, either temporarily or permanently, has been a constant in the recent history of drugs of abuse. Thus, a replacement of heroin by fentanyl would be entirely consistent with the history of drugs. Replacements are the product of various factors. For example, the replacement of [opium](#) by [heroin](#) in the [early 20th century](#) was due to the greater analgesic potency of the opiate discovered by Bayer Laboratories. After the fall of the Iron Curtain, [kompot](#) .....

was replaced by heroin as mafias opened up the Northern Route and availability increased. In Russia, heroin, due to its high price, was substituted by [desomorphine](#) (*krokodil*) from 2008 onwards. We find other substitutions in different types of drugs, for example, in 2007, in the face of a shortage of MDMA, [mephedrone](#) and other [cathinones](#) met the demand of European dance floors ([Martínez-Oró](#), 2015: 140), or in countries with difficulties in sourcing natural cannabis, synthetic cannabinoids found a gap in their markets (Whesthoff, 2021: 114-125). Substitutions tend to amplify the harms of the drug in question. In the North American opioid crisis we observed three major substitutions ([Reuter, Pardo and Taylor](#), 2021). The first was, from 2010 onwards, the substitution of opioid drugs for heroin, especially since the restrictions on [Oxycontin®](#). The second, accentuated from 2015 onwards, was the replacement of heroin by fentanyl. The third, which began in 2019, was the gradual replacement of fentanyl with [nitazenes](#) and adulteration with [xylazine](#).

In the European context, the substitution of heroin by fentanyl has been predicted since the beginning of the century, when health and law enforcement authorities in some countries detected the first cases of use. In the United States, it began to become a reality in 2013 ([Pardo, Taylor, Caulkins, Kilmer, Reuter and Stein](#), 2019: xviii). In Spain, the substitution hypothesis gained momentum after the 2023 media storm. At present, concerns are well known about the extent to which illicit fentanyl will cause problems because it could more or less quickly replace heroin as the opioid of choice among Spanish addicts. This view was recurrently shared by those interviewed.

The arguments for maintaining the hypothesis of heroin substitution by fentanyl are based on two ideas. First, from the logic of demand, as fentanyl is fifty times more potent than heroin, users will uncritically embrace the synthetic opioid in the face of such analgesic potency. This fallacy will be questioned in the [section on demand](#). Second, from the logic of supply, drug traffickers will start trafficking fentanyl because it is so cheap and feasible to produce. We will see in the section on [criminal gangs](#) that this will not be so convenient for them either.

We tend to think that it is cheaper and more feasible to synthesise fentanyl than to get heroin to Europe. This is true in Mexico, but not at all in Europe. In Europe, it is complex for the mafias to produce fentanyl. They have to buy precursors

The drug traffickers have to be under control, have the appropriate facilities and have qualified human resources. Once these three requirements are met, they can obtain ready-to-use fentanyl in a matter of hours. And by locating laboratories in consumer countries, they will save the costs and risks of transport. Having all three requirements is not within the reach of all organised crime interested in fentanyl production. Heroin production, on the other hand, is much more complex. First, opium poppies must be cultivated, which requires water resources, favourable weather, thousands of hectares of fertile soil, labour, fertilisers, bribes and other expenses. The opium harvesting process is slow, tedious and costly. When farmers sell opium to organised crime, organised crime also needs precursors, facilities and expertise. But the precursors needed to make [heroin](#) are very common and freely available. The synthesis process is also much easier and does not require any complex laboratory equipment; household tools are more than sufficient. Once the heroin is available, the more complex process begins: transporting the heroin from Asia to Europe.

In relation to the economic issue, in Afghanistan, before the production crisis, a kilo of heroin cost around a thousand dollars to produce ([Mansfield](#), 2018a). In Spain, a kilo of wholesale heroin costs twenty-six thousand euros; after the corresponding adulterations, it yields between one hundred and eighty thousand and four hundred thousand euros. Fentanyl, on the other hand, cost the Sinaloa cartel eight hundred dollars to produce a kilo of fentanyl in 2022. A kilo of adulterated fentanyl on the streets of the United States earned them almost \$1.5 million ([Botts, Hartman and Tai](#), 2023). The economic argument is suggestive and validates the logic of the substitution hypothesis. It is correct to say that it is cheaper to produce phen- tanil than heroin, but it is rather inaccurate to say that it is easier.

Before November 2023, it seemed that fentanyl was about to arrive in Spain, and some voices even considered that it was already running through our neighbourhoods. Despite a notably protective social and health reality, unease grew when, on 5 November 2023, the UNODC published the "[Afghanistan opium survey 2023](#)". Since 2002, the UNODC has been estimating, among other indicators, the annual Afghan opium harvest. The report announced that Afghanistan had reduced opium production by 95 % by 2023. This reinforced the [substitution hypothesis](#). The potent [phen- tanil would replace heroin](#) on European markets. [A hypothesis](#) we thought [feasible](#) at the time. The arrival of fentanyl or other synthetic opioids seemed to be [a matter of time](#). It was tautological. If Afghanistan abandons the production of

heroin, organised crime will not give up its business and will use fentanyl to supply European markets. If it seemed clear that fentanyl, because of its commercial benefits, would come to Spain, now that Afghan heroin was no longer available, it became a necessity for criminals to traffic synthetic opioids. The profitability of fentanyl made it the ideal candidate to fill the gap left by Afghan heroin. Or rather than cost-effectiveness, which was also the case, as the mind frame was occupied by the fentanyl story, this opioid alone, out of the hundreds that exist, was the only candidate we could think of to replace heroin. It is now clear to us that the media storm about fentanyl narrowed our frame of thinking.

Concern about the potential impact of fentanyl on Spanish society prompted us to apply to the [Government Delegation for the National Plan on Drugs \(DGPNSD\)](#) for funding to carry out this study. The opinions expressed in this document are not necessarily those of the Government Delegation for the National Plan on Drugs or the Ministry of Health.

It was against this backdrop that we began the research "Fentanyl in Spain: evidence, perceptions and realities". The results of this study are the product of an extensive [bibliographical review](#), twenty-five individual interviews, the documentary analysis of 1,623 press reports and a continuous triangulation of data and discourses. The objectives of this study are twofold:

- To generate knowledge based on empirical evidence about the reality of the fenta- nil in Spain. Through a comprehensive analysis, we will verify the impacts of the illegal trafficking market and the international control policy of these substances and other opioids on consumption patterns in Spain.
- To clarify to what extent the opioid drug crisis that certain social sectors are venturing to predict is justified or, on the contrary, whether Spain is likely to suffer an opioid drug crisis.

We began our work with objectives and research questions focused on illicitly produced fentanyl. This report provides answers to the [troubling questions](#) and offers evidence on futuristic scenarios. Throughout the report, we will argue why Spain will not experience a fentanyl epidemic, or even a synthetic opioid epidemic, at least not in the short to medium term. Even less so, as long as heroin is circulating in the drug markets. A fentanyl crisis is impossible - it is on its way to extinction due to its prohibition in China, as well as a product of the international control work articulated by the CND, INCB, UNDOC and WHO.

What little fentanyl is produced is destined to meet the high demand in North America. Fentanyl's hegemony is in its death throes. In any case, of the [seven families](#) of synthetic opioids, [nitazenes](#) are more likely to cause more problems than fentanyl in Spain today. Another aspect is the consumption of opioid drugs diverted to informal markets, but due to strict controls, the diversions will always be trickles, never torrents like those in the US. This does not prevent them from causing us problems and even some fatal overdoses. In 2024, nitazenes are the main threat internationally. And, without ruling out that, perhaps in a short period of time, another family of synthetic opioids, or other NPS, may replace nitazenes. It all depends on the dynamics between the International Control System and the ability of criminal organisations to circumvent it. After the investigative work, and at the time of submitting this report in May 2024, we have found the answers in nitazenes. We were concerned about illicitly produced fentanyl when it now represents a secondary threat.

We articulate the findings of this report on the basis of [supply](#) and [demand](#). The phenomenon of synthetic opioids, like NPS, is a worldwide phenomenon, with global flows and trends. The results focus on Spain, both in terms of analysing the extent to which the substitution hypothesis will be fulfilled and in elucidating future scenarios. To understand synthetic opioids is to understand the associated global flows. This has invited us to analyse the role of different countries in understanding the supply of opioids, especially heroin, arriving in Spain. To get a glimpse of the impact of opioids in Spain has invited us to understand the production of opiates in [Afghanistan](#), as well as different socio-economic aspects of the country. The aim is to understand the extent to which European markets will be undersupplied with heroin. Our estimates suggest that [heroin stocks](#) will last at least another two years. And Afghanistan, if not in 2024, then in 2025, will [again produce significant quantities of opium](#). It may never return to pre-2023 crop levels, but our conclusion is that it will be sufficient to supply Europe. If we stop receiving heroin from Afghanistan, there will be the consequences of a major humanitarian crisis. With the Taliban at the helm of the Afghan state, either they grow opium poppies or the consequences for the population will be horrific.

The results also lead us to analyse the [capacity to produce opium by part of three Central Asian countries](#) (Turkmenistan, Uzbekistan and Tajikistan), Pakistan, Iran, Mexico and Burma. Can any country take advantage of the gap left by Afghanistan?

in international heroin markets? Of all the countries analysed, Pakistan is the country with the greatest capacity to increase its opium production and supply European markets. Burma is now the world's largest producer, but to the detriment of Afghanistan. Although it has increased its production, it has shortfalls in terms of supplying Europe with guarantees, although we must keep an eye on how it evolves. We have also analysed China's ability to continue supplying the criminal community with synthetic opioid precursors, as well as the potential for India and Pakistan to replace the Asian giant as the world leader in criminal chemistry.

Understanding the dynamics between supply and demand has invited us to understand the role of [criminal gangs](#) in Europe, Mexico, Turkey and Albania. Events and trends in North America have served as a compass in formulating hypotheses. And, of course, an understanding of [the supply of fentanyl](#)s and other synthetic opioids in our European neighbours allows us to assess the impact of synthetic opioid trends in Spain. We pay special attention to [nitazenes](#) because they are currently replacing fentanyl. We devote a special point to [Estonia](#) because it has been living with fentanyl for 25 years. Yes, within the European Union, in a Baltic state of almost one and a half million people, dozens of people have been dying every year since 2002 from fentanyl abuse. [The analysis of the demand for synthetic opioids](#) focuses exclusively on Spain. The last chapter of the findings is devoted to conceptualising the [media storm](#) over fentanyl. We conclude the report with [conclusions](#) and [recommendations](#). Those interested in the [methodology](#) will find it in the appendix.

Without further ado, we now present the results of this study. We would like to that the findings, conclusions and recommendations will be useful both for reducing fentanyl-associated distress and for a deeper understanding of the phenomenon.

## 2. AFGHANISTAN. THE CORNERSTONE OF THE SUPPLY OF OPIOIDS IN SPAIN

This chapter analyses Afghanistan's opium stocks, the possibility that it may return to opium production in the short term and the role that other countries could play in global opium and, by extension, heroin production. This section is central to the conclusions of the study and the cornerstone for understanding future synthetic opioid trends in Spain.

Afghanistan has been the world's largest opium producer since the late 1980s. In 2022, its production accounted for 80 % of global production ([UNODC, 2022c: 8](#)). Almost 100 per cent of the heroin circulating in Europe is made from Afghan opium. This reality was altered on 22 April 2022, when the *de facto* government of Afghanistan, in the hands of Taliban fundamentalists, announced the prohibition of opium poppy cultivation. During the years of the International Coalition (2002-2021) opium poppy cultivation was banned, but now the Taliban controlled it according to their interpretation of *Shari'a*. The ban included a two-month grace period. The ban included a two-month grace period for harvesting the 2022 crop. In warmer and lower areas it starts in April. In the higher and cooler areas it ends at the end of summer. Autumn sowing was totally prohibited.

From the logic of drug policy, prohibition raised expectations that the impossibility of producing opium could result in the disappearance of heroin from European markets. Consequently, as the substitution hypothesis suggested, Afghan heroin could be replaced by fentanyl. During the summer of 2023, experts in Afghanistan contrasted that the ban was indeed effective. Some voices quantified the decline between 85 % ([Mansfield, 2023a](#)) and 90 % ([Nemat, 2023](#)), although both authors also predicted that, despite the decline, sooner or later the ban would fail. On 5 November 2023, the Afghanistan office of the UNODC published the annual report '[Afghanistan opium survey 2023](#)'. The report certified a 95 % decrease in the areas under opium poppy cultivation in the 2022-2023 harvest. [UNODC \(2023: 11\)](#) gave credence to the substitution hypothesis (emphasis added):

A sustained reduction in opium production in the country may lead to a series of consequences: a displacement of opium production to other countries, overall decreases in opiate use, a reduction in purity or **replacement of heroin or opium**

**by other substances in retail markets, some of which may be even more harmful (such as fentanyl or other synthetic opioids).** Distributors in retail markets may adapt to shortages by substituting other synthetic opioids, which are cheap, potent and can be readily accessible online. The experience in North America with fentanyl overtaking heroin in major drug markets is illustrative of how a cheaper and readily available synthetic opioid can easily displace heroin.

The words of such an influential institution as the UNODC created considerable confusion. Although the UN agency only stated that substitution was feasible, not that it was a reality, the media interpretation implied that the public health consequences could also be similar to those in North America. The media interpretation implied that the public health consequences could also be similar to those in North America. Imagining the streets of big cities full of zombies in the image of some neighbourhoods in the United States whipped up fear among the Spanish public. Thus, albeit unintentionally, the UNODC reinforced the substitution hypothesis. UNODC has data on opium production in Afghanistan since 1994. Never in the historical series have there been two consecutive harvests with a production of less than two thousand tons (UNODC, 2020: 7). However, there is an interesting historical precedent to analyse in order to predict the extent to which the substitution hypothesis will become a reality. In 2000, during the first Taliban regime, the fundamentalists banned opium poppy cultivation. The 2001 harvest was even lower than in 2023 with 185 tons of opium. Despite such a low harvest, heroin flows continued to European markets (Paoli, Greenfield and Reuter, 2009). Jelsma (2005) analyses the impact of the 2001 ban. The most striking finding for Europe is the decline in the purity of heroin sold in the UK, from 55% in the first quarter of 2001 to 34% in the second quarter of 2002. Caulkins, Tallaksen, Taylor, Kilmer and Reuter (2024) analyse epidemiological indicators in the Baltic and Nordic countries. They state that heroin markets, which are supplied via the Northern Route, were affected by the Taliban ban, with the exception of Denmark which is supplied via the Balkan Route. Broadly speaking, in Estonia, from 2002 onwards, heroin was replaced by fentanyl. In Sweden, treatment demand increased. In Finland, the illicit use of buprenorphine increased. In Latvia and Lithuania, the number of opiate-associated overdoses declined, with no other opioid replacing heroin. In Norway, fatal overdoses decreased due to the implementation of methadone maintenance programmes. Although the authors note changes, they argue that it is reckless to attribute these changes to



exclusively to the Taliban ban. The authors' findings show that, beyond the shortage of Afghan heroin, a multitude of factors affected the Nordic and Baltic markets.

The articles by Jelsma (2005) and Caulkins *et al.* (2024) do not present any data or mention Spain. Nor does the Spanish literature on heroin or opioids refer to any turbulence in Spanish illicit drug markets resulting from the 2001 Afghan heroin shortage. For example, neither the clinical guide on opiates by [Fernández and Pereiro](#) (2007) nor the "[Heroin](#)" guide of the Clinical Commission of the Government Delegation for the National Plan on Drugs (2009) mentions any derived consequences. In short, the only historical record of a bad opium harvest shows that, apart from some interference in the countries supplied by the Northern Route, the supply of heroin to Europe continued. The only notable consequence was that quality declined, as was also the case in the 2011 and 2012 harvests, when a rare disease affected opium poppy crops ([UNODC](#), 2013). All in all, an extremely low crop year has so far been insufficient to wipe out heroin in Europe. If it was when the opiate was most in demand, now that the number of users is significantly lower and the harvest in 2023 has been significantly better than in 2001, it will take considerably longer for European markets to be effectively depleted.

### STOCKS OF HEROIN AVAILABLE ON THE MARKETS

The fact that Afghanistan is no longer producing opium does not necessarily have immediate consequences for European markets. At this stage, no one can assess the stocks of opium and heroin both in Afghanistan and in transit to Europe. The good harvests of previous years suggest that stocks are non-existent. [UNODC](#) (2023: 9) points out that "the increase in opium seizures into 2023 suggests that inventories from prior harvests are clearing. Presently, total opium inventory is unknown but could be substantial after six straight highly productive years'. In 2023, opium production was only 333 tons. This quantity can produce between 24 and 38 tons of heroin with a purity of between fifty and 70 % (UNODC, 2023: 3). Based on UNODC data, we estimate opium production from the 2017 to 2022 harvests at 39,200 tonnes. This amount can produce between 2,825 and 4,473 tonnes of heroin. This is between 2,800,000 and 4,400,000 kilos of heroin. Such overproduction explains the drop in the European retail price of heroin.

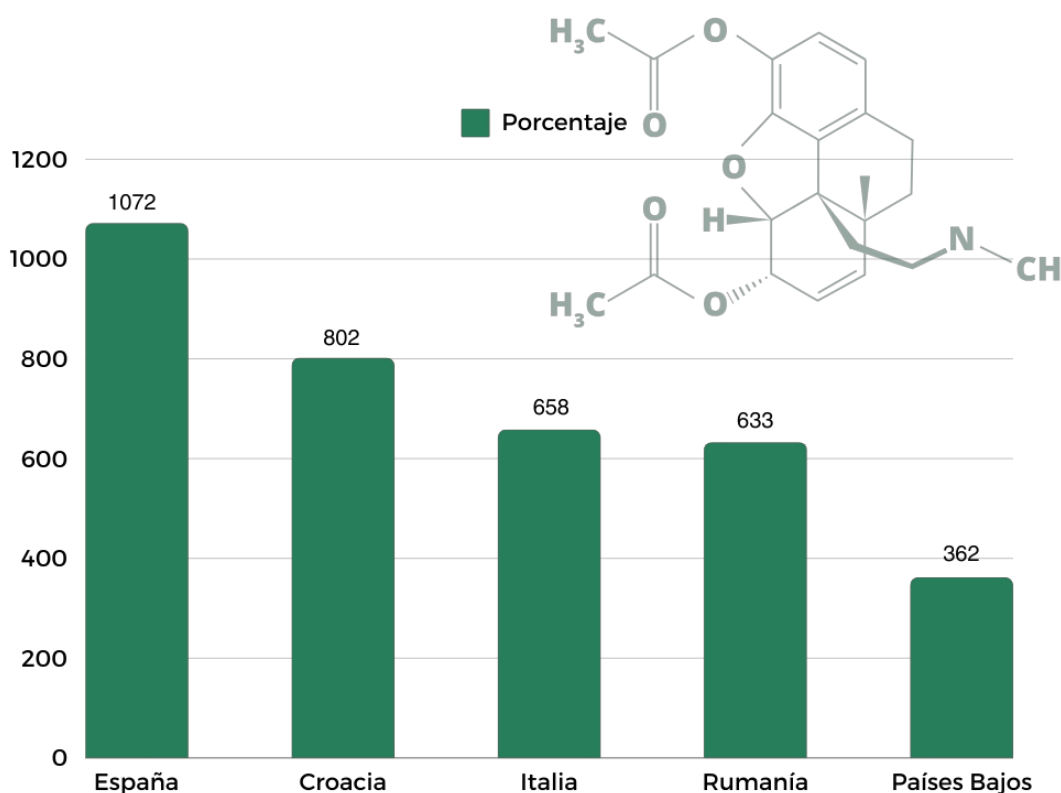
higher than a kilo of heroin. [EMCDDA](#) (2024) data from eight EU countries show that in 2017 the kilo was worth 29,212 euros, while in 2021 it dropped to 24,099 euros, a decrease of more than five thousand euros in a matter of four years.

The [EMCDDA](#) (2024) also certifies that the average purity of heroin retailed increased by 38 %, while the price decreased by 16 %. It is clear that, with such production in previous years, stocks of opium and heroin are significant. Another interesting aspect in assessing the amount of stocks available is that opium remains unchanged in its characteristics for a minimum of ten years ([Dittbrenner, Mock, Börner and Lohwasser](#), 2008). Therefore, in May 2024, organised crime could synthesise heroin with opium from the 2014 harvest without affecting its quality. Alexandre Nobajas, coordinator of the UNODC report on opium production in Afghanistan, in the interview conducted on 14 February 2024, states that it is clear that opium stocks in Afghanistan are considerable, although the exact quantity is completely unknown.

Seizures are a proxy indicator of available stocks. Heroin seizures in Afghanistan and neighbouring countries showed a downward trend, while opium seizures were upward ([UNODC](#), 2023: 38). The volume of seizures shows that the stockpiles accumulated over the previous years continue to circulate. UNODC told us that the most recent data suggest that the volume of seizures is similar to previous months. The UNODC also warned us that the Afghan media reports that opium supplies could supply the heroin market for several years.

The EMCDDA (2024) estimates the time between the opium harvest and the arrival of heroin on European markets to be at least two years. In May 2024, Europe consumes heroin derived from the 2022 harvest and even from previous years. It is important to note that even if the next harvests were as pyrrhic as that of 2023, Europe would have Afghan heroin for a minimum of two years and could have it for up to four years. If the scenario remains stable, we estimate that heroin will run out between October 2025 and June 2028. Spain, for the time being, is one of the most interesting selling points. Wholesale prices are the highest on the continent (see [Figure 1](#)). Traffickers, faced with a shortage of heroin, will stop serving the Asian and African markets to smuggle it to Europe in general and Spain in particular. This is a clear factor

protection for Spain. Drug traffickers, however little they can, will preferentially supply the country that pays best for heroin.



Comparison of heroin profit margins in different wholesale markets in Europe. Values expressed as a percentage of the price at source. The EMCDDA takes Pakistan as a reference because data are available for this country, whereas we have no information on Afghanistan. Own elaboration based on [EMCDDA](#) data.

According to Ester Aranda, the quality of heroin, at least in Barcelona, has been quite moderate for years and in no case can it be attributed to the Taliban ban. Mireia Ventura, director of Energy Control's analysis service, tells us that, on several occasions, they have detected [6-monoacetylmorphine](#) (6-MAN) in heroin samples. 6-MAN, while retaining psychoactive properties, is indicative of the degradation of [diacetylmorphine](#). Such presence is evidence that criminal groups, when circumstances force them to do so, can sell aged heroin. At the moment, in Spain, not only is there no sign of a heroin shortage, but, as reported by CITCO, in 2023 the FCSE seized 315 kilos of heroin, while in 2022 they seized 199, i.e. a 57.91% year-on-year increase.

## THE RECOVERY OF OPIUM PRODUCTION IN AFGHANISTAN

In this section we provide a brief analysis of Afghanistan's social, political and economic realities in order to demonstrate that a return to opium poppy cultivation is inevitable in the short term. The factors that explain why Afghanistan will resume opium poppy cultivation are: the economic crisis, the humanitarian drama, the high price of opium, the multi-ethnic dimension, corruption, power distribution, internal Taliban rifts and the punitive regime for disobeying the ban. Let's see.

**Economic crisis and humanitarian drama.** Opium is Afghanistan's economic mainstay and number one export product. The opium economy has historically accounted for between 9 and 15 percent of its GDP ([UNODC](#), 2022c). In Mansfield's words 'in Afghanistan illegal opium is the largest export in terms of value; it created an estimated 590,000 direct jobs (Full Time Equivalent) in 2017; boosted the legal economy, providing livelihoods for farmers and those providing agricultural inputs and consumer goods; and helped bring 329,000 ha of former desert land under agriculture (Byrd, 2017, 1; Mansfield, 2018b; SIGAR, 2014, 82 in [Mansfield](#), 2018a: 157). These data demonstrate both the capacity of opium poppy cultivation to generate employment and the economic dependence on opium of a not inconsiderable percentage of the Afghan population.

World Bank [data](#), coinciding with the Taliban takeover of Kabul on 15 August 2021, show that the average annual income of a working person fell from \$9,542 in 2020 to \$7,391 in 2021. The loss of purchasing power for Afghans is palpable. In 2021, 30% of the population was undernourished, a figure that reached 38.2% for children under five years old. 28.4 per cent of Afghans were undernourished.

% were severely food insecure. In the words of the UNODC (2023: 36), "between May and October 2023, an estimated 15.3 million Afghans were acutely food insecure, including 3.4 million that required sustained humanitarian support to prevent catastrophic levels of hunger". Since the fall of Kabul, the country has plunged into a deep economic crisis. Human rights violations have been a constant, especially for women and girls. For a quick overview of the catastrophic situation, it is worth reading Amnesty International's stark summary (2023: 76) on Afghanistan:

Restrictions on women's rights, media freedom and freedom of expression increased exponentially.

Human rights support institutions were severely restricted or closed down altogether. Peaceful demonstrators were exposed to arbitrary detention, torture and enforced disappearance. The Taliban subjected their perceived opponents to extrajudicial killings, arbitrary arrests, torture and unlawful detention with impunity, creating a climate of fear. Extreme poverty increased, aggravated by drought and other natural disasters. Executions and public floggings were carried out to punish crimes such as murder, theft, "illegitimate" relationships or the violation of social norms. Attacks on women's rights continued and their participation in public life was severely restricted. Afghanistan was the only country in the world that prohibited girls from attending secondary school. The Taliban closed almost all institutions that the previous government had created to address gender-based violence. Afghanistan, already a poor country, was pushed deeper into poverty by its international isolation and the economic turmoil caused by the Taliban takeover in 2021. According to the UN Office for the Coordination of Humanitarian Affairs, 97% of the Afghan population lived in poverty, compared to 47% in 2020. The lack of social protection drove families to resort to options such as early marriage and the sale of organs.

In the face of this humanitarian tragedy, the opium ban accentuates poverty, further eroding the economy of a country plagued by famine, scourged by natural disasters and plagued by warlords, tribal conflicts and perennial skirmishes since the Soviet Union's invasion in December 1979. The data show that the economic situation is desperate for almost the entire Afghan population. Even more so if we consider that "total farmers' income from selling the 2023 opium harvest to traders declined by more than 92 % from an estimated US\$1,360 million for the 2022 harvest to US\$110 million in 2023" (UNODC, 2023: 4), i.e. US\$1.25 billion has disappeared from the pockets of the Afghan population in one year.

The opium ban has forced most farmers to replace opium poppy with cereals, mainly wheat. This substitution means that a farmer loses \$9,230 per hectare of crop per year. A hectare of wheat yielded \$770, a hectare of opium, before prices skyrocketed, about \$10,000. The Taliban veto denies Afghans the most value-added crop in Afghanistan. Afghan farmers in the autumn of 2023, the time to plant the crop of

2024, they were faced with the choice of either abiding by the Taliban ban and continuing to live in the wilderness or defying it and feeding their families.

**High price of opium.** The price of opium represents a good incentive to challenge the ban. After the 2020 harvest, when the world was in the grip of the COVID-19 pandemic, the cost of opium reached historic lows. The average price in Afghanistan stood at \$42 per kilo of dried opium. In 2021, it reached \$63 per kilo. In 2022, it was already heading towards 219 dollars. In June 2023, there was no region where a kilo sold for less than \$300. In June 2023, the Afghan average was \$408 per kilo of dry opium. In August, in southern Afghanistan, a kilo was selling for almost five hundred and eighty dollars (UNODC, 2023: 42). A price that, according to the coordinator of the Afghanistan opium cultivation report, has continued to rise. Alexandre Nobajas told us that in some areas, in February 2024, a kilo of dried opium was around twelve hundred dollars. In addition, he also reported unusual opium buying and selling, with buyers coming from other regions, including foreigners. There are also movements of opium between remote areas within the country that did not occur as frequently before. These variations would be due to the scarcity of opium in areas where it was previously abundant.

If the price per kilo of opium at the end of June 2024 is 1,000 dollars, one hectare of opium will yield 24,500 dollars, i.e. a single hectare will earn more than three times the average annual wage of a working person in Afghanistan. One hectare of opium will yield a huge profit. The question is how many farmers have defied the Taliban ban. Perhaps few have dared to plant more than one hectare. But many will have grown a few ornamentals in hidden places. They may not be able to make large amounts, but they will be able to relieve their ailing economy. A few plants grown in a shed, a few plants in the back yard, a few plants in the nooks and crannies of the fields, and so on across the country. The 2024 harvest may fall short of the 2022 production, but we estimate that it will far exceed the 333 tonnes of opium in 2023. If this is the scenario, the 2024 opium will produce enough heroin to supply Europe.

**Multi-ethnic dimension.** Afghanistan is a multi-ethnic, multilingual and multicultural country where forty languages are spoken. The official languages throughout the country are Dari and Pashto. Other languages are also official in regions where they are the majority language. Dari is the lingua franca. It is spoken by 68% of the population. Pashto is spoken by 48%. Bilingualism and multilingualism are common. Although one

A significant proportion of Pashtuns, who mostly swell the Taliban ranks, speak only Pashto. The [literacy rate](#) is only 52.06 % for men and 22.6 % for women. The 2004 Afghan Constitution recognises 14 ethnic groups. Some sources put the number as high as 50 ethnicities. Afghanistan's ethnic groups are:

- **Pashtuns** are the majority ethnic group, but they make up less than half of the population, 42%. They are Sunni Muslims, with more than 30 ethnic groups and countless sub-groups and clans. They are hegemonic in the south (Kandahar, Jalalabad and Nangarhar) and west of the country. They speak the Pashto language, also called Pashto.
- **Tajiks**, with 27% of the population, are the second largest ethnic group. They are the majority in the capital Kabul, in major cities such as Herat and Ghazni, as well as in the provinces of Badakhshan, Balk, Takhar, Samangan, among others, in the north-east and east of the country. They speak Dari Persian, which socioculturally brings them closer to Persian culture, and by extension to Iran. Like the Pashtuns, they are Sunni Muslims. Interestingly, there are more Tajiks living in Afghanistan, just over eight million, than in Tajikistan, where there are barely more than six million.
- The **Hazaras** are the third largest ethnic group in the country, with a total of 9% of the population. They are a Persian ethnic group using the Dari language. They live in the central provinces of the country. Most of them live in the highlands of the Hindu Kush mountain range. The Hazaras are mainly Shi'a Muslims, which helps to understand their historical marginalisation by Pashtuns and Tajiks.
- **Uzbeks** make up 9% of the Afghan population. They are the main Turkic people of Afghanistan. They are mostly Sunni Muslims. They speak Uzbek. They live in northern Afghanistan, in the provinces bordering Uzbekistan.
- The **Aimak** make up 4% of the population. They are a nomadic Persian ethnic group. Ha- blan Aimak derived from Modern Persian. They are also Sunni Muslims.
- **Turkmen** make up 3% of the population. They live in the provinces bordering Turkmenistan (Faryab, Jawzjan and Baglan). They speak Turkmen, a Turkic language. They are Sunni Muslims.
- **Baloch** make up 2% of the population. They live in the provinces bordering Pakistan. They speak Baluchi, a Persian language. They are Sunni Muslims.
- Other ethnic groups comprising 4% of the Afghan population are: Sayyids, Pashais, Nuristanis, Pamiris, Kurds, Gujaratis, Kyrgyz, Mongols, Arabs, among other minority groups.

The ethnic dimension is another factor in understanding why the Taliban ban can never be effective throughout the country. Ethnic differences imply different worldviews of social reality in general and of the opium ban in particular. Each ethnic group has its own particular interests in opium cultivation, some with a strong economic dependence. The Taliban ban can hardly alter peoples' ancestral ways of doing things and forms of subsistence. If the ban was effective in 2023, it is more due to the interests of ethnic and regional leaders in selling opium at a premium than to the prohibitionist will of the Taliban.

**Corruption and power sharing.** [Transparency International's](#) corruption index ranks Afghanistan 162nd out of 180 of the world's most corrupt countries. In 2023, corruption worsened and the country dropped four places. The distribution of power in Afghanistan owes much to the multi-ethnic dimension, the clan system and distinct social statuses. Those who hold power in the different territories, beyond affinity with the Taliban regime, have the capacity to allow, or at least tolerate, cultivation. Some of the leaders, also afflicted by misery, are receptive to lax law enforcement in exchange for bribes or other benefits. It is therefore to be expected that opium cultivation will continue because it is profitable for all actors involved. Alexandre Nobajas notes that opium prices have reached such high levels that opium cultivation has become an extremely lucrative activity. This implies that farmers who have planted opium in the 2023-2024 season have done so with the approval of the regional authorities, after paying the required handouts or other royalties.

The Taliban *de jure* control the entire geography of Afghanistan, but *de facto* the implementation of Taliban laws is sifted by tribal leaders and local factions in the different provinces. As a result, local power differs markedly between ethnic groups and regions. In the case at hand, as much as senior Taliban leaders and mullahs regard opium as *haram* (evil) to be eradicated, the local interpretation of the ban, in a scenario of famine and deep economic crisis, can be negotiated in different ways until the ban is diluted. Not only as a humanitarian issue, but also because opium is now more economically profitable than ever. Many local Taliban leaders and authorities will not hesitate to tolerate poppy cultivation for the sake of improving the economy, reducing malnutrition and, why not, earning extra income from opium poppy cultivation. 'tolerance'. Faced with such high prices and the imperative need to obtain



In many areas, the ban on opium poppy cultivation will become more and more relative.

**Internal Taliban rifts.** The Taliban regime is an inherently Pashtun movement, although in recent times militants from Sunni ethnic groups in the north of the country (Tajiks, Uzbeks and Turkmen) have joined. The European view of Afghanistan may invite us to think of the Taliban as a homogenous organisation that holds absolute power throughout the country. This is a bias. In the words of [Sharifi](#) (2023):

The Taliban today is deeply divided, making it unable to pursue a unified course of action on any major issues. Four [distinct divergences](#) - along tribal, factional, structural and ideological lines - have turned the once fairly unitary movement into a loose conglomerate of actors, chasing frequently conflicting agendas and jockeying for positions of power within a de facto administration. Differences among the Taliban are not only ideological, but also deeply rooted in Afghan history, the country's social structures, as well as the pragmatism of realpolitik, as the various factions within the movement compete over power and resources. One faction, the Haqqani Network, opposes the Quetta Shura faction; moderates fight the hardliners; and mid-level commanders refuse to follow orders from the leadership. Cracks are fast widening, and have already resulted in [armed clashes](#). Moderate Taliban members, with whom the international community have interacted during talks, are far too few to exert any meaningful resistance to the movement's alignment with foreign terrorists and transnational criminal networks.

Conflicts between different factions of the Taliban along with economic interests mean that the opium ban is unsustainable in the short term.

**Penalty regime for disobeying the ban.** The price of opium is tempting for farmers, but defying the Taliban comes at a cost. The Taliban law's penalty regime seems to us to be little deterrent to a population mired in misery. In [Alcis' translation](#) of the [Taliban law](#) from Dari into English, we note that the prison sentences for cultivating, synthesising drugs and transporting both substances and precursors are relatively low compared to the punishment regimes in other countries. Moreover, they are surprisingly lax in a country where human rights violations are systematic. Let us look at the penalties reserved for those who violate Taliban law. In the case of poppy cultivation, it establishes three levels.

1. Cultivating less than half a *jarib* carries a six-month jail term.
2. Between half a *jarib* and one *jarib* is punishable by nine months' imprisonment.
3. More than one *jarib* carries a year's imprisonment.

From the interpretation of the text we conclude that it is the same penalty to cultivate one *jarib* as it is to cultivate thirty. This is indicative of how penalties can be inflicted on small farmers who are out of touch with power.

In desperate, starving households of an average of eleven people, it is feasible that some members, especially with a kilo of opium costing around a thousand dollars, will take the risk of growing opium poppies to feed the family. Amnesty International (2023: 76) states that, since the Taliban came to power, thousands of Afghans have sold their organs, especially kidneys, have increased forced marriages of girls under fourteen, and even the sale of children. Faced with this stark and inhumane scenario, it cannot be ruled out that many people would rather risk a year in prison. Even if the penalty regime is lax, it is likely that farmers will not face prison sentences either, but are more likely to resort to bribery to grow opium poppy.

Afghanistan, with 652,860 square kilometres, more than half of its surface area at an altitude of over two thousand metres above sea level, an extremely diverse human geography, riddled with remote valleys and inaccessible areas, with an economic situation so adverse that it borders on humanitarian catastrophe and with such a sharp division of power, finds it impossible to give up a business as profitable as opium. This is evidence that the Taliban's prohibition is faltering and will decline in several, if not all, provinces of the country. The recovery of opium poppy cultivation is inevitable. Ultimately, Afghanistan will resume poppy cultivation, heroin synthesis and heroin flows to Europe will continue.

## OPIUM POPPY CULTIVATION IN OTHER COUNTRIES

The decline of opium production in Afghanistan increases the likelihood that other countries will intensify opium poppy cultivation ([UNODC](#), 2023: 11). So far, as confirmed by CITCO, in Spain we lack any evidence of heroin seizures that have been made from opium other than Afghan opium. The balloon effect suggests that when the authorities increase crop control and eradication measures in a territory, production shifts to other regions.

with less pressure and control ([Reuter](#), 2014: 34). In the case of Afghanistan, the balloon effect suggests that opium poppy cultivation should shift away from the Taliban ban. Given the income generated by one hectare of opium poppy, it is plausible that the balloon effect will be realised because high opium prices are a temptation for farmers in other countries. Overall, some countries may make attempts to develop opium production, although it remains to be seen what their actual contribution to the global heroin market will be, especially after Afghanistan soon returns to what seems likely to be high levels of opium poppy cultivation.

In the following, we analyse the possibilities for other countries to gain market share at Afghanistan's expense. We base the analysis on three requirements that countries and farmers must meet in order to expand opium production. These are:

- Suitable soil, favourable climate, knowledge of poppy cultivation and harvesting.
- Contact with criminal organisations interested in buying "fam-gate" opium.
- In cultivation zones, state power must be weakened, or absent altogether, and officials must be easily corruptible.

Only if all three requirements are at least partially met is opium production viable. Five countries bordering Afghanistan are candidates for opium cultivation: Turkmenistan, Uzbekistan, Tajikistan, Iran and Pakistan<sup>3</sup>. In addition, we analysed Burma, Mexico and Laos as historical opium producers.

Opium cultivation is materially impossible in [Turkmenistan](#). Turkmenistan is a despotic and autocratic state. Officially it claims to have eradicated the trafficking and consumption of controlled substances ([Faura, Cáceres and Martínez-Oró](#), 2023: 76-89). Turkmenistan's draconian anti-drug policies had its

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<sup>3</sup> Afghanistan has 76 kilometres of border with China at the end of the [Vajan corridor](#). Because of its irrelevance and the lack of influence Afghanistan's internal affairs have on the Asian giant, we refrain from analysing China's capacity as an opium producer. Moreover, China already has a well-defined role in international synthetic opioid markets.

effect at the expense of human rights. For example, drug traffickers are sentenced to long terms in unsanitary prisons and drug users are placed in forced "rehabilitation" camps, where mortality is high. [UNODC](#) (2018: 16) reports opium poppy cultivation in Turkmenistan up to 2009. Seizure data go up to 2016. In the [DataUNODC](#) database, the historical series for Turkmenistan ends in 2016. Until 2018, some maps illustrated a small branch of the Northern Route in Turkmenistan. Since then, in UNODC and EMCDDA reports, the Central Asian country has disappeared as a producer and transit area for opiates. In the period 2011-2015, opiate seizures accounted for only three per cent of total seizures in Central Asia ([UNODC](#), 2018: 47). The [UNODC](#) (2023: 39) presents heat maps of apprehensions in Afghanistan and its neighbours. In Turkmenistan, no seizures appear between 2019 and 2022. In the recent EMCDDA report on heroin and opioid markets, [Turkmenistan](#) is absent from any reference. Turkmenistan's official removal as a transit country to Russia makes it unlikely that contact between opium traffickers and potential cultivators will be restored. poppy farmers.

Turkmenistan is a largely desert country. Agriculture is concentrated in certain prosperous irrigated areas. Farmers live in decent material conditions. Agricultural production is strictly controlled, at the formal level by the state and at the informal level by the regime-addicted population. Fear of Turkmen autocracy prevents any challenge to the system, no matter how large the profits from opium production might be. Although in earlier times this Central Asian country may have grown opium poppies and been a transit zone, it is now impossible for it to regain any role in the "Big Game" of opioids.

In [Uzbekistan](#), poppy cultivation is very unlikely to proliferate. The Uzbek part of the [Fergana Valley](#) has historically been a cultivation area. The present-day Northern Route in Tajikistan is divided into two branches. The left branch enters Uzbekistan through the Fergana Valley and exits again through the same valley into Kazakhstan. The right branch exits directly out of Tajikistan into Kazakhstan. Opiate trafficking in the border area between Uzbekistan and Afghanistan is anecdotal. Uzbek farmers in the Fergana Valley are able to maintain contact with organised crime, while relations in the Uzbek region of Surxondaryo, bordering Afghanistan, are more limited. Uzbekistan is a strong state and its operational capacity allows it to reach out as far as

The country's geography, including in the troubled Ferghana Valley, has been in the last corners of its geography. Diplomatically, it is the most important country in Central Asia. And symbolically, Tashkent serves as the region's capital. In recent years, the Uzbek state's efforts to eradicate poppy cultivation and heroin trafficking have had a remarkable effect.

In 2010, Uzbekistan reached an all-time high of 850 seizures. Since then, seizures declined to just over 400 in 2015 ([UNODC](#), 2018: 16). In the [DataUNODC](#) database, Uzbekistan shows a downward trend. In 2015, police seized 1,245 kilograms of opiates. In 2021, the figure dropped to 523.52 kilograms. Seizures in Uzbekistan (2019-2022), illustrated in the [UNODC](#) heat maps (2023: 39), are almost anecdotal. It is highly unlikely that farmers in the fertile lands of the Fergana Valley, let alone those in Surxondaryo, would want to take the risk of growing opium in a country where the quality of life is improving year after year, supply control is remarkably efficient and penalties for cultivating and trafficking drugs are also draconian ([Faura, Cáceres and Martínez-Oró](#), 2023: 90-110).

[Tajikistan](#) is the epicentre of the Northern Afghan Opiates Route. Paoli, Rabkov, Greenfield and Reuter (2007) did not hesitate to classify this Central Asian country as a narco-state. Political and police involvement in heroin trafficking is a sordid reality in Tajikistan ([Marat and Botoeva](#), 2022). In February 2024, Tajik authorities stated that they had so far no evidence that the decline in opium production in Afghanistan had affected the flow of opiates into Tajikistan. The volume of seizures was similar to previous years ([Zahidi](#), 2024). The words of these authorities should be quarantined, because Tajikistan's institutional strength is relatively weak. The structure of the Tajik state helps explain why it is the gateway country for the Northern Route, but its level of seizures is abnormally low. The Northern Route, in global terms, is a secondary route, but it supplies opiates, in the first instance, to the countries of Central Asia, before reaching Russia, Ukraine, Belarus, the Baltic countries and parts of Scandinavia ([Faura, Cáceres and Martínez-Oró](#), 2023: 52-75). The [UNODC](#) heat map (2023: 39) shows how apprehensions in Tajikistan during the period 2019-2022 are abnormally low, as anecdotal as those in Uzbekistan.

Between 2005 and 2015, no seizures of opium poppy plants were reported ([UNODC](#), 2018: 46), indicating that Tajikistan has never been a major producer of opium, although Tajik farmers may be receptive to producing opium for a handful of somonis because they would be comfortable selling it to the

drug traffickers. As a weak state with corrupt authorities, farmers are able to bribe their way out of any criminal consequences. The country has little arable land, occupied in the lowlands by the ever-profitable cotton and in the highlands by potatoes and cereals. [IFAD](#) describes the Tajik agricultural system as deficient and in need of improvement and innovation. Despite the hypothetical cabals, Tajik farmers lack land, adequate farming systems and the know-how to produce opium. Although some cultivation may take place, Tajikistan can never become an opium producing country of any significance.

Opium production in the [Islamic Republic of Iran](#) is highly unlikely. Prior to the 1979 Islamic Revolution, it cultivated about 33,000 hectares of opium poppy per year. In the late 1980s, the Ayatollahs' revolution consi- guided the eradication of opium production ([UNODC](#), 2002: 2). Iran is a key player in the trafficking of opiates from Afghanistan. The Islamic country is a staging area for the Caucasus Route, the Balkan Route and the western branch of the Southern Route. The heat map of the [UNODC](#) report (2023: 39) shows exaggerated seizure activity on the Afghan-Iranian border, as well as a multitude of seizures along its entire geography. In 2021, [DataUNODC](#) reports that 834 tons of opium were seized on Iranian soil, compared to 630.6 tons in 2017. Iran's diplomatic relations with the international community in general, and with Afghanistan in particular, are complicated. This, in part, helps explain the paucity of information and data available on drugs despite the fact that the [UNODC](#) states that 3.2 per cent of the population is opiate users and 2.8 million people have drug problems in a country of 89 million people.

Moreover, it is the only country of which we are aware that has formally rejected the data in the UNODC report reporting a 95 % decline in opium production ([Iran Intl](#), 2023). The reason for rejecting the report is that both seizures and criminal activity associated with opiates have remained unchanged. Diplomatic tensions force us to take these assertions with caution. Beyond drug policies, Iran's agriculture is highly controlled by the Islamist state. Moreover, most of the land is poor for poppy cultivation, while the state enjoys strong control over the population. In a theocratic and authoritarian state, with 509 people executed by hanging in 2022 and 5,300 people on death row for drug trafficking, of which 80 were

([Death Penalty World Wide](#), 2024), it is difficult, if not chimerical, for Iranian peasants to defy the regime for a few rials.

[Pakistan](#), along with Afghanistan and Iran, is part of the Golden Crescent, a historic opium-producing area. It is the country with the greatest potential to expand its opium production. In the first instance, it has a long tradition of opium poppy cultivation. In some areas, well into the twentieth century, the characteristics of opium poppy cultivation were similar to those in Afghanistan (Paoli, Greenfield and Reuter, 2009). The situation changed when, throughout the 1990s, the Pakistani government articulated policies to eradicate opium production in line with UN control treaties. The results were remarkable as the country went from 9,400 hectares of opium poppy cultivation in 1992 to 243 hectares in 2001. Most of the area under cultivation in 2001 was in the Dir and Khyber (Jaiber Pastunjuá) districts ([UNODC](#), 2002: 3). Regardless of the effectiveness of Pakistani policies, during the 1990s farmers sought alternatives because they lost competitiveness with Afghan opium, which became cheaper and cheaper due to higher yields year after year. In the last two decades, opium poppy cultivation has barely survived in remote areas of Balochistan and Khyber Pakhtunkhwa to supply local markets for traditional therapeutic uses and, to a lesser extent, for misuse by the local population.

Pakistan, along with Iran, is the key neighbour for exporting Afghan opiates. A significant part of the heroin from the Caucasus and Balkan Route enters Pakistan and then passes on to Iran to continue the route, although in recent years Pakistan, especially via the port of Karachi, is responsible for the rise of the Southern Route ([EMCDDA](#), 2024). The heat map in the [UNODC](#) report (2023: 39) shows how the Pakistan-Iran border is the point in the world where most opiate seizures take place. The turbulent political situation in Pakistan and widespread corruption among public officials are a tailwind for opium processing. In certain parts of the country, the state is weak and organised crime is strong. This may tempt farmers in deep economic crisis to take up poppy cultivation again.

Declining opium production in Afghanistan made [Burma](#) the world's largest opium producer in December 2023. Since the military coup of 2021, Burma has suffered a series of socio-political tensions and economic crises. Burma's instability has catalysed an increase in opium poppy cultivation. In 2023, [UNODC](#) (2023b: 18) estimated opium production at 1,080 tons. This

The amount represents the highest production since 2001, although far from the 1,760 tons in 1996<sup>4</sup>, and even more than Afghanistan's 6,300 tons in 2022. In 2023, opium production increased by 36% compared to 2022. The area under opium grew by 18% to 47,100 hectares.

Opium production can continue to expand. The maximum will be determined by two factors. The first is the availability of suitable land for opium poppy cultivation. The second is the willingness of farmers to substitute opium for subsistence food crops. The price of opium, with a rising trend, will tip the balance. In 2023, farmers sold a kilogram of dried opium for an average of \$356 per kilogram. By contrast, in 2020, they sold for just over a hundred dollars. Opium production is expected to grow in 2024. Burma's difficulty in helping to meet European demand lies in the fact that its supply is destined for Asian markets. The [EMCDDA](#) report (2024) presents Burma as an entirely secondary European heroin supplier. Southeast Asian drug traffickers will have to deploy unprecedented logistics if they want to supply Europe. By land is a pipe dream<sup>5</sup>. Smuggling by air is complex in a country with a death penalty for drug trafficking. The sea route is the most versatile. Organised crime continually innovates to achieve its goals, so they are likely to be able to get heroin to European markets that are more lucrative than Asian ones. Ultimately, Burma could once again play a major role in European heroin markets.

A note on [Laos](#). From 2016 until 2023, UNODC was unable to conduct the opium cultivation survey. Data for 2023 show that opium production was a mere 60 tonnes, a far cry from Afghanistan's 333 tonnes in its disastrous 2023 harvest. Despite the modest data for the moment, we must keep an eye on the evolution of opium production in the Golden Triangle. The fentanyl crisis in North America has caused the opium industry in the United States to [Mexico](#) is disappearing. The latest UNODC data pertaining to the

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<sup>4</sup> In 1996, the UNODC historical series begins. In 1996, the trend was downward due to the eradication policies promoted during the 1980s. Throughout the 1970s, Burma played a central role in the global heroin trade (Méndez, 2020: 29-34).

<sup>5</sup> [Google Maps](#) offers no alternative to driving overland from Rangoon to Vienna. Instead, it offers a 9,813-kilometre route to make the journey on foot.



The 2019-2020 harvest reports production of 504 tons of opium ([UNODC, 2022d](#)). This is higher than Afghanistan's 333 tons in 2023, but insufficient to supply the North American market. Since 2022, the price of opium has fallen sharply, from 30,000 Mexican pesos (1,600 euros) per kilo to less than 3,000 (160 euros). As we will see in the [section on criminal gangs](#), if they have not been interested in bringing fentanyl to Europe with the economic benefits it generates, they will be less interested in sending Mexican heroin production to Europe when it is insufficient to supply North America.

Ultimately, the role of other countries in opium production is uncertain. Pakistan, as well as Burma, could significantly increase their opium production in the short term. Soaring opium and heroin prices in Eurasia represent an incentive for impoverished economies. Our hypothesis is that Afghanistan will soon regain its hegemonic position, although in the lucrative informal drug markets, there is always a reserve army ready to fill the space left by another. All the more so given the growing importance of the Southern Route, a maritime route with its epicentre in the Pakistani port of Karachi. This route could provide an outlet, first to Africa and then to Europe, for heroin produced in Pakistan and Burma. Such geopolitical and economic dynamics will allow Europe to continue to be supplied with heroin.



### 3. THE SUPPLY OF SYNTHETIC OPIOIDS

In the chapter, we analyse the supply of illicit fentanyl in Europe, the global emergence of nitazenes, the particular case of Estonia and the ability of European [criminal gangs](#) to substitute heroin with synthetic opioids. We present what is on offer in Europe today, how organised crime can act, and show that heroin substitution or adulteration with nitazenes is more feasible than with fentanyl.

In 2019, when Episteme published "Opioids in Spain" ([Martínez-Oró, 2019](#)), illicit fentanyl was a remote substance far removed from our reality. If there was any point of concern, it was the hypothetical diversion of opioid drugs. Only in 2022, when the media storm began, did the discussion about the presence or not of [illicit fentanyl in Spain](#) emerge. In the last year, many voices have questioned the status of the potent opioid in Spain. Information seemed contradictory as some professionals pointed out that it was already available on illegal markets, while others categorically denied any trace of illicitly produced fentanyl.

Data provided by CITCO indicate that Spain is so far free of illicitly produced fentanyl. Between 2009 and 2021, 73 synthetic opioids were reported to the DGPNSD's SEAT, of which six were reported in 2021 ([EMCDDA, 2023: 12](#)). The [UNODC Early Warning Advisory on New Psychoactive Substance](#) has three fentanyl analogues (butyrfentanyl, cyclopropylfentanyl and ocfentanyl) reported in 2018. These are one-off reports, with no continuity over time, and in view of events, they have become anecdotal. Seizures of fentanyl in Spain, according to the Statistical Yearbooks of the Ministry of the Interior (Ministerio del Interior, [2019](#), [2021](#), [2023](#)), are negligible. All of them, as confirmed to us by CITCO, come from pharmaceutical diversions. Between 2017 and 2022, the FCSE seized 370 grams of fentanyl, including 291 grams in 2018. In 2022, eight grams of [sufentanil](#) were seized. In 2019, they seized five grams of [3-MF](#) and two in 2022. In 2022, the FCSE seized one gram of [beta-Hydroxy-3-methylfentanyl. In Spain,](#) fentanyl seizures, although present, are negligible compared to other European countries.

The Spanish situation is particular, because [illicit fentanyl](#) has been circulating in European markets for more than thirty years. In 2012, the [EMCDDA](#), concerned about the consumption of fentanyl in some EU countries, carried out a

study on the status of the potent opioid. Spain was absent from this study. The derived report lacks any reference to our country. Seen in perspective, concerns about fentanyl and its analogues were more justified during the two-year period 2012-2014 than between 2022 and 2024. In 2012, the concern was justified because there were growing indications that substances as potent as fentanyls were present in Europe, with the consequent risk of causing a terrible public health crisis. Fentanyl and its analogues were completely marginal in the United States, which was then in the throes of the opioid drug crisis (Quinones, 2020). Europe already sensed the devastating capacity of fentanyl. In the United States, without Europe's own protection mechanisms, fentanyl, as we know, led to a terrible public health crisis, especially from 2016 onwards, when drug traffickers began to adulterate heroin with phen- tanil.

European concern about fentanyl was even more justified when the ravages of the synthetic opioid in North America became apparent. Despite the presence of fentanyls in Europe during the five-year period 2016-2021, the health consequences are anecdotal compared to those in North America. In Europe, concerns about fentanyl are justified, for example, by the forty-nine deaths due to fentanyls and their illicit analogues in 2021 ([EMCDDA](#), 2024), while in the United States there were [70,601](#) deaths.

## FROM FENTANYLS TO NITAZENES

The [EMCDDA](#) (2012: 4) notes that fentanyl and its analogues appeared on European drug markets in the mid-1990s. The first seizures were of [para-fluorofentanyl](#) in Germany, France and the Netherlands, although it is uncertain whether they were illicitly synthesised. In Sweden, between May 1994 and August 1995, there were eight fatal overdoses of heroin adulterated with illicitly produced fentanyl ([Kronstrand, Druid, Holmgren and Rais](#), 1997). During the last five years of the 20th century, fentanyl and [3-methylfentanyl](#) (3-MF) were detected in the Nordic and Baltic countries. The first seizure of 3-MF was in Finland in 2001. In Estonia, [fentanyl](#) and 3-MF were the dominant substances among injectors at least from 2002 until 2017, when other fentanyl analogues entered the scene. The EMCDDA report (2012) reports consumption of [china white](#) in Bulgaria and Slovakia, deaths from fentanyl overdose in Germany, the closure of a clandestine laboratory

of fentanyl in Slovakia, seizures of fentanyl in the Czech Republic, Bulgaria and Greece, as well as other evidence of fentanyl presence in various parts of eastern and northern Europe. Spain, during this period, is absent of reports and presence of fentanyl.

In general terms, fentanyl synthesis in Europe has been confined to the Baltic countries and the Netherlands (EMCDDA, 2024). In the other countries, including Spain, we lack any evidence of synthetic opioid synthesis. The EMCDDA (2024) states "laboratories carrying out the full production cycle of synthetic opioids are rarely found, and there does not appear to be any widespread or sustained illicit production of these substances". The dismantling of clandestine laboratories is also anecdotal. France and Estonia dismantled small fentanyl synthesis laboratories in 2018 and 2019, respectively ([UNODC](#), 2022b). Seizures of both precursors and fentanyl produced in Europe represent marginal data compared to the total volume of informal drug markets. The EMCDDA's (2024) compilation of seizures of precursors and dismantling of laboratories in recent years is meagre: 34 kilogrammes of NPPs in Estonia ([INCB](#), 2022: 28). Between 2016 and 2020, eighty-five kilograms of fentanyl precursors (ANPP and NPP) were seized in Belgium, Estonia and France. In May 2023, in Latvia, five kilos of fentanyl were seized together with precursors.

We can observe that the presence of fentanyls in Europe, especially in the Baltic countries, has been a constant in recent decades, although if we compare it with the volume of heroin, cocaine or ecstasy, it is clear that the role of synthetic opioids in the consumption scenarios is rather discreet. In our view, the reality of fentanyls is beginning to change as the control process progresses, both at the international level and, in particular, due to the illegalisation of fentanyls and their precursors in China. In 2017, the Commission on Narcotic Drugs placed the two main fentanyl precursors under control. The fiss- calisation of [NPP](#) and [ANPP](#) led to a shift from the Siegfried synthesis method to the more complex Jansen system, although at that time it did not require any controlled precursors ([INCB](#), 2020: 29).

In 2022, the CND completed the control of fentanyl precursors by adding [norfentanyl](#), [4-AP](#) and [1-boc-4-AP](#) to Table I of the 1988 treaty. Since 2022, as can be seen in [Figure 1](#), at least one precursor required in each of the three classical methods to synthesise fentanyl has been included in [Table I of the 1988 treaty](#).

under control. These facts are central to understanding the current state of synthetic opioids at the international, European and Spanish levels. Our hypothesis is clear: in 2024 fentanyl is being phased out in favour of nitazenes. This does not mean that fentanyls are disappearing, but it does seem that we are facing a change of cycle.

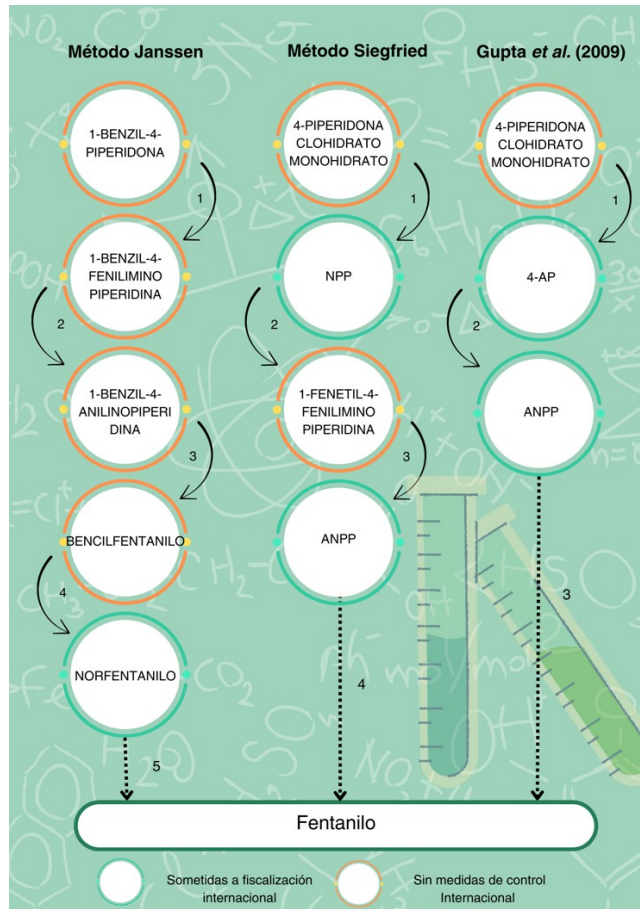


Illustration 1. Fentanyl synthesis methods. Own elaboration based on [UNODC](#) data.

China is the key element on which the global illicit fentanyl phenomenon rests, at least until very recently. Without its role, other drivers of the US public health crisis would have been different (Westhoff, 2021: 242). Until 2019, China was the world's leading exporter of both fentanyl and precursors for synthesis in third countries. The fentanyl era begins and ends in China. The end of fentanyl hegemony is a product of the Chinese ban. The process began in 2016, with diplomatic pressure from the United States towards the Asian giant. The aim was to stop fentanyl shipments from China to the US in China, after a long diplomatic process, in which Mexico was also involved,

legislative moves to ban fentanyl at the national level are beginning. This is important. Fentanyl was legal in China until 2019. Hundreds of companies produced and sold it legally. And not only legally, they also received tax rebates and incentives from the Chinese government to boost exports. It mattered little to them that the customers were front men for the world's most wanted drug traffickers (Westhoff, 2021: 284). In the Chinese industry's view, it was none of their business what their customers did with fentanyl abroad. Elias Cam-haji's metaphor is illustrative, 'China at the time declared "we make knives, what you do with the knives is your responsibility, you cannot blame me as a murderer for making a knife"'.

The major milestone is 1 May 2019, when China bans the manufacture, export and sale of fentanyl and its main analogues. Thereafter, worldwide flows of fentanyl and its precursors of Chinese origin decline (INCB, 2021a). In July 2021, China also banned 180 NPS, making all fentanyl analogues *de facto* illegal (INCB, 2023). Law enforcement activity in China has also been notable. For example, in 2021, the INCB reports, using data from the Mandarin government, the dismantling of 120 clandestine laboratories (INCB, 2023). China's ban in 2019 forced organised crime to look for alternatives and change its modus operandi. The INCB (2022) lists the most relevant aspects:

- The first and most relevant for our purposes: to take an interest in the then still legal nitaze- nos around the world.
- Sourcing the increasingly scarce legal precursors to fentanyl from China, India and Pakistan.
- Declaring trade in legal chemicals to customs when they were in fact controlled fentanyl precursors.
- Sourcing from encrypted websites of Chinese companies, which can only be accessed after the seller validates the suitability of the potential customer via video conference.
- Use private social networking groups and instant messaging applications that connect buyers and sellers.

Chinese chemical companies can be classified according to Westhoff (2021) into three categories. The first, which covers the vast majority. They scrupulously respect Chinese legality. They sold fentanyls and

precursors in industrial quantities, but once they were outlawed at the national level, they immediately ceased their activity. Secondly, companies that are completely legal, but have a part of their business in illegality, i.e. they can sell completely legal chemical products and operate like any other company, but also clandestinely supply organised crime with substances banned in China. Third, underground laboratories whose activities are totally illegal. Companies in the second and third categories are responsible for the fact that, despite bans, trafficking in precursors and fentanyl analogues continues with greater difficulty and less impunity. In 2020, a report by [Feng \(2020\)](#) shows how some Chinese dealers circumvented the ban and continued sales. Westhoff (2021, 266-279) is quick to point out that the Chinese industry is full of young people eager to get rich; young people who do not hesitate to ship chemicals abroad even though they know full well that they will be used for illicit activities.

In contrast, the fully legal companies, once fentanyls and their analogues fell out of their catalogue, investigated legal alternatives that could be offered to customers as reliable substitutes for fentanyls. In other words, they applied the classic NPS traffickers' premise of seeking legal alternatives to controlled products, as we have already seen with synthetic cannabinoids, [cathinones](#), piperazines, among other families. During the 2019-2020 biennium, the Chinese chemical industry recovered nitazenes from old scientific papers, a family of synthetic opioids that, despite the difference in effects with fentanyls, could function as a suitable alternative in international markets for illegal substances ([Kanamori, et al. 2023](#)). From this point on, a new cycle of synthetic opioids began. This time with nitazenes as the protagonists. [Nitazenes](#) are opioids as potent or more potent than fentanyl. [Metonitazene](#) is 50 times more potent than heroin, [protonitazene](#) 100 times, [isotonitazene](#) 250 times, [ethonitazene](#) 500 times, i.e. ten times more potent than fentanyl ([Holland et al. 2024](#)). Mi- reia Ventura warns us of the risks of nitazenes by informing us that, on the one hand, they are very difficult to dose and, on the other, they cause severe respiratory depression, with the consequent risk of more powerful overdoses requiring higher doses of [naloxone](#) to overcome them.

The rise of nitazenes, and the decline of fentanyls in Europe, is a clear evidence of the

The data are based on data provided by the [European Union's Early Warning System](#).

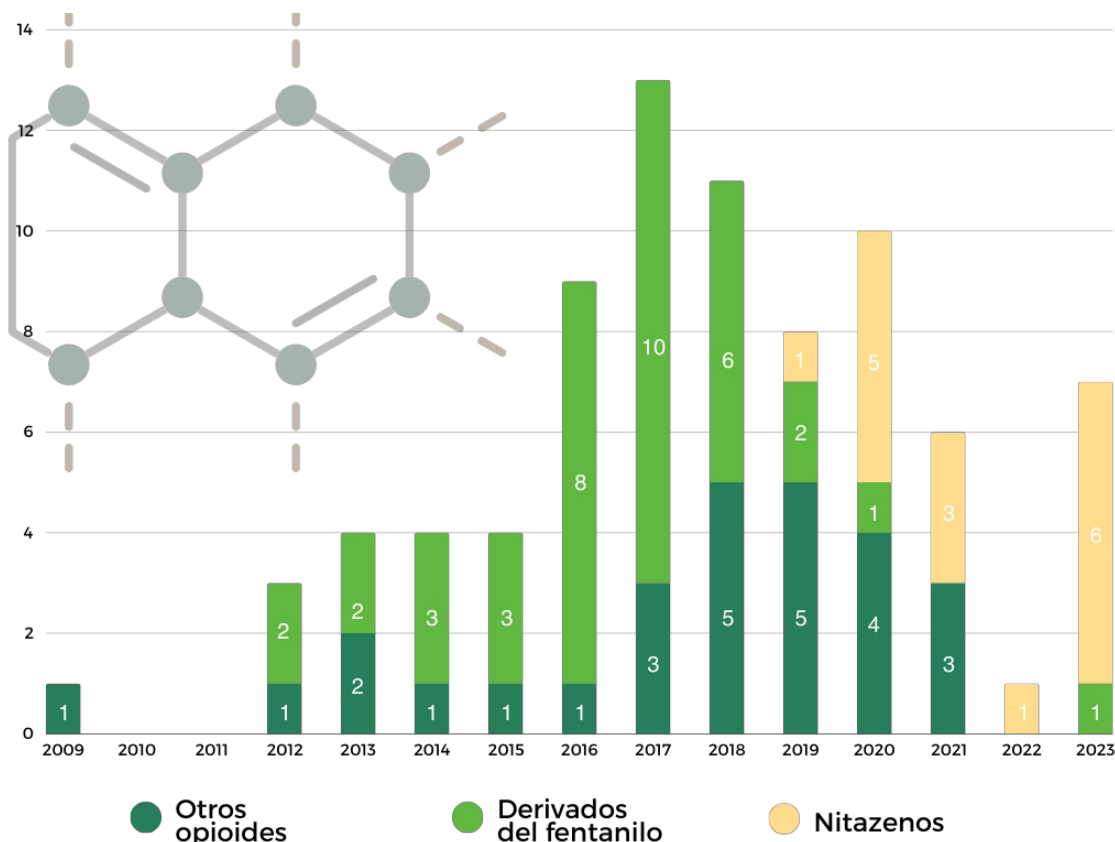
The data show clear signs of a reversal of the trend in the



informal markets for synthetic opioids. Seventy-four new opioids have been reported since 2009 (EMCDDA, 2024). [Figure 2](#), using data from the EMCDDA, shows that:

- In 2016, nine synthetic opioids were reported, eight from the fentanyl family and one from "other opioids".
- In 2017, an all-time high was reached with ten fentanyls and three "other opioids".
- In 2018, six fentanyls and five "other opioids" were reported.
- In 2019, which coincides with the restrictions imposed by China, [isotonitazene](#), the first [benzimidazole \(nitazene\)](#) in the historical series, is reported. In addition, the five 'other opioids' reported surpassed the phen- tanil family for the first time with only two notifications.
- In 2020, the change in trends is starting to become evident. Five nitazenes, four "other opioids" and one fentanyl analogue were reported.
- In 2021, for the first time since 2011, no fentanyl was reported. Three nitazenes and three 'other opioids' were reported.
- In 2022, only one nitazene was notified.
- The year 2023 reinforces the hypothesis of replacement of fentanyls by nitazenes. Six nitazenes and only one fentanyl derivative were reported.

## FENTANYL IN SPAIN



Number and types of new synthetic opioids reported in the EU Rapid Alert System for the first time, 2009-2023. Prepared by the authors based on [EMCDDA](#) data.

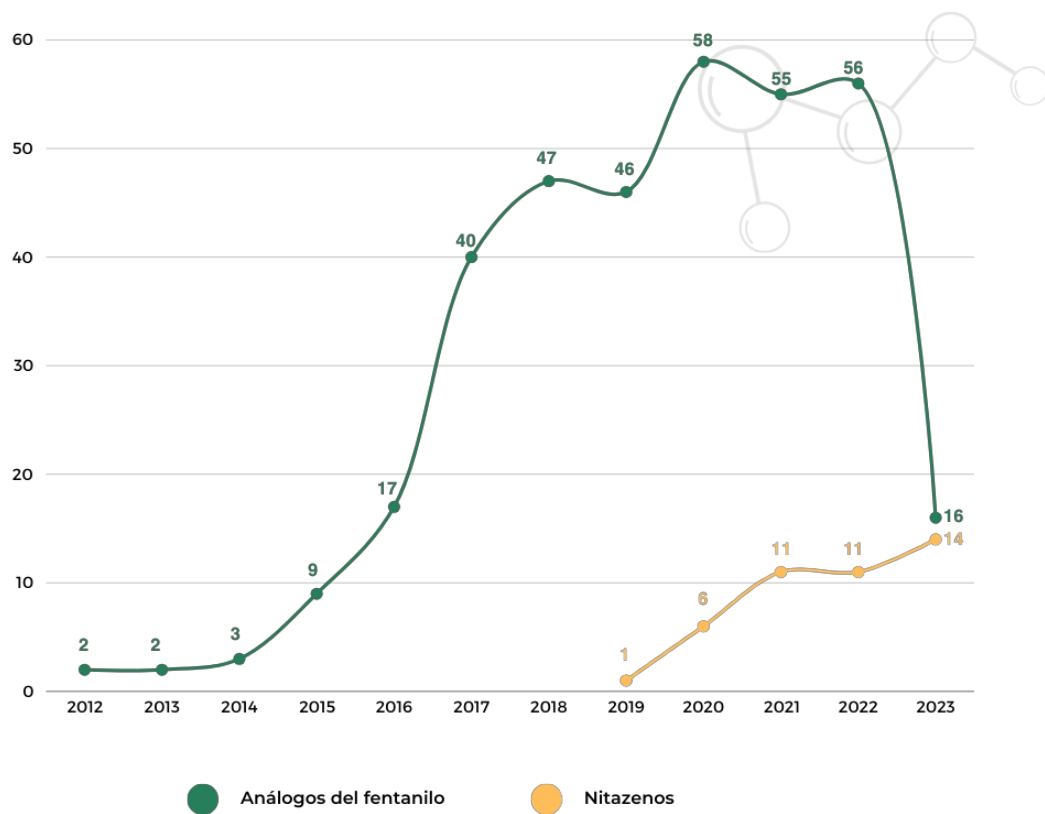
Global data provided by UNODC reinforces the hypothesis of fentanyl substitution by nitazenes. [Figure 3](#) shows the rise of fentanyls between 2017 and 2022. At the global level, in relation to fentanyls we observe:

- In 2017, forty fentanyl analogues are reported.
- In 2020, the all-time record is reached with fifty-eight.
- In 2022, they remain at fifty-six.
- In 2023, fentanyl analogues fall sharply to sixteen.

With regard to nitazenes, we note their emergence in 2019 and how they maintain an upward trend until 2023:

- It was not until 2019, coinciding with the fentanyl ban in China, that the first nitazene was reported globally in Europe.
- In 2020, fentanyls reached an all-time high of fifty-eight. The number of nitazenes was six.

- In 2021, fentanyl analogues reach fifty-five notifications. Nitazenes reached eleven.
- Globally, fifty-six fentanyl analogues and eleven nitazenes were reported in 2022. In Europe, six fentanyl analogues and eight nitazenes were detected.
- In 2023, fourteen nitazenes are reached.
- In 2023, globally, fentanyl analogues plummet to sixteen reports. Nitazenes rise to fourteen. In Europe, the upward trend of nitazenes is confirmed, with eight notifications and fentanyl analogues dropping to only two.
- If the hypothesis holds true, and with the evidence available so far, it seems entirely feasible that nitazenes could overtake fentanyl analogues by 2024.



Number of unique fentanyl analogues and nitazenes reported to the UNODC Early Warning Advisory (2012-2023). Prepared by the authors based on [UNODC](#) data.

Further evidence that fentanyl analogues are on the decline is the number of seizures in Europe. [Figure 4](#) shows the downward trend in seizures of fentanyl derivatives between 2018 and 2021. Europe as a whole went from making 453 fentanyl seizures in 2018 to only 163 in 2021. We note how Estonia, the historical leader in Europe, went from 198 seizures in 2018 to only 16 in 2021. Despite this

of the 2021 decline, a wider variety of fentanyl analogues, [carfen-tanil](#) (Latvia and Lithuania), [remifentanil](#) and [alfentanil](#) (Slovakia) were reported ([EMCDDA](#), 2024). The diversification of fentanyl derivatives is indicative of the turbulence in the international synthetic opioid markets. It can be expected that the number of fentanyl seizures in 2022 and 2023 will have declined to the detriment of nitazenes.

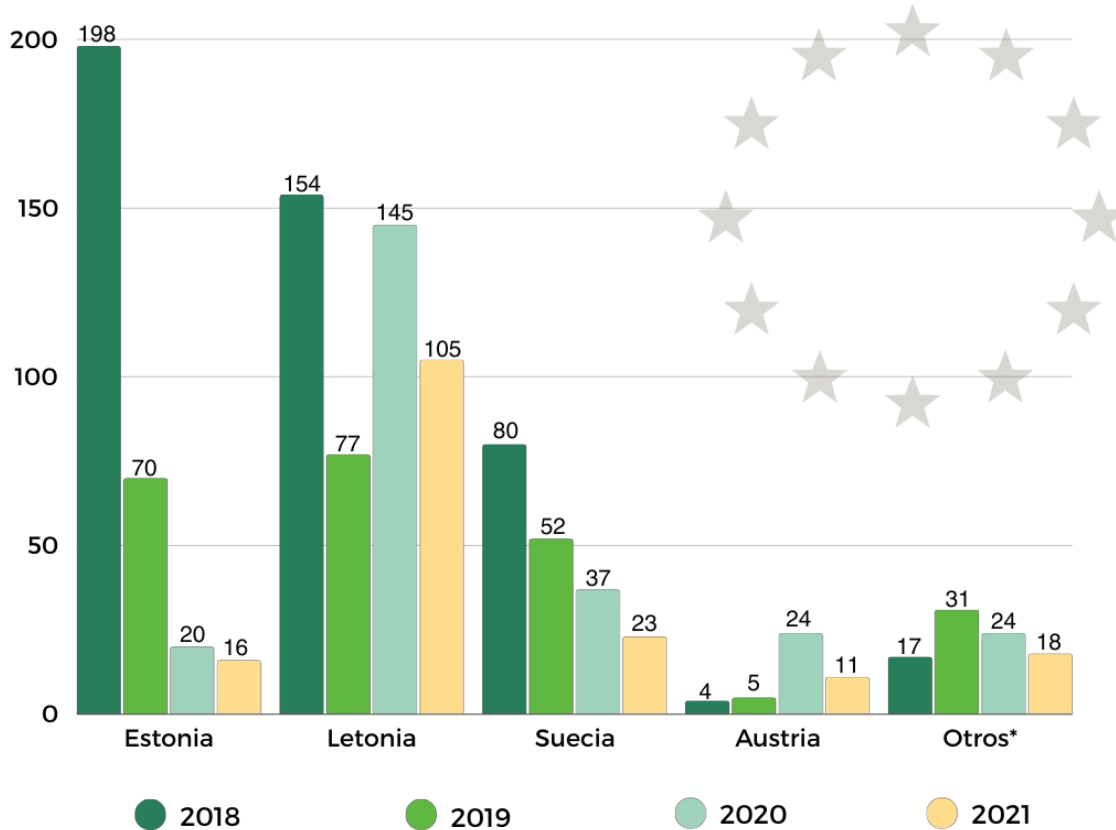


Figure 4. Number of seizures of fentanyl derivatives in ten EU Member States, 2018-2021. \*Others Czech Republic, Greece, Italy, Romania, Slovakia and Spain. Own elaboration based on [EMCDDA](#) data.

The spread of nitazenes beyond the North American markets is evidenced by the strong presence in the UK from at least June 2023. Between June 2023 and February 2024, the British [National Crime Agency](#) confirms the presence of nitazenes in the autopsies of 101 people who died of overdoses. The British authorities believe that most of the people killed by nitazenes bought [alprazolam](#) tablets adulterated with these powerful opioids. [The Guardian](#), in November 2023, reported that London police seized 150,000 fake pills made up of benzodiazepine and nitazenes. On Monday 24 April 2024, also [The Guardian](#), reported the results of an investigation that had detected more than 3,000 ads on the music platform SoundCloud and 700 on

Twitter of fake pills, most of them containing nitazenes. This trend in the UK should alert us because, as both Mireia Ventura and Ester Aranda remind us, trends that first occur in the UK can later be reproduced in other countries such as Spain. For example, the reception of ketamine at the beginning of the century and the chemsex phenomenon a decade ago. Among the target populations for nitazenes, in addition to classical heroin users, chemsex users are also potential recipients. In Spain, the number of chemsex users has increased in recent years.

In 2019, the impact of [nitazenes](#) as substitutes for fentanyl and fentanyl analogues was not even intuited. As an example, the report by [Pardo et al.](#) (2019) "The future of fentanyl and other synthetic opioids" is a global reference publication in the field of fentanyl and, despite the subtitle "and other opioids", it lacks any reference to the nitazene family. Nor does the UNODC framework publication on the synthetic opioid phenomenon 'Keys to understanding the global opioid crisis' ([UNODC](#), 2019) present any reference to nitazenes. The first scientific publication on the presence of nitazenes in illegal drug markets is by [Blanckaert et al.](#) (2020). The article presents the identification and chemical characterisation of [isotonitazene](#) that was sold on the dark web as [etonitazene](#). Therefore, nitazenes appear on digital markets by 2019 at the latest. From 2020 onwards, the presence of nitazenes on illegal markets, as well as scientific publications, have slowly but steadily increased.

Reiner Pungs, precursor specialist at the [UNODC](#) South-East Asia and Pacific office, reports on the control process for nitazenes initiated in 2021. Between 2021 and 2024, the Commission on Narcotic Drugs, at its annual session, has controlled six nitazenes in Schedule I of the 1961 Convention as amended: [isotonitazene](#) ([INCB](#), 2022: 16), metonitazene ([INCB](#), 2023: 20), [etazene](#), [etonitazepine](#) and protonitazene ([INCB](#), 2024: 18) and butonitazene ([UNODC](#), 2024). In addition, INCB and UNODC have issued alerts for other nitazenes. [Isotonitazene](#) is the dominant nitazene in the Baltic countries, and by extension in Europe. The [EMCDDA](#) (2024) details that this nitazene has replaced fentanyls in Latvia and Estonia. In Europe, law enforcement authorities have detected the purchase and sale of isotonitazene, etazene, ethomethazene, metonitazene and protonitazene on the dark web (EMCDDA, 2024). In 2020, Latvia reported the detection and dismantling of a laboratory manufacturing and shipping isotonitazene (UNODC, 2022b). The occurrence of nitazenes in Spain is

nil. The SEAT report ([EMCDDA, 2023: 21](#)) shows that [etoni-tazepine](#), the only nitazene detected so far in Spain, was reported in 2022.

Regarding the precursors needed to synthesise nitazenes, the words of Reiner Pungs, UNODC precursor expert, are revealing: "on the precursor issue, it really becomes technical. If you look at two syntheses to obtain etonitazene you will see hydrochloric acid and sodium amide in one; and in the second you will see ammonium sulfide and several other substances. I don't think we will see any of it trafficked because they are all licit substances with licit uses, i.e. the precursors of some nitazenes are legal and widely used in licit economies. What has been the trend is that putting a substance under international control doesn't solve the issue, it may be replaced by another very quickly". A reality that constitutes a major challenge for the control of nitazenes. An indicator that the era of nitazenes may become more persistent than that of fentanyls.

Along with nitazenes, [xylazine](#) also represents an emerging threat. In Spain, there is no evidence of the sale of heroin adulterated with [xylazine](#) or the presence of this potent sedative. In Europe, nitazenes and xylazine are on an upward trend and are increasingly present in European controlled drug markets. Europol has detected some cases of heroin adulterated with fentanyl and isotonitazene ([EMCDDA, 2024](#)). The UK Home Office detected in 2021 counterfeit tablets sold as oxycodone containing [bromophine](#), which was linked to the deaths of 60 polydrug users ([Home Office, 2022](#) in EMCDDA 2024). Xylazine is also present in British illicit drug markets. Copeland, Rice, Rock, Hudson, Streete, Lawson, *et al.* (2024) analysed the 35 pieces of evidence with xylazine detected until the end of August 2023. Xylazine functioned, in most samples, as a heroin adulterant, although in six cases it was used as an adulterant in illegally produced benzodiazepines sold as diazepam, alprazolam, temazepam and bromazolam, in six samples of fake tramadol and codeine drugs, and in two further cases xylazine was detected in THC vapes.

United States in recent years, as reported by Fernando Montero, an expert in fentanyl micro-trafficking and one of the first researchers to warn of the presence of xylazine as an adulterant in street fentanyl, he states that this potent sedative is present in the majority of almost all fentanyl samples in the country as of February 2024, and that in Philadelphia it is impossible to buy unadulterated fentanyl with xylazine. The combination of fentanyl with xylazine is

known as [trang-dope](#). Montero also acknowledges that fake benzodiazepine pills adulterated with xylazine, known as [benzo-dope](#), are common.

Adulteration of heroin with fentanyls, nithienyls or xylazine is unlikely in the Spanish reality, as long as heroin is available in the markets. Although some batches of heroin or other substances adulterated with fentanyls, nytylene or xylazine may appear from time to time. In any case, we hypothesise that these would be anomalous cases, which could cause alarm and some severe damage, but at no time would they have the capacity to replace heroin, and even less so benzodiazepines or opioid drugs.

In countries with limited access to health care, such as the United States, the black market for benzodiazepines is common. In recent years, benzo-dope has been detected in the United States. Benzodiazepines adulterated with nitazenes have also been detected in the [UK](#). In Spain, drug users have easy access to prescription benzodiazepines. The black market for benzodiazepines is in the hands of addicts themselves, who sell them for between fifty cents and one euro a unit. In our country, criminal gangs have never been interested in the benzodiazepine market because consumers obtain them mostly legally. Given this reality, it is unlikely that gangs would go to the trouble of stamping benzodiazepine tablets with fentanyls or nitazenes. The profit margins would be too pyrrhic. Although, as our informant Jaime Arredondo stresses, these presentations represent a high risk because naloxone is less effective when opioid overdoses in people under the effects of benzodiazepines have to be bounced back. Ester Aranda adds that in these situations "naloxone is less effective, and you easily need to intervene this type of overdose also with flumazenil, a drug with a higher risk of administration that requires the presence of a medical professional".

All of the above is a direct indicator of the way in which the drug problem, and more specifically that of NPS, changes and shifts radically in a short period of time. Transformations are accelerated when the inter-national community implements control measures. Criminal syndicates, especially those in China, look for legal alternatives when a substance is controlled. As fentanyl precursors become scarce, the presence of nitazenes will grow. In light of recent events and available data, we can strongly hypothesise that the age of fentanyl is coming to an end to make way for nitazenes. This is no deterrent to the fact that, as the international community

In the case of nitazenes, the illegal chemical industries, in search of synthetic opioids that are still legal, will put other families of synthetic opioids and even any other NPS on the market, as long as the European markets are supplied with heroin. However, as long as European markets are supplied with heroin, there will be little room for nitazenes or any other family of synthetic opioids, especially in countries like Spain, with no tradition or demand.

The purposes of this paper have invited us to analyse the process of substitution of fentanyl by nitazenes in Europe from a socio-economic and geopolitical perspective. The effects and chemical properties of nitazenes are not the object of study, although due to the novelty of this family of synthetic opioids, we consider it appropriate to reference three articles that are less than a year old so that anyone interested can consult them. These are: [Pergolizzi, Raffa, LeQuang, Breve and Varrassi \(2023\)](#); [Kanamori, Okada, Segawa, Yamamuro, Kuwayama, Tsujikawa, Iwata \(2023\)](#); [Holland, Copeland, Shorter, Connolly, Wiseman, Mooney and Harris \(2024\)](#).

### CRIMINAL GANGS. HEROIN, FENTANYLS AND NITAZENES.

On 5 April 2024, Europol presented the report "[Decoding the EU's most dangerous criminal networks](#)", an unprecedented report on organised crime in Europe. Europol identifies 821 criminal gangs operating in Europe. Half of the organisations are involved in drug trafficking. Thirty-six per cent (295 gangs) do so exclusively, 113 specialise in cocaine and 111 traffic in various types of drugs, mainly cocaine and cannabis or synthetic drugs. Cannabis is the main activity of 44 criminal organisations. There are six cocaine gangs, twelve precursor gangs and nine synthetic drug gangs. Heroin criminal groups are few in number, but their structure is robust and their *modus operandi* efficient. Europol classifies criminal organisations dealing exclusively with heroin, precursors and synthetic drugs as the most dangerous. Europol does not hesitate to identify them as a major threat. The report describes Spain as a central country in the criminal activity of cannabis and cocaine organisations, although the only link it makes between Spain and heroin trafficking is to point out that Albanian cocaine, cannabis and heroin trafficking gangs operate in the large EU countries, including Spain ([Europol](#), 2024: 28).

Drug trafficking syndicates are flexible in transporting drugs, cross-border, agile, nimble, controlling, cohesive,



They are destructive, adaptive to changing contexts, multifaceted, opportunistic to legal activities that facilitate criminal activities, and cooperative between banks to supply and distribute drugs (Europol, 2024). These characteristics allow them to escape law enforcement, endure over time and continue their criminal activity. Europol points out that organised crime does not hesitate to resort to extortion and blackmail to infiltrate the legal economy and control legal businesses in order to launder capital. Nor do they renounce violence both internally to maintain discipline among their members (torture, kidnapping and murder) and externally directed at rival criminal groups to solve problems they cannot solve in a court of law. Some drug gangs also engage in kidnapping, executions, corruption, money laundering, arms trafficking and document forgery (Europol, 2024).

The question to be asked in the context of this study is: what is the capacity of criminal associations operating in Europe to substitute heroin with fentanyl or other synthetic opioids? The Europol report warns that the production and trafficking of synthetic drugs has expanded from Western Europe to Eastern Europe, as well as to countries bordering the European Union, without any reference to Spain. The joint EMCDDA-Europol report (2024) cites the dismantling of fentanyl laboratories in Europe. Only in the Baltic countries have laboratories with the capacity to fully synthesise fentanyl been dismantled. In other countries, evidence shows that they were warehouses for precursors or laboratories for adulteration and preparation for sale. It has never been proven, outside the Baltic countries, that they could actually synthesise fentanyl or other synthetic opioids. Given the characteristics of the criminal gangs involved in heroin trafficking and what we know about the production, transport and sale of synthetic opioids, we set out:

- As our interviewee Víctor Méndez explains, the criminal groups that have supplied heroin to Europe in general and Spain in particular are of Turkish and Kurdish origin with complicities with gangs of other nationalities, especially Albanian and Bulgarian.
- Heroin criminal organisations have never been interested in synthetic opioids. The heroin business and associated criminal activities already brought them handsome profits.
- The heroin mafia patriarchs are careful to maintain their alliances with their historical suppliers in Afghanistan, Pakistan and Iran. Breaking alliances

could lead to uncertain violent consequences. Therefore, it is easier to continue with the current business and keep one's word than to embark on operations with uncertain outcomes. In relation to the patriarchal structure, Turkish criminal organisations are composed exclusively of men; the role of women is domestic support, but absent in buying and selling and transport operations.

- If, in the face of a heroin shortage or in view of the huge profits from synthetic opioids, they decide to start trafficking synthetic opioids, they would have to rethink their criminal structure. This would mean moving away from their historical opium/heroin suppliers and entering into new alliances. The reconversion of the business would provoke external tensions with old partners. These are situations that the more conservative leaders will avoid until such time as immobility challenges the livelihood of their criminal gang. Only the most reckless heads can begin the reconversion of the business, with due regard for the consequences. To reconvert the business is to start from scratch, to enter unknown criminal terrain and to take on uncertainties.
- Obtaining precursors to synthesise fentanyl is more complex than making heroin precursors available. The different methods of fentanyl synthesis require at least one controlled precursor; see [Figure 1](#) on fentanyl precursors. While heroin precursors, although under surveillance, are legal: calcium hydroxide (masonry lime) or ammonium chloride (widely used in fertilisers), acetic anhydride (indispensable for the manufacture of plastics and textile fibres), calcium carbonate (agricultural, construction and domestic uses, e.g. used to make chalk for the school blackboard).
- Heroin mafias would find it complex to buy fentanyl precursors. Production of fentanyl precursors is now scarce and clandestine. The meagre stocks of precursors manufactured in China are reserved for Mexican cartels to supply North American markets. Insufficient supplies explain the emergence of nitazenes in North America.
- The synthesis of heroin is relatively simpler than that of fentanyl and its analogues. The infrastructure required to synthesise synthetic opioids can be complex to obtain. Beyond the availability of the precursors, banks must procure a laboratory with the appropriate equipment and

The ventilation and temperature conditions must be suitable. In addition to having at least one person with a minimum knowledge of chemistry. The synthesis of heroin can be done by anyone with two arms.

- Not only is the mere availability of precursors a challenge, but the process of doing business with China is a challenge: mastery of deep web technology, cryptocurrency transfers, mastery of commercial codes, digital and analogue logistics, and a high level of English. These are requirements that analogue bands could achieve with time and patience, i.e. the conversion would be long and arduous.
- If they establish and maintain business relations with Chinese traffickers, they are more likely to be able to source nitazenes than fentanyl precursors.
- Nitazenes, being legal in China, may be more attractive to European criminal banks because they can be used without the tedious and complex process of fentanyl synthesis.
- Diplomatic relations between Turkey and China are formally excellent. However, there is a strong anti-Chinese sentiment among the Turkish population for two reasons. The first is the negative effects of the Asian giant's foreign trade policy on the Turkish economy. The second, and more important, is Beijing's discrimination against the Uyghur minority (Regueiro, 2020). The Uyghur is a Turkic people understood by the Turks as a brother people. Turkish criminal organisations are business-oriented but also secular and patriarchal. Turkish patriarchs will consider other options before engaging in trade relations with China.
- India and Pakistan are two countries with powerful chemical and pharmaceutical industries. The EMCDDA (2024) has warned that they may take over from China as a source of fentanyls, nitazenes and their precursors. In the near future, they could take on a greater role in the illegal drug trade. Westhoff (2021: 298) explains that if the NPS industry in general and synthetic opioids in particular were to move to India, the situation could worsen. India has been reactive to banning some NPS and fentanyl precursors. Moreover, according to [Transparency International](#), it is one of the most corrupt countries in the Asia-Pacific region. Corruption is organised crime's greatest ally.
- Criminal organisations in Afghanistan will find it impossible to move away from heroin to fentanyl or other synthetic opioids. In Afghanistan

all of the above difficulties apply, but in addition, to start producing phen- tanil would be to condemn millions of people to misery *in eternum*, certainly the worst case scenario if the gangs give up buying opium from the farmers. Afghan gangs are more likely to intensify methamphetamine production than to embark on the synthetic opioid chimera.

Ultimately, criminal syndicates historically involved in heroin will have a severe problem in converting to synthetic opioids. This does not preclude them from collaborating with each other to traffic synthetic opioids. It is clear that most heroin gangs would begin a business conversion process when Afghan heroin shows undeniable signs of depletion, although, in our view, if Afghan heroin runs out, it is more likely that they will shift their business to other criminal activities than to trafficking synthetic opioids. At least the Spanish sections of the heroin gangs will refrain from embarking on a new venture with the low Spanish demand for opioids and the ease with which users can transition to other drugs. Our hypothesis is that before we see them dealing synthetic opioids, we will detect them selling methamphetamine.

So far, the synthetic opioid market in Europe, with the exception of Estonia, has represented a marginal volume of business. Criminal gangs that have trafficked synthetic opioids have done so with other drugs and, with greater or lesser synergy, with heroin criminal organisations. The sale of synthetic opioids, least of all in Spain, has not troubled heroin gangs. Even less have they had any perception of losing market share. Expanding the synthetic opioid market at the expense of heroin markets could trigger violent tensions between rival gangs. Violent actions would draw the attention of law enforcement and could further complicate their operations. Organised crime tries to do its business without attracting attention. Therefore, as long as heroin remains in European markets, synthetic drug gangs will refrain from trying to gain market share. If heroin stockpiles dry up, then an uncertain period will open up, which could be characterised by hitherto unlikely alliances between gangs, and even increased violence between criminal groups competing for a very limited market.

The complex balance within organised crime helps to respond to why do Mexican cartels refrain from smuggling fentanyl into Europe? The

This logic might lead us to believe that just as Mexican cartels bring drugs into the United States, they can also infiltrate them into Europe. CITCO points to the increasingly important role of the African continent as a logistical hub that facilitates the trafficking of drugs in both directions of the Atlantic, mainly cocaine, heroin and NPS ([ENACT](#), 2023). In recent years, law enforcement authorities have identified the presence of members of different Mexican cartels in Spain and have even intercepted shipments from them. For example, in [December 2021](#), Spanish police dismantled a drug trafficking network linked to the Bertrán-Leyva cartel dealing in cocaine and methamphetamine. CITCO data show that methamphetamine trafficking from Mexico is recurrent. The FCSE seized 29,113 units and 338 grams of methamphetamine powder concealed in cargo or luggage in 2022 and 16,296 units in 2023. Seizures made in parcel shipments were 2 kg in 2022 and 100,000 units in 2023, as well as 44 grams of powder concealed in the luggage of passengers on commercial flights.

After triangulating the information provided by Elías Camhaji, a Mexican journalist and drug policy expert, Sotsinspector Albert Llana of the Mossos d'Esquadra and CITCO with the specialised literature, we found that Mexican cartels refrain from trafficking fentanyl in Europe for five reasons:

- Logistically, it is easier and cheaper for them to sell fentanyl to the United States and Canada. Wanting to sell fentanyl in Europe involves weaving new alliances, seeking routes and taking unknown risks.
- The demand for opioids in North America is five million people, while in Europe it is barely one million. Spain, with its sixty thousand consumers, represents a pyrrhic market compared to North America.
- It is foolhardy to take the risk of trafficking fentanyl to a change-averse population. Stimulating a change in tastes, as happened in North America, requires time and market actions that make no sense to implement in the European market.
- The Mexicans maintain a share of the drug market in Europe, have strong alliances and respect the business of other gangs. Upsetting this *status quo* would lead to a situation they prefer to avoid. The power of Mexican cartels and their ability to articulate violence are markedly different in the Americas than in Europe. As reported by Sotsinspector Llana de los

Mossos d'Esquadra, the criminal ecosystem in Europe is markedly different from that in North America and playing as a visitor is always more complex.

- The progressive substitution of heroin by fentanyl would require stealing market share from Turkish and Albanian gangs, with the resulting violence.

No scenario can be ruled out, but as long as heroin is available, the Mexican cartels will be inhibited from meddling in the Turkish and Albanian business. And, if we run out of heroin, it is more than likely that they will not be interested in the European opioid markets either because demand will largely shift to other drugs, with a particular focus on methamphetamine, a substance in which Mexican cartels already have a lot of assets. A shortage of heroin would be a boon to their business. In short, the current scenario represents a tailwind for the interests of Mexican narcos.

### ESTONIA. THIRTY YEARS OF PROBLEMS WITH FENTANYL

[Estonia](#) deserves a special mention because it has been living with improperly produced fentanyl for almost three decades. To some extent, the lessons learned from the Baltic country could be of value to us in terms of how to respond to a hypothetical synthetic opioid crisis. Estonia is a former Soviet republic of almost 1.5 million people. Anneli Uuskülaa reports in the interview conducted on 4 March 2024 that fentanyl appeared in Estonia between 2001 and 2002. The emergence of the potent opioid altered market dynamics. Within a year it had replaced both heroin and [kompot](#).

There are various hypotheses as to how fentanyl appeared in Estonia. Some authors suggest that it is a product of the Afghan heroin shortage resulting from the Taliban ban in 2000 (Talu *et al.*, 2003; Rowlatt, 2019; Caulkins *et al.*, 2024). Other sources suggest that the first use occurred in the late 1990s, before the Afghan ban ([Uuskülaa, Talua, Vorbjovb, Salekešinb, Rannapa, Lemsalub and Des Jarlais](#), 2020: 2). The Taliban ban is insufficient to explain the penetration of fentanyl in Estonia. Westhoff (2021:71) notes that the former Soviet Union was the source of fentanyl. The Soviet Union synthesised large quantities of fentanyl for soldiers' emergency kits. After the Soviet collapse, large stocks of the potent opioid were left unchecked. Fentanyl ended up in illicit drug markets, including Estonia, where it was well accepted.

Westhoff's informants report that prominent Soviet chemists began synthesising [fentanyl](#) and 3-methylfentanyl ([3-MF](#)) for the Azerbaijani mafia, just the most reported fentanyl analogue in Estonia until 2005.

Recent drug history shows us that a country is more likely to experience a public health crisis stemming from compulsive drug use, especially of opiates, when the state is transformed from an authoritarian to a democratic regime ([Martínez-Oró](#), 2015: 104). We saw this after the fall of the last three military dictatorships in Europe (Romaní, 1999). We witnessed it starkly after the fall of the Iron Curtain in the German Democratic Republic, Poland, Czechoslovakia, Hungary, Romania and Bulgaria. And in the new countries resulting from the disintegration of the Soviet Union: Ukraine, Belarus, Georgia, and especially in the Baltic republics ([Caulkins](#), *et al.*, 2024). Estonia is the only European country where illicit fentanyl opened up a market and established itself as the substance of choice for injectors, but more as a result of domestic factors than global flows. [Uuskülaa](#), *et al.* (2020: 3) attribute the good reception of fentanyl in Estonia, in cohorts of men born between 1977 and 1986, as a consequence of the complex socio-political situation resulting from independence from the Soviet Union ([Uusküla](#), *et al.*, 2002). From 2002 onwards, illicit fentanyl triggered a profound public health crisis, as well as a strong stigmatisation of users, mostly belonging to the Russophone minority ([Oja](#), [Kurbatova](#) and [Abel-Ollo](#), 2021: 22). The consequences were terrible:

- In 2005, fentanyl was the primary drug of 13 % of people who inject. By 2015, this had risen to 68 % ([Vorobjov](#) and [Salekešin](#), 2017).
- Estonia was the country with the highest number of people injecting fentanyl, and consequently, between 2007 and 2017, it was the country with the highest rate of fatal overdoses in Europe ([EMCDDA](#), 2018).
- In 2009, 61% of people injecting fentanyl had contracted HIV ([Talu](#) *et al.*, 2010).
- Between 2010 and 2017, illicit fentanyl accounted for 68 % of illicit drug overdose deaths. In 2018, the figure dropped to 20 % ([Uusküla](#) *et al.*, 2020).
- From 2002 until 2018, the number of people injecting remained stable. It is only in 2019 that it starts to decline ([Uusküla](#), *et al.*, 2020).
- Estonian injectors are ageing. In 2002, the average was twenty-five years ([Wilson](#), *et al.*, 2007), while in 2016 it was thirty-three years ([Wilson](#), *et al.*, 2007).

([Des Jarlais, et al., 2019](#)). This trend is shared by most European countries, including Spain. This is an indicator that the addicted population is continuing with the habit and that younger people are refraining from injecting. An important aspect in predicting the consequences of a public health crisis arising from synthetic opioids.

From the point of view of controlling the supply of illegally produced synthetic opioids, Estonia offers the following milestones:

- Until 2015, [3-methylfentanyl](#) (3-MF) was the most seized opioid in Estonia ([Abel-Ollo, et al., 2007](#) in [Uuskülaa, et al., 2020](#)).
- Fentanyl and the other synthetic opioids consumed in Estonia were clandestinely produced. In no case were they diversions of pharmaceutical presentations. Some authors, such as Westhoff (2021) and [Caulkins](#), pointed to Russia and China as the source of illegal fentanyl consumed in Estonia, although from some point in the first decade of this century, synthesis started on Estonian territory ([Uuskülaa et al., 2020](#)).
- Until 2015, the supply of synthetic opioids was exclusively [fentanyl](#) and [3-methylfentanyl](#) (3-MF). From that year onwards, the supply diversified: [carfentanyl](#), [acryl fentanyl](#), [cyclopropyl fentanyl](#), [furanyl fentanyl](#) and [U-47700](#) ([Uuskülaa, et al., 2020](#)).
- In 2017, police dismantled an illicit fentanyl production laboratory. A record amount was seized. This police action led to shortages with a consequent drop in quality ([Uuskülaa, et al., 2020](#)).
- The shortage of fentanyl has made it more expensive. The dose went from between ten and fifteen euros in 2017 to between twenty and twenty-five euros ([Uuskülaa, et al., 2020](#)).
- In 2022 and 2023, in Estonia and Lithuania, most fatal overdose deaths are caused by synthetic opioids. Preliminary 2023 data from Lithuania suggest an upward trend in nitazene-associated deaths ([EMCDDA, 2024](#)).
- In 2019, [nitazenes](#) appear on the Estonian unduly markets ([Giraudon, Abel-Ollo, Vanaga-Arāja, Heudtlass, and Griffiths, 2024](#); [Griffiths, Seyler, De Morais, Mounteney, Sedefov, 2023](#)). Estonia is the first European country to notify nitazenes. Since then, nitazenes have been common. The EMCDDA ([2024](#))



reports that the Baltic countries have a high availability of [nitazenes](#) (isotonitazene, protonitazene and metonitazene) due to a shortage of fentanyl.

- In 2022, Estonia seized [metonitazene](#). The metonitazene was mixed with the rare benzodiazepine [bromazolam](#), one of the first evidence of [benzo-dope](#) in Europe. Since then they have turned up on several occasions both in the Baltic countries and elsewhere in Europe, such as the UK. Police also seized samples containing [protonitazene](#) and metonitazene adulterated with [xylazine \(trang-dope\)](#).
- Data from the Baltic countries in general and Estonia in particular reinforce the hypothesis of substitution of fentanyls by nitazenes.

The consequences on demand resulting from the shortage of illicit fentanyl in Estonia, as reported to us by Anneli Uuskülaa, are as follows:

- In 2024, almost all doses sold as fentanyl in Estonia are fentanyl-free, but contain some other synthetic opioid, especially nitazenes.
- Estonian consumers want to buy fentanyl. Substances sold as fentanyl are likely not to contain fentanyl, but incorporate nitazenes or other NPS with uncertain effects and unknown safety doses. Consequently, overdoses are very likely.
- Since 2021, illicit fentanyl has become even scarcer. What is sold as illicit fentanyl is often adulterated with [isotonitazene](#) or other [nitazenes](#). Synthetic [cathinones](#) such as [MDPV](#) have also emerged ([EMCDDA](#), 2024).
- In view of the emergence of nitazenes and the high risk of overdose, users have switched from parenteral administration to smoking.
- Fentanyl addiction is so terrible that addicts are unable to find a substitute substance to alleviate their withdrawal symptoms. Anneli Uuskülaa explains how some people go abroad in search of fentanyl, mainly to Latvia.
- The uncertainty of the adulteration of substances sold as illicit fentanyl has led to a large majority shifting their use to other substances: amphetamine, methamphetamine, cannabis, prescription drugs, NPS such as synthetic cathinones, and even the intensive use of alcohol. The shift towards other substances, as we will see in the next chapter, is the one that Spanish demand would make in the face of a hypothetical arrival of

synthetic opioids. Faced with the risk of overdose, users tend to seek safer alternatives.

Let us present, at least briefly, the recommendations from the literature on the fentanyl crisis to address the deleterious harms. We highlight the following aspects:

- Free, voluntary and confidential HIV testing.
- Prevention and harm reduction services.
- Supervised consumption room.
- Syringe exchange programmes and dissemination of sterile injecting equipment.
- Opioid substitution treatment.
- Naloxone diffusion.
- Strengthening of drug testing services accessible to drug users.
- Need for early warning systems to inform about new substances on the market.

The background to the Estonian fentanyl crisis is totally different from the current Spanish reality. The stable socio-political and economic reality in [Spain](#) is a protective factor against any hint of social upheaval that could lead to an increase in drug use in general and opioid use in particular. Any parallels between Spain and Estonia to justify a hypothetical illicit fentanyl crisis, along the lines of 'just as Estonia experienced a fentanyl crisis, so could Spain', are unfortunate. Nothing to see. And, more so in 2024, because in Estonia since 2017 illicit fentanyl has been progressively replaced by other drugs: methamphetamine, cathinones, and most especially nitazenes. Again, if any synthetic opioid should have any impact on the Spanish reality, it will in any case be the nitazenes and even any other opioid that can be synthesised from readily available precursors. In Estonia, the era of fentanyl is over and languid by the irruption of nitazenes. The Spanish addiction care network more than meets the recommendations of Baltic researchers for dealing with a fentanyl crisis. Our country has a multitude of resources that make up the addiction care network. Resources could articulate strategies

to provide a solvent response to any hypothetical synthetic opioid crisis.



## 4. THE DEMAND FOR FENTANYL AMONG CONSUMERS

In the chapter, we first describe the characteristics of drug users and the importance of the addiction care network; we continue with the behaviour of drug users in the face of the arrival of synthetic opioids and end with a brief point on the supply of synthetic opioids in the deep network.

Sometimes lay discourse implies that mere supply is uncritically accepted by demand. We saw this causality throughout 2023 in the disfigured news reports on [illicit fentanyl](#). Some reports implied that the sale of illicit fentanyl would lead to rampant consumption, in the image and likeness of that of US users. For example, the news item with the headline, '[fentanyl arrives in Spain: the 'zombie drug' that is sweeping the United States and is 50 times stronger than heroin](#)' (Cuatro, 4 August 2023) stated that 'fentanyl has arrived in Spain. In the United States it is referred to as 'the zombie drug' because of the way it affects addicts. Everything suggests that fentanyl is already circulating among Spanish drug addicts'. And, as "it is circulating", it is understood that they are already "consuming it as in the United States". The reality exceeds any causal relationship because the dynamics between supply and demand are extremely complex.

In the hypothetical scenario in which criminal organisations begin to sell synthetic opioids, demand will not necessarily accept them uncritically, but, depending on the profile, may react in different ways. Drug users, although some descriptions characterise them as automatons in search of the next fix, possess a remarkable capacity for agency in accepting or rejecting the substances offered to them by the market.

### **POLY-CONSUMPTION. THE DEFINING FEATURE OF MARGINALISED DRUG USERS IS THAT THEY ARE**

The current scenario of addiction care and treatment is a product of the recent history of drugs, especially the history of heroin. This can be divided into three main phases ([Martínez-Oró](#), 2019: 13-28). **The countercultural phase** (1968-1975) was led by young university students linked to the cultural avant-garde.

who used heroin as a ritual of differentiation. **The heroin crisis phase** (1975-1992), led by young people from the working classes, provoked a terrible public health crisis, aggravated by the irruption of HIV and a marked sense of public insecurity (Pallarés, 1995). In 1985 the Spanish government instituted the National Plan on Drugs. During this period, Spain established the powerful addiction treatment network. **The marginalisation phase** (1993-present). Indicators of treatment admissions, overdose deaths, prevalence of drug use, etc., begin to fall. The dynamics of social exclusion led to the expulsion of users to the social margins ([Martínez-Oró and Conde](#), 2013: 42-45). During the nineties and the first decade of this century, a large part of public opinion was the victim of a socio-cultural *trompe l'oeil* because, despite the presence of heroin in marginal contexts, it was perceived that it had disappeared. During these years, public administrations made a titanic effort to both improve and expand the care network. The robustness of the Spanish addiction care network is central to our purposes. Having the network in place is the best guarantor against any threat caused by drugs, be it from any family.

Most, if not all, heroin addicts maintain contact with the care network, either in a treatment centre or in a harm reduction resource ([Clua](#), 2023). A very large proportion of them participate in [methadone](#) maintenance programmes, or may use [buprenorphine](#) as a substitute. Naloxone for overdose prevention is available for people who use drugs more intensively, although this type of programme needs to be implemented more geographically. Recently, the Ministry of Health has promoted the marketing and authorisation of naloxone in intranasal spray form. All the resources and programmes offered by the excellent Spanish addiction care network are a strong protective factor against any eventuality or health emergency. The network is attentive to innovations in the drug markets and to the emerging needs of drug users, especially in new or minority profiles. The advent of synthetic opioids would lead to overdoses, some of them fatal. These would trigger alerts in the addiction care network. Professionals could inform users, train them in overdose prevention and harm reduction strategies. In short, the care network would provide rapid and effective responses to the population at risk. When analysing a hypothetical crisis caused by synthetic opioids, the health care network would be able to provide rapid and effective responses to the population at risk.

addictions is proving to be capital. In the words of Dr Joan Ramon Villalbí, the Government's de-legate for the National Plan on Drugs:

I think we have to keep the addiction care network with the opioid part active and functioning. From time to time, there are people who give the message: "well, the heroin thing is over now". This is a mistake. Where they deny the capacity of opioid substitution treatment, they can pay dearly for it. Here we are better prepared than the Americans because we have very high coverage of opioid agonist substitution treatment in our system. We estimate that virtually anyone who seeks treatment for opiate addiction receives it in the short term, either with methadone or with buprenorphine. Therefore, preserving this is crucial, this reality of the treatment network (Doctor Joan Ramon Villalbí).

Today, Spain has around sixty thousand regular heroin users, fifty thousand of whom are severely addicted and live in conditions of marginalisation. These estimates come from the triangulation of [OEDA](#) (2023) indicators and qualitative research carried out by Episteme ([Mar-tínez-Oró](#), 2019; [Episteme Social](#), 2022, 2023). Spain, year after year, is reducing the number of heroin users. Demand is decreasing. As a result, it is less and less attractive for organised crime businesses. Beyond the number of people who may use heroin to account for the hypothetical impact of synthetic opioids, it is central that almost all heroin users are polydrug users. A rarity is the person who uses [diacetylmorphine](#) exclusively.

The different indicators produced by the DGPNSD show a clear decline in heroin use. In 1996, Spain reached an all-time high of 46,635 people seeking treatment for heroin as a primary drug ([OEDA](#), 2023: 27). In 2021, the figure fell to 7,419 people, of whom 5,083 with previous treatment. Hospital emergencies for heroin went from 56.1 % in 1996 to 5 % in 2021 ([OEDA](#), 2023: 8). The profile of people seeking heroin treatment is male (86.4 %), Spanish (87.6 %) with previous treatment (73.6 %), with primary education (68.1 %), unemployed having worked before (52.9 %), living with parents/family of origin (28.9 %) or alone (22.9 %), whose main route of administration is smoking (81.5 %) and cocaine polydrug users (45.7 %).

%) mostly cocaine base, cannabis (51.3 %), alcohol (33.2 %) and other opioids (9.3 %) ([OEDA](#), 2023: 11).

Heroin users would be the first to be affected in the case of illicit fentanyl acquisition. However, we would also need to analyse how it would impact on compulsive methamphetamine users. The characteristics of the people who make up the demand for heroin help us to understand how they might react and what practices they would apply to avoid the risks of fentanyl. In [Martínez-Oró](#) (2019: 79-90) we profiled heroin users and sorted them into six broad categories:

- 1. Ageing drug addicts.** The vast majority of heroin users have been addicted for decades and are markedly ageing. This is the profile of the majority of people who use heroin in combination with other drugs. The ageing of the addict population is evident in the comparison between European Union countries ([EMCDDA](#), 2023). Spain is the country with the highest number of overdose deaths among people over 65 (24 %). Care resources are adapted to the needs of increasingly older users. All people in this profile participate in opioid substitution maintenance programmes ([methadone](#) or [buprenorphine](#)), although some use heroin and other drugs on a more or less regular basis.
- 2. Drug addicts released from prison.** One of the consequences of the heroin crisis of the 1980s and 1990s was the criminal prosecution of addicts. Some, after accumulating and stringing together multiple convictions, have spent a large part of their lives in prison. In recent years, these people have been released from prison. Without a social network or a job, they have returned to consumption contexts and informal economies. Most of this profile shares characteristics with the older profile. They also maintain contact with the addiction care network.
- 3. Drug-dependent foreigners.** In some countries, suffering from addiction is grounds for arrest, torture and imprisonment. In recent years, Spain has received many addicts, especially from Afghan heroin transit countries such as Georgia, Romania, Bulgaria and Azerbaijan. In Spain, the use of controlled drugs has no criminal relevance: as a result, addicts can survive without their rights being systematically violated. Due to an irregular administrative situation, addicts can survive without their rights being systematically violated.



language difficulties and cultural differences, this profile is sometimes reluctant to seek specialised help, although the addiction care network has worked with notable success to cover their particular needs. Only a very reactive minority maintain their consumption without any contact with the care network.

4. **Parents who use drugs with minors in their care, with a special focus on women.** The long trajectories of drug use mean that a significant proportion of addicts are parents. Women, due to the social structure, suffer more bitterly from the processes of exclusion and stigmatisation. More and more resources offer gender-sensitive programmes adapted to the needs of women. Only a minority of women addicts are reactive to linking up with care resources because they fear that they will lose custody of their offspring, or that they will be forced to comply with rules incompatible with their lifestyle.
5. **Ravers-travellers.** In the last decade, the *raver-traveller* profile has proliferated. Some of them are Spanish nationals. Others come from other European countries, especially Italy. They are characterised by a semi-nomadic lifestyle, occupying and surviving through informal or illegal activities, such as drug trafficking. It is a very minority profile, but it is the one that is most receptive to innovations in the supply of drugs. It is therefore susceptible to accepting the supply of synthetic opioids such as fentanyl. In the words of Ester Aranda:

Users in Barcelona were in the jack, horse and king. The classic, older users had only consumed heroin, cocaine, co-cocaine and heroin. Someone had tried trips and so on, but nothing more. And of course, in 2018, we already see [in harm reduction resources] a profile that has used ketamine, MDMA, *speed*, hallucinogens and so on. That is to say, with a much broader background in the type of drugs they had used and more knowledge about substances. I mean, people who already know about drugs and say "I already know about drugs and I choose the one I want".

6. **Homeless migrant youth.** In recent years, unaccompanied minors have attracted a great deal of media attention. Their drug use is motivated by an existence marked by the impact of the migration experience.

and homelessness. Although their drugs of choice are pharmaceuticals such as [clonazepam](#) (Rivotril®) and [pregabalin](#) (Lyrica®), they are intrinsically poly-consumers, who do not disdain heroin either.

For the purposes of this study we highlight the following general elements of extremely vulnerable addicts who use heroin. These are:

- Opiate users are polydrug users, characterised by a predilection for [rebujito](#) and intensive use of [benzodiazepines](#). In recent years, especially in large cities such as Madrid and Barcelona, [methamphetamine](#) has gained popularity. For some users, heroin is just one more drug in the long list of substances they use without being the central substance of their addiction.
- Women account for barely 10 % of the total number of people who, among other drugs, also use heroin ([Episteme Social](#), 2022).
- The inhalation route is the preferred or only route among a significant proportion of polydrug users. The injected route is the minority.
- Almost all addicts survive in precarious or marginalised conditions.
- The older ones, of Spanish or European origin, usually receive a pension. Younger women are engaged in informal activities or begging.
- Only a tiny minority of vulnerable drug users under the age of 30 use heroin.
- Heroin addicts are familiar with the markets, the substances and their effects. The presence of a batch of heroin with unusual effects would alarm them.
- The vast majority of heroin users are survivors of the heroin crisis of the 1980s and 1990s. Most have suffered from hepatitis B and C, are HIV-positive, have undergone multiple treatments, taken retrovirals and other medication, overdosed, been in prison and survived in marginalised conditions. As a result, their health is precarious, but their experience is solid to assess the quality and risks of each of the batches.

Poly-consumption is the cornerstone of why the mere supply of synthetic opioids is insufficient to increase demand. Some American literature, especially journalistic literature, has spread the idea that one person's overdose leads to queues at the door of the dealer who sold the fatal dose because all addicted people want to experience the potent effects of the substance capable of causing overdose (Westhoff, 2021: 75). Such a situation is an American cliché that makes no sense among opioid users in Spain. We stress that it is a mistake to assume that heroin seekers will accept synthetic opioids without resistance. We can understand poly-drug use as a protective factor. Poly-consumption makes them versatile users and adaptable to the risks of supply. If pushers adulterate heroin with fentanyl, users will experience unwanted effects.

The very strong effects of fentanyl would cause them to change patterns of use or intensify harm reduction strategies, e.g. switching from injecting to smoking, self-care measures, taking less, changing provider, requesting naloxone, etc. However, due to polydrug use, a significant proportion are likely to abstain from heroin in order to intensify their use of cocaine, methamphetamine, benzodiazepines, alcohol or cannabis. Poly-drug use involves the continued combination of stimulants and depressants, which is why the [combination](#) of heroin and cocaine is so popular. In the absence of heroin as a depressant, benzodiazepines and even alcohol are more likely to be substituted than synthetic opioids. This is due, paradoxically enough, to the fact that the perception of risk is high among these users. The following reflection by Ester Aranda forces us to pay attention to how people who compulsively use stimulants such as cocaine or methamphetamine behave. In the expert's opinion, synthetic opioids could be well received by compulsive methamphetamine users.

In terms of poly-drug use, it is also likely that, due to the high quality of stimulants present in the Spanish illicit market, both cocaine and methamphetamine, users seek substances that alleviate the associated unwanted effects. Under this logic, it can be assumed that a higher potency opioid would be welcomed. In the case of methamphetamine users, we might expect this adulteration [heroin with fentanyl or synthetic opioids] to be positively received. The potency of the unwanted effects of methamphetamine can be very high, the potency of methamphetamine can be very low.

The use of benzodiazepines has a ceiling [they stop working] and it is now common for heroin to be used in the search for a reduction in discomfort and withdrawal: generalised and intense physical pain, insomnia...

But is there currently a demand for fentanyl or other synthetic opioids in Spain? None of our informants are aware that addicted users are demanding synthetic opioids. Another singular, minority and anecdotal aspect is the presence of some *rara avis* who have used some fentanyl bought on the dark web. This type of person, although we must emphasise that they are in a very small minority, are initiated users, are largely aware of the effects and risks of synthetic opioids and, above all, have the skills to [buy on the dark web](#). They use these drugs alone or in the company of people who are also experts in minority drugs. To a certain extent, they are proselytising users who have no influence on the general population of illicit drug users. In terms of risk assessment, they do not represent any threat to public health.

In relation to addicted consumers in a situation of social exclusion, [Episteme Social](#), since January 2022, has been working on a line of study, thanks to the grant awarded by the Ministry of Social Rights and Agenda 2030 from the tax allocation of the Personal Income Tax, which investigates hidden drug-dependent populations ([Episteme Social](#), 2022). So far we have interviewed 431 people. Only twelve people, i.e. 2.78%, had ever used fentanyl in their lives. Almost all of them have taken it under medical prescription. Only two people, i.e. 0.46%, had taken it as a result of a pharmaceutical fentanyl diversion. None of the people interviewed claimed to have bought clandestinely manufactured fentanyl. This is because we are talking about the most damaged, aggrieved and marginalised users. This profile would be the shock troops in the event of the emergence of illicitly produced fentanyl or other synthetic opioids.

The number of overdoses is the key indicator that Spain is free of fentanyl and other synthetic opioids. Overdoses will become irrefutable evidence in case of a massive circulation of synthetic opioids among users. For the moment, the number of overdoses remains stable, with no evidence that synthetic opioids are involved. In the words of Joan Colom, "the fentanyl scare is not appropriate in our environment because we have

We have the appropriate detection mechanisms, and if they do appear we have the professionals and the satisfactory resources to respond appropriately.

One detail that we cannot fail to mention, although it deviates from the objectives of the study, but is related to poly-drug use, is the illegal purchase and sale of [methadone](#). Spain is the EU country with the most methadone seizures ([EMCDDA, 2024](#)). In 2021, the Statistical Yearbook of the Ministry of the Interior ([Ministerio del Interior, 2022](#)) reports that the FCSE seized an exceptional 184 kilos of methadone. In 2022, the quantity stood at 2.8 kilos. In 2023, according to data provided by CITCO, the FCSE seized three kilos of methadone. Francina Fonseca is concerned about the increase in injecting methadone use.

"In 2023, in the REDAN La Mina assisted consumption room, 53,264 supervised consumptions were carried out, of heroin 15,1714, of cocaine 15,888, of *speedball*, which is the combination of heroin and cocaine, 15,922. What does stand out is the increase in recent years in the consumption of methadone by injection, in 2023, there were 2,993 consumptions, double that of the previous year". There are several reasons for methadone use. It is cheaper than heroin and mitigates opioid withdrawal, providing a faster positive reinforcement sensation than if taken orally; of concern is the fact that the formulation usually administered in treatment centres is for oral use and is not prepared for intravenous use. It remains to be seen how these people would receive the introduction of synthetic opioids. Francina Fonseca, with the data in hand, as we have just seen, confirms the anecdote that fentanyl consumption represents: "in all of 2023, one consumption of fentanyl was supervised, or at least that is what the person declared".

## SCENARIOS FOR THE HYPOTHETICAL ARRIVAL OF SYNTHETIC OPIOIDS

Let us assume that traffickers operating in Spain, for whatever reasons, e.g. a shortage of heroin or the availability of synthetic opioids, start selling fentanyls. The sense of how demand would be altered depends directly on how synthetic opioids are sold in the information markets. Taking as a reference the process of substitution in North America of opioid drugs by heroin and subsequently of heroin by fentanyl, we detect three routes of access to synthetic opioids by Spanish demand. These are:

1. Users demand heroin, but traffickers sell them a substance with a higher or lower percentage of heroin, adulterated with a synthetic opioid. Or they sell directly a substance without heroin and with synthetic opioids.
2. Users buy stimulants (cocaine, ecstasy or methamphetamine) that are unknowingly adulterated with synthetic opioids.
3. Users explicitly demand fentanyl and buy a substance whose composition is unknown, although to a greater or lesser extent it contains some synthetic opioid.

**Adulterating heroin with synthetic opioids.** Drug traffickers in North America introduced [fentanyl](#) into informal markets as a heroin adulterant. Since 2014, when US authorities implemented restrictions on opioid drugs such as [Oxycontin®](#) or [Percocet®](#), a significant portion of people addicted to opioid drugs moved to informal markets and began to demand heroin as an alternative. Heroin in the United States was exclusively sourced from Mexico. The cartels, needing to supply a growing market, began to adulterate heroin with fentanyl. The aim was both to increase the business opportunity and to optimise dwindling heroin stocks ([Mars, Rosenblum and Ciccarone, 2019](#)). The aim was to offer a substance that would satisfy demand while reducing production and transportation costs. Traffickers sold heroin adulterated with fentanyl to consumers as [China White](#), i.e. as if it were [white heroin](#). This presentation quickly replaced Mexican [tar](#). This was an effective marketing strategy because most users had heard of the extraordinary white heroin, but had never experienced its effects. This strategy allowed them to make sense of the stronger but shorter effects of the fentanyl in *China White*. Users thought they were taking a "purer" heroin, so the effects were different, but quickly, in the face of overdoses and unwanted sequences, they noticed the presence of fentanyl.

Drug traffickers used a similar strategy to introduce [M-30](#) pills adulterated with fentanyl. These fake pills are usually blue in colour, resembling the thirty milligram [Oxycontin®](#) pill. Drug traffickers introduced this pirated version because addict populations demanded [oxycodone](#). Unable to obtain illicit oxycodone, they opted to cut fentanyl tablets. In view of the results they obtained, they diversified the presentations with

fentanyl. Until the time came when the demand was already explicitly requesting fentanyl because they had developed an addiction to the potent opioid. It is now almost impossible to find heroin in North America unadulterated with fentanyl (Cicca-rrone, 2021). Among other consequences, the substitution of fentanyl for heroin has led to increased poverty in Mexico's opium-producing areas, for example in the [Sierra de Guerrero](#). This area shows us, on a small scale, the socio-economic consequences that the cessation of opium poppy cultivation can have for Afghanistan.

In North America, the substitution hypothesis was fulfilled. Faced with shortages of the main drugs, criminal organisations introduced an alternative, first heroin and then fentanyl (Pardo *et al.*, 2019). Now, with the shortage of fentanyl and its precursors, the United States is facing a new episode of the public health crisis in which fentanyl is being sold adulterated with [xylazine](#) and [nitazenes](#) are substituting for fentanyls (Friedman, Montero, Bourgois, Wahbi, Dye, Goodman-Meza and Shover, 2022).

In Spain, in the hypothetical case that synthetic opioids were to arrive in heroin outlets, the question would be how demand would react. In any case, *China White's* marketing strategy would fail among Spanish consumers. The Spanish market is dominated by [brown heroin](#), although [white heroin](#) sometimes circulates. Users are therefore aware of the effects and properties of the different types of heroin. If they consume heroin adulterated with fentanyl, they will know that it is a different substance. Under no circumstances will they think that it is white heroin. They would then use different strategies to avoid fentanyl.

A brief note. In Spain, demand for [oxycodone](#) or [hydrocodone](#) on the illicit markets is negligible. Traffickers are unlikely to introduce counterfeit opioid pills into a market that, for the time being, does not exist.

### **Adulterating cocaine, ecstasy or other stimulants with synthetic opioids.**

Stimulant adulterations with synthetic opioids are a major public health risk. They are notoriously recurrent in North America, especially with phen- tanil. The reasons for the adulterations are controversial. Some authors have sometimes hypothesised that they are accidental contaminations resulting from a precarious storage system (Klar *et al.*, 2016). Other authors consider them to be clearly intentional. [Wagner](#) *et al.* (2023) found that 13.5 % of the

718 samples of cocaine and methamphetamine analysed were adulterated with phentanyl. Although the authors refrain from explaining the causes, it is evident that 13.5

% is an intentional percentage. [Ciccarone](#) (2021) considers that narcotics traffickers also work to substitute fentanyl for stimulants, and if not replace them, at least work to increase the clientele addicted to the opioid. The ultimate goal of the narco-traffickers is always to gain a larger market share in order to make more profit. As we know, ethical and humane reasons tend to matter little to them.

In Spain, so far, we lack any evidence that anyone has, at any time, adulterated cocaine or other stimulants with fentanyl. Let us assume, for a moment, that synthetic opioids appear in Spanish illicit drug markets. Let's see what scenarios might open up.

Incidental contamination in wholesale distribution is highly unlikely. [Europol](#) (2024) states that opioid gangs refrain from trafficking stimulants. In the event that a criminal group worked with both synthetic opioids and stimulants, there is a possibility, albeit remote, of some corruption in the handling, adulteration and packaging of the substances.

With regard to retail sales, in Spain there is a clear differentiation between the points of sale of stimulants aimed at normalised consumer populations and those reserved for the marginalised addict population (narco- flats and drug dealing centres). This means that the vast majority of users of cocaine, ecstasy or amphetamine (*speed*) are supplied by dealers who never deal or come into contact with heroin or other opioids. Accidental contamination is therefore impossible. On the other hand, in heroin, cocaine and methamphetamine outlets frequented by marginalised addicts, contamination is more likely. In these places, all substances are usually adulterated and packaged in the same place and the same instruments are used (tables, spoons, scales, etc.). Contaminations are more likely to occur at the latter points.

In Spain, intentional adulteration for the purpose and effect of converting stimulant users into fentanyl addicts seems not to have occurred so far. Our hypothesis is that traffickers, before trying to capture market share among powder cocaine or methamphetamine users, will certainly first try to gain market share among opiate users. Another, notably more uncertain, but potentially more dangerous, situation is that individuals may adulterate stimulants with fentanyl or other opioids from improper diversions. As Dr Joan Ramon Villalbí points out:



Perhaps there is a local trafficker who has done this [adulterating cocaine with fentanyl], has obtained twelve blister packs and for some time has been mixing a little bit of something with other things. But for the moment, it doesn't seem to have had a major impact (Doctor Joan Ramón Villalbí).

The motives for adulterating cocaine or other stimulants are commercially illogical. Why adulterate cocaine with fentanyl? Cocaine is much more abundant in drug markets and is the substance in demand by drug users. In contrast, fentanyl from diversion is much scarcer and is not in demand by users. It makes more sense for traffickers to use the scarce availability of diverted fentanyl to meet a hypothetical demand for synthetic opioids than to squander it on adulterations whose effects will be undesirable to their customers. At present, a vial of fentanyl is likely to cost more than a gram of cocaine, and even more than other historically cheaper stimulants such as MDMA or *speed*. It is therefore illogical that any trafficker would have the idea of adulterating cocaine with a scarcer and more expensive substance such as fentanyl from drugs, in order to convert his clientele into addicts so that they will buy more cocaine from him.

In the world of micro-trafficking, what we find illogical to a drug dealer may seem like a great idea. If so, as long as the mixture contains a small amount of synthetic opioids, the consequences will go unnoticed by health services and will not go beyond angering customers for selling cocaine that causes unwanted effects. If the mixture contains an excessive amount of opioids, overdoses will occur and then we will have irrefutable evidence that synthetic opioids have found their way into the Spanish illicit drug markets. The damage would be more pronounced if those affected were recreational users, unaware of the effects of opioids, of how to handle an overdose situation and lacking naloxone.

Another radically different scenario is the malicious action of a single individual. Even in a single action, the consequences could be horrifying, as was the case in Argentina in February 2022, when a criminal gang adulterated cocaine with [carfentanil](#). The result was the death of twenty-four people and the hospitalisation of eighty-four [[Cocaína mortal en Argentina: los peritos encuentran carfentanilo, un opiáceo para dormir elefantes, en la droga que mató a 24 personas](#), El País, 11 February 2022]. This situation, as in Argentina,

would provoke strong social alarm. It must be said, however, that the responsiveness of Spanish supply control is high to nip the source of adulterated cocaine in the bud. In addition, the demand reduction area has the capacity to alert users to the presence of cocaine adulterated with synthetic opioids. This scenario, while unlikely, is impossible to prevent in advance. Spain, like any other country, is exposed to the viciousness of heartless individuals.

Intentionally adulterating stimulants, especially cocaine, with synthetic opioids, with the available data, seems to us unfeasible and illogical. Despite the accumulated evidence, evidence to the contrary has emerged in our interviews. Two addiction professionals have described to us that cocaine is adulterated with fentanyl. Francisco Mena, president of Coordinadora Alternativas, believes that, at least in Campo de Gibraltar, gangs sell cocaine adulterated with fentanyl. On the basis of the news published on 9 December 2023, "[cocaine is already being adulterated with fentanyl](#)", we contacted Francisco Mena, who confirmed this:

With us there are a lot of people who are doing community service work, because of drug issues, because of trafficking issues. So they are subject to drug testing. What happens when you give them a test strip to see if they have basically consumed cocaine? We started to see that some users, in addition to cocaine, were using heroin. Of course, the first time, we said to ourselves: "Well, you can expect something specific, but there are already several people who have tested positive for heroin use and we ask them: "Hey, have you used any type of heroin or any type of synthetic opioid or such? To see if they are mixing cocaine with fentanyl. Therefore, we are going to find ourselves with a population of cocaine users who do not know they are using fentanyl and they are going to do, they are going to want to use more, but not because of the cocaine but because of the fentanyl. What does this lead to? When they can't pay for cocaine, which is a higher price, they will start using fentanyl directly and it will lead them to marginalisation, to marginalisation very quickly.

Ana Isabel Henche Ruíz, medical expert in addictions of the Addictive Behaviour Unit of the University Hospital of Toledo, in the interview conducted on 14 February 2024, shares with us the suspicion of having detected in patients under treatment

with cocaine, clinical pictures typical of opioid withdrawal. In the words of Dr Henche:

On a clinical level, I am seeing that some cocaine patients are getting very hooked and they tell me about a physical withdrawal syndrome, which they are not used to. Cocaine does not produce a physical withdrawal syndrome, and they tell me about symptoms more compatible with withdrawal from an opioid, such as sweating, vomiting, muscular and abdominal pain... A physical withdrawal symptom which is not typical of cocaine, far from it, but I have not been able to confirm it analytically (Ana Henche).

The suspicions are not confirmed for the moment, but these discourses may be indicators of some underlying phenomenon that, for the time being, escapes our analytical spectrum. Or perhaps it is a projection of the fear generated by the phenomenon. Whatever the case, these disturbing indications are known to Dr. Vialbí:

Periodically, some therapists tell us "Hey, it seems to us that here in this area there are drugs adulterated with fentanyl, that they have put fentanyl in the coke, that they have put fentanyl in I don't know where". We have never had analytical confirmation, we have suspicions from therapists, but we have never had analytical confirmation. This has happened twice in two different territories. We always follow it up, we always ask them to try to document it more and we have never got much more. Therefore, as you say, we have no indications, but we do have elements that make us be alert and on the lookout (Dr. Joan Ramon Villalbí).

These verbatim quotes attest to the high level of attention and control over the phenomenon of synthetic opioids. Two spurious indications, to a certain extent inconsistent with the data available so far, from two unconnected professionals, were already known to the highest drug policy-maker in Spain. This is concrete and capillary evidence of the robust surveillance mechanisms operating in Spain. A set of mechanisms that are a powerful protective factor against the hypothetical arrival of synthetic opioids.

**Openly selling fentanyl or other synthetic opioids.** In the short term, this scenario is the most likely of the three. Fentanyl has been widely publicised in the media. They have also claimed that illicit fentanyl is already available in Spain. Some small-scale trafficker may think it is sensible to start selling fentanyl because it is believed to be in demand by consumers. There are three routes for the supply of fentanyl: dark web, drug diversion and deception. At this point, and having made the arguments in the [section on criminal gangs](#), we rule out, for the moment, organised crime supplying synthetic opiates to Spanish illicit drug markets.

- In relation to the **dark web**, buyers or small-scale traffickers have to meet a [set of requirements](#) that may be complex, if not impossible for them to meet. In the event that they manage to buy fentanyl on the dark web, it would remain to be seen what they have actually bought. Given the current global shortage of illicit fentanyl, it is likely that the substance sold as fentanyl is adulterated with other opioids or that there is no trace of fentanyl at all.
- The route of **deception** is very plausible. As fentanyl seems to be in vogue in Spain, some initiated users will have started to demand fentanyl. At the same time, some sellers will have thought that if fentanyl is so much in vogue, it must be good business. Unable to supply fentanyl, but wanting to meet demand at all costs, they would have offered a substance like fentanyl, but without any trace of the synthetic opioid. In times of turmoil, the opportunists seize the opportunity to do business at the expense of unsuspecting people who demand a drug whose effects they do not know and for which it is impossible for them to identify the scam.
- **Drug diversions** represent the most plausible and effective way to sell fentanyl. Despite controls on the prescribing of opioid drugs, leakage into the hands of traffickers is inevitable. In recent months there have been reports of seizures of diverted fentanyl. We address this issue in [the aftermath of the media storm](#) in the next chapter.

In short, traffickers can openly sell fentanyl to satisfy the curiosity of consumers, especially among the youngest and most experience-seeking. As Aura Roig shares, "there is curiosity because the heroin on the street is of very poor quality, so they [users] find out about it.

that there is an opioid that is very strong and it catches their attention, and what they are left with is this, anyway, I think here [in [Metzineres](#)] we do a lot of work to deconstruct the myth and give truthful information, the problem is that they don't have access to truthful information and the little information that is available is almost all in English". Beyond the curious who are on the lookout for supply-side innovations, for example, *raver/traveller* users, the demand for fentanyl or other opioids will increase, as it did in North America, when heroin addicts become addicted to fentanyl. Heroin will then represent an insufficient substance to mitigate their withdrawal symptoms. This scenario is far from the Spanish reality, especially, and we insist again, as long as there is Afghan heroin.

### SOURCING FROM THE DARK WEB

Voices concerned about the advent of synthetic opioids have sometimes pointed to the dark web as a source of supply for opioid users. Such claims are rather inaccurate. Buying from the dark web requires skills and means that only a tiny percentage of heroin users possess. A Europol investigation detected 2,003 offers of opioids on different deep web platforms. The countries of origin were the Netherlands (48 %), Germany (32 %), France (10 %), 'Europe' [no country specified] (5 %), Poland (2 %) and Belgium (1 %) (EMCDDA, [2024](#)). Spain is included in the 3% of "others" with a marginal share of less than 1%. The main factor explaining Spain's gregarious presence in the dark web is that analogue markets are adequately supplied with the genuine substances (heroin, cocaine, MDMA, cannabis and amphetamine). Initiated users aside, the dark web becomes meaningless for the vast majority of people who use drugs. The requirements for buying drugs in the deep web are too demanding. These requirements are most unattainable for marginalised heroin users. The requirements are:

- Have a good level of Internet navigation.
- Know the appropriate browsers for accessing the dark web.
- Research the dark web forums to find out the *modus operandi*.
- Know which dark web platforms are reliable for buying illegal drugs.

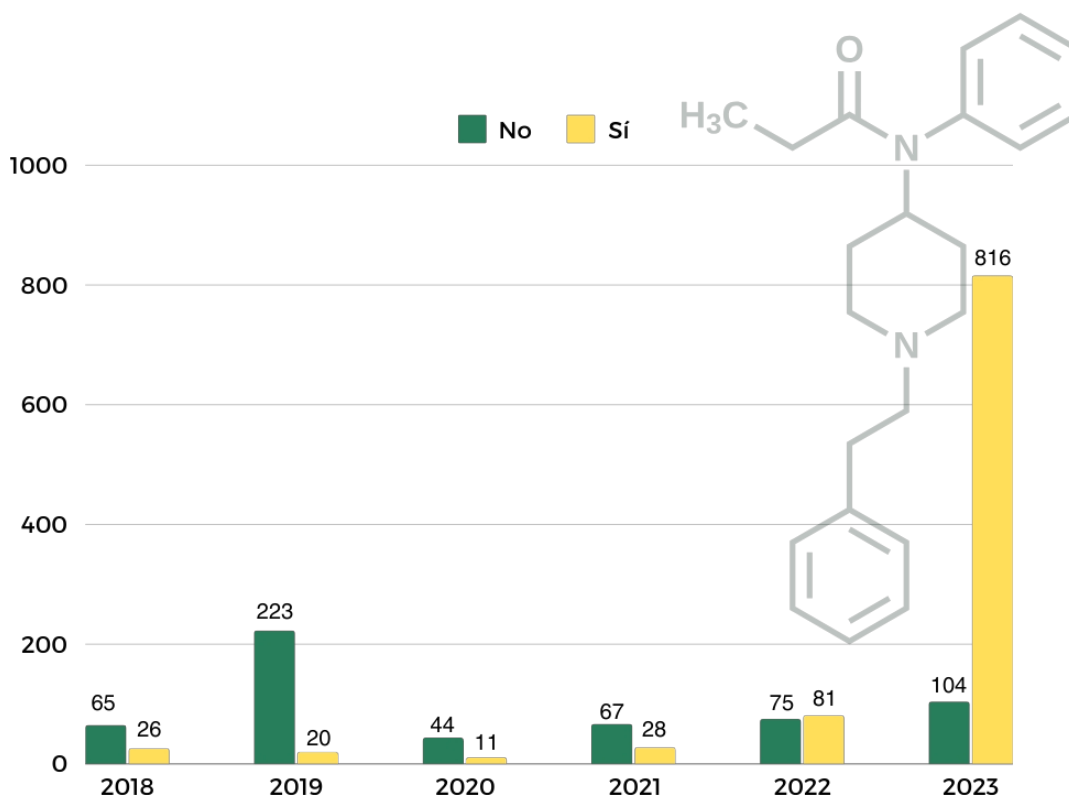
- Have a high level of knowledge of both English and the jargon specific to these environments. Translators are proving to be insufficient.
- Know how to register as a new user on a marketplace. Sometimes platforms require extra security steps in addition to the usual ones.
- Understand how message and text encryption/decryption mechanisms work.
- Engage in conversations with strangers and trust the security of the transaction.
- Know the whole process of exchanging, storing and sending cryptocurrencies, especially bitcoins. If this process is unknown, between fees and other expenses, drugs can cost a few times more than buying them from analogue dealers.
- Have a postal address and a mailbox of your own or a trusted mailbox.
- Have the necessary mettle to wait at home for a letter/packet that might be brought by the police.

With all these requirements, the dark web becomes a pipe dream for the vast majority of Spanish opiate users, most of whom do not have a computer, a bank account or a debit/credit card. This does not detract from the fact, as sub-inspector Llena of the Mossos d'Esquadra pointed out to us, that the task of policing the dark web is complex.

## 5. FENTANYL IN THE EYE OF THE MEDIA STORM

From a scientific-technical reading, it is paradoxical that a substance such as the [illicitly produced phen-tanyl](#), which, as we have insisted ad nauseam throughout the report, is absent from Spanish drug markets, has had such a colossal media impact. From a psychosocial reading, the media ecosystem and the sordid consequences of fentanyl in North America help us to understand the information storm. We have carried out a documentary analysis to understand the causes and consequences of the almost perennial media presence of fentanyl. The analysis was based on the 1,623 news items, provided by the [Centro de Documentación](#) de la Delegación del Gobierno para el Plan Nacional sobre Drogas, in which opiates or opioids or fentanyl appear in the headlines. The news items, published between 1 January 2018 and 26 January 2024, correspond to exclusively Spanish media, although they report events from anywhere in the world.

The media impact of fentanyl in the last year is shown in [Figure 5](#). In 2018, only twenty-six news items published, according to the analysis criteria, contained the word fentanyl in the headline. In 2019, the figure drops to twenty. In the pandemic 2020, the number drops drastically to eleven. In 2021, the word fentanyl appears twenty-eight times, similar to 2018 and 2019. The year 2022 is the first year in which 81 news items with fentanyl in the headline outnumber those containing opioids or opiates. 2023 is the year of fentanyl in the Spanish media. Not for nothing was it a candidate for Fundéu's word of the year. The number of news items with fentanyl reached 816 in 2023, an increase of 907.41% compared to 2022. So far in 2024, media interest in fentanyl, although far from the volume of July and August 2023, does not seem to show any signs of depletion.



Graph 5. News on opioids with fentanyl in the headline. Prepared by the authors based on news items from the DGPNSD Documentation Centre (2018-2023).

For our purposes, it is not so important to know how the media storm of 2023 developed. What the social consequences of the information spiral with fentanyl in the eye of the storm have been for us is central to the aims of this study. First of all, let's look at the causes that have justified such unusual interest.

### CAUSES OF THE MEDIA STORM

The media storm is a product of the synergies between those who produce and those who read the information. The explanation lies in the dynamics between supply and demand. On the supply side, i.e. the media observed that the news about fentanyl was well received by the Spanish audience. On the demand side, i.e., readers, half in fear, half captivated by morbid curiosity, read and disseminated the disturbing news about fentanyl. Readers' interest was heightened when the news item hinted at, or stated unequivocally, the arrival of fentanyl in Spain. The causes of the media spiral can be divided into two categories. The first was thematic, i.e., everything related to fentanyl was



of interest. The second is structural, that is to say, a product of the way the digital journalism business operates. There are four main theoretical causes:

1. The first, and original cause, was the public health crisis caused by opioids in North America and all its derivatives.
2. The second, the use of opioid drugs in Spain: prevalence, control systems, deviations, iatrogenesis, etc.
3. The third refers to news about fentanyl in a generic way, without geographical location, focusing on the effects, its analgesic potential and especially on the deleterious harms.
4. Fourth, the hypothetical arrival of fentanyl in Spain.

The public health crisis in North America caused by opioids began to unfold in 1996, with the authorisation of [Oxycontin®](#) by the FDA, and continues to the present day (Arredondo, Maulen and Campos (2022)). This crisis can be divided into four interlinked phases (Ciccarone, 2019, 2021). The first (1996-2013) was caused by opioid drugs ([oxycodone](#) and [hydrocodone](#)). The second (2010- 2016) was caused by [heroin](#). The third (2013-present) with [illicitly produced fentanyl](#) in the spotlight and adulterations with [xylazine](#) in recent times ([Montero, Bourgois and Friedman](#), 2022). The fourth (2021-present) is characterised by the adulteration of stimulants, especially cocaine and methamphetamine with fentanyls, and in recent months with nitazenes.

The [CDC](#) estimates that 861,000 people will die from opioid overdoses between 1999 and 2023. A crisis that, beyond the deaths, has caused pain in millions of families, addiction in some five million Americans, a very high cost in health and security, and a profound distress in American society, which has seen more young people die from the opioid crisis than in all the wars in which the United States has participated (Hagan, 2022). A health catastrophe of this magnitude is understandably newsworthy.

Since 2015, the Spanish media reported on deaths from synthetic opioids, lawsuits against pharmaceutical laboratories responsible for mass addictions to opioid drugs, celebrity incidents involving opioids, diplomatic conflicts between the US and Mexico, and between the US and Mexico and China, among other events. Most of these stories were either written by newspaper correspondents in Mexico and the United States or were teletypes from

agencies, especially EFE and Europa Press. In September 2022, videos of the living conditions of addicts in US slums, mainly in the Philadelphia suburb of Kensington, began to go viral. From that point on, some media outlets found that news stories about fentanyl brought in a large number of views and, by extension, advertising impressions. In short, it provided revenue for the company. From then on, some actively and others passively, in order not to lose steam with a hot topic, intensified the publication of news related to the fentanyl crisis in the United States. Of the 1,623 news items indexed, 747 relate to events in the United States. The public health crisis caused by opioids in the United States has been going on for so long and has so many facets, that the news stories published have dealt with multiple topics. We have sorted them into ten categories. Within each theme, we have selected a few headlines to illustrate the nature and tone in which the media reported the phenomenon. These are just a few examples of the dozens that can be found for each theme. They are presented below in order of highest to lowest incidence.

- **Public Health** (137 news items). Under this category we include news related to public health indicators and issues. News on the indicator of overdose deaths is recurrent to the point of saturation, for example, "[fentanyl already accounts for 81% of overdose deaths in New York](#)" (El Periódico de España (EFE), 25 September 2023). Fatal intoxication incidents, involving people of all profiles and conditions, are commonplace. Those involving vulnerable groups are more shocking for the audience, for example, "[five children hospitalised in serious condition after eating gummies with fentanyl](#)" (20 Minutos, 17 December 2023). The cause-of-death indicator is also a regular feature, e.g. '[Fentanyl is already the leading cause of overdose deaths in major US cities](#)' (20 Minutos, 16 October 2023). News items relating to different types of epidemiological data in search of sensationalism have been a constant, for example, "[fentanyl addiction has killed more people than the wars in Vietnam, Iraq and Afghanistan](#)" (Antena 3, 17 October 2023), among other related topics.
- **Lawsuits against the pharmaceutical industry** (136 news). The abusive and unethical practices of pharmaceutical companies ended up in court. Lawsuits against Purdue Laboratories, Johnson & Johnson, among others, for their responsibility in the

in the opioid drug crisis caused considerable media impact, for example "[US justice system charges a distributor for the first time in the opioid crisis](#)" (El País, 24 April 2019). Or news that paid special attention to the Sackler family, owners of Purdue Laboratories, "[a millionaire family, singled out for the opioid epidemic in the US](#)" (El Diario, 19 November 2018). This type of news, very present in 2018 and 2019, gave way, from 2021 onwards, to fentanyl, especially in 2022 and 2023.

- **Celebrities** (118 news items). The Spanish press has given considerable coverage to the problems or deaths of celebrities due to fentanyl. This type of news presented a double interest for readers. The gossip of the tabloid press together with the morbid interest in fentanyl. There are dozens of celebrities involved in these cases, and the number of news stories is in the hundreds. For example, the death of Robert De Niro's grandson from a fentanyl overdose was widely covered by the media "[someone sold my son pills laced with fentanyl: the cause of death of Robert De Niro's grandson is revealed](#)" (El Mundo, 5 July 2023).
- **Supply control** (53 news items). Seizures of drug shipments, especially by Mexican cartels, have been a regular topic. Seizures of large quantities of drugs were newsworthy, e.g., "[300,000 deadly 'fentanyl' pills seized in New York. 000 deadly 'rainbow fentanyl' pills](#)" (Heraldo, 13 October 2022), the cartels' innovative trafficking techniques, "[fentanyl in fuel tanks, new method of drug trafficking](#)" (Diario de Sevilla, 4 May 2023), new fentanyl presentations, "[United States wages war on rainbow fentanyl crossing from Mexico](#)" (28 September 2022), or arrests of people for grisly crimes, "[The 17-year-old mother who gave her baby a bottle with fentanyl and died is arrested in Florida](#)" (Heraldo, 15 July 2023) or "[the director of a day care centre is arrested for the death of a baby and the hospitalisation of three others after consuming fentanyl](#)" (El Correo Gallego, 19 September 2023).
- **Diplomacy** (49 news items). Tensions between the US and Mexico over fentanyl production, as well as between the US and Mexico and China to improve systems to control fentanyl and its precursors, were recurrent themes in the Spanish media, e.g. "[Estados Unidos acusa a China de inundar el país con millones de dosis de fentanilo](#)" (La Sexta, 27 August 2023)", "[Blinken llega a México para atajar la crisis de fentanilo y de migración](#)" (20 Minutos,

5 October 2023) or "[Biden on China deal to combat fentanyl trafficking: 'We have to check it out'](#)" (Europa Press, 21 November 2023).

- **Demand and harm reduction** (45 news). The terrible consequences of fentanyl forced the US authorities to implement harm reduction strategies. The most urgent and celebrated was the free sale of naloxone through the drug [Narcan](#), "[the US drug agency approves over-the-counter sale of an antidote for opioid overdoses](#)" (El País, 29 March 2023). We also heard about universal preventive actions, "[a new Sesame Street character explains the problem of opioid addiction to children](#)" (El Mundo, 11 October 2019). And even the preventive work of families, "[the fight of mothers against the fentanyl epidemic: they work so that the drug stops 'destroying' families](#)" (La Sexta, 14 May 2023).
- **Drug policies** (29 news). The fentanyl crisis forced the adoption of political measures and laws to control the purchase and sale of fentanyl, for example, legal measures to subdue pharmaceutical laboratories, "[Trump proposes to prosecute 'big pharma' for the opioid crisis](#)" (El Diario, 24 April 2019). Control and control actions in the face of the appearance of new substances, "[the White House declares war on xylazine, the 'zombie drug' that increases fentanyl overdoses](#)" (El País, 11 July 2023). Legislative ideas have also appeared that lacked legal viability due to their lack of constitutionality, "[Florida asks Biden to declare fentanyl a 'weapon of mass destruction'](#)" (Agencia EFE, 18 July 2023).
- **Abuses by pharmaceutical companies** (21 news). The marketing actions of the pharmaceutical industry forced national and international authorities to warn about the malpractice of the pharmaceutical industry, for example "[The UN warns that pharmaceutical companies' campaigns aggravate the opioid crisis in the US](#)" (El País, 2 March 2018) or "[Rojas Marcos: the US is paying for the use of opioids for years to alleviate pain](#)" (La Vanguardia, 3 January 2019).
- **Fentanyl deaths and human pain** (20 news items). News items in this category are set aside from "public health" due to their sensationalist charge. Such news stories were intended to have a strong emotional impact on the reader. Sometimes even to the point of sensationalism: "[My mother died of an overdose in front of me](#)".

[testimony of a young fentanyl addict in the USA](#)" (La Razón, 4 August 2023) or ["the devastating video showing the consequences of fentanyl in the USA"](#) (Okdiario, 2 August 2023). In this category we can find all those sensationalist news items that stigmatise drug users by calling them zombies and fentanyl a "zombie drug", for example, ["the neighbourhood of the 'zombies' who consume fentanyl in the United States"](#) (Deia, 3 August 2023) or ["the ravages of fentanyl, the drug that is 50 times more powerful than heroin: users look like the living dead"](#) (Telecinco, 19 August 2023).

The second cause is, to a certain extent, subsidiary to the US drug crisis, the news regarding the increase in the prescription of opioid drugs. An abuse that will lead to a greater demand for treatment, for example ["Euskadi is already treating the first drug addicts due to the abuse of opioid prescriptions"](#) (Diario Vasco, 20 May 2018), and there are even those who announced the epidemic more than five years ago, ["the abuse of fentanyl is verging on an epidemic"](#) (Levante, 13 July 2018). As in the United States, the germ of the public health crisis was the product of the trivialisation of the side effects, specifically addiction, of opioid drugs. Since 2016, the Spanish press has been closely following the evolution of the use of opioid drugs in Spain, to some extent in order to assess to what extent Spain would replicate the American crisis. In the first instance, the media reported the increase in the prescription of opioid drugs, ["the use of opioids with addictive potential grows by 50 % in six years"](#) (El País, 6 January 2018), ["the consumption of hypnotosedatives and opioid analgesics increases in people over 35 years of age"](#) (Gaceta Médica, 5 January 2023) or ["the prescription of opioids has doubled in Spain"](#) (La Tribuna de Ciudad Real, 18 January 2024). This kind of news, against the backdrop of the opioid-induced public health crisis in North America, always generates considerable dismay. Although the prescription of opioid drugs is not a direct indicator of problems either, it is also an indicator of a higher survival rate for cancer patients and a better approach to different types of pain.

The media seized on any hint of it to publish chronicles of the  
The reasons for this unusual digital media presence are intertwined and disparate. The reasons for this unusual digital media presence are intertwined and disparate. The news about fentanyl has worked well with the audience, because beyond the interest

In the context of the subject matter, the phenomenon has a certain morbidity. A feature of the media impact has been the constant confusion between illicit fentanyl, therapeutic uses of opioids, and diversions of pharmaceutical fentanyl for misuse. Associated with opioid drug-related news, the press published stories that were misleading because they confused fentanyl pharmaceuticals with the misproduction of fentanyl,

[fentanyl: the opioid that plagues the United States quadruples its consumption in Spain](#)" (Diario de Pontevedra, 16 January 2024). The following news item is the paradigmatic case: "[fentanyl consumption rises in Spain and concern over an opioid that causes thousands of deaths in the USA](#)" (Público, 14 January 2023) "[phen-tanyl consumption in Spain is multiplied by eight](#)" (As, 26 September 2023), and some even did not hesitate to point to the use of opioid drugs as an epidemic "[epidemic in Spain due to fentanyl consumption, the drug that is 40 times more addictive than heroin](#)" (ABC, 12 July 2018).

The hypothetical arrival of fentanyl, or the uncertainty surrounding the misuse of opioid drugs, prompted journalists to seek synergies between doctors and addiction experts. The aim was to elucidate the extent to which Spain will suffer a public health crisis caused by opioid drugs. The communication professionals note that Spain has excellent control mechanisms in the prescription and use of opioid drugs; for example, the Optimisation Plan of the Ministry of Health "[approved the Optimisation Plan for the use of opioids in chronic non-oncological pain](#)" (NoticiasDe.es, 23 September 2021), the electronic prescription "[the traceability of prescriptions and the training of professionals, keys in the management of opioids](#)" (Gaceta Médica, 25 January 2024), deontology and professional ethics "[the responsibility of doctors and strict regulation, a guarantee for the use of opioids in Spain](#)" (Gaceta Médica, 26 January 2024). In short, when journalists consulted professionals, it was clear that "[in Spain there is no risk of an opioid epidemic as there is in the USA](#)" (El Médico Interactivo, 24 June 2019).

**People with iatrogenic addiction** to prescription opioids have received considerable media attention, especially considering that they represent a miniscule percentage of the total number of patients seeking treatment for addiction each year. [OEDA](#) data (2023: 143) show that 174 people with iatrogenic addiction were admitted to treatment for fentanyl in 2021. Between 2014 and 2021, in Spain as a whole, there were 664. Social perception establishes a large symbolic difference between people with iatrogenic addiction and "regular" addicts.

He believes that the latter acquired the habit because of their bad decisions. On the other hand, people with iatrogenic addiction became addicts through lack of knowledge, and sometimes there is even the underlying idea of medical malpractice. The figure of the person with iatrogenic addiction has served the media to show that in Spain we also have patients with addiction to opioid drugs, just as in the United States, for example, "[the double face of therapeutic fentanyl: 'I had less pain, because I lived in another galaxy'](#)" (El Mundo, 21 January 2024). This news intensifies the confusion between pharmaceutical and illicit fentanyl, with the consequent risk of stigmatising and even criminalising medical use, "[from fentanyl addict to co-therapist: 'I took 96 'piruletas' a day, and so I lost five years of my life'](#)" (Heraldo, 20 October 2021). Finally, note the threat posed by fentanyl to medical staff, "[fentanyl addiction in Spain is starting to affect health workers](#)" (Telemadrid, 24 October 2023). The [OEDA](#) (2023: 171) states that "in relation to other opioids for therapeutic use, 17 deaths involving fentanyl were reported in 2021 (19 cases in 2019 and 20 in 2020) and 100 deaths involving tramadol (81 cases in 2019 and 80 in 2020)". We note that opioid drugs are present in only a small percentage of drug-related deaths. In no case is so much media attention justified.

The third category is news about fentanyl without further specificity. At In this category we find the news items that, according to our analysis, have most helped to create fear among Spanish audiences. They are very short news items that explain what fentanyl is, its potency, its effects and the damage it has caused in the United States, sometimes with spurious data such as deaths from opioids, the number of overdoses or the [volume of business](#) it represents. The examples coated with a sensationalist tinge are endless, for example, "[fentanyl, a synthetic drug 50 times more powerful than heroin, is behind the overdose epidemic in the US](#)" (La Sexta, 1 August 2021). One evidence that fentanyl issues were lucrative for news companies is that sports newspapers were interested in the phenomenon "[What is fentanyl rainbow, the most lethal drug of concern in the USA](#)" (El Mundo Deportivo, 27 September 2022).

Some of these news items already raised the possibility of Spain suffering a crisis similar to that of the United States, "[la plaga del fentanilo: así actúa esta droga devastadora](#)" (Diario de Navarra, 29 May 2023). We present a few news headlines to show that almost all the media, regardless of ideology or ideology, have been very interested in this issue.

the public participated in this type of news: "[what is fentanyl, the 'zombie drug' that is sweeping the US: 'This shit kills everyone'](#)" (El Español, 2 August 2023), "[these are the risks of an opioid overdose](#)" (Mundo Deportivo, 7 September 2019, "[five ways to control pain without opioids](#)" (Mundo Deportivo, 14 January 2022). "[what is fentanyl and what are the effects of the dangerous youth drug](#)" (As, 18 May 2022), "[how fentanyl works, the dangerous drug that is triumphing among young people](#)" (Mundo Deportivo, 19 May 2022). "[What is fentanyl and why can it cause an epidemic](#)" (El Periódico, 16 September 2023), "[skyline](#)" in the "[zombie](#)" neighbourhood of Philadelphia: "[Fentanyl, the drug that is ravaging the USA](#)" (Cuatro, 17 July 2022), "[what is fentanyl, the 'zombie drug' found in Anne Heche's body](#)" (La Opinión de Murcia, 19 August 2023). These news items have contributed the most to the media hurricane. The constant bombardment of fentanyl-related news has only contributed to the publicity and fear among the audience.

The fourth and defining category is the moment when the media claim that fentanyl has arrived in Spain. The turmoil in the United States and Canada was a great source of stories for the Spanish press. Some of these news items began to question the possible arrival of fentanyl in Spain, to the point of stating that in Spain "fentanyl was running", for example, "[from fentanyl to xylazine, the threat of opioids in the USA becomes a diplomatic crisis... and begins to appear in Spain](#)" (20 minutos 17 April 2023). When in most cases it was a hoax, or at best a clear confusion between the drug and the improperly produced fentanyl. During the peak of the media spiral, between July and September 2023, the most tabloid media published a series of news stories claiming that illegally produced fentanyl was already a reality among Spanish addicts.

The first news item that suggests that illicit fentanyl has arrived in Spain, even though it is a confusion between clandestine and pharmaceutical fentanyl, is the one published by our interviewee Verónica Pavés "[fentanyl, the new synthetic drug that is beginning to gain followers in the Canary Islands](#)" (El Día de Canarias, 23 May 2021). Then came a set of news items, which was first a "could" "[fentanyl, the new zombie drug could have arrived in Spain](#)" (Cuatro, 20 January 2023). Subsequently, the entry was stealthy and, therefore, we had not yet detected it "[fentanyl in Barcelona: the stealthy infiltration of the drug that is plaguing the US](#)" (El Periódico, 25 January 2023). By April 2023 it was already a reality "[Fentanyl, the most powerful opioid in the world](#)" (El Periódico, 25 January 2023).



[stronger than heroin: its use is growing in Spain](#)" (As, 19 April 2023) or this news item from June ["la sombra del fentanilo se cierne sobre España: La 'droga zombie' más letal llega a nuestras fronteras"](#) (Diario de Sevilla, 2 June 2023).

The press sought out experts to validate the reception of fentanyl in Spain and, in some cases, found the expert to validate the thesis,

["An expert warns that cocaine adulterated with fentanyl is already being sold in Spain"](#) (Faro de Vigo, 4 June 2023). Regional and local media translated the hypothetical problem into local terms: ["Así funciona la 'droga zombie' que ha llegado a Canarias"](#) (La Provincia, 20 June 2023). In August 2023, the illegal production of fentanyl was already a reality that seemed undeniable, ["fentanyl arrives in Spain, the 'zombie drug' that is sweeping the United States"](#) (Cuatro, 4 August 2023). Although other media questioned its presence. ["The reality behind the social alarm"](#) (Metrópoli, 14 August 2023). The following news item doubled the stakes by claiming that heroin was adulterated with fentanyl. This news item had a special media impact because an emergency professional claimed, or at least this is what was stated in the news item, that fentanyl was already a reality in Madrid markets, ["the first cases of heroin consumption with fentanyl have been detected in Madrid"](#) (ABC, 14 August 2023). During our fieldwork we contacted the professional to interview her, but we were unlucky that she did not respond to our request. From August onwards, some media outlets are already publishing news that is certainly unfocused.

[The CNI warns of the entry of fentanyl into Spain via Barcelona](#)" (Antena 3, 14 September 2023); ["Alejandra Andrade delves into the drama of fentanyl: "In Spain it is already on the street"](#) (Las Provincias 23 October 2023); ["fentanyl "is already on the black market" in Spain: prescriptions are falsified and drugs are also cut with it"](#) (Telecinco, 25 October 2023), ["fentanyl reaches Andalusia: it is detected for the first time in La Línea"](#) (El Mundo, 3 December 2023); ["What impact will fentanyl have in Spain? One person dies every five minutes in the USA"](#) (Antena 3, 18 December 2023):.....

Addiction professionals, from all walks of life, have denied in every possible way any hint of lack of control, beyond unfortunate but anecdotal cases in the prescription of opioid drugs. The spiral of news reports claiming that fentanyl was a reality in Spain prompted some media outlets to cross-check the information. The result was the publication of some news stories that denied the presence of illicit fentanyl on our streets. Despite some

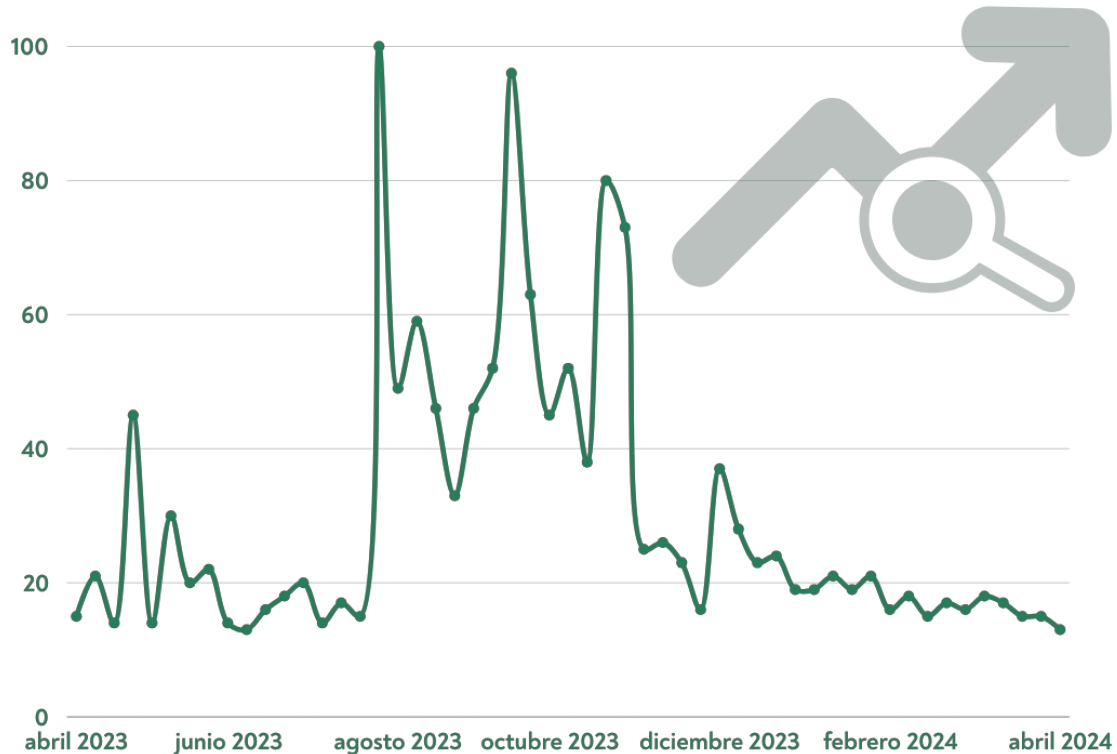
previous attempts, the first clear and forceful news item denying the presence of illicit fentanyl in Spain was that of our interviewee Nieves Salinas, "[no, fentanyl has not reached Spain: experts deny the hoax](#)" (El Periódico de España, 17 August 2023). Subsequently, other articles were published, such as "['todo es mentira' desmonta el bulo del fentanilo alentado por Ana Rosa y que Vox amplifica](#)" (El Plural, 26 September 2023) or "[Fentanyl in Lugo: a false social alarm](#)" (La Ser, 16 January 2024). The latter was published after it was claimed the day before that there were already patients demanding treatment for fentanyl, when it was a case of iatrogenic addiction. Let's look at the structural causes of digital journalism that have sheltered and catalysed the media din of fentanyl. What follows is the product of the triangulation of the discourses of the journalists interviewed: Nieves Salinas, Verónica Pavés, Santiago R. Reviejo, Pol Pareja, as well as the always wise reflections of Claudio Vidal. Whether it can become news depends on the ideology and ethics of the journalist, as well as on the editorial line of the medium in which it will be published. The journalistic premise is that socially relevant information that will be of interest to the audience is newsworthy. This premise is increasingly subjugated to the need to obtain digital traffic. The first and central aspect as a structural explanatory factor is the perennial need for journalists to publish, some almost daily in the manner of a Sisyphean ordeal, on topics that are interesting to the largest possible audience. The cycle is relatively simple. News of interest, in journalistic jargon "the ones that work best", involves a large number of views. Journalists want their news to be read and, as far as possible, to be of interest to the public and, where appropriate, to have a social impact. From newspaper management's reading, more read stories mean more advertising impressions and, by extension, more revenue. A viral story with millions of views generates more revenue than a story with a few thousand views. The media have their own style, ideology, ethics, they provide information, and they are not just a means of communication, but also a means of communication. The sources of revenue for the press are diverse, such as subsidies or subscriptions, but the assets generated by advertising are directly dependent on the ability of the news to "hook" the reader into reading it and giving it to the reader. The sources of income for the press are diverse, such as subsidies or subscriptions, but the assets generated by advertising depend directly on the ability of the news to "hook" the reader into clicking on the headline. This is why editors-in-chief, in the middle ground between managers and journalism professionals, in principle faithful to their ethics and deontology, will tend to propose subjects of

The content must be approached with rigour and in the style of the medium but, ultimately, it must channel the flow of visits to your website. Another aspect is the arts used to obtain visits. In some cases, journalistic deontology languishes in the face of the need to obtain views. Fenta- nile was and is a good subject to get views.

Digital journalism is a never-ending circle. Digital newsroom closures are meaningless. They may be set for organisational reasons, but they never set a time limit for a story to make it into the next day's paper edition, as in the past. News portals are continually being fed. Before the irruption of digital journalism, a communications professional could receive a piece of information and have time until the deadline to work on it, contrast it and obtain a quality piece. Now, when the news breaks, the race against the clock begins to publish, at least a first version, the news on the web. Afterwards, it will be edited as many times as deemed appropriate. The fentanyl news is perhaps not part of the vortex of breaking news, although it is impregnated with the immediacy and stress that characterises digital journalism.

Social media trends show the topics of interest at the moment. Google Trends shows the topics that are most searched for in Google by time and geographic distribution. Journalists use both of these resources to feed on topics, because a news item about a trend is likely to be well received by the audience. "Fentanyl" was a recurring trend on social media, especially Twitter, during 2023. Figure 6 shows how "fentanyl" was the top trend on Google Trends between 30 July and 5 August 2023. Journalists need only visit the [current trends](#) section to see what content is causing concern. "Fentanyl" was in this section for months. In Spain, for quite some time, publishing about fentanyl was a bet on a winning horse.

## FENTANYL IN SPAIN



Evolution of fentanyl in Google Trends between April 2023 and April 2024. Own Elaboration based on data provided by Google.

When the wheel of an issue is already turning, it becomes a trend. So, if the competition has been publishing news, for example, about fentanyl and they insist on the topic, it is an indicator that the news "works". Therefore, it is logical that media outlets that had so far omitted the topic start to publish it. When fentanyl was established as a trend, then it was time for editors-in-chief to say "we'll have to do something on fentanyl". Publishing for fashion is fuel for the media storm.

The cyber-hook technique to capture the interest of the audience aims to increase the number of views, although it is perceived as a bit stingy. In general, the drug phenomenon is a good topic for creating cyber hooks. Fentanyl in particular has proved to be a fantastic topic for baiting the audience. News ultimately chases virality because it represents millions of advertising pressures. Virality is random, because there are multiple factors that drive it, but the first ingredient is having a topic that both captures the attention of audiences and that they are willing to share the news. Then the algorithms take care of extending the reach. Given the thematic characteristics of fentanyl, some potential for virality could be expected. Testing news with

fentanyl was successful. The final push to unleash the media storm was viral news. If fentanyl stories were getting an acceptable number of views, in today's digital journalism scenario, it is logical that the topic was pushed to exhaustion.

The media were seeking to position themselves for the purpose and effect of obtaining a substantial number of hits and, by extension, advertising revenue. Some journalists have published unfortunate news stories. A minority have been untruthful to an obscene degree. Most were unable to foresee the impact of the fentanyl media storm. But, if not as an unintended consequence, the multitude of content generated about fentanyl has affected social reality, as we explain below.

### CONSEQUENCES OF THE INFORMATION HURRICANE

In the social sciences, causal relationships tend to be the exception rather than the rule. Social phenomena are the product of a multitude of factors. Therefore, the following section entitled "Consequences of the information hurricane" should be taken with some caution. Our analysis shows that the media presence of fentanyl has had some consequences on social reality. Some of these consequences are clear and evident, for example, the training of law enforcement officials on fentanyl or the publication of information materials on fentanyl. An example of training can be found in the workshops for the Valencia Local Police, organised thanks to the tenacity of our interviewee Alejandro García and given by Andreu Cueva, an anaesthesiologist and also interviewed,

["The Local Police of Valencia analyses the impact of fentanyl with experts: 'Is the 'horse of the 80s' back?'"](#) (Telecinco, 28 November 2023). An example of the publication of materials can be found in the [trptych](#) published by the Guardia Civil to train agents and officers of the Armed Forces, ["la Guardia Civil alerta a sus agentes sobre los riesgos al manipular eventuales alijos de fentanilo"](#) (El País, 24 October 2023). In these two cases, we believe that the relationship is evident. The perceived threat of fentanyl has led law enforcement agencies to implement training and information strategies. In this case, although the presence of illicit fentanyl is not yet evident, the proverb "prevention is better than cure" applies. Although the information received may not be applied in the short term, we know that "knowledge does not take up space".

The second consequence, also evident, is to place fentanyl in an undeserved space of technical and professional discussion. Professionals, experts,

politicians, public administration technicians and a multitude of people, who have more important tasks than worrying about a marginal substance, have dedicated time and effort to documenting and understanding the phenomenon. And not only to attend to journalists, but also to discuss an uncertain and disturbing reality. Without the media storm, we professionals would have devoted ourselves to other tasks. Even with media pressure of this nature, however, we professionals had to attend to and understand such a threatening phenomenon. To some extent, this report is a product of the undeserved media attention devoted to fentanyl, but it has helped us to appreciate the phenomenon and make it clear that a [nitazene](#) crisis is more likely to occur than a fentanyl crisis, to analyse the realities of Afghanistan in depth and to see that it is highly unlikely that heroin flows to Europe will dry up, as well as to provide a body of evidence that will hopefully prevent another resurgence of the fentanyl media spiral, as audiences would dismiss fentanyl news as *fake news*.

The third consequence, which is more difficult to assess, is how it has affected the public. To a certain extent, the media storm has resulted, according to Cohen's (2017) proposal, in a moral panic, which has unjustifiably inoculated the general public with fear and anguish, while it is materially impossible for there to be anyone in Spain who does not know what fentanyl is. It is not halfway normal for the population to know, and some of them in remarkable detail, about a substance whose illegal presentation is totally absent and whose pharmaceutical format should be limited to the purely clinical sphere. The combination of knowledge and fear can provoke different reactions among the public. One of these is the one reported by Dr. Alicia Alonso. The following quote shows how a patient, to whom the doctor had prescribed fentanyl to treat her ailments, is reluctant to take it because she is afraid of becoming a street addict.

I'm seeing some patients coming in, well, misinformed and asking you: "Is this fentanyl that you're going to give me for my pain?" and maybe he says: "Yes or no, but he belongs to the family". "Oh, no, no, I don't want to end up like those images that wander through the streets on the television news". Well, let's see, I mean, there is misinformation and this has led to people not having a clear understanding of things, or clear concepts, and they are clearly afraid. "That's a very bad thing" (Alicia Alonso).

This is a very concrete example of how people have assimilated information about fentanyl. We have many doubts about how the almost forty-eight million inhabitants of Spain will have assimilated it. We understand that the majority will have done so with the indifference typical of the society of the spectacle, although the images of addicts will have helped to reinforce the stigma towards addicts. And who knows whether some young people, eager to experiment with drugs, given the wild effects and the much heralded potency of fentanyl compared to heroin, are eager to see it cross their path to experiment with its analgesic potency. This would be a clear example of a self-fulfilling prophecy (Merton, 1968: 505-520). So much talk about young people becoming zombie addicts when they take fentanyl could mean that those who are eager to feel the terrible effects of fentanyl can only behave like zombie addicts. We hope that this self-fulfilling prophecy will not materialise or only in very specific and unavoidable cases where a multitude of risk factors are already at work.

The fourth consequence, which is totally uncertain and difficult to assess, is: how has the media storm affected medical professionals in their opioid prescribing practices? The training, professionalism and deontology of doctors should make them insensitive to the headlines. Sensationalist reports can have little influence on them when it comes to assessing the suitability of continuing a dosage regimen or prescribing opioids to a new patient, although the difficulty in assessing the pain perceived by a person and the fact that opioid drugs are used inappropriately can lead to over-zealousness on the part of the clinician. One interviewee explained that she knew of a case in which her dosage had been reduced and another in which opioid drugs had been refused to people who seemed to be justified in their use. In the overall context of our fieldwork, we consider these cases as anecdotes that surely have a broader and more justified context.

However, we cannot rule out that the media storm and the need to optimise opioid prescribing may reduce access to opioid drugs for some people whose use is appropriate. In any case, the denial of opioid drugs, even if it is in the minority, may have uncertain consequences for these patients. The worst-case scenario is that these people, needing relief from their ailments, turn to the black market in search of opioids. In the first instance they will find heroin, but if their demand is for fentanyl, then traffickers will confirm a real demand to be met. Such a scenario would be entirely

undesirable. In terms of public health protection, the existence of iatrogenic opioid addiction, while to be avoided, is preferable to having addicts using in unhealthy places. The former will always be under the guidance of medical professionals. The latter, although in contact with the health care network, are exposed to a multitude of risks and infections. We hope that opiophobia, which was evident at certain times in the 20th century among some doctors, will not reappear and will remain a thing of the past.

The fifth consequence is the increase in the sale of pharmaceutical fentanyl to small-scale neighbourhood dealers. This is a source of considerable concern. Claudio Vidal notes that there has always been some diversion of fentanyl or other pharmaceuticals for recreational or abuse purposes. In recent months, police have seized pharmaceutical fentanyl in raids on drug dealers. It remains to be seen to what extent fentanyl is actually phenethylphenyl in the seizures in which it is present. Both law enforcement agencies and the media report that fentanyl has been seized, even if the amount is minimal. As, for example, in the case of Villaverde (Madrid), '[Police seize dangerous fentanyl for the first time in Madrid in a drugstore on the outskirts](#)' (El Mundo, 14 March 2024). The accompanying video shows the seizure of marijuana, cocaine, MDMA, [tusi](#), ketamine and fentanyl, as well as cash, scales, and paraphernalia for cutting and packaging drugs. The headline emphasises fentanyl, but the image shows a single, solitary vial of the potent opioid. This was clearly a diversion from licit uses. The images also show blister packs of (undetermined) medicines and also vials of adrenaline. The presence of other pharmaceutical presentations indicates that not only fentanyl was diverted. The vial was placed in the midst of a myriad of substances and paraphernalia. The headline, out of all the drugs, highlights only and exclusively fentanyl.

A few days after the police action in Villaverde, the police also uncovered the The police also reported a sales point in Culleredo (La Coruña), where the seizure of fentanyl was also reported: '[fentanyl is already in Galicia: first seizure of this drug](#)' (Diario de Pontevedra, 18 March 2024). Two days later, El Debate published '[fear of the entry of fentanyl spreads throughout Spain, although minimal doses have still been seized](#)' (El Debate, 20 March 2024), in which it clarified that the Culleredo intervention was pharmaceutical fentanyl in patches. In November 2023, police seized "eight fentanyl tablets in the possession of a cocaine dealer in La Línea de La Concepción", i.e. pharmaceutical diversions,



["Alert in Campo de Gibraltar due to the arrival of fentanyl, the 'zombie drug' that is wreaking havoc in the US"](#) (El Debate, 21 November 2023). In December 2023, in Mallorca, "along with cocaine and marijuana, investigators found several boxes of the drug fentanyl in one of the homes", i.e., once again more pharmaceutical diversions, ["the police seized fentanyl for the first time in an anti-drug operation in Palma"](#). (Diario de Mallorca, 20 December 2023). On 17 April, another news item appeared in Malaga ["first case of fentanyl trafficking in Malaga: the 'zombie' drug, on the Costa del Sol on a small scale"](#) (Málaga Hoy, 17 April 2024), even though it only reported the confiscation of fentanyl on a 'small scale'.

As we can see, these news items refer to small quantities of opioid drugs. Of all the reports of pharmaceutical fentanyl misuse, the most shocking is ["arrested after obtaining 10,000 fentanyl pills with forged prescriptions"](#) (Redacción Médica, 11 October 2023). If this amount had been destined for diversion, the situation would be of considerable concern, but this was a stubborn addict. The text of the piece clarified that "it is quantified that this woman would have obtained more than 10,000 pills of the drug, proving that it was not for sale but for consumption. This woman could be consuming an average of 10 tablets per day". In other words, the highest quantity of misuse apprehended was for feeding a sordid addiction, not for diversion to in-formal markets. Our hypothesis is that every time the media reports on illicit fentanyl, the risk increases that a neighbourhood drug dealer will be tempted to snatch up pharmaceutical fentanyl to offer to his clientele.

In this scenario, the two pertinent questions, in our view, are: are these seizures a normal and regular trickle that occurred before the media storm? Or have the traffickers made efforts to supply themselves with fentanyl, since the media suggested that the sale and purchase of fentanyl was common in Spain and, therefore, there was a demand to be met? We put forward the working hypothesis that the increase in pharmaceutical fentanyl seizures is due to media influence, but it does not matter so much now. Now we have to look for solutions, not blame. Diversions to illegal markets re-present a threat. So far, the quantities appear to be insignificant and, at all times, and very important for preventing a public health crisis, the traffickers were selling fentanyl as such, i.e. to meet the demand of expectant consumers for strong sensations. In no case, and this is crucial, do traffickers use fentanyl to adulterate cocaine, heroin or other drugs.

drugs. At least this is the evidence we have so far. The uncertainty is high.

How many people in Spain, who have no contact with the drug, are demanding fentanyl from traffickers through media influence? It is impossible to give a sensible answer at the moment. We do not know. We are concerned about how people's behaviour has been influenced, not only by the press and television news, but especially by the multitude of series about fentanyl that have been released on audiovisual platforms in the last two years. This uncertainty makes us wonder to what extent any individual can do something infamous with fentanyl, whether it comes from diversions or is bought on the deep web. We see it as unlikely, but the fact that so many people know about fentanyl poses a risk to society as a whole. Moreover, there are bound to be certain consequences of the media storm that we cannot even guess at the moment. These will become apparent in the next few years. Let us hope that we are prepared.

## 6. THE PERSISTENCE OF HEROIN. BY WAY OF CONCLUSION

The conclusion of the study 'Fentanyl in Spain. Evidence, perceptions and realities' is that **Spain will not suffer a public health crisis caused by fentanyl or other synthetic opioids. Nor will the hypothesis of heroin substitution by fentanyl be fulfilled.** The reasons for the conclusion are fourfold.

**Reason one.** Heroin produced from Afghan opium will continue to supply European drug markets. Heroin stocks from the exceptional harvests before 2023 will supply Europe until at least October 2025. Beyond stocks, Afghanistan cannot survive without opium revenues. Despite the Taliban ban, the terrible economic crisis, the humanitarian situation, the famine, the high price of opium, corruption, the defragmentation of power and, above all, the Taliban's internal disagreements make the ban untenable. Opium production, as long as the Taliban regime remains in place, will never again reach the volume of the past, but it will be sufficient to supply Europe. In the event of a shortage, the first markets to be depleted would be those where the wholesale price of heroin is lower, i.e. Asia and Africa. Spain would be one of the last countries, if not the last, to run out of heroin, because it is the European country that pays the highest wholesale price for heroin. In addition, other Asian countries, such as Pakistan and Burma, have increased opium poppy cultivation. Still, far from Afghanistan's historic figures, but enough to help meet the demand for heroin.

**Second reason.** Fentanyl and its illicitly produced analogues have been and will be absent, beyond anecdote, from Spanish markets. Globally, fentanyls are in sharp decline, due to both the inter-national control process and China's ban in 2019. Illegal companies in China, India and Pakistan continue to manufacture fentanyl precursors but, in global terms, availability is significantly lower than before 2019. Scarce production is sold to Mexican cartels. These are willing to pay a higher price because they want to keep the business they are in to satisfy the high demand in North America. Legal Chinese companies, once fentanyl and its precursors were brought under control, began to look for alternatives in line with Chinese legality. From 2019, nitazenes appeared as a legal alternative to fentanyl. Since then, notifications of fentanyl have trended downwards and those of nitazenes have trended upwards.

on the rise. The era of fentanyl has come to an end. Nitazenes, year after year since 2019, have increased their presence in the American and European markets. In Spain, in the hypothetical case of a synthetic opioid of clandestine production appearing, it is more likely to be a nitazene than a fentanyl. Xylazine could also appear as an adulterant, as it has done in other countries in recent months, especially in the UK. However, this is rather unlikely, because synthetic opioids have been circulating in Europe for more than thirty years and have always been absent in Spain. In any case, as long as Afghan heroin is available, these would be one-off situations that could inflict severe harm and even fatal overdoses, but in no case would they *strictly speaking* lead to a public health crisis. The nitazenes control process initiated in 2021 has encouraged NPS researchers to continue their perennial research into legal psychoactive substances. This research may lead to the emergence of other families of synthetic opioids or to the emergence of different NPS. This cannot be ruled out.

**Third reason.** The volume and nature of demand for opioids makes a public health crisis unfeasible. Spain has just under sixty thousand regular heroin users. Most of them are elderly people with long experience of drug use and survivors of all kinds of calamities. The dominant profile is that of a poly-drug user with a high resilience. In the case of the emergence of synthetic opioids, users may replace heroin with other substances, ranging from benzodiazepines to methamphetamine. In our opinion, methamphetamine is currently the substance that emerges as the greatest danger to public health. Fentanyl has been talked about too much without posing a real threat. **Methamphetamine**, because of its evolution in recent years, is the substance that deserves the most attention.

**The fourth** and last, but most important reason. Should fentanyl become a reality, Spain's powerful addiction care network could offer effective, efficient, effective, efficient and quality responses to the threat. Opioid substitution treatments with methadone and buprenorphine, the availability of naloxone in different presentations, highly qualified professionals and a network of resources distributed territorially are the best guarantor against any threat from synthetic opioids or any other substance. The number of overdoses is the key indicator that Spain is free of fentanyl and other synthetic opioids. Overdoses will become irrefutable evidence when people

users use synthetic opioids. For the time being, the number of overdoses remains stable.

Having said this, and to conclude the report, we would like to highlight two aspects. The first is a note on how the substitution hypothesis has worked in thinking about the phenomenon. The second is a reflection on the uncertain scenario caused by the diversion of fentanyl-laced drugs.

The frames of reference in abstract thinking help us to understand the fentanyl phenomenon in Spain. From the expert point of view, we conceptualise all substances between opium and carfentanil in a logical and coherent continuum, because they all belong to the opioids, i.e. we order opioids by their effects and analgesic potency. Therefore, we think that if there is a shortage of one opioid, another will replace it, i.e. if we run out of heroin, fentanyl will follow. This is not necessarily the case. Heroin criminal organisations understand the opiate as a substance totally independent of synthetic opioids. Organised crime conceptualises opioids on the basis of criminal logic, i.e. how to supply, what difficulties trafficking entails and how much profit it will yield. Criminal gangs historically dedicated to heroin might not even consider trafficking synthetic opioids; that is, if they find it unviable to operate with heroin, they might consider methamphetamine, cobalt or bitcoins to continue their criminal activity, but not necessarily fentanyl or another synthetic opioid. The substitution hypothesis has worked in Spain by analogy with North America, although the realities are incomparable.

And, rather than a conclusion, a final reflection. The media storm over the fentanyl over the past two years has had social consequences that we have not yet been able to foresee. Despite excellent control mechanisms, seizures of fentanyl drugs in the possession of micro-traffickers, albeit so far only on an ad hoc basis, are still significant. It is doubtful to what extent the supply of fentanyl diverted for abuse is stimulated by a demand created by so many news stories about fentanyl as a self-fulfilling prophecy. We shall see.



## 7. RECOMMENDATIONS. SERENITY AND PROFESSIONALISM

In any applied study, such as this one, it is appropriate to make strategic recommendations for further progress. In this case, we maintain the recommendations section more as a methodological matter than as a product of real need. The absence of clandestinely produced synthetic opioids forces us to present recommendations that are more continuist and futuristic than present and urgent. The best recommendation is to remain calm and let both the public administrations responsible for addictions and the professionals work. The following recommendations have been expressed by some of the people interviewed. They are arranged in five thematic areas.

### TRAINING AND AWARENESS-RAISING

**Training for addiction professionals.** Most addiction professionals are constantly undergoing further training. Short training courses on the phenomenon of illicit fentanyl, nitazenes and other synthetic opioids will enable them to optimise their knowledge in order to offer responses tailored to the needs of their target populations.

**Training for FSCE, prison staff and emergency health professionals in the management of overdoses and synthetic opioids.** In the event that synthetic opioids reach Spanish neighbourhoods, both groups will be the first to respond. These professionals must be knowledgeable about the effects and risks of synthetic opioids, overdose management and naloxone administration. In the current scenario, training for these groups should focus more on nitazenes than on fentanyls.

**Training opioid users in overdose prevention.** People who use heroin should be encouraged to be trained in the administration of naloxone and to have easy access to the drug.

**Raising public awareness.** The news about fentanyl has provoked too much fear. The public has received the message that illicit fentanyl is already being used in Spain. Seeking synergies with the media to provide sensible and accurate messages would help reduce unnecessary anxieties. While the risk from synthetic opioids is undeniable, we need to provide a calm message tailored to the burden of risk.

**Training for communication professionals.** The media have generated an exaggerated, albeit unintentional, state of opinion around fentanyl. The dynamics of digital journalism unintentionally provoke media storms such as the fentanyl storm that started in September 2022. Training communication professionals on drugs and addictions would help reduce unnecessary media alarms, work to destigmatise the phenomenon of addictions and achieve a more sensible communication that is less impregnated with sensationalist overtones.

## CARE NETWORK AND TREATMENT

**Preserving and improving the Spanish addiction care network.** Spain has an excellent addiction care network. Safeguarding all its components, especially the programmes to tackle opioid addiction, is the best prevention strategy in the face of any hypothetical threat. All actions aimed at improving the network represent public health protection efforts.

**To have specific protocols for dealing with addiction to synthetic opioids.** Professionals have the tools to successfully address opioid treatment demands. Refining and improving protocols for synthetic opioid care will lead to more efficient solutions, if needed.

**Expand buprenorphine programmes.** In Spain the proportion of people on buprenorphine treatment is relatively low. The formulation of buprenorphine used in opioid substitution treatment incorporates naloxone. This is an advantage in preventing misuse. We should continue to strengthen and expand buprenorphine treatment regimens.

**Heroin substitution treatment.** Different professionals consider that they would be suitable for dealing more effectively with heroin addiction treatment. The results of a cost-benefit evaluation of heroin substitution treatments should provide evidence on the suitability of extending them to the Spanish reality.

## HARM REDUCTION



**Naloxone.** Continue the work being done by health officials to make naloxone even more accessible, both to people who use opioids and to those around them. Assess the need to make naloxone available in pre-filled and intranasal spray form.

**Test strips.** Assess the appropriateness of providing synthetic opioid detection test strips to professionals in potential contact with synthetic opioids (CSEC, health professionals, harm reduction resources and treatment centres, etc.). The test strips should be sensitive to the different fentanyl, and especially to nitazenes, as well as to other synthetic opioid families and xylazine. **Substance testing for active drug users.**

Substance testing of substances from illicit markets allows some early detection of adulterated drug consignments. Assess the need to intensify the collection of samples of heroin or other substances suspected of containing synthetic opioids, and to expand existing testing resources.

**Adapt** overdose protocols to make them valid for fentanyl and especially nitazenes overdoses.

**Strengthening harm reduction facilities.** Harm reduction resources would be the first to serve people with synthetic opioid addiction. Strengthening them with more resources or longer opening hours could allow more addicts to be linked to the addiction care network.

**Syringe exchange programmes (SEPs).** Spain has numerous NSPs that provide excellent coverage for most injectors. In case of the emergence of fentanyl or nitazenes they should be reinforced because the injection cycle of fentanyl is shorter than that of heroin.

## MONITORING AND SURVEILLANCE

**Improve warning systems.** Assess the need to improve the monitoring and reporting systems for new synthetic opioids, as well as the reporting system for overdoses in both hospital and out-of-hospital emergency settings.

## RESEARCH AND OUTREACH

**Encourage research.** Promote studies and research on opioids in general and nitazenes in particular: studies and research of different scopes.

and levels: from pharmacokinetic and pharmacodynamic research to socio-cultural and geopolitical research. Knowledge about the effects of naloxone on individual opioids and with different formulations/adulterations should also be generated to improve opioid overdose care.

**Dissemination.** To strengthen the strategies for dissemination and awareness-raising on addictions, both among professionals and among the general public, either through workshops or through general publications.

**Assess the cost-benefit of articulating a set of responses to synthetic opioids.**

Spain has an exceptional addiction care network, a robust epidemiological surveillance system and resources of different kinds that would allow for an effective response to any opioid crisis. Perhaps the efforts to anticipate a possible synthetic opioid crisis should be assessed in terms of cost-benefit.

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## 9. ANNEX I. METHODOLOGICAL NOTES

The methodology of this study is qualitative in orientation. The epistemological foundations are based on the comprehensive currents of the Social Sciences, especially Social Constructionism and Symbolic Interactionism. The techniques used were bibliographical analysis, individual interviews and the review of secondary data.

The study has the mandatory report from the Ethics Committee for Research on People, Society and the Environment (CEIPSA) of the Universitat Rovira i Virgili. We started the process on 6 November 2023 and the favourable report was issued on 11 January 2024.

The objectives of the study are:

- To generate knowledge based on empirical evidence about the reality of the fenta- nil in Spain. Through a comprehensive analysis, we will verify the impacts of the illegal trafficking market and the international control policy of these substances and other opioids on consumption patterns in Spain.
- To clarify to what extent the opioid drug crisis that certain social sectors are venturing to predict is justified or, on the contrary, whether Spain is likely to suffer an opioid drug crisis.

**Bibliographical analysis.** The first step in understanding the causes and consequences of the media storm was to collect the news about fentanyl. Luckily, in Spain we have the Documentation Centre of the Government Delegation for the National Plan. On 14 December 2023, we asked for all press reports collected by the Documentation Centre on 1 January 2018 and up to the date in which **opioids or fentanyl or opiates appeared in the headlines of** the Spanish media. The news items went up to 15 December 2023. The Documentation Centre kindly sent us all the news items in a Word file. The document contained the following information for each of the news items:

- The headline of the news item with an embedded link to <https://metaclip.auditmedija.es/>. An archive indexing platform where users can consult the news without going to the original source. The temporary availability of the news provided by the Documentation Centre on this platform is limited.

- The date and time it was located by the news detection system.
- The name of the means of documentation.
- The original link to the media portal.

Below is an example of the oldest news item processed in Word by the DGPNSD Documentation Centre.

[The use of opioids with addictive potential grows by 50% in six years](https://elpais.com/ccaa/2018/01/05/catalunya/1515172459_319518.html)  
**(06/01/2018 18:54) Periódico el País**  
[https://elpais.com/ccaa/2018/01/05/catalunya/1515172459\\_319518.html](https://elpais.com/ccaa/2018/01/05/catalunya/1515172459_319518.html)

The set of news items in the Word document was 147 pages long. We copied and pasted the news items from Word into an Excel document. This Excel document served as our database. With the information provided, we manually entered the columns for each of the news items:

- **News item number:** correlative number in chronological order, i.e. number 1 corresponds to the oldest news item.
- **Full headline of the news item.** It was important to have the headline in order to know the thematic evolution and the terms used.
- **Name of media outlet:** Knowing which media outlets have been involved has allowed us to understand the media ecosystem related to the phenomenon. We have indexed news from **109 media outlets**. They are presented below, in order from the highest to the lowest number of news items. In brackets, the number of news items from each media outlet: El País (118), La Vanguardia (115), Europa Press (64), ABC (56), 20 Minutos (54), Infosalus (49), El Diario (39), El Periódico (38), El Mundo (36), La Razón (35), Efe (35), Marca (35), La Sexta (31), Antena 3 (31), Telecinco (29), La Voz de Galicia (26), Faro de Vigo (26), La Rioja (25), El Español (25), Diario Vasco (22), Redacción Médica (19), Cadena Ser (19), El Comercio (18), Europa Sur (18), Cuatro (17), Bolsamanía (17), El Día (17), Okdiario (17), Público (17), El Periódico Extremadura (16), As (16), La Nueva España (16), RTVE (15), Levante (15), Heraldo (15), El Norte de Castilla (15), Diario Mallorca (15), Diario de Jerez (15), El Correo (14), La Provincia (14), Diario de Cádiz (14), Diario Sur (13), Diario de Navarra (13), El Correo Gallego (13), Diario Ibiza (13), Diario de Sevilla (13), El Diario de Córdoba (12), Deia (12), El Debate (12), El Diario Montañés (11), Las Provincias (11), La Opinión de

Verdad (10), Noticias de Navarra (10), Canarias7 (10), Ideal (9), El médico interactivo (9), Diario de Burgos (9), La Opinión de Zamora (8), La Tribuna de Toledo (8), La Tribuna de Albacete (8), La opinión de Coruña (8), Mundo deportivo (8), Sport (8), El Periódico de España (8), La Tribuna de Ciudad Real (7), Galicia Press (6), Isanidad (6), Diario de Ávila (6), La Opinión de Málaga (6), Noticiasde (6), Immedico Hospitalario (6), Ultima Hora (6), Tele Madrid (6), El Plural (6), Diario Médico (5),

Cinco Días (5), Diario de Pontevedra (5), Gaceta Médica (5), Diario16plus (5), La Tribuna de Talavera (5), El Progreso de Lugo (4), La Tribuna de Cuenca (4), Diario Farma (4), Diari de Tarragona (4), Reuters (3), Diario de León (3), Acta Sanitaria (3), Pmfarma (3), El Periódico de Aragón (2), Diario de Arousa (2), La Gaceta de Salamanca (2), Diario Información (2), Invertia (2), Aragón Digital (2), El Confidencial

(2), Plantadoce (2), Huffingtonpost.es (1), News Tercera edad (1), Región Digital (1), Vigoe (1), El Punt Avui (1), Diari de Girona (1), La Opinión de Murcia (1), Huelva24 (1), El Correo Web (1), El Día de Córdoba (1), Estrella Digital (1), Algeciras al minuto (1), El Adelantado (1).

- **Scope.** Knowing the scope allowed us to know the nature of the media that publish news on opioids, opiates and fentanyl. Once we entered the name of the media outlet, using the function =BUSCARX, Excel filled in the scope column, previously related between the name of the title of the media outlet and the scope. By scope we understand, first, the medium, "press" when the medium has a paper edition, "digital" when the medium only has an online version, television and radio, then the scope: state, regional, sports press or sectorial press. In sectorial we indicate the field (economy, health or senior citizens). We categorised the scope as follows, in alphabetical order, in brackets the number of news items in each medium: agency (102), economic digital (17), state digital (130), regional digital (53), sports press (67), economic press (5), state press (452), regional press (548), state radio (19), economic sector (5), health sector (95), senior citizens sector (1), regional television (6), state television (123).
- **Publishing group.** We were interested in the publishing group because a publishing group is an entity that brings together various media. A publishing group can have its own legal structure or be part of a larger business conglomerate. A publishing group usually has a strategy that is based on a common commercial and editorial strategy, as well as the sharing of human,

and financial. In the case of news about fentanyl, we have seen how a news item published by one medium was replicated by other newspapers in the publishing group. In the same way as "scope" when we introduced the name of the media, the function =BUSCARX indicated the editorial group to which the media belonged. The editorial groups ordered from highest to lowest incidence are: Prensa Ibérica (250), Vocento (2,151), Prisa (159), Grupo Godó (123), Europa Press (113),

Unidad Editorial (76), Henneo (69), Atresmedia (62), Grupo Joly (61), Promecal (48), Diario de Prensa Digital (39), Grupo Planeta (35), Efe (35), Meidaset (29), El León de El Español Publicaciones (27), Corporación Voz de Galicia (26), Grupo Noticias (22), Sanitaria 2000 (19), Mediaset (17), Bolsamanía (17), Dos Mil Palabras

(17), Display Connectors (17), RTVE (15), La Información (13), Ediciones Católica y Vida Pública (12), Informaciones Canarias (10), Grupo Saned (9), El Progreso (9), Pressdigital Group (6), Puesta en Mercado (6), Editorial OnMedia (6), Publimas (6), Grupo Serra (6), RTVM (6), Corporate Communicator (6), Wecare-U Comunicación (5), GRUPO EIG (5), Ikaroa News and Consulting (4), PROMICSA (4), Reuters (3),

Begar (3), Grupo Acta Sanitaria (3), PMFarma (3), Editorial La Capital (2), Gruposa (2), Grupo Aragón Digital (2), Titania (2), Cinnamon News (2), Acorde Comunicación (1), Digital Press (1), Editorial Castrelos (1), Hermes (1), Estrella Digital Com- (1), Editorial Castrelos (1), Hermes (1), Estrella Digital Comu- nicaciones SL (1), Capripérez S.L.U. (1).

- **Year.** In 2018, Spanish media published 91 news items with opioids, opioids or fentanyl. In 2019, there were 243 news items. In 2020, it dropped to 55 news items. In 2021, it went up to 95 news items. In 2022, there were 156 news items. In 2023, the figure shot up to **920 news items** and in 2024, up to 26 January, 63 news items were published.
- **Date.** The date was of interest to us in order to know the high points of the media storm. The ten dates with the most news are 18/09/2023 with 32 news items, 25/01/2023 with 30 news items, 27/08/2019 with 29, 22/12/2023 with 28 news items, 21/09/2023 with 26, 23/10/2023 with 21, 22/09/2023 with 20, 25/09/2023 with 20, 29/09/2023 with, 17/08/2023 with 17, 22/11/2023 with 17. We can see that the days with the most media activity are between August and November 2023.



On 25 January 2024, we made a second request to the Documentation Centre to receive news from 15 December 2023 to the date that reached 28 January 2024. The Word file was 29 pages long. In total, 176 Word pages. Note that in almost six years there were 147 pages, while in a month and a half there were already 29, an indicator of how the media storm was still active.

On 1 February we made a third request for news items relating to the release of the UNODC report on 5 November 2023. The search criteria was opium OR heroin OR Afghanistan OR UNODC OR UNODC OR UNODC OR United Nations, published between 5 November and the date of the request. The search did not return any news items of interest to us that we did not already have indexed. After eliminating repeated news items and some news items from foreign media, we indexed a total of 1,623 news items from Spanish media. This number is the result of the selection process of the news provided by the Documentation Centre of the DGPNSD, of course other news items have been published, but if they are from media not indexed by the Documentation Centre, they have been excluded. In any case, a minority.

Once we have entered the new news items in the Excel database, we start the categorisation phase. We enter the following variables in our database:

- **Type.** We sort the news by the type of news item. We sorted the news items by eight types of piece. The vast majority were news (1492), features (49), opinion (36), interviews (10), podcast (10), advertorial (9), editorial (8), Chronicle (9).
- **Thematic.** We categorised by the main theme according to our analytical criteria. The categorisation was as follows: illicit fentanyl in Spain (202), public health (181), judicial/criminal (167), celebrities (130), descriptive of fentanyl (118), con- (107), research (83), diplomacy (81), drug testing (73), prescription control (69), word of the year (55), drug policy (53), harm reduction (49), iatrogenic addicts (35), fentanyl addicts (31), therapeutic uses (28), abu- sos de las farmacéuticas (26), epidemiología (20), reducción de la demanda (17), atención a las adicciones (17), tráfico de fentanilo (17), productos audiovisuales (15), hipótesis de la sustitución (14), pandemia (12), crimen organizado (10), fár- opioid chemicals (9) and metaphor (4).
- **Country.** The territorial scope of the news was of interest to us in order to understand the evolution of opioid news. The news is distributed as

The number of news items for each country follows in brackets. We use the multiple categorisation method. Therefore, news items with more than one country are marked. The global category refers to UN news or global analysis of the fentanyl phenomenon. The distribution is as follows: USA (687), Spain (599), Mexico (63), Mexico/USA (45), Spain/USA (45),

USA/China (27), World (16), Canada (16), No ID (15), China (13),

US-Mexico (11), Afghanistan (11), Colombia (8), US-Mexico, China (7), Argentina (7), Mexico (11), Colombia (8), Argentina (8), Mexico (8), China (7), Mexico (7), Argentina (8), Mexico (8), Mexico (9), Mexico (9), Mexico (10), Mexico (10), Mexico (10)

China (5), Ecuador (4), Colombia (4), Europe (3), Africa (3), USA (3), Mexico (3),

USA (3), Colombia (3), Ecuador (3), Czech Republic (3), Norway (3)

(2), Mexico (2), China (2), Israel (2), United Kingdom (2), Panama (2), Guatemala (2), Turkey

(2), Costa Rica (2), Germany (1), France (1), Mexico (1), Spain (1), Brazil (1),

USA, China (1), Spain (1), USA, Canada (1), Guatemala (1), USA, China (1), Ve-

Venezuela (1), Mexico/USA (1), Mexico/China (1), USA/Colombia/Ecuador (1),

Ecuador (1), El Salvador (1), Honduras (1), Spain (1), Afghanistan (1), In-country (1), USA (1), Honduras (1).

Malaysia (1), Australia (1), USA (1), Mexico (1).

- **Region or city.** Most of the news items, 1006 in total, did not have a territorial scope of region or city. The territorial distribution was as follows: New York (73), Madrid (67), Andalusia (37), Oklahoma (36), Vigo (26), Barcelona (26), Comunidad Valenciana (25), Galicia (23), Philadelphia (22), Valladolid (20), Texas (20), Florida (18), Cadiz (15), California (15), Ohio (13), Navarra (10), Sinaloa (10), País Vasco (8), San Francisco (8), Canary Islands (8), Murcia (7), Toledo (7), Los Angeles (6), Vancouver (6), Cleveland (6), Valencia (6), Zaragoza (5), Badajoz (4), Gijón (4), Massachusetts (4), Palencia (4), Pamplona (4), Burgos (4), Washington (4), Cataluña (3), Lugo (3), Ontario (2), Nebraska (2), La Rioja (2), West Virginia (2), Santander (2), Minneapolis (2), Tijuana (2), Sonora (2), New Jersey (2), San Diego (2), Baltimore San Francisco Philadelphia (2), Seville (2), Baltimore San Francisco Philadelphia New York Washington (2), Nevada Nebraska (1), New Hampshire (1), Spain (1), Avilés (1), Ibiza (1), Wuhan (1), Tennessee (1), Calahorra (1), Aragón (1), Denver (1), Alicante (1), Lleida (1), British Columbia (1), South Carolina (1), Georgia (1),

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Albacete (1), Guerrero (1), Arizona (1), Tijuana/Mexicali (1), Los Angeles San Francisco (1), Asturias (1), Baja California (1), Guayaquil (1), Filadelfia No (1), Salamanca (1), Málaga (1), Tarragona (1), Los Ángeles No (1), Algeciras (1), Extremadura (1), Lleida Cádiz Logroño (1), Mallorca (1), Granada (1).

- **Fentanyl.** For our purposes, it was important to categorise the news items according to the search keywords. In total, 1037 news items contained the word fentanyl and 586 opioids or opiates.
- **Fentanyl reported in Spain.** The purpose of this category was to recognise news stories that pointed to the possible presence of illicit fentanyl in Spain. Of the total number of news items, 1,257 news items were of other topics. 214 news items stated the presence of fentanyl in Spain, 112 acknowledged the presence of fentanyl as a drug and 38 stated that fentanyl was not yet present in Spain, but raised the possibility.
- **Value.** In this category we selected news items that we considered to be of particular value in understanding the media storm. 1,171 news items were categorised as having no value, 353 news items were ordered as having value, 89 news items were categorised as having extreme value, and 10 were categorised as "disturbing". That is, news that offered strange, weird or incoherent information.
- **Authorship.** The purpose of indexing the authorship of the stories was to find out to what extent some journalism professionals had been persistent with fentanyl stories. There are no particularly high-profile practitioners. In total, 347 different professionals have written about opioids. 441 stories are from news agencies or signed as "newsroom". This makes only 1,182 non-news stories signed by journalists, and many of these score more than times if the piece was published in different media outlets of the editorial group.
- **Contact.** In this category, we qualitatively introduce the protagonists of the news that could be interviewed. Only three interviews were obtained from this selection.
- **Comments.** Qualitative variable to record the comments derived from the reading of the news item.

Once the opioid news database was ready we performed a set of calculations to look for statistical significance. We applied the *t-student*. We were interested in whether any media outlet or journalist had contributed more interest to the media story. There is no statistically significant difference beyond the year of publication and the dates with the highest number of news items published. These calculations show us how the storm was a product of the structural factors of digital journalism. With the available data, we were tempted to present the thematic analysis year by year. We discarded it because

such an evolution would not have helped us either.

helped us to meet our objectives. We have focused on elucidating the causes of the media storm and, above all, on understanding the consequences outlined in chapter 5 of the report.

The documentary analysis, in addition to the secondary data explained below, has focused on identifying the scientific articles of greatest interest to our interests. In chapter 2 on Afghanistan, the work of the UNODC and Mansfield has been crucial. In chapter 3 on supply, the work of the EMCDDA was central, as well as international scientific articles. In Chapter 4, on the demand side, all the information provided by the OEDA has been important.

**Interviews.** The interview is a phenomenal technique for capturing the symbolic universe of the people interviewed in the phenomenon under study, in our case fentanyl. The aim was to conduct 20 interviews, but the timeliness of the fieldwork has allowed us to reach 25 interviews. The interviews were conducted by 11 via Teams, 10 by telephone, 2 by WhatsApp call, 1 by voice note, 1 via Zoom and 1 in person. The news were transcribed using TransKriptor transcription software. In total we had 18 hours and 4 seconds of recording and 14,383 lines of transcription. In the in- forme we have worked to introduce few verbatim quotations. These verbatim quotations have been validated by the persons. The variables controlled for each person interviewed are: number, name, profile, entity, sector, country, gender, language, autonomous community, contact, date of contact, relevance, response, status, reminder, date of reminder, scheduled date, interview, time (CET), date of interview, time of interview, channel, recording, duration, informed consent, snowball, snowball contacts, comments based on the interview, how would you like to appear in the acknowledgements, transcript made, transcript review and transcript lines.

The selection criterion was based on the relevance of the people interviewed. We have interviewed top level people as you can see in the acknowledgements. We interviewed professionals in supply control, demand reduction, harm reduction, treatment, medicine and journalism.

**Secondary data analysis.** The collection of secondary data has been fundamental to the to assess the fentanyl phenomenon. We have used data from the EMCDDA, with a particular focus on the report published, jointly with Europol, in January 2024.

on fentanyl markets. We have also used data from the UNODC, AEMPS, Ministry of the Interior and the INCB.

**Analysis and drafting of the report**

In qualitative analysis, we have carried them out in two stages. First, we sorted the interview transcripts by thematic area in order to start looking for the report's table of contents, i.e. a top-down system. This system allows us to be efficient and to avoid analysis of irrelevant data or data that are deviating from the objectives. The second moment is the constant process of triangulation of interview data, scientific literature and secondary data, while elaborating the report writing process, in order to present relevant and consistent data. The report is the result of this process.

