

IMPACT IN BELGIUM OF THE BAN ON OPIUM PRODUCTION IN AFGHANISTAN

**Workshop report: Foresight exercise with scenario
development**

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INTRODUCTION

In April 2022, the production of opium poppy was banned in Afghanistan. A sharp decline in opium production has subsequently been reported by sources such as the reports by the [UNODC](#) and [EMCDDA-Europol](#). This ban might have an impact on the heroin market in Belgium and Europe. It is currently difficult to foresee what the consequences will be for people who use heroin, drug treatment, drug prevention and harm reduction organisations, police or customs.

This context highlights the importance of foresight approaches, to improve preparedness for different possible futures. In recent years, there has been a clear EU policy shift towards a **future-oriented approach**. The future in general is complex and uncertain and **requires proactively anticipating challenges rather than depending on a reactive response**. The **EU Drugs Strategy 2021-2025** notes the importance of building “synergies to provide the EU and its Member States with the comprehensive research evidence base and foresight capacities necessary to enable a more effective, innovative and agile approach to the growing complexity of the drugs phenomenon, and to increase the preparedness of the EU and its Member States to respond to future challenges and crises.” By facilitating a process of systematic collective reflection and of building commitment among stakeholders, foresight research can support countries in strengthening their preparedness and policy makers in making strategic decisions that are fit for the future.

The Unit Illicit Drugs of Sciensano has been involved in the EU-funded [DRUG-PREP](#) project, which implements foresight approaches in order to **contribute to better insight and understanding of current and future trends and developments to support greater preparedness of national drug monitoring and response systems**. The application of foresight to the drugs sphere is important in recognition of the fast-changing and inter-connected nature of drugs and addiction.

As a first step, the Unit Illicit Drugs of Sciensano organised in 2023 a **horizon scanning exercise** focusing on **the future of drugs in Belgium**. Horizon scanning is the process by which trends and potential disruptors that could influence the future are identified, taking a 360° view of the effects of societal, technological, economic, ecological and political changes. An **expert validation workshop** was conducted as a second step, during which trends were ranked in terms of their impact on the drugs field at medium term (2030 and beyond), and the possible implications of these developments and trends were examined.

In a third step (presented in this report), a **scenario building approach** is applied to explore different possible futures following a clear ‘disruptor’ (the ban on opium production in Afghanistan). A scenario-building workshop was organised on 6 February 2024, with the aim of developing different scenarios that could arise in Belgium following the ban on opium production. The workshop took place over three hours and included experts from across the drugs field, with diverse expertise. Describing different possible futures allows us to discuss the strategic implications and adapt our current actions in order to be best prepared.

In order to think about the future, it is important to have a clear understanding of the current state of affairs and existing trends. In addition, past experiences can provide lessons learnt. The following two sections present the current state of affairs of heroin use in Belgium, followed by examples from the literature of previous heroin shortages. Finally, the different scenarios that were developed based on the workshop are described, as well as recommendations for current and future action.

BACKGROUND

1. State of affairs

Sources such as UNODC and EMCDDA/Europol report a total ban by the Afghan authorities prohibiting poppy cultivation. This ban was announced in April 2022 and poppy cultivation dropped dramatically, which resulted in a 95% reduced amount of opium harvested and as a consequence also a decline in export quality heroin. In 2022 the amount of heroin exported from Afghanistan was estimated between 350 and 580 tons. This declined in 2023 to an estimated 24 to 38 tons (EMCDDA & Europol, 2024; UNODC, 2023). As the ban might have an impact on both demand and supply side, it is important to share the current state of play of heroin in Belgium.

1.1. DEMAND

1.1.1. People who use heroin

The precise number of people who use heroin in Belgium is not known. In 2018, a study estimated the number of people who injected drugs at between 6,620 (95%CI 4,711 – 8,576) and 7,018 (95%CI 4,794 – 9,527). Of these people 75.6% injected heroin (Plettinckx et al., 2021; Van Baelen et al., 2020). In addition, some people who use heroin do not inject. This share of people has not yet been estimated in Belgium.

1.1.2. People in treatment for a heroin use disorder

The number of treatment episodes that were started because of a heroin use disorder has decreased from 2,981 episodes with heroin as primary substance in 2015 to 1,801 episodes in 2022. On the total number of episodes started for a substance use disorder registered in one of the Belgian treatment centres in 2022, 6.6% of the episodes were registered for a heroin use disorder (figure 1) (Sciensano, 2024).

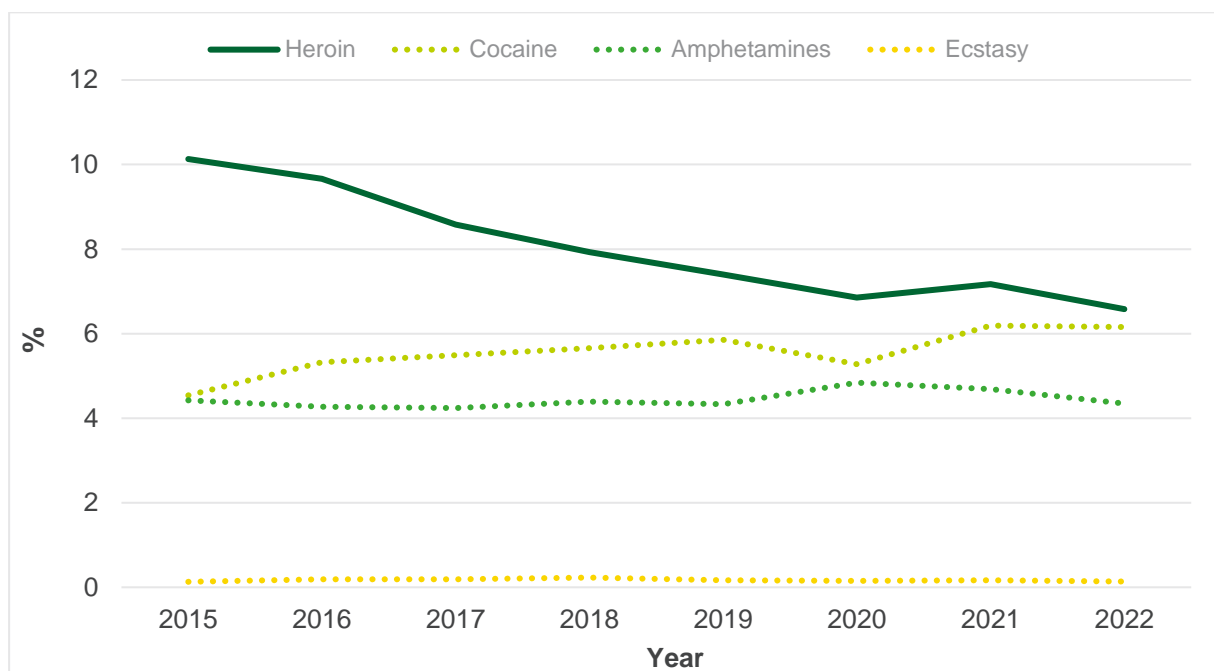


Figure 1: Percentage of treatment episodes for heroin, cocaine, amphetamines or ecstasy as specific primary substance in Belgium between 2015 and 2022 (Sciensano, 2024)

It is mandatory for people on opioid agonist treatment (OAT) to be registered in a centralised register. The number of people on OAT has decreased from 17,482 in 2013 to 15,324 in 2022. Most people on OAT are receiving methadone, as shown in figure 2 (Pharmanet, 2023).

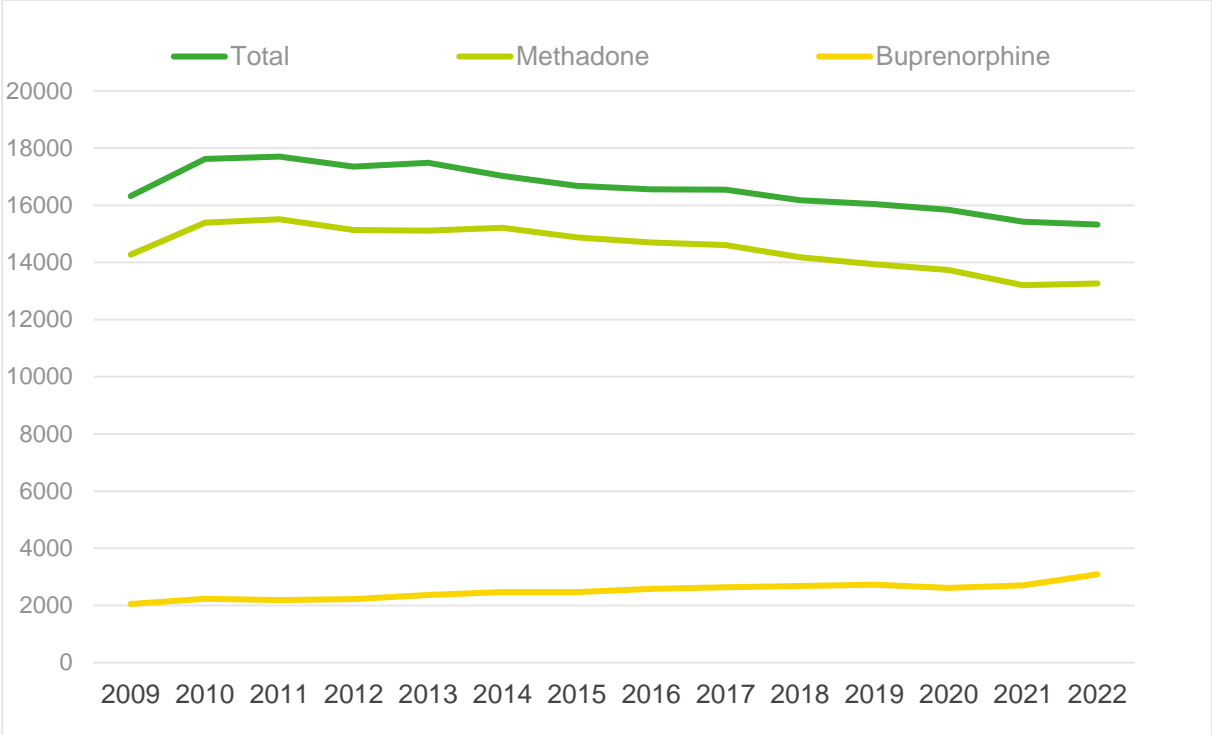


Figure 2: Evolution of number of clients on OAT between 2013 and 2022 in Belgium (Pharmanet, 2023)

1.1.3. Offences related to possession of heroin

Possession of drugs other than cannabis is punishable in Belgium by 3 months to 5 years in prison and a fine of €8,000 to €800,000 (indexation is applied). Imprisonment is extended to 5–10, 10–15, 15–20 years depending on aggravating circumstances. Offenses related to possession of heroin have decreased over the past 10 years from 1,416 offences in 2013 to 949 offenses in 2022 (figure 3) (Federal Police, 2023).

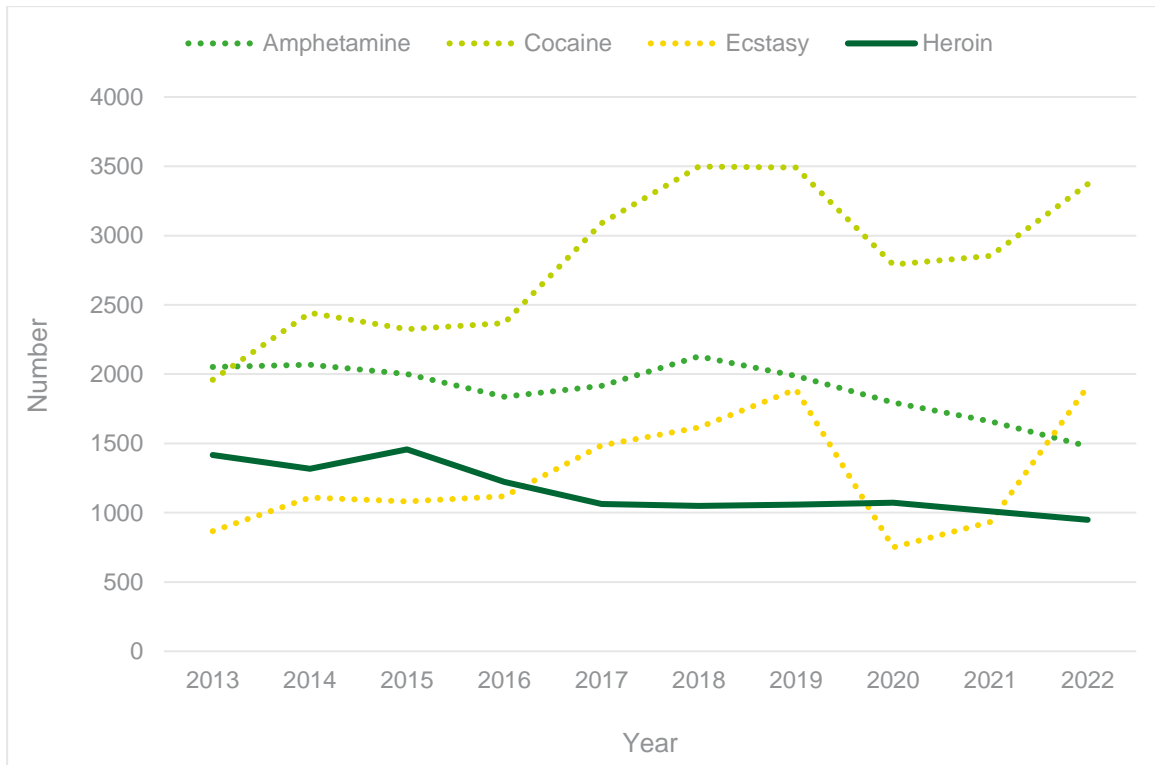


Figure 3: Offences related to drug possession of amphetamine, cocaine, ecstasy and heroin in Belgium between 2013 and 2022 (Federal Police, 2023)

1.2. SUPPLY

1.2.1. Wholesale heroin market and seizures

In 2022, heroin was mainly trafficked into Belgium by sea and to a lesser extent by plane. The total amount of heroin seized was 1,283kg, of which 1,265kg was seized in the port of Antwerp. Belgium and the Netherlands were indicated as countries of destination. Countries of origin were indicated as Iran, United Arab Emirates (UAE) and Turkey. With the exception of 2018, when 4,537kg of heroin was seized, the amount of heroin seized in Belgium remained stable over the past ten years at an average of 1.2 ton per year (range 53kg - 1,929kg) (figure 4) (Federal Police, 2023).

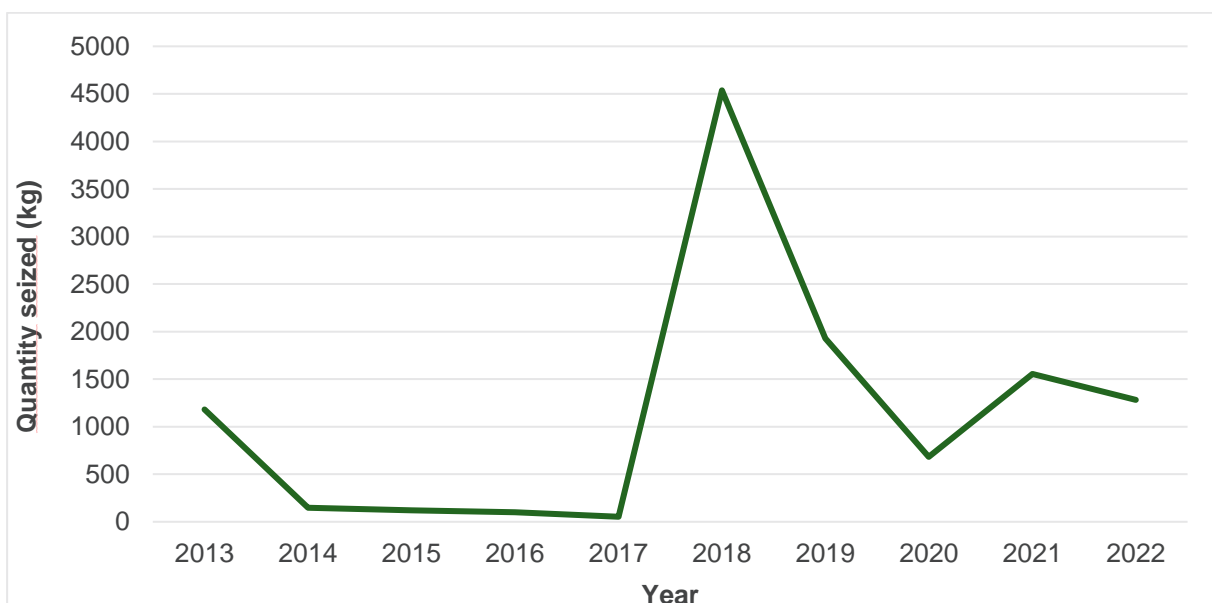


Figure 4: Quantity heroin seized in Belgium between 2012 and 2022 (Federal Police, 2023)

1.2.2. Retail heroin market, price and purity

Drug supply is a criminal offence punished by 3 months to 5 years imprisonment and a fine of €8,000 to €800,000 (indexation is applied) in Belgium. Imprisonment is extended to 5–10, 10–15, 15–20 years depending on aggravating circumstances. Offences related to retail sale of heroin decreased from 963 offences in 2013 to 535 offences in 2022, as shown in figure 5 (Federal Police, 2023).

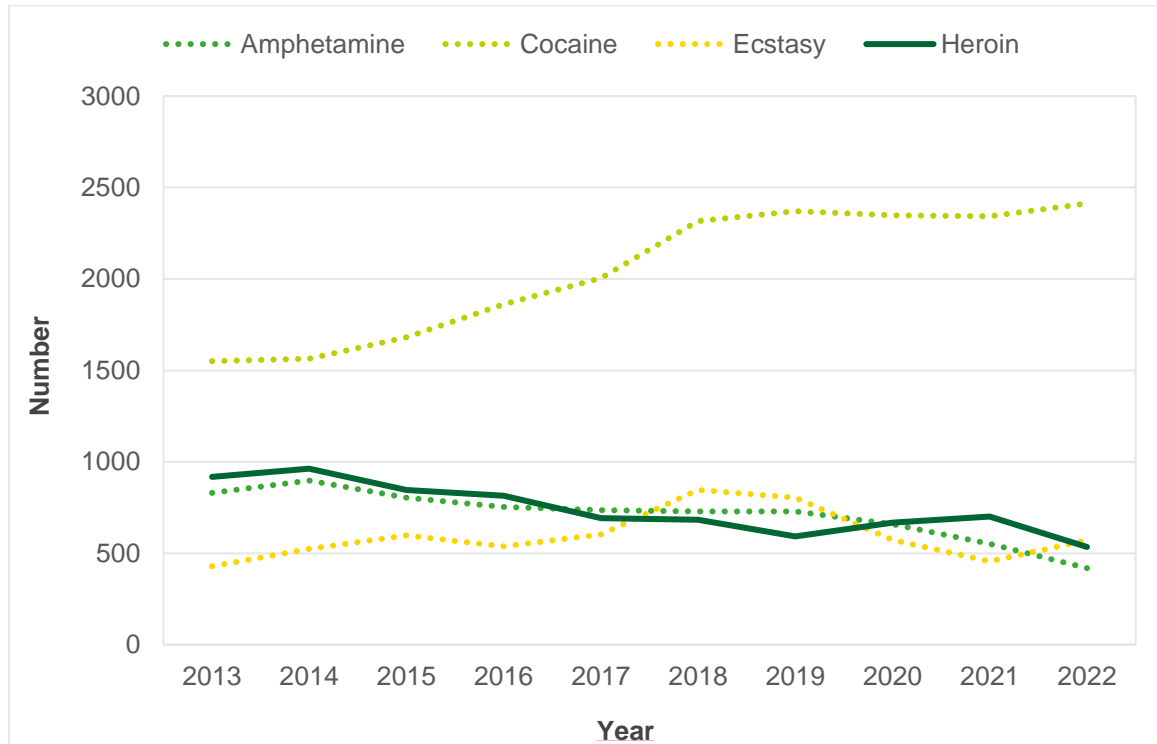


Figure 5: Drug offences related to retail sale of amphetamine, cocaine, ecstasy and heroin in Belgium between 2013 and 2022 (Federal Police, 2023)

The RADAR-heroin-23 study indicated that 81% of the respondents purchased heroin through a dealer. The others received it for free from friends. Online purchases were not mentioned by any of the respondents. When purchased via a dealer, more than 50% met up on the streets and one in three met up in a public space, such as a bar, café, restaurant. One in three respondents bought 1 gram of heroin and 11% bought equal to or more than 10 grams of heroin in one purchase. The price per gram was between €10 and €83, with a median price of €20 (Balcaen et al., 2023). The Federal Police reported in 2022 an average price for one gram of heroin of €19, with an average price over the past ten years of €22 (Antoine et al., 2024).

The analysis of the samples within the RADAR-heroin-23 study noted that the purity of heroin in Belgium was on average 13% (range 0.2%-57%) (Balcaen et al., 2023). This purity is confirmed from seized samples which were analysed through the Belgian Early Warning System on Drugs, where the average purity in 2022 was estimated at 15%. As shown in figure 6, the purity of heroin in 2022 was low compared to the past ten years, where the average purity of heroin was at 23% (Sciensano, 2023).

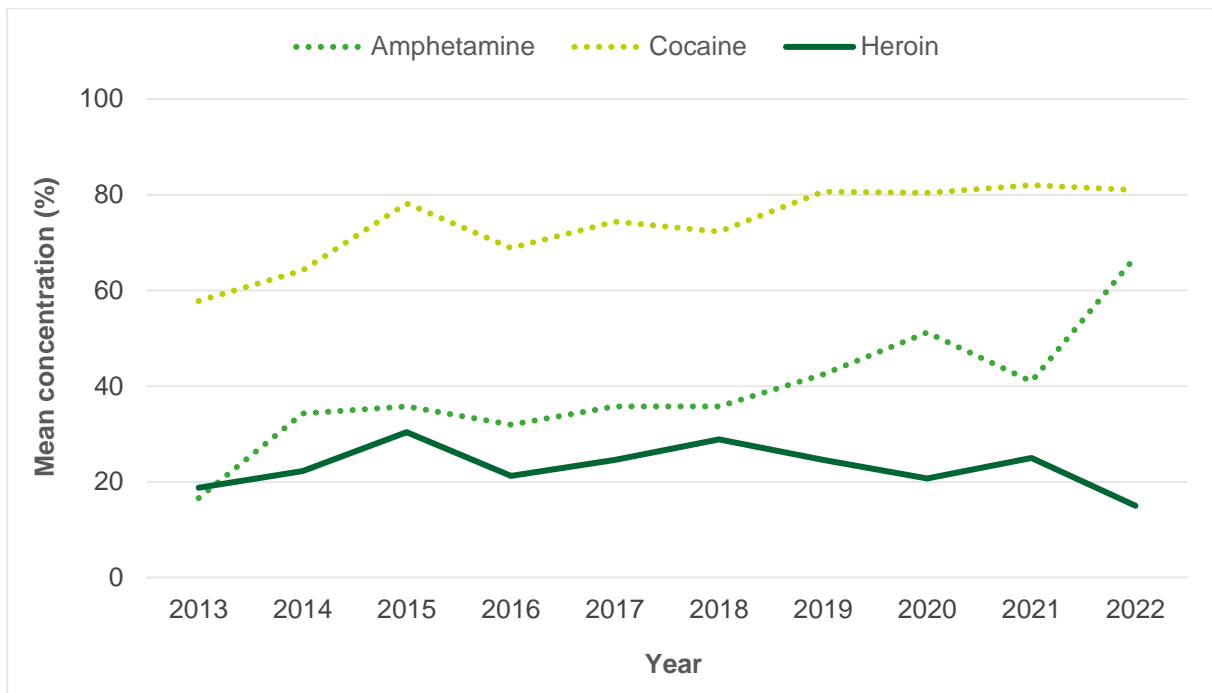


Figure 6: Mean concentration of amphetamine, cocaine and heroin in Belgium between 2013 and 2022 (Sciensano, 2023)

1.3. LIMITATIONS

As always, most of the abovementioned sources have limitations. For instance the number of episodes for heroin treatment, as mentioned in the Treatment Demand Indicator, do not correspond to the number of people who are starting treatment for heroin use disorders as people do not always agree to be registered with a national identification number and the coverage rate of the participating treatment centres participating is estimated to be 75%. Furthermore, this number does not represent the total number of people in treatment but only those who start a new episode. For example people receiving long-term opioid agonist treatment (OAT) are not included in these figures (Sciensano, 2024).

Also the figures from the other sources such as the data from police or from the Belgian Early Warning System on Drugs have specific limitations, which fall outside the scope of this report. However, the limitations have an impact on the representativeness of the data. Currently, no data on heroin is available that can be generalized.

2. Lessons learnt from previous experiences

Empirical data on the consequences of opium cultivation prohibition and heroin shortages is limited. To shed light on potential impacts, three prior experiences have been compiled for reference. It is crucial to note that while these examples provide insights into possible effects on the drug situation, direct extrapolation to Belgium is not advisable. The geographical location of a country can significantly influence the susceptibility to disruption of a national heroin market. As an example, during the heroin shortage in UK and Europe 2010/2011, France, Belgium and Portugal reported no signs of a shortage, while in many other countries impact was substantial. The distinct variations observed between France and Germany also underscore the idiosyncrasies of individual national drug markets (Caulkins et al., 2024; Hallam, 2011). Australia, being an isolated island continent with a relatively small population and a heroin market of modest scale by global standards, might be more sensitive to interference than other countries (Degenhardt et al., 2006; Weatherburn et al., 2003).

The **three experiences** this summary contains are:

- The Australian heroin shortage of 2000/2001 (Day et al., 2003; Degenhardt et al., 2006; Farrell & Thorne, 2005; Maher et al., 2007; Topp et al., 2003; Weatherburn et al., 2003; Wood et al., 2006). Coinciding with the Australian heroin shortage, an influence on the use and supply of heroin was noticed in Canada and Thailand (Wood et al., 2006).
- The Taliban poppy cultivation ban in Afghanistan during the early 2000s. The available information elaborates on effects experienced in Denmark, Sweden, Norway, Lithuania, Latvia, Estonia and Finland (Caulkins et al., 2024).
- The heroin shortage of 2010/2011 in UK and Europe, with insights from the United Kingdom, Bulgaria, Ireland, Hungary, Slovakia, Switzerland. Russian experiences are also included in reports elaborating on this event (EMCDDA, 2011; Hallam, 2011; Harris et al., 2015). Additionally, during a parallel timeframe, Coastal Kenya also experienced a heroin shortage (Mital et al., 2016).

It is crucial to underscore that the causes of a heroin shortage or shifts in the heroin market are often multifaceted, and cannot be solely contributed to the Taliban's opium production ban. Various factors can contribute to a shortage, such as diseases affecting opium cultivation (e.g., the fungal infestation in 2009 in Afghanistan). Additionally, there is a theory suggesting that the Taliban strategically accumulates significant stockpiles to manipulate market dynamics, influencing price, availability and quality (Hallam, 2011). Another factor includes the trafficking routes of a destination country, which might play an important role. In 2001, diverse influences were observed along the Balkan route (via Iran, Turkey and South-eastern Europe before reaching Western European markets), the Northern route (through Central Asia with branches into Russia and Eastern Europe) and the Southern route (maritime transport to the east coast of Africa) (Caulkins et al., 2024). Also worth noting is that Australia's heroin market is anticipated to remain unaffected by the Taliban's opium ban, as the vast supply of heroin originates from Myanmar (Wood et al., 2006).

As noted in available information, the impacts of these three previous experiences can be divided into **three main categories**: influence on the **drug market**, changes in **drug use patterns** and effects on **harm and harm reduction**.

Changes in the drug market can be divided into four sub-themes: **price, purity/quality, availability and crime**. Regarding price, there was a consistent observation of price increases, including a 112% rise in the price per gram in Australia and a 135% increase in the UK wholesale price. Simultaneously, an overall decline in heroin purity was documented, for instance a reduction in the UK from 30-40% to 13% purity. The quality of heroin was inconsistent, illustrated by reports of heroin adulterated with amphetamines in Italy and 'Russian roulette'-heroin in the UK containing make-up or brick dust. Although a complete absence of heroin from the market was not reported often, there are indications of reduced availability. The latter was observed through increased search times, a less overt sale of heroin, and dealers requiring clients to purchase crack to obtain heroin. Concerning crime, there was a notable 64% decline in the weight of seized heroin in Canada, more violent crime between heroin dealers and people who inject drugs in Australia, and collaborative initiatives in Kenya to intensify the joint search for heroin.

The second category, **changes in drug use patterns**, can be subdivided into **three themes**: **administration route/frequency of use, poly-drug use and use of other drugs**. Some countries, for example Canada, reported a decreased frequency of injecting drug use. The information regarding the administration route was quite variable, ranging from continued injecting drug use during the height of the shortage in Australia to a shift to insufflation of heroin in Albania due to poor quality. Additionally, there were transitions from smoking to injecting heroin in the UK and Kenya due to the limited quantity available. Poly-drug use was highly prevalent across all three experiences, with the main motivation being to compensate for the lack of heroin. In several countries, including the UK, Australia, Norway, Latvia and Russia, there was a shift to prescription drugs, such as benzodiazepines and opioids like morphine, pethidine and buprenorphine, as well as (injectable) stimulants like (crack) cocaine and (meth)amphetamine. Thailand witnessed an increase in the use of Yaba, a methamphetamine-based drug. Lithuania observed the reappearance of Kompot, a homemade liquid opioid, while Estonia reported the arrival of fentanyl.

The third category, **harms and harm reduction**, can be divided into **three sub-themes: high-risk use, adverse effects and overdoses, and influence on harm reduction**. Concerning high-risk use, there was a reported increase in the sharing of equipment, including used filters. In Kenya, the phenomenon of 'flashblood' emerged, where blood from someone who had injected drugs earlier was subsequently injected. In Russia, the sharing of pre-loaded syringes containing desomorphine increased the risk for blood-borne virus transmission. Adverse effects included various issues such as vein damage and abscesses from injection of adulterated heroin and stimulants. Additionally, lengthy black-outs and memory loss were associated with the injection of benzodiazepines. Notably, Australia experienced a 67% reduction in fatal and non-fatal opioid overdoses, and Norway reported a decline of 50%. The UK, on the other hand, reported a cluster of (fatal) overdoses, attributed to respiratory depression due to the simultaneous intake of benzodiazepines and alcohol, alongside the sudden appearance of a batch of high-quality heroin. Influence on harm reduction was apparent in several ways, including a decrease in the number of patients treated for opioids in Latvia, a decline in attendance levels at threshold services and a decrease in heroin positivity rates in drug testing in the UK.

METHODS

1. Research question and framework

The scenario-building methodology presented by the humanitarian analysis organisation ACAPS was used as a basis for this exercise, adapted to the topic and setting in question (ACAPS, 2022).

As a first step, the specific research question was defined, including the geographical context and time horizon: “What effects could the Afghanistan opium ban have in **Belgium** within the **next 2 years**?”. The underlying question is “What futures could we expect?”. The core team developed a conceptual model to aid in identifying relevant variables and their relationships, to understand the current situation and possible drivers of change. The conceptual framework aimed to map the variables shaping the heroin situation in Belgium, taking a 360° view.

These aspects were then organised into a framework (see Table 1) following the categories:

1. Current drivers
2. Possible future drivers
3. Vulnerability/resilience of the affected population
4. National response capacity

Table 1: Framework of variables shaping the heroin situation in Belgium

Categories	Variables
Current drivers	Production levels, trafficking routes, stocks
Possible future drivers	<i>Market:</i> purity, quality, price, supply, demand, new substances <i>Security:</i> crime, customs, police, justice <i>People who use drugs:</i> choice of drug, consumption patterns (e.g., administration route, frequency)
Resilience/vulnerability of the affected population	<i>People who use drugs (PWUD):</i> poly-drug use, overdoses, infectious diseases, consumption patterns (e.g., administration route, frequency), drug-related deaths
National response capacity	<i>Harm reduction:</i> opioid agonist treatment (methadone, buprenorphine, diacetylmorphine), naloxone, drug-consumption rooms, needle exchange programmes, drug checking <i>Healthcare:</i> general practice, specialised addiction services, emergency care <i>Monitoring:</i> wastewater analysis, syringe residue analysis, Early Warning System, toxicology laboratories, rapid detection by police/customs etc... <i>Prevention</i>

2. Scenario building workshop

Subsequently, a workshop was organised on 6 February 2024, which lasted three hours. The workshop participants represented diverse areas of the drugs field (at federal, regional and local level), including drug policy, security, harm reduction, health, and academia.

The workshop started with a presentation of foresight approaches, the current state of affairs, and lessons learnt from previous experiences (as outlined above). Participants were then divided into two groups (Dutch-speaking and French-speaking) to elaborate mini-scenarios. Both groups started from the basis of one **key uncertainty: the availability (or not) of heroin in Belgium**. Starting from that uncertainty, the groups developed mini-scenarios by combining assumptions following the framework outlined above of: current drivers, future drivers, vulnerability/resilience of the affected population, and national response capacity.

The workshop participants were given five minutes for independent thinking based on the research question: “What effects could the Afghanistan opium ban have in **Belgium** within the **next 2 years**?”. The workshop participants were then asked to share one idea at a time. Starting from each idea, scenarios were constructed by considering each aspect of the guiding framework in turn, in particular considering cause-and-effect relationships between assumptions and variables. Participants were encouraged to think “out-of-the-box” and to consider opposite possibilities when an assumption was put forward. Once all the aspects of a mini-scenario had been considered, the workshop facilitator asked a different participant to put forward an assumption that they had written down, based on which another mini-scenario was built.

Guiding questions in order to develop different scenarios included:

- Explore multiple futures with scenarios:
 - What if ...?
 - Which futures are possible, probable, imaginable, desirable?
 - What effects could we imagine on [possible future drivers/the affected population]?
- Discuss (strategic) implications and actions to prepare in the present
 - What do these futures imply for our actions today?
 - What strategies do we need today?
 - What implications could this scenario have on the [national/regional/local response capacity]?

After both groups had developed mini-scenarios, these were presented back to the whole group. Both groups developed six mini-scenarios, creating 12 mini-scenarios in total. A voting session took place, in which participants individually ranked each mini-scenario based on two criteria via an online platform: certainty (mini-scenario is likely to happen or not) and risk (mini-scenario has a low or high risk).

RESULTS (SCENARIOS)

Following the scenario building workshop, all mini-scenarios were compared. Mini-scenarios that were similar were combined and compounding factors were identified. The combined scenarios, which are based on the results of the workshop, are presented below.

Based on the workshop and subsequent refinement, five overarching possible scenarios could be envisaged in Belgium following the ban on opium production in Afghanistan. It is important to note that when reading the scenarios, they should not be interpreted as exhaustive predictions of the future. The aim is rather to stimulate thinking about the future and different possibilities. The likelihood of each scenario is not important, as long as each scenario is internally coherent. The scenarios are described to be sufficiently different from one another, but certain aspects are inter-related and over-lapping. Additionally, the 'real' future is not likely to be captured in one specific scenario, but will likely include elements of several.

The results of the ranking exercise (explained in the previous section), which give a notion of how participants considered the different mini-scenarios in terms of certainty and risk, have been added for each.

The scenarios are presented below in order of their certainty (as estimated by workshop participants) and on a continuum of availability (or not) of heroin in Belgium. Thus, the five scenarios that can be envisaged are:

1. Market adaptation with no change in supply of heroin
2. Increased vulnerability of people who use heroin (PWUH)
3. Switch to synthetic opioids
4. Switch to stimulants
5. Switch to medicalised depressants

The section below describes each scenario in more detail, including the risk and certainty estimated by workshop participants, the potential impacts of the scenario, and the operational consequences they imply.

1. *Market adaptation*

The market adapts, with new production routes meaning supply remains stable in Belgium with heroin of different qualities

Certainty: High. Risk: Medium.

Description	<p>The market adapts rapidly, with countries using up their stocks (e.g., Turkey) and other countries increasing their production (e.g., Myanmar, Iran and Pakistan) or taking up production (e.g., Russia), as it becomes more lucrative to produce heroin. Markets offering the most money are prioritised by suppliers, so producers prefer the European market to the African market.</p> <p>The Belgian market does not suffer from a change in the availability: the overall effect is that supply remains stable. However, heroin arrives in Belgium through different transport routes. The port of Antwerp becomes more important (and the Balkan route less).</p>
Impacts on affected population	<p>As there are different production/trafficking routes, there is a differentiation in the market, with heroin of different quality. This leads to an increase in overdoses among people who use heroin (PWUH) as people are not prepared for the substances they consume. There is also an increased risk of adverse</p>

effects with injection of contaminants (e.g., nitazenes). Overall, unwitting consumption may appear among PWUH.

Implications for national response capacity

Harm reduction:

- Drug checking and drug consumption rooms are very important given the increased risk of overdose with heroin of different qualities.
- There is a need for easier access to and training on naloxone (e.g., providing 'take-home' naloxone).

Monitoring:

- Monitoring by customs of ports and point of entry is important to understand developments of the market (e.g., new production/trafficking routes).
- Drug checking is needed in order to better monitor the quality/purity of heroin on the market.

2. Increased vulnerability of people who use heroin (PWUH)

A lack of heroin leads to increased vulnerability of PWUH (e.g., risky behaviours, crime and aggression)

Certainty: Middle. Risk: Middle

Description

In a first stage, a scarcity of heroin on the Belgian market leads to an increased vulnerability of PWUH. They undergo cravings and are in need of additional money in order to purchase heroin which becomes more expensive or to purchase more expensive alternatives such as crack cocaine.

Risky behaviours increase among the affected population. The need for extra money leads to petty crimes, violence and aggression. More people prefer the injection route over other administration routes in order to maximise the effect from the small amounts of heroin they are able to purchase. Moving to other substances of choice or polydrug use leads to risky drug use, as PWUH are not used to deal with the related risks of that particular substance or related risks of mixing two or more substances.

Impacts on affected population

PWUH become more vulnerable due to taking more risks and causing more nuisance for the neighbourhood (violence, thefts, needles in the parks, etc).

The increase in people who inject heroin leads to increases in drug-related infectious diseases, as well as fatal and non-fatal overdoses.

Implications for national response capacity

Security / outreach social work / harm reduction:

- The increase in petty crimes and aggression means that more people may be arrested.
- Reinforcement and preparedness is needed among street-level police and outreach initiatives (including harm reduction initiatives) to deal with the emerging problems occurring on the streets and beyond. Collaboration between these street-level stakeholders need to be strengthened to prevent these kind of emerging problems and to improve pathways post-arrest.
- In addition to a general need for harm reduction services, access to needle exchange programmes and drug consumption rooms will become more crucial in reducing drug-related risks such as infectious diseases and overdoses.

Monitoring:

- Improved monitoring is needed at the level of PWUH (e.g., to monitor if they are switching to more injection use) or people who use drugs (PWUD) in general to have a better understanding on how they – in a first stage – react to the shortage on heroin.
- Collaboration with local stakeholders such as local police and social- and health services (including harm reduction initiatives) will be crucial here.

3. Switch to synthetic opioids

Synthetic opioids fill the gap in the market, causing increases in overdoses

Certainty: Middle. Risk: High.

Description No heroin is available in Belgium after stocks are used up. Drug traffickers turn to synthetic opioids to fill the gap in the market. There is an increased use of synthetic opioids, such as fentanyl and nitazenes. Online markets take on more importance.

Impacts on affected population There is an increase in fatal and non-fatal overdoses due to synthetic opioid consumption.

People who currently use heroin are the main population affected as they switch to synthetic opioids due to a lack of availability of heroin. However, people who use other drugs may also be affected as the supply of synthetic opioids on the market increases, making them more easily available.

Implications for national response capacity

Harm reduction:

- Training about naloxone is needed, in particular on its reduced efficacy on some synthetic opioids and the need for higher doses. Naloxone nasal sprays need to be more easily accessible (e.g., providing 'take-home' naloxone).
- Access to drug consumption rooms becomes more important, as well as targeted harm reduction information towards people who use drugs.

Monitoring:

- Better and more adapted monitoring is needed across all levels, through the regular registers, police interventions, customs. For instance, specific types of new psychoactive substances (NPS) – in particular synthetic opioids – should be included as a separate category in surveys such as EWSD/Drug Vibes and NEP-survey.
- Adapting the existing monitoring systems to specifically monitor synthetic opioids.
- Police and customs need more resources focused on the online market.
- Drug checking is needed in order to be able to better monitor the drug situation.
- Peer support initiatives may facilitate contact with hard-to-reach populations, which enables a better monitoring of new developments on the drug market.

4. Switch to medicalised depressants

A lack of heroin causes increases in the use of medicalised depressants

Certainty: Middle. Risk: Middle.

Description	Reduced availability of heroin means that PWUH are forced to turn to other depressants, such as opioid agonist therapy (OAT) medication or (designer) benzodiazepines. These medicalised substances have in common they can be both purchased on the legal market and illegal market.
Impacts on affected population	<p>This has the following impacts:</p> <ul style="list-style-type: none"> • An increase in the demand for OAT medicines, obtained through official OAT programs or via the black market including re-selling substances • At the supply side, dealers will see opportunities in selling medicalised depressants, including fake medication (e.g. Fanax, versus Xanax) • Increased importance of internet markets (both darkweb and clearnet), including social media (such as Whatsapp, Telegram, Viber) • There is an increase in criminality, such as burglary at pharmacies or targeting of medical waste of hospitals to find (remains of) medicines • There is an increased demand for prescriptions of depressants, but false medical prescriptions will also circulate more often. <p>Affected areas include hospitals, pharmacies, OAT, healthcare facilities (increased demand for prescriptions but also the risk of burglaries).</p>
Implications for national response capacity	<p><u>Medical healthcare and harm reduction:</u></p> <ul style="list-style-type: none"> • (Para-)medical staff need further training on how to deal with these new circumstances. Awareness-raising among GPs is needed (e.g., how to deal with the increased demand for prescriptions for medical depressants, being aware when prescribing fentanyl and oxycodone), as well as among DCRs. • Given that there are already waiting lists at the moment, the increased demand for OAT-medication means that there is a need for increased capacity of addiction treatment. There is also a need for diversification of OAT-treatment (buprenorphine (Buvidal) / diacetylmorphine) to meet the increase in demand and a need to lower the threshold and lower the conditions to access for PWUD. <p><u>Monitoring:</u></p> <ul style="list-style-type: none"> • There is a need for better monitoring of online markets, as well as better collaboration with parcel services and bpost for identification of parcels. • Being in close connection with PWUH is even more crucial to be able to better monitor the changing drug situation (including drug checking). Toxicological analysis of fake medication which is circulating on the black market, will become extremely important.

5. Increased use of stimulants

A lack of heroin causes people to switch to stimulants

Certainty: Low. Risk: High.

Description	There is very little heroin available. People switch to different types of stimulants in substitution for or in addition to heroin, such as: synthetic cathinones (given that they are cheaper than heroin), crack cocaine (following existing trends of increasing use), or (meth)amphetamines. People turn to home cooking of stimulants like methamphetamines, as per emerging trends reported in the workshop (e.g., in Ghent).
Impacts on affected population	The number of people who use stimulants increases, with risks associated with consumption of stimulants (e.g., overdose), as well as risks of home cooking. In addition, there is an increase in aggressive behaviour due to stimulant consumption.
Implications for national response capacity	<p><u>Harm reduction/healthcare:</u></p> <ul style="list-style-type: none"> • There is a need to focus on a target group that is less reached by addiction care or harm reduction initiatives. As there is no pharmaceutical treatment for stimulant addiction, other treatment types (e.g., cognitive behavioural therapy) become more important. • Training of harm reduction and healthcare workers is needed on the risks and management of different stimulants. For instance, training is needed on the management of overdose given the lack of a pharmaceutical antidote (e.g. naloxone for opiates). <p><u>Monitoring:</u></p> <ul style="list-style-type: none"> • Monitoring must be improved for early identification of changes in trends of stimulant use and the market situation (supply). <p><u>Security:</u></p> <ul style="list-style-type: none"> • Increased presence of police is needed to deal with increases in aggression, as well as potential accidents of home-cooking.

CONCLUSION / RECOMMENDATIONS

In conclusion, this report presents the findings of a scenario-building exercise organised by the Unit Illicit Drugs of Sciensano to explore the potential impacts the ban on opium production in Afghanistan could have at the Belgian level. The aim of this exercise was to stimulate collaborative future-thinking, bringing together a variety of expertise to anticipate the challenges that may arise. The work cannot be interpreted as a prediction of the future, nor can it be viewed as exhaustive. However, certain recommendations arise on how to be better prepared. Overall, the developed scenarios point to potentially increased vulnerability of the affected population, with a need for intensified focus.

The recommendations below outline actions that are needed at the present time by different parties, in order to rapidly detect changes (as opposed to a response towards specific scenarios). Based on future developments, specific actions will be needed relevant to that scenario. In addition, the relevant stakeholders must be informed at appropriate times of the risks of different scenarios.

A) Improve monitoring to rapidly detect developments of the drug situation

1. Strengthen the network with different stakeholders, such as local police, customs, (outreach) social and health services in order to rapidly detect developments on the field that may arise. The Unit Illicit Drugs of Sciensano, as the National Focal Point (NFP) on drugs, has a crucial role to play.
2. Improve monitoring through direct contact with people who use drugs (PWUD) to avoid blind spots in hard-to-reach populations. Harm reduction initiatives – such as drug checking services and peer support initiatives – play an important role.
3. Ensure preparedness to be able to detect new psychoactive substances (NPS), in particular synthetic opioids and designer drugs that emerge on online markets. The availability of up-to-date reference libraries must be ensured and the sharing of samples between laboratories for extended analysis may be facilitated (e.g., through better understanding of the analytical capacities of different laboratories).
4. Improve monitoring of intoxications and drug related fatalities through the development of a standardised protocol for medical professionals (e.g., GPs who determine the cause of death), in addition to offering trainings for medical professionals regarding NPS.
5. Adapt existing monitoring systems to be able to detect emerging patterns of use, in line with recommendations from the SO-PREP project. Consider new emerging substances, such as synthetic opioids or synthetic cathinones, as a distinct category in surveys targeting PWUD.
6. Increase action on online markets and logistical chains (e.g. bpost, parcels, ...) to detect emerging trends in drug use and distribution. The mandate of the National Drugs Agency might foster this process.
7. Strengthen monitoring of points of entry to rapidly understand developments in terms of trafficking routes, such as new innovative scanning systems to detect hidden drugs in parcels, containers.

B) Ensure capacity of harm reduction and healthcare to deal with new emerging challenges

8. Strengthen harm reduction initiatives. Several scenarios highlighted the vulnerability of the target/affected population. To reduce substance-related risks, such as overdoses, drug consumption rooms (DCR) and drug checking services are valuable.
9. Improve access and lower the threshold for people who use heroin (PWUH) towards health and addiction care through increased capacity and improved diversification of medical treatment (e.g., diacetylmorphine, opiate agonist treatment (OAT) with long-acting buprenorphine), and ensure other non-medical treatment.

10. Ensure training of outreach workers, harm reduction and health professionals about overdose prevention and management and naloxone specifically, in particular on its reduced efficacy on some synthetic opioids. Improve accessibility of naloxone (e.g., allowing the provision of 'take-home' naloxone), in line with recommendations from the Superior Health Council (Superior Health Council, 2022).
11. Provide appropriate and timely information towards healthcare, harm reduction, and other professionals in close contact with PWUD to ensure that vulnerable populations are informed of emerging risks/dangers. This includes targeting people who purchase their drugs online (in line with recommendations from the SO-PREP project) or other hard-to-reach populations. Social and health outreach actions and (online) peer support initiatives can prove their strength here.

REFERENCES

- ACAPS. (2022). *Scenario building methodology: How to build scenarios in preparation for or during humanitarian crises* [Technical brief]. https://www.acaps.org/fileadmin/Technical_notes/202202_acaps_technical_brief_scenario_building_methodology.pdf
- Antoine, J., Balcaen, M., Degreef, M., Fernandez, K., Gremeaux, L., Plettinckx, E., & Van Baelen, L. (2024). *The drug situation in Belgium in 2022. Annual report from the Belgian REITOX network* (D/2024.14.440/1). Sciensano.
- Balcaen, M., Degreef, M., Antoine, J., Deconinck, E., & Gremeaux, L. (2023). *Een profielschets van heroïne in België – Samenvatting van de resultaten van RADAR-heroin-23, Registratiejaar 2023* (D/2023.14.440/62). Sciensano.
- Caulkins, J. P., Tallaksen, A., Taylor, J., Kilmer, B., & Reuter, P. (2024). The Baltic and Nordic responses to the first Taliban poppy ban: Implications for Europe & synthetic opioids today. *International Journal of Drug Policy*, 124, 104314. <https://doi.org/10.1016/j.drugpo.2023.104314>
- Day, C., Topp, L., Rouen, D., Darke, S., Hall, W., & Dolan, K. (2003). Decreased heroin availability in Sydney in early 2001. *Addiction (Abingdon, England)*, 98(1), 93–95. <https://doi.org/10.1046/j.1360-0443.2003.00266.x>
- Degenhardt, L., Day, C., Gilmour, S., & Hall, W. (2006). The “lessons” of the Australian “heroin shortage.” *Substance Abuse Treatment, Prevention, and Policy*, 1(1), 11. <https://doi.org/10.1186/1747-597X-1-11>
- EMCDDA. (2011, November 15). Recent shocks in the European heroin market: Explanations and ramifications. *Trendspotter Summary Report*. https://www.emcdda.europa.eu/publications/scientific-studies/2011/trendspotters-report_en
- EMCDDA, & Europol. (2024). *EU Drug Market: Heroin and other opioids—In-depth analysis*. https://www.emcdda.europa.eu/publications/eu-drug-markets/heroin-and-other-opioids_en
- Farrell, G., & Thorne, J. (2005). Where have all the flowers gone?: Evaluation of the Taliban crackdown against opium poppy cultivation in Afghanistan. *International Journal of Drug Policy*, 16(2), 81–91. <https://doi.org/10.1016/j.drugpo.2004.07.007>

- Federal Police. (2023). *Possession and supply-related law offences between 2013-2022* [Personal communication].
- Hallam, C. (2011). *The Heroin Shortage in the UK and Europe* [IDPC Briefing Paper]. <https://ssrn.com/abstract=1908881>
- Harris, M., Forseth, K., & Rhodes, T. (2015). "It's Russian roulette": Adulteration, adverse effects and drug use transitions during the 2010/2011 United Kingdom heroin shortage. *The International Journal on Drug Policy*, 26(1), 51–58. <https://doi.org/10.1016/j.drugpo.2014.09.009>
- Maher, L., Li, J., Jalaludin, B., Wand, H., Jayasuriya, R., Dixon, D., & Kaldor, J. M. (2007). Impact of a reduction in heroin availability on patterns of drug use, risk behaviour and incidence of hepatitis C virus infection in injecting drug users in New South Wales, Australia. *Drug and Alcohol Dependence*, 89(2–3), 244–250. <https://doi.org/10.1016/j.drugalcdep.2007.01.001>
- Mital, S., Miles, G., McLellan-Lemal, E., Muthui, M., & Needle, R. (2016). Heroin shortage in Coastal Kenya: A rapid assessment and qualitative analysis of heroin users' experiences. *The International Journal on Drug Policy*, 30, 91–98. <https://doi.org/10.1016/j.drugpo.2015.08.010>
- Pharmanet. (2023). *Opiate Agonist Treatment Register* [Personal communication].
- Plettinckx, E., Crawford, F. W., Antoine, J., Gremeaux, L., & Van Baelen, L. (2021). Estimates of people who injected drugs within the last 12 months in Belgium based on a capture-recapture and multiplier method. *Drug and Alcohol Dependence*, 219, 108436. <https://doi.org/10.1016/j.drugalcdep.2020.108436>
- Sciensano. (2023). *Belgian Early Warning System on Drugs* [Text]. [sciensano.be. https://www.sciensano.be/nl/projecten/belgian-early-warning-system-drugs-0](https://www.sciensano.be/nl/projecten/belgian-early-warning-system-drugs-0)
- Sciensano. (2024). *TDI › The Belgian Treatment Demand Indicator*. <https://healthinformation.sciensano.be/shiny/TDI/>
- Superior Health Council. (2022). *Making naloxone available to opioid users* (Report no. 9695). Superior Health Council.
- Topp, L., Day, C., & Degenhardt, L. (2003). Changes in patterns of drug injection concurrent with a sustained reduction in the availability of heroin in Australia. *Drug and Alcohol Dependence*, 70(3), 275–286. [https://doi.org/10.1016/s0376-8716\(03\)00013-9](https://doi.org/10.1016/s0376-8716(03)00013-9)

- UNODC. (2023). *Afghanistan opium survey 2023* (UNODC Research Brief). https://www.unodc.org/documents/crop-monitoring/Afghanistan/Afghanistan_opium_survey_2023.pdf
- Van Baelen, L., Plettinckx, E., Antoine, J., & Gremeaux, L. (2020). Prevalence of HCV among people who inject drugs in Brussels—A respondent-driven sampling survey. *Harm Reduction Journal*, 17(1), 11. <https://doi.org/10.1186/s12954-020-00358-3>
- Viskari, I., Tammi, T., Abel-Ollo, K., Colman, C., Kools, J.-P., Kurbatova, A., Moazen, B., Oja, M., Rigoni, R., & Strada, L. (2021). *An assessment of national synthetic opioid preparedness in five countries: Belgium, Estonia, Finland, Germany, and the Netherlands* (Deliverable 3.4; SO-PREP).
- Weatherburn, D., Jones, C., Freeman, K., & Makkai, T. (2003). Supply control and harm reduction: Lessons from the Australian heroin “drought.” *Addiction (Abingdon, England)*, 98(1), 83–91. <https://doi.org/10.1046/j.1360-0443.2003.00248.x>
- Wood, E., Stoltz, J.-A., Li, K., Montaner, J. S. G., & Kerr, T. (2006). Changes in Canadian heroin supply coinciding with the Australian heroin shortage. *Addiction (Abingdon, England)*, 101(5), 689–695. <https://doi.org/10.1111/j.1360-0443.2006.01385.x>

ANNEX I

List of participating organisations

1. Eurotox asbl
2. Federal Police (Central Directorate for Combating Serious and Organised Crime, DJSOC)
3. Free Clinic vzw
4. MSOC VLaams-Brabant / GIG Vlaams-Brabant
5. National Drugs Agency
6. National Institute for Criminalistics and Criminology (NICC)
7. Projet Lama
8. safe.brussels
9. SPF Santé Publique
10. City of Ghent
11. Transit asbl
12. Ghent University
13. VAD vzw (Flemish expertise center for alcohol and other drugs)