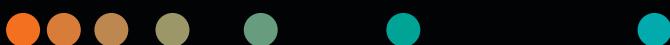
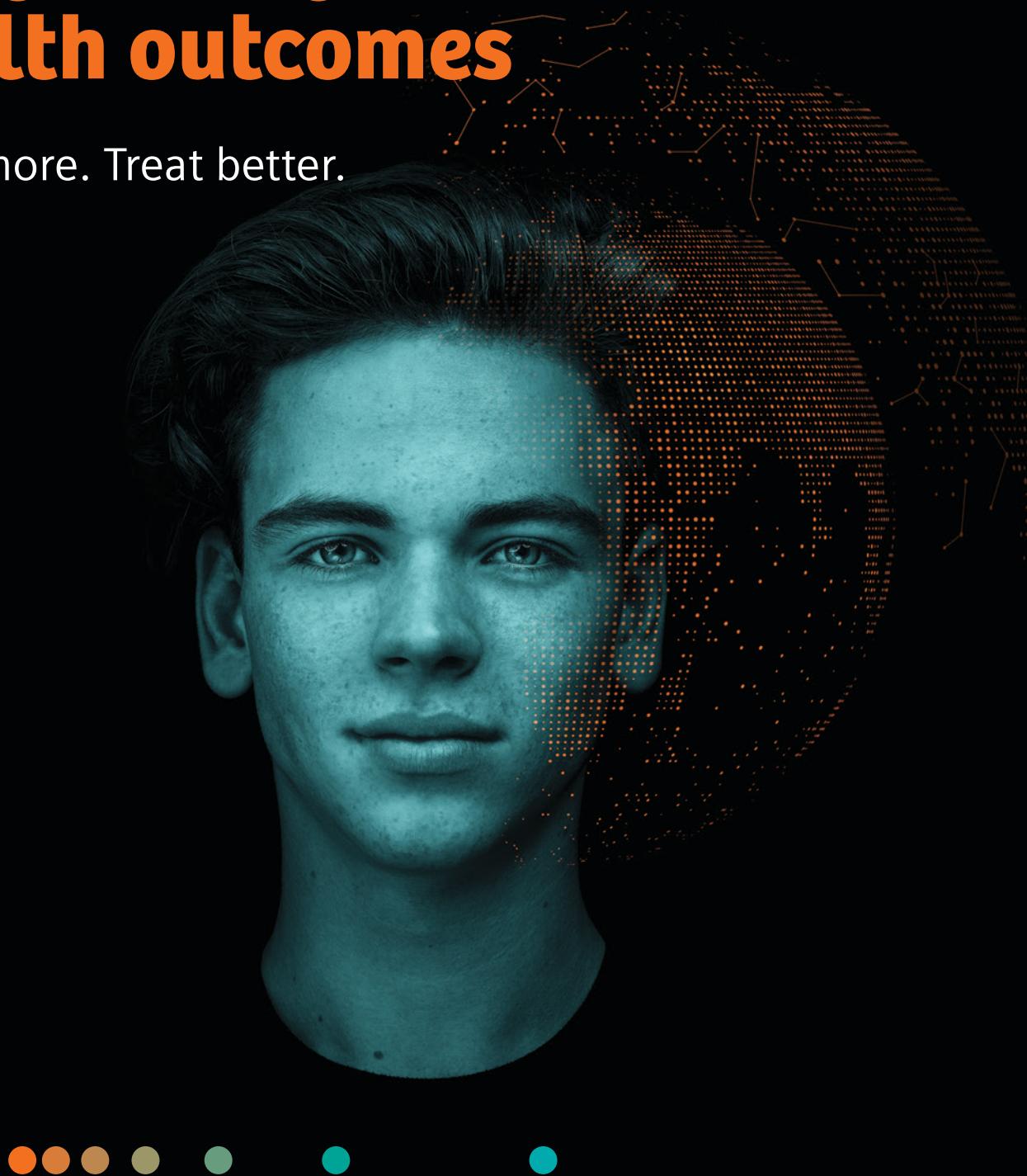


Drug testing for better health outcomes

Know more. Treat better.



An evolving drug crisis

Globally, the use of illicit drugs is increasing in both total numbers and as a percentage of the population, yet only about 8% of those affected receive some form of substance use disorder treatment. Communities worldwide continue to be challenged by the lack of intervention and treatment; thus, the growing drug crisis remains a constant threat to public health.¹

Drug use disorders do not discriminate

Factors like race, socioeconomic status, age, gender, or location in the world do not inherently protect or exclude individuals from the possibility of developing a drug use disorder. However, we see significant differences in prevalence and misuse of certain drug classes from region to region. These varying differences make it much more complex, and while we all face similar challenges with substance use disorders, every country's story is slightly different.

316 million people who use drugs¹

28% over 10 years



cannabis
244
million



opioids
61
million



amphetamines
31
million



cocaine
25
million



"ecstasy"
21
million

Source: World Drug Report 2025.



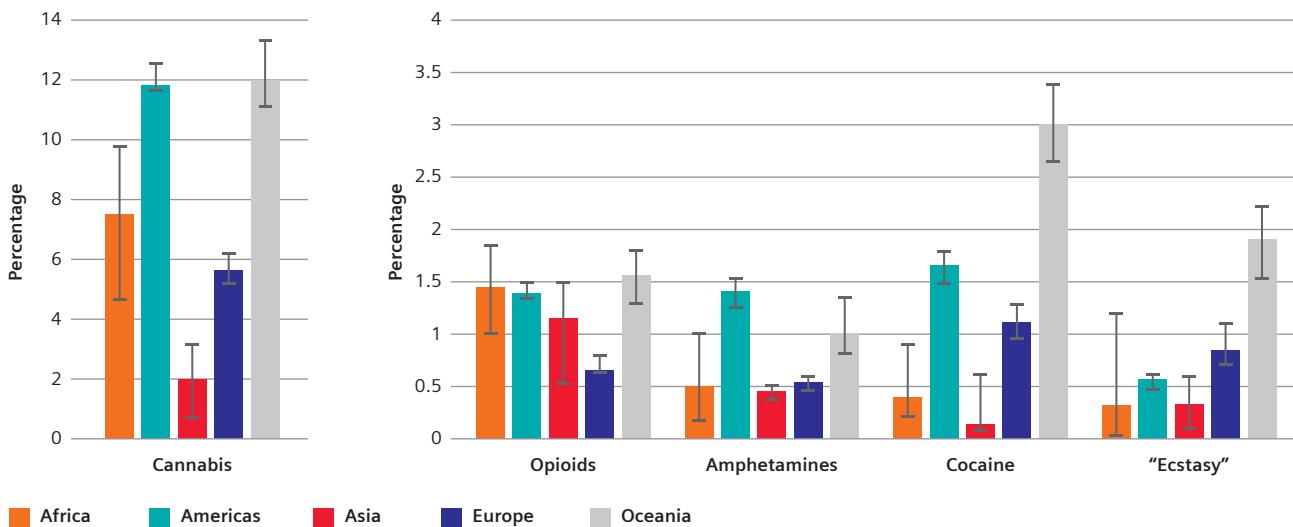
64 million people with drug use disorder¹

13% over 10 years

8.1% population in treatment

Source: World Drug Report 2025.

Annual prevalence of drug use, by drug and by region²

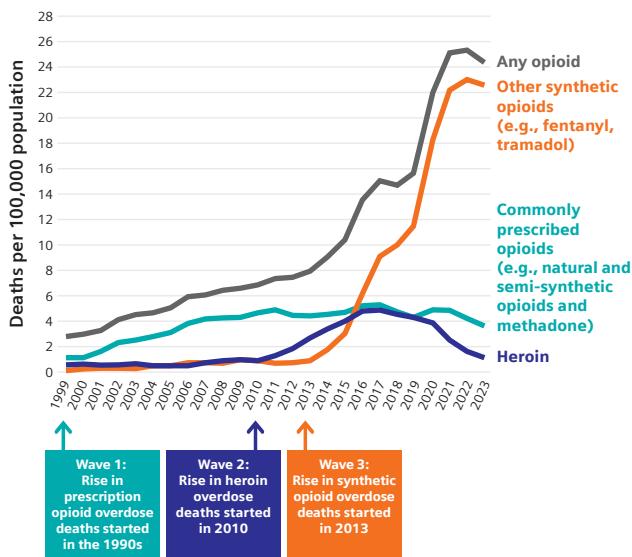


The opioid crisis

An estimated 61 million people used opioids, representing 1.2% of the global population.¹ Whether it is naturally derived opiates (opium and heroin) in Southwest and South Asia, or synthetic opioids (fentanyl and tramadol) in North America and Africa, respectively, opioids remain the most lethal group of drugs, accounting for approximately two-thirds of deaths related directly to drugs (mostly overdoses). And while treatment for opioid use is lacking globally with respect to availability and accessibility, one-third of all people in drug treatment cited opioids as their primary drug of use, according to data available from 135 countries.¹

So, how did we get here? Experts point toward the influence of pharmaceutical companies, inadequate regulation, over-prescribing by the medical profession, and increased use of illegal heroin and synthetic opioids. This can be explained in three waves.³

Three waves of opioid overdose deaths⁴



Source: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2024. <https://wonder.cdc.gov>.

Key insight

Some experts argue that a fourth wave has emerged fueled by concurrent use of opioids with stimulants like ecstasy, cocaine, and amphetamines. Whether intentional or not, polysubstance use further complicates the opioid crisis, as outcomes are more unpredictable and sometimes deadlier.

Fentanyl contamination can lead to fentanyl poisoning

There is a significant risk that illegal drugs have been intentionally contaminated with fentanyl. Because of its potency and low cost, drug dealers have been mixing fentanyl with other drugs, including heroin, methamphetamine, and cocaine, increasing the likelihood of a deadly outcome.⁵



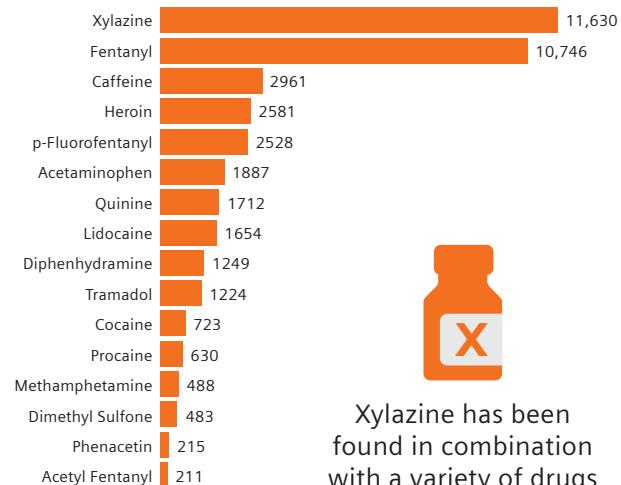
Source: www.dea.gov/onepill

Additionally, drug traffickers use pill presses to press fentanyl into pills, punches, and dyes to imprint markings and logos on those pills, producing pills that look like legitimate prescription medication—oxycodone, Xanax, or Adderall—when the pills actually contain fentanyl, methamphetamine, and other deadly drugs.⁶

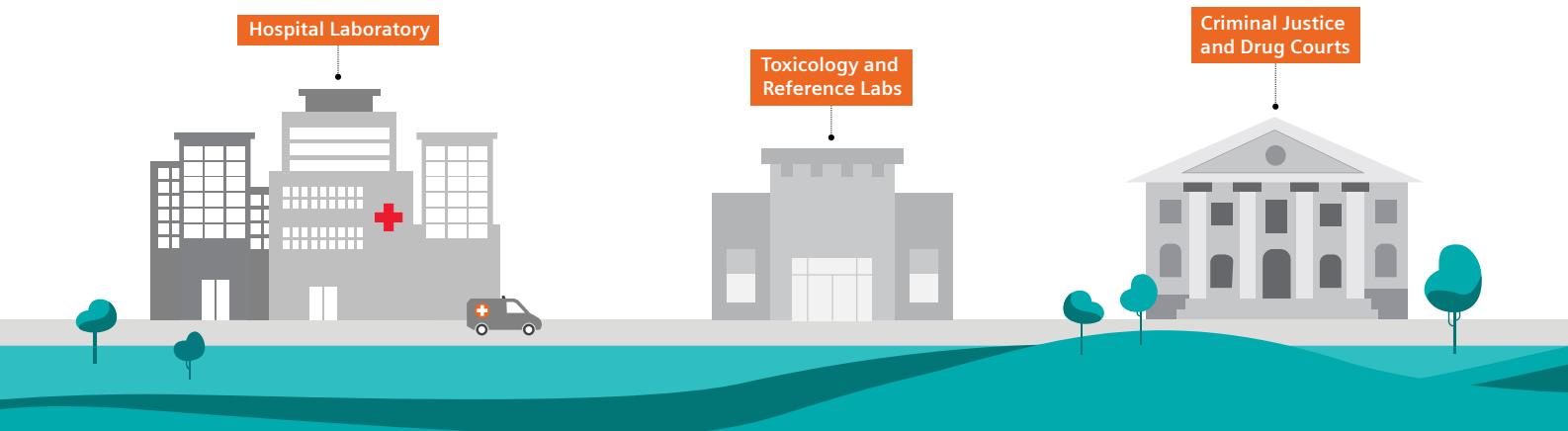
Xylazine: an emerging threat

Due to its impact on the opioid crisis, fentanyl mixed (adulterated) with xylazine (a non-opioid sedative for veterinary use) was declared an emerging threat by the White House's Office of National Drug Control Policy. On July 11, 2023, the White House released a national response plan to address the emerging threat of fentanyl mixed with xylazine.⁸

Top 15 drugs found with xylazine⁹



Xylazine has been found in combination with a variety of drugs



Siemens Healthineers is everywhere testing is needed, providing fast, reliable means to detect drugs of abuse, which can inform doctors, deter abuse, and help save lives

Accurate drug screening plays a key role in the fight against the global drug crisis. Siemens Healthineers is everywhere testing is needed: providing a reliable means to help identify substance-use disorders, facilitate evidence-based treatment, and ultimately save lives, one person at a time.



With a 60-year legacy, Syva from Siemens Healthineers is the trusted brand in drug-of-abuse testing, responding to the ever-changing needs of drug screening customers with innovative products in both the dedicated and clinical drug testing markets.



The enzyme-linked immunoassay technique EMIT is a proven method customers trust to deliver their drug screening results. Once EMIT was introduced to the market, it quickly became the blueprint for other screening assays in the industry.



Syva EMIT reagents are among the most widely used and extensively validated reagents in the industry.



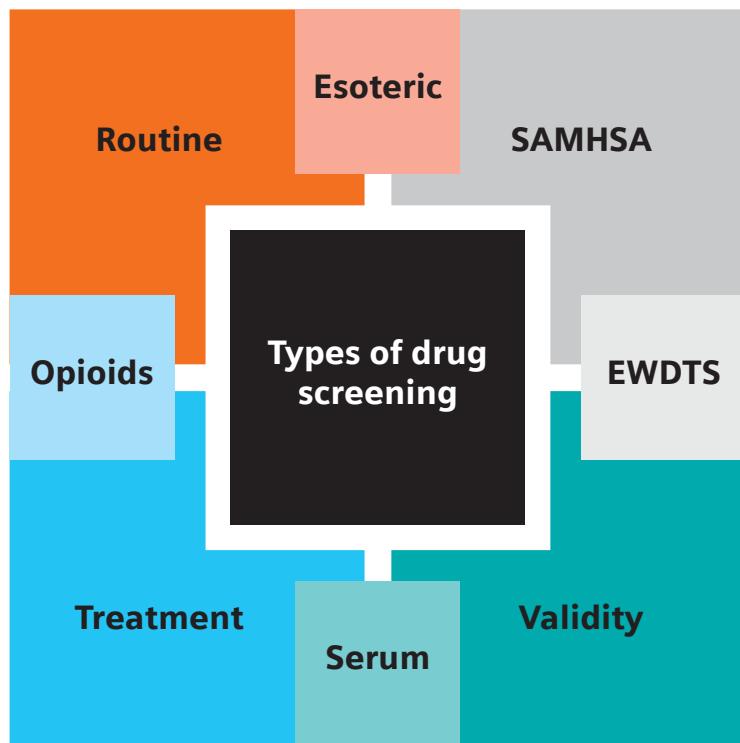
Did you know?

The EMIT method has been acknowledged by the U.S. Supreme Court as part of a highly accurate drug testing program.



Screening for all patient/client scenarios

Siemens Healthineers, your partner in drug testing, provides screening needs for identification and treatment purposes, whether for routine or esoteric testing, SAMHSA-certified lab testing, opioid and treatment testing, or specimen validity testing to validate sample integrity.



SAMHSA—Substance Abuse and Mental Health Services Association

EWDTS—European Workplace Drug Testing Society

Comprehensive drugs of abuse screening menu

Acetaminophen	Ethyl alcohol	Propoxyphene
6-acetylmorphine	Ethyl glucuronide (EtG)*†	AB-PINACA**†
Amphetamines	Fentanyl*	UR-144/JWH-018**†
Barbiturates	Hydrocodone*§	Salicylic acid
Barbiturates, serum	Ketamine*‡	Tramadol*
Benzodiazepines	Lysergic acid diethylamide (LSD)	Tricyclic antidepressants
Benzodiazepines, high sensitivity*	Meperidine*‡	Xylazine*§
Benzodiazepines, serum	Methadone	
Buprenorphine	Methamphetamine†	
Cannabinoids	Methaqualone	
Cocaine metabolite	Opiates	
Ecstasy	Oxycodone	
EDDP*	Phencyclidine	

The Atellica DT 250 Analyzer offers a full drugs of abuse testing menu

Please scan for more information



Urine assay	Qualitative and/or semi-quantitative	Cutoff (ng/mL)
6-acetylmorphine	Both	10
Amphetamines	Both	300, 500, 1000
Amphetamines d.a.u.	Both	300
Barbiturates	Both	200, 300
Benzodiazepines	Both	200, 300
Benzodiazepines, high sensitivity*	Both	100, 200
Buprenorphine	Both	5
Cannabinoids	Both	20, 50, 100
Cocaine Metabolite	Both	150, 300
Ecstasy	Both	300, 500
EDDP*	Both	100, 300
Ethyl alcohol	Quantitative	N/A
Ethyl glucuronide (EtG)*‡	Both	500, 1000
Fentanyl*	Qualitative	1.0
Hydrocodone*§	Both	300

Urine assay	Qualitative and/or semi-quantitative	Cutoff (ng/mL)
Ketamine*‡	Both	50
LSD	Both	0.5
Meperidine*‡	Both	100
Methadone	Both	150, 300
Methaqualone	Both	300
Opiates	Both	300, 2000
Oxycodone	Both	100, 300
Phencyclidine	Both	25
Propoxyphene	Both	300
Synthetic cannabinoids		
AB-PINACA**†	Qualitative	5
UR-144/JWH-018**†	Qualitative	10
Tramadol*	Both	100
Xylazine*§	Both	10

*Application manufactured by a third party, distributed by Siemens Healthcare Diagnostics, Inc.

†Detected by the EMIT II Plus Amphetamines Assay.

‡Forensic use only in the United States.

§Available in the U.S. only.

Services and support

We work closely with you to help your drug testing program reach new levels of clinical, operational, and financial excellence.

Grow your menu with validated and supported applications.

Siemens Healthineers offers applications across dedicated drug testing, chemistry, and integrated analyzers. Consolidated testing increases laboratory efficiency and system utilization by:

- 1 Reducing send-out costs
- 2 Streamlining inventory management
- 3 Simplifying supply chain



Customer Care program

Our dedicated Siemens Healthineers team will partner with you to identify the right solution for your drug testing needs. Through our Customer Care program, we provide value-added solutions and services you can count on.



Implementation

Our Technical Application Specialists provide implementation support via assay validations and method correlations to get you up and running.



Training

From online training courses to on-site, system-specific, and classroom training, our programs include advanced educational opportunities provided by Siemens Healthineers experts.



Technical support

The Customer Care Center provides comprehensive support when you need it.



Continuing education

Selective learning opportunities, including webinars and education sessions, are hosted by key opinion leaders.



Online Document Library

Our online library provides a single point of access to technical documentation for our entire portfolio of systems and assays.



Whether manufactured by Siemens Healthineers or a third party, we fully validate the performance of the applications and provide full support—from implementation to troubleshooting and needed materials.

At Siemens Healthineers, we pioneer breakthroughs in healthcare. For everyone. Everywhere. Sustainably. As a leader in medical technology, we want to advance a world in which breakthroughs in healthcare create new possibilities with a minimal impact on our planet. By consistently bringing innovations to the market, we enable healthcare professionals to innovate personalized care, achieve operational excellence, and transform the system of care.

Our portfolio, spanning in vitro and in vivo diagnostics to image-guided therapy and cancer care, is crucial for clinical decision-making and treatment pathways. With the unique combination of our strengths in patient twinning,* precision therapy, as well as digital, data, and artificial intelligence (AI), we are well positioned to take on the greatest challenges in healthcare. We will continue to build on these strengths to help overcome the world's most threatening diseases, enable efficient operations, and expand access to care.

We are a team of more than 72,000 Healthineers in over 70 countries passionately pushing the boundaries of what is possible in healthcare to help improve the lives of people around the world.

*Personalization of diagnosis, therapy selection and monitoring, aftercare, and managing health.

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References:

1. Special points of interest. United Nations Office on Drugs and Crime. Available from: https://www.unodc.org/documents/data-and-analysis/WDR_2025/WDR25_Special_points_of_interest.pdf [accessed 2025 Sep 19].
2. Key findings and conclusions. United Nations Office on Drugs and Crime. Available from: <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2025-key-findings.html> [accessed 2025 Sep 19].
3. Opioid crisis: addiction, overprescription, and insufficient primary prevention. The Lancet. Available from: [https://www.thelancet.com/journals/lanam/article/PIIS2667-193X\(23\)00131-X/fulltext](https://www.thelancet.com/journals/lanam/article/PIIS2667-193X(23)00131-X/fulltext) [accessed 2025 Sep 19].
4. Understanding the opioid overdose epidemic. CDC. Available from: <https://www.cdc.gov/overdose-prevention/about/understanding-the-opioid-overdose-epidemic.html> [accessed 2025 Sep 19].
5. Facts about fentanyl. DEA. Available from: <https://www.dea.gov/resources/facts-about-fentanyl> [accessed 2025 Sep 19].
6. Pill press resources. DEA. Available from: <https://www.dea.gov/resources/pill-press-resources> [accessed 2025 Sep 19].
7. DEA fentanyl seizures in 2025. DEA. Available from: <https://www.dea.gov/onepill> [accessed 2025 Sep 19].
8. Fentanyl adulterated or associated with xylazine implementation report. The White House. Available from: <https://www.whitehouse.gov/wp-content/uploads/2025/03/ONDCP-2024-FAAX-Implementation-Report.pdf> [accessed 2025 Sep 19].
9. Xylazine information. DEA. Available from: <https://www.dea.gov/xylazine-information> [accessed 2025 Sep 19].

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