

Written evidence: Opioid addiction

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Executive summary

Topics covered:

- Background of opioid addiction.
- Health harms associated and at-risk individuals.
- Law enforcement consequences and health.
- Government action and strategies.

1.

Opioids are synthetic or natural compounds known for their analgesic properties, as they bind to opioid receptors within the central nervous system, effectively alleviating sensations of pain ³. Opioids, often combined with other substances, remain the primary cause of drug-induced deaths. Drug-induced deaths refer to those directly caused by the consumption of drugs. While heroin is a significant factor, it's important to recognize the growing role of various other opioids in these fatalities. ¹⁸. Furthermore, nearly 80% of drug-related deaths can be attributed to opioids, and approximately a quarter of these deaths result from opioid overdoses. ⁵

This phenomenon is primarily driven by the susceptibility of opiates to misuse and addiction. The surge in misuse is linked to the large availability of prescription opioid analgesics, the heightened purity of heroin, the escalating number of opioid overdose fatalities, and the introduction of potent illicit fentanyl compounds ³. Various risk factors contribute to the prevalence of extra-medical prescription opioid and illicit opioid use, including genetic, early life, and environmental factors ⁶.

Opioids work by activating receptors in the brain, spinal cord, and organs linked to pain and pleasure. This can intensify the craving for the drug and the desire to repeat the experience. Even when taken as prescribed, prescription opioids can lead to substance use disorders. Opioid addiction leads to withdrawal symptoms like muscle pain, sleep problems, digestive issues, and strong cravings ⁴. Moreover, prolonged opioid exposure can permanently change brain regions linked to reward and motivation, leading some people into a lifelong cycle of compulsive drug use. These lasting changes are partly due to alterations in gene expression through epigenetic modifications in specific brain areas. ².

While most research on the role of epigenetic modifications in addiction has focused on psychostimulants such as cocaine, investigations into how opioids affect the epigenetic landscape are gradually emerging. This is a key area that aids the understanding of the harms illicit drugs use can induce. However, there are both data availability and methodological issues, finding considerable areas of uncertainty. Consequently, any conclusions drawn within this context must be made with prudence ¹. Methodological limitations likely result in underreported

numbers, and international comparisons are cautioned due to varying reporting capacities.

The lack of detailed toxicological data limits the understanding of how different drugs contribute to such fatalities over time. Notably, benzodiazepines are often found alongside opioids in drug-induced deaths, potentially intensifying their effects. In fact, polydrug use significantly contributes to drug-related deaths, emphasizing the need for better toxicological information. Additionally, statistics on drug-induced deaths do not account for mortality from accidents, violence, non-drug-related suicides, or chronic diseases where drug use may have played a role ¹. To address these issues, resources should be invested in accurately recording and monitoring opioid prescriptions and drug-induced deaths, with Prescription Drug Monitoring Programs offering potential solutions for identifying drug-seeking behaviour and patient safety concerns ³.

2.

In 2020, approximately 61 million individuals, equivalent to 1.2% of the global population, used opioids. Opioids remained the deadliest category of drugs, contributing to two-thirds of drug-related deaths, primarily from overdoses. In addition, about 40% of people in drug treatment named opioids as their primary drug of use in 2020. A significant portion, around half, lived in South Asia and South-West Asia, with an estimated 31 million primarily using heroin. This figure had doubled from 2010, primarily due to better data collection in large population countries ¹⁸.

Starting from 2008, opiates and opioids have consistently been the primary substances involved in drug misuse-related deaths in Scotland. There has been a notable rise in these fatalities since 2013 as it can be seen in figure 1, with opiates/opioids contributing to 867 deaths in 2022 ¹⁶.

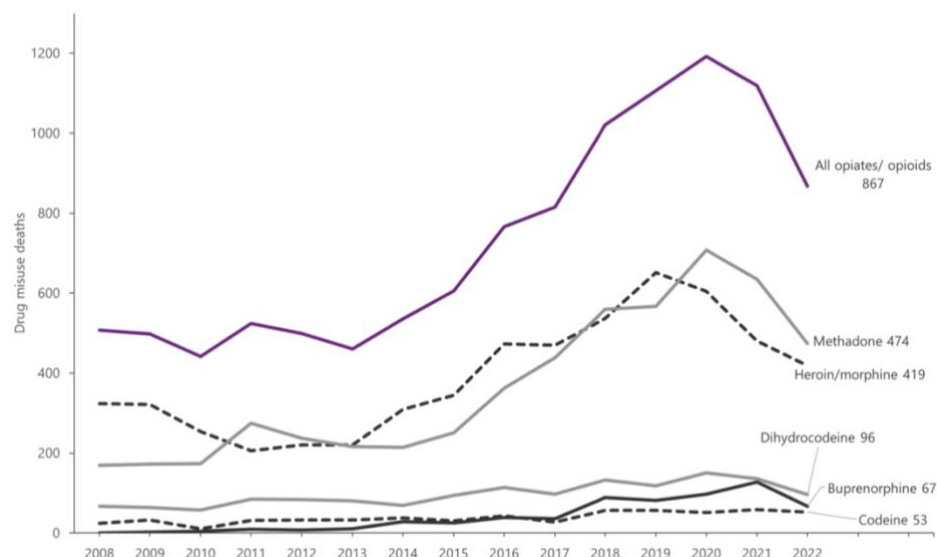


Figure 1: Drug misuse deaths in Scotland by drugs implicated, opiates and opioids ¹⁷.

Looking at figure 2, the prevalence of OUD shows the dual epidemics of opioid misuse, one involving fentanyl in North America and the other centered on tramadol misuse in North Africa, West Africa, the Near and Middle East, and South-West Asia, persisting as significant health threats ¹⁸.

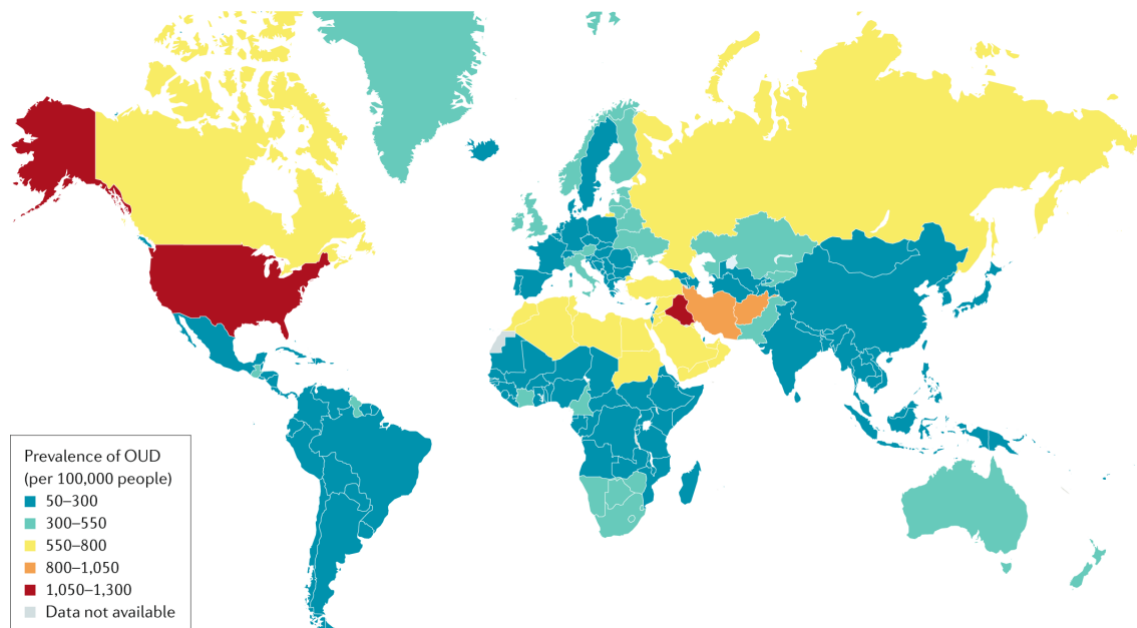


Figure 2: Age-standardized prevalence of opioid use disorder per 100,000 people ⁷.

Communities at higher risk for opioid use often face increased exposure to social and contextual risks, including drug availability, peer drug use, societal norms, adverse childhood experiences, family history of drug use, and individual factors like being male, childhood disorders, and lower education and economic opportunities. While opioid dependence has a partial hereditary component, it appears to be a genetic predisposition to substance use disorders in general, rather than specifically to opioids⁶.

Opioid misuse has a profound impact on vulnerable communities. People who inject drugs (PWID) are at high risk of contracting HIV and HCV. Opioid injection prevalence varies by region and the type of opioid used. For instance, in South Asian countries, non-injecting methods of administration have been more prevalent. Furthermore, opioid dependence is linked to a range of adverse outcomes, including a reduced quality of life, mental health issues, increased involvement in criminal activities, and interactions with the criminal justice system. Consequently, opioid misuse presents a substantial challenge for society, particularly impacting vulnerable communities ⁶.

Fortunately, solutions for opioid misuse, like opioid agonist treatment (OAT) with medications such as methadone or buprenorphine, exist. Additional interventions, including sterile injecting equipment, naloxone, or condoms, may be provided alongside OAT. However, there's limited research on these interventions, with weak or unclear evidence of their impact on outcomes, often based on just a couple of trials. Understanding the effects of interventions beyond

OAT on overdose and health outcomes is essential for shaping a comprehensive approach to treating those with opioid dependence ⁶.

The ideal opioid policy should reduce health and social harms from non-medical use while ensuring access to prescribed opioids. More research is needed to determine the best policy frameworks. There's an urgent need for national and global drug policies, clinical guidelines, and research to address opioid-related harm. Shifting focus from criminal justice to public health is vital. Clinical strategies should prioritize harm prevention through a combination of pharmacological, psychological, and harm reduction interventions, guided by research ⁶.

3.

The Scottish Drug Misuse Database (SDMD) is key for tracking drug misuse in Scotland, gathering data on client demographics and behaviours in various services. However, it's voluntary and may not cover everyone. In addition, Public Health Scotland uses capture/recapture methods to estimate broader Problem Drug Use, relying on data from treatment services, hospital admissions, and criminal justice reports in each Council Area. These estimates depend on overlaps across data sources, requiring certain modelling assumptions that may not hold if there's population heterogeneity with varying group probabilities of appearing in a source ¹¹. The UK Office for National Statistics publishes an annual report on drug poisoning deaths in England and Wales. This report covers deaths from 1993 to 2021, detailing causes, gender, age, and the substances involved. The Advisory Council on the Misuse of Drugs (ACMD) suggests government funding for independent research to gain a deeper understanding of factors influencing trends in opioid-related and other drug-related deaths ¹².

Opioid misuse isn't the sole concern; over 20 opioid medicines are authorized for pain treatment in the UK which can lead to addiction. Government agencies, such as the Medicines & Healthcare products Regulatory Agency and the National Institute for Health and Care Excellence, collaborate to decide on licensing and variations based on safety, quality, and effectiveness data¹². However, death registration accuracy is critical. Hospital inpatient data quality is generally high, but it may miss some Accident and Emergency cases. Although the current UK-wide opioid-related death definition is consistent, data collection has weaknesses, making long-term trends unclear. Improving data collection processes is crucial for informed policymaking and reducing deaths ¹².

Monitoring drug-induced deaths is one part of the drug-related death indicator. Many countries, including the UK, use good-quality sources like mortality registries to measure health risks from opioids and other drugs. However, there are limitations due to differences in how countries identify, certify, and report these deaths, as well as variations in forensic capacities and procedures. Therefore, interpreting and comparing this data over time and between countries should be done cautiously. Despite these limitations, reviewing the available information is informative. It shows that opioids, often combined with other substances, remain the leading causes of drug-induced deaths ¹.

4.

The Misuse of Drugs Act 1971 regulates dangerous substances in Great Britain, classifying them as A, B, or C based on their harm potential, with A being the most harmful. Once a substance is included, its possession becomes illegal, and intent to supply can lead to life imprisonment and/or an unlimited fine. Following the ACMD's 2022 report on nitazene and buprenorphine, the government announced that 11 synthetic opioids would be classified as Class A drugs and placed under Schedule 1 of the Misuse of Drugs Regulations 2001⁹. In addition to law enforcement, UK is implementing six policies and responses to decrease opioid-related deaths. These include supply reduction, opioid substitution therapy (OST), support for recovery and abstinence from dependence, social and integrated responses, research and prevention and treatment for overdose ¹³.

Drug policies can sometimes lead to harmful consequences. Laws prohibiting drug paraphernalia possession, such as equipment for injecting, make people who inject drugs (PWID) scared to carry syringes, forcing them to dispose or share of them unsafely, significantly raising the risk of HIV transmission through injection. Hard consequences can also block access to vital services like opioid substitution therapy (OST) and needle and syringe programs (NSP) for those who inject opioids ⁸.

The Commission's mathematical modeling highlights the substantial impact of incarceration and the elevated post-release HCV risk on HCV national incidence among PWID in various countries. For instance, in Thailand, PWID stay a large portion of their injection careers in prison, around 63% of new HCV infections could be attributed to correctional facilities. In Scotland, with shorter sentences for drug users and relatively high OST coverage, around 54% of new HCV infections occur in prison, and up to 21% in the post-release period. These findings highlight the need for different prison sentences for minor drug offenses, access to OST within correctional facilities, and smooth transitions from prison services to community-based OST ⁸.

A solution to address this problem is shifting the focus and resources from legal enforcement to health advancements. Redirect funding towards providing uncomplicated access to comprehensive harm reduction services for those who need it. These critical services, such as NSP, OST, access to injection equipment, and naloxone, must be expanded to adequately meet the demand and involve active participation from people involved with drugs in their planning and execution. Expanding these services is vital in both pretrial detention and prison environments. Moreover, guaranteeing access to regulated medicines and establishing national authorities to assess their necessity is essential.⁸

Another case of problematic drug policies involves concerns about reduced opium poppy production in Afghanistan, critical for heroin production. Afghanistan supplies up to 80% of the world's opium and 95% of Europe's heroin. In April 2022, the Taliban leader, Haibatullah Akhundzada, banned opium production. Now, the ban has taken effect, leading to a reported 99% reduction in this year's production in Helmand province and an anticipated 20% decrease in the 2023

harvest compared to 2022 levels. The UNODC has suggested that a lasting reduction in opium production in Afghanistan could result in opium production moving to other countries, or substitution of opium or heroin with other drugs at the user level, including potentially more harmful substances like fentanyl and its analogues. This dynamic has played a role in the ongoing opioid crisis in North America ¹⁰.

Furthermore, the international community should address the root of the problem by providing essential services to vulnerable regions, like Afghanistan, to reduce illicit drug production. These programs should involve meaningful consultation and development with affected communities living in unstable conditions. This approach could shift illicit demand towards regulated medical production. Over time, society can transition to regulated drug markets, guided by scientific evaluation. Although immediate legal drug markets may not be politically feasible in some areas, the negative consequences of criminal markets and prohibition could prompt more countries like US to gradually move in that direction. As these decisions are made, researchers and governments should follow the scientific method, ensuring independent, comprehensive evaluation of controlled markets to learn and improve controlled practices continually ⁸.

5.

The MHRA provides a safety leaflet for safe opioid medicine use for the public to use and recommended including addiction warnings for all opioid medicines in the UK. In addition, GPs and clinical pharmacists in the corresponding UK healthcare system conduct personalized medication reviews and jointly decide if treatment changes are necessary, like moving patients from potentially addictive prescribed drugs. Aiming to combat drug misuse, the NHS and PHE collaborate with charities, support groups, and private drug treatment organizations, raising awareness and offering assistance for addressing drug misuse ¹⁴.

Numerous overdose awareness campaigns seek early intervention and prevention. Governments like the USA, Spain, and the UK have dedicated websites offering advice. International Overdose Awareness Day, observed on August 31 annually, is a global initiative with broad international participation. In 2021, the Scottish Government funded the How to Save A Life (HTSAL) campaign, aiming to increase awareness of drug-related deaths, overdose signs, and recommended responses. These efforts align with research suggesting that familiarity with affected groups reduces stigma and boosts support. Effective nationwide media campaigns can target high-risk groups while also promoting general awareness ¹⁵.

Countries' opioid addiction early prevention policies vary due to cultural, regulatory, and healthcare system disparities. Some emphasize law enforcement, while others prioritize healthcare and harm reduction. High-income countries have greater resources to address opioid use issues, with more funding for treatments and awareness campaigns. In contrast, low-income nations face limited access to treatment for opioid use disorders, particularly in low- to middle-income countries. This limitation often results from a lack of understanding about

opioid use disorders and inadequate access due to financial constraints. Even if low- to middle-income campaigns similar to HTSAL exist, there is a lack of evaluation regarding their effectiveness. It remains unknown whether these campaigns work or if their components can be improved based on intervention development frameworks ¹⁵.

6.

Individuals with substance use disorders often encounter societal mistreatment, stereotypes, and biases, including in healthcare settings, discouraging them from seeking medical help. In 2021, approximately 10.4% of those who needed substance use treatment but didn't seek it mentioned fear of community stigma as a reason. A 2019 national survey of primary care providers revealed that despite recognizing opioid use disorder as treatable, many held stigmatizing attitudes that affected their care. The criminal stigma associated with drug addiction often discourages users from seeking treatment and medical assistance, as they are seen as criminals rather than recognizing it as a medical condition. People with substance use disorders may already experience self-blame and guilt, leading to self-stigma and negative self-attitudes. These emotions of shame and isolation can further reinforce drug-seeking behaviour ¹⁶.

The UK has a robust and unique medical regulation for opioids, supporting safe and effective prescribing. Effective opioid prescribing should follow general prescription principles. A well-established national health system aids awareness and coordinated policies against opioid addiction ¹⁹. This is crucial because restrictions on healthcare can worsen opioid addiction. In the US, the decentralized physician network allows "doctor shopping" for multiple opioid prescriptions. Direct-to-consumer pharmaceutical marketing in the US boosts demand and awareness of opioids as a "quick fix" for pain ⁶. In the battle against opioid addiction, the significance of a resilient healthcare community cannot be overstated. Coordinating healthcare efforts is vital to raise awareness, implement effective policies, and offer comprehensive responses aimed at reducing opioid-related fatalities.

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