Twenty-First Century Illicit Drugs and Their Discontents: Methamphetamine—The Downs of Ups, or Tweaking the Night Away

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KEY TAKEAWAYS

In 2022, approximately 1.6 million Americans aged 12 and older reported suffering from meth use disorder, and 2.5 million in that cohort reported using meth.

Methamphetamine assaults a user’s body, potentially causing irreparable physical damage and death, and destroys the user’s mind, social relations, and soul.

We need to pursue whatever options there are or might be to help our fellow Americans avoid or overcome the inevitably gruesome consequences of meth use.

A “feint” is a deceptive move intentionally done to disguise your intent. Fake left, go right. Get fooled by a feint in basketball, and it might cost you two points, three at most. Get fooled by an illicit drug, and it’s a whole ’nother ballgame.

The illicit drugs best known today are fentanyl, cocaine, and cannabis: fentanyl, a powerful analgesic, because of the massive number of overdose deaths its (predominantly unknowing) use has caused; cocaine because of its 1980s Miami Vice–like ambience and widespread use in the 1980s and 1990s in the form of “crack;” and cannabis because a near-majority of states authorize its cultivation, sale, and possession for recreational use, despite the fact that those activities are felonies under federal law even when done for any so-called medical use.

But a third drug, methamphetamine, the world’s second most widely used illicit drug, is another major

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concern today. Initially seen as a Midwest small town problem—dismissed “as one more unseen, unfathomable aspect of life in the Middle”—methamphetamine is now seen for what it really is: a major policy problem.\(^6\) It has been colorfully described as “[a] Christmas package with a time bomb inside.” \(^7\) This Legal Memorandum will explain why that is an apt description.\(^8\)

### The History of Methamphetamine

Known colloquially as “meth,” “crank,” “ice,” “poor man’s cocaine,” “Hillbilly Coke,” or by nearly 400 other slang terms, methamphetamine, a Schedule II controlled substance,\(^9\) is a stimulant, an offshoot of amphetamine that is two to three times as powerful as the parent drug and with a longer-lasting effect.\(^10\) Unlike morphine and heroin, which derive from the poppy plant, amphetamines—known colloquially as “speed,” “uppers,” “bennies,” “dexies,” “diet pills,” and “pep pills”—are synthetic or man-made chemicals.\(^11\) Ephedrine, an active ingredient in methamphetamine, is found in an herb that the Chinese have used in medicine for 5,000 years.\(^12\) A German chemist synthesized ephedrine in 1887, and a Japanese chemist created methamphetamine in 1919 for use as a nasal decongestant and treatment for the common cold and hay fever.\(^13\)

All amphetamines, including meth, are classified as central nervous system stimulants because a principal effect of their use is to excite that system, including the brain, stimulating the production and release of the natural neurotransmitter dopamine, a compound that is normally produced by non-drug pleasurable events such as watching a puppy at play.\(^14\) Amphetamines are both water-soluble and fat-soluble, so they can be easily administered and cross the blood-brain barrier.\(^15\) Methamphetamine can be used in pill or powdered form, which allows for multiple vehicles for use.

Initially, amphetamines were seen as a valuable, safe, and nonaddictive pharmaceutical, a “wonder drug” used for numerous purposes.\(^16\) For example, amphetamines opened bronchial and nasal passages, so they were used to treat asthma and nasal congestion.\(^17\) They also raised a user’s blood pressure, which helped patients with weak hearts or irregular heartbeats.\(^18\) Because amphetamines dissipate fatigue, fend off sleepiness, enhance peripheral vision and auditory ability, and generate alertness, clarity, endurance, perseverance, physical activity, well-being, and euphoric confidence, the military found their use enormously helpful.\(^19\) As long ago as the Spanish Civil War and during World War II, participants—including Germany, Japan, England, Canada, and the United States—distributed amphetamines to soldiers to remain vigilant while on duty.\(^20\) Amphetamines also had a wide
range of nonmilitary uses. Physicians prescribed them as a pick-me-up, for weight loss, for libido enhancement, and for a host of other purposes. Long-haul truck drivers, college students behind on term papers or studying for exams, and professional athletes have used them to stave off fatigue and enhance their performance.

Ironically, “[t]he truly singular aspect of meth’s attractiveness” is that for more than 70 years, it has been “associated with hard work”—“the choice of the American working class.” As author Nick Reding puts it, “[t]hroughout its hundred-year history, meth has been perhaps the only example of a widely consumed illegal narcotic that might be called vocational, as opposed to recreational.”

Not surprisingly, meth also came to be used merely for its euphoric rush. Unlike other drugs, such as opiates or cannabis, whose initial use is commonly described as unpleasant, amphetamines are uniformly seen as quite pleasurable, variously described as feeling as if you’re a Jack Dawsonsque “king of the world” or as experiencing a “whole body orgasm.” That likely occurred on an isolated basis through the 1950s, but recreational meth use became more widespread beginning in the 1960s, perhaps beginning during the “Summer of Love” in 1967. Powdered meth provides an almost immediate and more intense “rush” or “flash” when snorted, insufflated, smoked, or injected (known as “slamming”) and provides a longer-lasting high than cocaine, lasting perhaps for 8–12 hours instead of 20–30 minutes.

Methamphetamine’s seductive charm is undeniable.

But so too is the severity of the downfall from its use. We now know well that methamphetamine is dangerous, sometimes even fatal, and, when used illicitly, potentially quite addictive. For that reason, the legitimate therapeutic uses of methamphetamine are far fewer today than were accepted in the 1940s, 1950s, and (most of) the 1960s. Physicians may prescribe it as a treatment for Attention Deficit and Hyperactivity Disorder as well as a last-resort, short-term treatment for obesity. In each case, the quantities prescribed are far lower than the amounts that illicit meth users consume. Lower amounts are necessary to avoid triggering the harms that result from meth’s effect on the brain when someone makes his or her first mistake and uses meth illicitly.

Non-prescription use of methamphetamine causes the sympathetic component of the autonomic nervous system to generate several physical and psychological effects: tachycardia, hyperthermia, increased respiratory rate, vasoconstriction, enhanced energy, alertness, self-confidence, and productivity. But obtaining those results is not why people repeatedly use methamphetamine for pleasure and become dependent on it. The addictive
effects of meth come about in two ways. It triggers the release of dopamine, a compound associated with feelings of happiness and euphoria, from vesicles at the distal end of neural dendrites, and it also prevents the otherwise normal cellular reuptake of dopamine done to husband that compound for later use. The result is that methamphetamine use can increase dopamine levels up to 1,500 percent beyond what is normal.

The experience has been described by users as “ascending into the cosmos, with every fiber of [my] body trembling with happiness.” That experience can overwhelm even adverse effects of high doses of amphetamines, such as a temporary psychosis resembling schizophrenia. In fact, the intensity of the rush readily leads to a user’s second mistake: repeat use.

As the “rush” wears off, the user “crashes,” with fatigue, restlessness, nervousness, agitation, anxiety, irritability, and depression replacing nirvana. “The comedown from crystal meth is famously wicked.” The user thinks that a repeat meth performance will end that distress and restore bliss. “The urge to repeat the drug experience is often irresistible.” Because “[t]he intensity of that rush is dose-related,” meth users tend to make their third mistake: They consume increasingly higher doses, increase the frequency of their meth use, or both. The result is “a cycle of additional doses and increasing overall cumulative dose”—a “run” that can last for several days,” an experience common to users known as “speed freaks.” That spells trouble. The brain has now been taught to seek methamphetamine relentlessly in order to reproduce that experience.

Repeated cycles of meth use—a user’s fourth, fifth, sixth, seventh, etc., mistakes—repeat the feeling of “crashing” and render a user severely dependent on the drug. He is now in a wrestling match with a drug that won’t tap out; his life is now “a complete preoccupation with the drug and its effects.” That is when the user’s real nightmare begins, because meth has “hijacked” the brain’s higher reasoning functions.

The vast majority of meth users do not become addicted to the drug—which is fortunate. Long-term users can suffer from a host of adverse physical and psychological outcomes either from meth use alone or from polydrug use, a common practice among speed freaks. The adverse physical effects include dehydration, hyperthermia, hypertension, malnutrition, cachexic-like weight loss, damage to the cardiovascular system and the brain’s blood vessels, an expedited aging process, ulcerated regions of the skin due to scratching at “meth bugs,” “meth mouth,” and hepatitis or HIV/AIDS from sharing needles. It is as if “a person is literally falling apart from the inside out.”

Psychological problems include a diminished ability to concentrate, incoherent thought processes, mild-to-moderate neuropsychological
impairment, anxiety and poor impulse control, depression, confusion, sleeplessness, paranoia, delusions, and visual or auditory hallucinations (e.g., “seeing angels and demons” or believing that “God spoke to [a user] through people on television”). Users can die from the sequela of drug use (e.g., hypertension-caused hemorrhagic stroke). Addiction leaves chronic users with “a brainwashed slavery that deprives [them] of free will and turns [them] towards self-harm in the search for dope.”

Finally, chronic (or high dose) meth use can also damage the nervous system’s ability to produce dopamine, a compound necessary for non-drug-induced feelings of pleasure. Depletion of the body’s dopamine reserves and damage to its dopamine-production capacity can leave users suffering from anhedonia (in this case the inability to experience pleasure from anything other than meth use) as well as from Parkinson’s Disease–like behavior and an unquenchable rage.

Meth abuse also can damage entirely innocent and sometimes unknowing third parties. Users can experience serious bouts of anger, even homicidal or suicidal ideation. Sometimes they act on it, becoming violent toward themselves (e.g., head banging) or others (e.g., lashing out at family members or strangers perceived to be a threat) or criminally neglect their children. It therefore can be said that the effect of meth on chronic users, in a term known to criminologists, is “criminogenic”—that is, it causes users to commit crimes. Those psychological problems also can be subject to a “Kindling Effect” or “Reverse Tolerance” in which meth-generated psychotic symptoms reappear and worsen with each new use. All of these symptoms, of whatever sort, drive away family and friends when meth users need them the most.

Then there is the sense of real, personal loss felt by a user’s children or family from the physical presence but mental disappearance of a mother or father—not to mention the potential physical abuse that family members can suffer or the risk of illness resulting from a meth-contaminated home. Consider also the potential losses from meth-impaired driving. “People who ingest methamphetamine have no business getting behind the wheel of a car.” Sadly, some do. So now add to meth’s societal costs the pain felt by someone mutilated, crippled, or killed, perhaps along with the victim’s family, by a motor vehicle driven by someone who is high on meth.

Withdrawal gives new meaning to the term “unpleasant.” Discontinuance gives rise to fatigue, severe depression, sleeplessness, psychosis, and intense cravings for the drug. To worsen matters, there is no drug like Narcan to nullify the immediate effect of a meth overdose; nor is there a long-term treatment for meth addiction like the drugs Methadone or Buprenorphine,
substitutes for heroin that alleviate the feelings of withdrawal. No, a meth user must deal with the physical and psychological fallout from prior use on his or her own. And treatment for a meth addiction is difficult, in part because its Siren’s call generates “intense cravings” for the drug, which “can make efforts to terminate use long and treacherous.” Never getting started is a far better and easier road to traverse than is trying to quit.

It has been said that “[t]he nature of all addictive drugs is to promise bliss but deliver woe.” Users expect St. Nicholas but get Krampus. That certainly applies to meth. “Like the two-faced Roman god Janus,” meth is a drug “with two very different sides.” Used clinically in small doses, meth’s effects are “constructive and therapeutic.” By contrast, used in large doses without medical supervision, methamphetamine “can ravage the body and warp the mind.” That might explain why it has been called “a sociocultural cancer,” “the evil one,” “[t]he devil drug of the new millennium,” and “a Frankensteinian-type monster over which we seemingly have no control.” As Professor Mark Kleiman has said, meth is “about the ugliest drug there is.” It is a “potent powder that boosts energy, focuses concentration and helps you stay up at night,” in the words of Frank Owen, a former user. But it also does more than that: “[M]eth is more like a machine than a drug. But just as in a dystopian sci-fi novel, the machines eventually take over the world.”

Methamphetamine in Contemporary America

Although most of the nation’s attention has focused on plant-based opioids like heroin and synthetic analgesics like fentanyl, methamphetamine has been eating away at the nation. Users, police officers, emergency service personnel, and drug counselors have known this, but the media largely have not reported that the United States is suffering from an unnerving spread of methamphetamine. Meth addicts present “the rawest face of addiction,” drag “themselves through the nighttime streets, howling, hysterical, starving.” According to the 2023 report on drug use by the U.S. Substance Abuse and Mental Health Services Administration, approximately 1.6 million Americans aged 12 and older reported suffering from meth use disorder and 2.5 million people in that cohort reported using meth in 2022. The former number almost matches the population of West Virginia, and the latter exceeds that of New Mexico. That is a nontrivial number of potential lives lost or ruined. Widespread meth use by the homeless also helps create the encampments we have seen in numerous large cities, such as San Francisco and Los Angeles.
“Though other drugs and alcohol are part of the mix, many encampments are simply meth colonies.”

One explanation for the rise of this drug is the world’s oldest motive: money. The manufacture and distribution of amphetamines is a commercially profitable business. Indeed, the meth business is “thriving.” The explanation for this is simple: Amphetamines are “only a little more difficult to manufacture than alcohol,” and the production process “does not require huge, heavily guarded growing fields or sophisticated equipment.” Amateurs can “cook” meth with a small number of “simple, readily available, and inexpensive chemicals”—such as pharmaceutical decongestants, lithium batteries, campfire fuel, drain cleaner, and a two-liter plastic bottle—and the process can be done in “makeshift labs hidden away in cheap motels, in mobile homes, or in isolated farms and ranches.” The meth business is also quite profitable. “Just $4,000 in raw ingredients converts to 8 pounds of meth worth $50,000 wholesale,” and that estimate was in 2006 dollars. The profit margin for meth can be in the range of 3,000–4,000 percent. Given those numbers, it would be a surprise if people were not attracted to that business.

That is particularly true in places like the American Midwest. Some commentators posit that socioeconomic changes explain the rise of meth there. The combination of (1) the loss of jobs due to a changing workforce resulting from the influx of legal and illegal aliens and (2) the consolidation of small family farms into giant corporate agribusinesses has led to impoverishment and generated a sense of purposelessness for many farmers and their families. The relative ease of acquiring the precursor chemicals, low population densities in farmland areas, and the manageable cooking process have enabled some out-of-work parties not deterred by the risk of arrest and imprisonment to produce meth as a profitable alternative undertaking.

A related explanation is that the meth business has matured over time. Beginning in the 1950s, small-scale, independent producers were the chefs principally responsible for creating meth from readily available inexpensive ingredients like the pseudoephedrine found in everyday, over-the-counter decongestant medications and cold medicines. Biker gangs, particularly the Hell’s Angels, entered the business in the 1970s and 1980s. Later, small meth entrepreneurs re-entered the business by working in small, clandestine labs in sparsely populated rural areas in the western or midwestern states, where the chemical odors would be less likely to be noticed, or other locations that could be abandoned after production, such as cheap motel rooms. Some domestic producers still operate very small-scale meth laboratories, the so-called “Mom and Pop” or “Beavis and Butt-Head” operations, using recipes available on the Internet.
But meth production is no longer a boutique business. The Mexican Drug Trafficking Organizations (DTOs) produce an exponentially larger quantity of meth in their home nation in superlabs\textsuperscript{110} and smuggle it across our Southwestern border, using established networks to distribute it across the nation.\textsuperscript{111} Just as the harms that meth causes are not limited to its users,\textsuperscript{112} small, local markets are no longer like John Donne’s “islands,”\textsuperscript{113} separate and isolated; they are “integral cogs in a national, indeed, an international, industry.”\textsuperscript{114}

Ironically, our efforts to halt methamphetamine trafficking have contributed to the rise of the Mexican DTOs as the new meth industry leaders. In 2005, Congress passed the Combat Methamphetamine Epidemic Act of 2005 to make illicit meth production more difficult.\textsuperscript{115} To do so, the act required (among other things) that retail pharmacies store products containing the meth precursors ephedrine, pseudoephedrine, or phenylpropanolamine and sell them only on a behind-the-counter basis; demand a government-issued identification card for any purchase; maintain a written or electronic record of sales identifying “the products by name, the quantity sold, the names and addresses of purchasers, and the dates and times of the sales”; and limit the number of per visit and per month purchases.\textsuperscript{116} The act doubtless had an inhibitory effect on some local meth producers,\textsuperscript{117} but it also had an unintended adverse effect: It shifted meth production from domestic, local producers to the Mexican DTOs.\textsuperscript{118}

The 2005 act does not regulate the DTOs, which can import massive quantities of meth’s ingredients from foreign nations.\textsuperscript{119} The DTOs produce methamphetamine “on an industrial scale” at factory-like superlabs and have greatly increased the quantity and quality of meth available for sale in the process by using established distribution networks.\textsuperscript{120} Aided by factors such as “the wider opening of the border” and “expanding immigrant presence in the United States engendered by NAFTA [the North American Free Trade Agreement],” along with “the population of illegals streaming across the border to work in meatpacking plants throughout the Great Plains, in the fields of California’s Central Valley, and in the orchards and orange groves of the Southeast,” the DTOs found themselves with “unlimited potential for a narcotic retail and distribution force,” an employee pool “that, because it was nationwide, mobile, undocumented, and protean, was almost impossible to track by law enforcement.”\textsuperscript{121} By 2012, 80 percent of the meth sold in the United States came from Mexico, and it was 90 percent pure.\textsuperscript{122} The DTOs dominate “the entire value chain,” directing “every aspect of what was now a major international narcotics phenomenon.”\textsuperscript{123} Just as Cargill, Tyson, and Archer Daniels Midland “control the food business ‘from
plow to plate,’ as the marketing slogan goes,” so too do the DTOs now own the meth market.\textsuperscript{124}

We have seen that result before. Late in the 20th century, the nation stopped the flow of cocaine into the United States via the Caribbean by combining the weight of the U.S. law enforcement and military communities to spot and arrest smugglers as part of Operation Snowcap.\textsuperscript{125} But that lead the Colombian DTOs to bring Mexico DTOs into the cocaine smuggling business. The latter had smuggled cannabis across a lengthy, often unoccupied, and always porous land border with this nation and had established routes and means of entry. Once they established their smuggling monopoly, the Mexican DTOs took payment in cocaine rather than cash on a one-for-one basis, becoming full partners with the Colombians. The consequence: Our success in the Caribbean ultimately came for naught.\textsuperscript{126}

More recently, we have witnessed a similar outcome in the case of methamphetamine. Whatever success we have had in staunching the flow of meth from small-scale manufacturers to users has only led to the increased involvement of the Mexican DTOs in yet another aspect of the drug trafficking business. Additionally, by producing meth in a nation that has shown its willingness to look the other way and smuggling the product themselves along established routes, the Mexican DTOs have dispensed with the need to collaborate with Colombian cocaine growers for that drug, giving the Mexican DTOs an alternative to cocaine and a very profitable drug product.\textsuperscript{127}

Where Do We Go from Here?

America’s experience with methamphetamine can teach us at least 11 valuable lessons.

\textbf{Lesson 1.} Today’s methamphetamine problem is only the first wave of a series of challenges that we will face in the coming years. Historically, the principal drug of concern was heroin, because of its enticing but misery-generating, addictive, and potentially fatal effects.\textsuperscript{128} Like morphine, heroin is a refined product of the poppy plant, and poppies, like any other plant, are subject to growing cycles. In addition, opium poppies are cultivated in large fields that must be guarded before they can be processed into heroin and make a long trek to the United States.

By contrast, while just as problematic as heroin (albeit in a different way), meth is a synthetic, laboratory-created drug that can be made in a host of sites using recipes available on the Internet from reasonably available chemicals purchased at a relatively inexpensive cost.\textsuperscript{129} There is no
thousands-of-miles-long supply chain, subject to interference at multiple points, before it makes its way to North America. It is born here or next door, in Mexico. Synthetic drugs multiply the difficulty of relying exclusively on a supply-side, law-enforcement-focused approach to halting or diminishing its availability. They are the wave of the future, and surfing that wave will be dangerous.

Lesson 2. As bad as the present may be, the future might be worse. If history is any guide, we might soon witness a shift from our current use of opioids like heroin and fentanyl to a greater use of stimulants like meth. Illicit drug use at a societal level has moved in a cycle, with large-scale use of depressants like opioids replaced by stimulants like methamphetamines before depressants return to haunt our communities. Seeing it as “a fentanyl substitute” that allows them to keep “withdrawal at bay,” some drug users believe that meth offers a shelter from the horrors of opioid withdrawal. It is, however, at best a porous shield. As author Sam Quinones has put it, “You don’t generally overdose and die on meth, you decay.” Long-term users ultimately resemble the hungry ghosts in the Buddhist afterlife or zombie travelers wandering about aimlessly in a post-apocalyptic world, perhaps hoping that death is nigh. Yes, they might not die with a needle still stuck in their arms, as some fentanyl users have done, but they might wind up in the same location. That would be like sojourning in purgatory before relocating to hell. No one wants to take that journey.

Lesson 3. New drugs might have adverse effects that are not present in the immediate or short term. “Psychoactive drugs can be used in medicine for some time before their addictive properties are recognized.” That should not come as a surprise. A “theme in the history of addiction” has been that the harmful effects of some drugs do not become apparent until drug use has become widespread. As two methamphetamine experts have noted, “[i]t can take a period of sustained population exposure before the drug’s casualties become visible.” For instance, heroin was initially marketed as a cough suppressant, a valuable medicine in a day when tuberculosis killed thousands and coughing spread the disease. Meth is another excellent example. It took decades for medicine and society to recognize that amphetamines, including meth, are addictive and deadly to users and harmful to everyone who encounters them. As was true in the case of cigarettes, meth ruined or cost numerous lives before we realized the problem that we had on our hands.

Lesson 4. Noble purposes do not guarantee only positive outcomes. The military administered amphetamines to soldiers during World War II to further the war effort. That was an entirely noble plan of action and surely
had a positive short-term effect, but it might have contributed to adverse long-term effects of meth use that we see today by giving the federal government’s imprimatur to the distribution and use of what we now know to be a dangerous drug.

Also, Congress passed the Combat Methamphetamine Epidemic Act of 2005 in the hope that it would reduce the supply of meth by making it more burdensome to acquire its precursor chemicals from retail businesses. That, too, was a noble effort, and in the short run, it did make it more onerous for small-scale labs to acquire the ingredients needed to churn out meth. But it also contributed to the problem we face today. That law does not regulate the sale of meth precursors beyond this nation, nor does it hamper the DTOs’ ability to import those precursors from manufacturers in other countries that are willing to ship their products to Mexico. The Mexican DTOs are now the principal source of the methamphetamine used in the United States, and they operate with effective impunity in their home country. The reason is that during the administration of its current President, Andrés Manuel Lopez Obrador, the Mexican government has effectively taken a Sergeant Schultz approach\textsuperscript{143} to the cartels’ drug trafficking.\textsuperscript{144}

**Lesson 5.** There is a problem whenever “wide cultural infatuation” with a drug generates interest in its use before we understand its potential costs.\textsuperscript{145} The media’s positive association between drug use and personal satisfaction can result in the expansion of its use from a small subculture to mainstream America.\textsuperscript{146} In the 1940s, 1950s, and 1960s, celebrities such as President John Kennedy, Elvis Presley, Judy Garland, Charlie “Bird” Parker, and Lenny Bruce used amphetamines, and the media lauded their actions.\textsuperscript{147} Cannabis is another drug lionized in films (e.g., Cheech Marin and Tommy Chong’s *Up in Smoke*) that do not discuss its problems (e.g., drug-impaired driving). Ready availability of a drug; a poor, uncertain, minimally enforced, or lackadaisical regulatory scheme; and the apparent widespread approval of using it, in the words of Professor Timothy Leary, to “Turn on, tune in, drop out”—all of those factors contributed to the erosion of communal views that it’s better to be safe than sorry. The result was a widespread increase in amphetamine use.\textsuperscript{148} For example, industry increased the quantity of amphetamines manufactured from 16,000 pounds in 1949 to more than 75,000 pounds in 1958 to more than 160,000 pounds in 1968.\textsuperscript{149}

**Lesson 6.** Actions trigger reactions. As Professor Mark Kleiman once wrote, the biggest cause of problems is solutions. Outlawing or limiting the use of one drug might not have the prohibitive effect that authors of legislation hoped it would have. It can lead users to resort to a different, more dangerous drug.\textsuperscript{150} Or taking steps to make it more difficult to manufacture
a drug—such as the requirement making it more burdensome to purchase some cold remedies with ephedrine, a precursor chemical to methamphetamine—might burden small-scale operators but also shift production to the “big boys.” That was a result of earlier legislation. Now the Mexican DTOs produce the lion’s share of meth distributed in this nation. They can import meth’s ingredients from foreign nations, they effectively operate with impunity in Mexico, they have increased the quantity of available meth, and they can use their established distribution networks in the United States to get their product to the ultimate consumers.\textsuperscript{151} One step forward....

**Lesson 7.** Society needs to be skeptical of the claims made by advocates about the beneficial uses of new drugs. Long-term studies of the effects of drugs approved by the Food and Drug Administration can reveal problems that were not visible during the preapproval process. For example, the amphetamine combination known as Fen-Phen, prescribed for weight-loss, had to be removed from the market after receiving the FDA’s approval because studies showed that its use damaged the heart.\textsuperscript{152} So even companies acting entirely in good faith can make mistakes, as can the FDA. But we also know two facts that justify a healthy dose of skepticism. One is that other drugs that have been lauded as all benefit and no (or little) cost have had unanticipated (or unvoiced) adverse side effects. Consider heroin. The other fact is that not everyone who touts the benefits of a drug acts in good faith. Politicians have vouched for the benefits of medical-use cannabis even though that term is an oxymoron.\textsuperscript{153}

**Lesson 8.** We must recognize that macroeconomic opportunity can help people to avoid drug use as a means of aestheticizing themselves to a life without hope. Serious drug users often have numerous other problems that gave rise to and are connected with their addiction, one of which is the inability to find better-paying jobs.\textsuperscript{154} The criminal justice system cannot be a device for addressing a life filled with abuse, whether physical, psychological, or sexual; the absence of a job or any worthwhile education or training; the presence of poor health stemming from a lifetime of drug use, poor nutrition, and limited medical care; and despair that there is no road toward a less wretched future.\textsuperscript{155} The system cannot remedy those harms in a person’s life, and it is chimerical to believe that it can. But improving the nation’s macro- and microeconomies might be a start toward a solution for individuals that avoids drug use and gives them a basis for hoping that they can make tomorrow a better day than yesterday and today were.

**Lesson 9.** We must acknowledge that we will not and cannot eliminate the illicit production, distribution, and use of dangerous drugs like methamphetamine. Honesty demands as much.\textsuperscript{156} To date, standard drug treatment
efforts for meth addiction have not proven successful. One consequence is that we need to step up our education efforts to show people, especially juveniles, what a methamphetamine addiction truly looks like: not schlocky commercials like the “This is your brain on drugs” series, ones using teenage actors frying eggs in frying pans or slamming frying pans into stovetops, but commercials like the ones that depict what happens to real-life people from a lifetime of smoking cigarettes, people who can no longer talk because their vocal chords have been removed because of cancer (or who made the commercial before dying). We also need to develop drugs that nullify the effect of methamphetamine without causing withdrawal symptoms, the same way that Narcan, Methadone, and Buprenorphine work for opioids. That is, we need to develop a drug that immediately counteracts meth’s effects as well as a long-term treatment for meth addiction, which might include a pharmacological substitute that enables meth users to recover whatever life worth living they can achieve.

Lesson 10. The criminal justice system can also play an indispensable role of forcing users into treatment or facing imprisonment. The cliché that “We can’t arrest our way out of this [predicament]” is matched by the reality that “[w]e can’t treat our way out of it, either, as long as supply is so potent and cheap.” The risk of imprisonment might raise the cost for some potential users beyond their willingness to experiment with meth or might force them into treatment. As Doctor Robert DuPont, a former presidential drug policy advisor and the first director of the National Institute on Drug Abuse, once told me, a voluntary drug treatment program works about as well as a voluntary imprisonment program.

Programs like drug courts, the South Dakota 24/7 Sobriety program, and the Hawaii Opportunity Probation with Enforcement program can help to ensure that meth users do not abandon all efforts to discontinue their drug use. They hold out the promise of avoiding long-term incarceration if users can remain clean and, if they fail, use finite, short-term (but progressively longer) periods of confinement to deter them from abandoning efforts to discontinue drug use. In that way, the criminal law supplies a means of holding an addict’s feet to the fire to complete treatment. Incarceration might not always be the lead-off batter when responding to offenders with drug problems, but it must be available to pinch hit when needed.

Lesson 11. We always will need the criminal justice system to do what it does best: quarantine dangerous offenders. Violence has accompanied the illicit drug trade for time out of mind, and law enforcement plays a critical role in apprehending and punishing those who use violence as a dispute-resolution mechanism, to gain respect, or as a show of status and power. There
is no reason to believe that commerce in contraband will suddenly become governed by the Marquis de Queensbury rules. Until then, law enforcement will play an indispensable role not only in stemming dealers’ efforts to profit off others’ weaknesses, but also in quarantining violent offenders. Remember: Drug traffickers might be immoral, unscrupulous, corrupt, and savagely brutal, but they’re not stupid. They want to make a profit and don’t want to be imprisoned. To the extent that law enforcement raises the cost of their business or takes some pieces off the chess board, the reduction in supply might well save misery and lives.

Conclusion

Just as the slow drip of acid gradually corrodes metal, illicit use of methamphetamine eats away at one’s body, soul, mind, and life. Meth’s legitimate uses are few, and its harms are many. It assaults a user’s body, potentially causing irreparable physical damage and death, and it destroys one’s mind, social relations, and soul. There are steps that we can take to persuade people to avoid its use, and we can attempt to develop pharmaceuticals comparable to the ones currently used to treat opioid users for whoever has mistakenly started down that path with meth. What we need to do is commit ourselves to the pursuit of whatever options there are or might be to help our brothers and sisters avoid or overcome meth’s facially enticing allure but inevitably gruesome vortex.

Paul J. Larkin is the John, Barbara, and Victoria Rumpel Senior Legal Research Fellow in the Edwin Meese III Center for Legal and Judicial Studies at The Heritage Foundation. I would like to thank John Malcolm and Derrick Morgan for helpful comments on an earlier iteration of this Legal Memorandum and Bill Poole for excellent editorial comments.
Endnotes


2. DEA METH FACT SHEET, supra note 8.

3. Weisheit & White, supra note 8, at ix, 45. Methamphetamine is amphetamine with a methyl group added. (For non-chemistry buffs, that means -CH3.) The methyl group allows meth to pass the blood–brain barrier more quickly than amphetamine, enabling meth to have “more profound effects” on the brain than the parent drug amphetamine. Scott et al., supra note 8, at 278. Other variations include 3, 4-Methylenedioxymethamphetamine, also known as MDMA or by its street names “ecstasy” or “molly.” Id. Anyone who has read the book (or seen the film) Black Hawk Down has also heard of “khat”—viz., leaves found in East Africa containing cathinone, a compound that pharmacologically resembles amphetamine and, when chewed, offers the same effect as the latter. Methcathinone is a synthetic stimulant derived from khat. Many of methcathinone’s effects parallel those of methamphetamine. Weisheit & White, supra note 8, at 78–79.


6. Nick Reding, Methland 7 (2009); id. at 6 (“It wasn’t until 2005—when news of the methamphetamine epidemic began flooding the national media—that people began taking notice. Overnight the American small town and methamphetamine became synonymous. Main Street was no longer divided between Leo’s and the Do Drop Inn, or between the Perk and the bakery; it was portioned between the farmer and the tweaker.”); id. at 15 (“By 2005...an analysis by Slate.com showed that U.S. newspapers had used the title ‘Meth Capital of the World’ to describe no less than seventy different American towns, cities, and counties, from Pennsylvania to California.”).
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12. Id. at 40.
13. BROWNSTEIN ET AL., supra note 8, at 16–17; WEISHEIT & WHITE, supra note 8, at 26–27. For a summary of the early history and development of amphetamines, see GINSFON & HEBDOM, supra note 7, at 41–53.
14. GINSFON & HEBDOM, supra note 7, at 11; IVERSEN, supra note 8, at 9, 12 (“The ability of amphetamines to stimulate dopamine release in the brain... explains most, if not all, of their psychostimulant properties.”), 85, 129; SAM QUIONES, THE LEAST OF US: TRUE TALES OF AMERICA AND HOPE IN THE TIME OF FENTANYL AND MTH 147–48 (2021) (“That's what addictive substances do: they overwhelm, turn our bodies against their own self-interest. All drugs of abuse have been found to activate dopamine in our brains. The blast of dopamine they create stimulates the nucleus accumbens far more than other daily activities that give us pleasure—say, seeing a cute infant.... Dopamine levels, however, don't diminish when a person uses a drug of abuse. They stay and prod the person to consume more. When the drug is removed, the dopamine plummets far below normal levels, leaving us frantically wanting more. This is part of how cravings are created.”); Kish, supra note 8. Meth also causes the release of two other neurotransmitters: serotonin and norepinephrine. WEISHEIT & WHITE, supra note 8, at 48; William J. Panenka et al., METHAMPHETAMINE USE: A COMPREHENSIVE REVIEW OF MOLECULAR, PRECLINICAL AND CLINICAL FINDINGS, 129 DRUG & ALCOHOL DEPENDENCE 167, 168 (2013); Scott et al., supra note 8, at 278–79.
15. HALKITS, supra note 8, at 28; IVERSEN, supra note 8, at 6.
16. WEISHEIT & WHITE, supra note 8, at 27.
17. MARKOVITZ, supra note 8, at 11–12.
18. Id. at 12.
19. DEA METH FACT SHEET, supra note 8; GINSFON & HEBDOM, supra note 7, at 62, 106–07; IVERSEN, supra note 8, at 17; WEISHEIT & WHITE, supra note 8, at 47. In that regard, methamphetamine distinguishes itself from other drugs, such as opioids. As Frank Owen has explained that difference: “The odd thing about meth is that it doesn't get you stoned, at least not in the conventional sense of the word. My fingers went numb, my face flushed, and my body seemed to vibrate like a plucked string, but I actually felt more sober after taking the drug than I did before, as if I had awakened from a long slumber. There was none of the perceptual drift that I normally associated with the act of getting high. This wasn't one of those contemplative drugs that provided another excuse for inertia—attention-dispersing, ego-dissolving substances like pot or LSD, which inevitably led to an evening vegetating on the couch in front of the television or engaging in flabby musings about the meaning of life. Meth was a call to action. Most drugs are about losing control or escaping to some distant region of the mind. Meth was exactly the opposite: I felt ultrasharp. Edgy and exhilarated. Ready to roll. Equal to performing with perfect control and poise. "First introduced as the benzodiazepine inhaler in 1952, and several years later in pill form, amphetamine quickly became enormously popular with both the public and the medical profession. By 1946, W.R. Bent asserted that it (viz., amphetamine) had thirty-nine 'clinical uses,' including treatments, for epilepsy, postencephalitic Parkinsonism, schizophrenia, alcoholism, barbiturate intoxication and narcosis, excessive anaesthesia administration, morphine and codeine addictions, 'nicotinism' (tobacco smoking), behavior problems in children, enuresis, migraine heart bloc, the 'spasmodic laughter and weeping...[and] disturbances of gait' associated with disseminated sclerosis, myasthenia gravis (a chronic and sometimes fatal disease of the nervous system which gravely weakens voluntary muscles), myotonia (muscular rigidity and tonic spasms), head injuries, infantile cerebral palsy, urticaria (hives or nettle rash), Meniere's Syndrome (a chronic, disabling, and painful inner ear disturbance), dysmenorrhea, colic, 'irritable colon,' irradiation sickness, and hypotension.” GINSFON & HEBDOM, supra note 7, at 11.
20. “World War II probably gave the greatest impetus to date (circa 1974) to legally medically authorized as well as illicit black market abuse of those pills on a worldwide scale.” GINSFON & HEBDOM, supra note 7, at 18; see also, e.g., HALKITS, supra note 8, at 8; IVERSEN, supra note 8, at 4, 7, 21, 22 (“The performance-enhancing effects of the drug were most apparent in situations where subjects were required to undertake simple, prolonged, repetitive, and boring tasks. The aspect of cognition which is most likely to be affected by the drug is ‘vigilance.’”), 71; WEISHEIT & WHITE, supra note 8, at 28. Methamphetamine also maintains high levels of norepinephrine, which allows soldiers to remain vigilant without rest or sleep for days. HALKITS, supra note 8, at 31–32. Amphetamines are still administered for that purpose today. IVERSEN, supra note 8, at 73.
21. GINSFON & HEBDOM, supra note 7, at 11–12. Among the most common reasons given for using amphetamines have been their “energy enhancement, improved performance, heightened sexuality, enhanced socialization, and improved confidence, clarity, and focus.” IVERSEN, supra note 8, at 100.
22. GARRIOTT, supra note 8, at 22; HALKITS, supra note 8, at 6; MARKOVITZ, supra note 8, at 13–14; WEISHEIT & WHITE, supra note 8, at 27. “First introduced as the benzedrine inhaler in 1952, and several years later in pill form, amphetamine quickly became enormously popular with both the public and the medical profession. By 1946, W.R. Bent asserted that it (viz., amphetamine) had thirty-nine ‘clinical uses,’ including treatments, for epilepsy, postencephalitic Parkinsonism, schizophrenia, alcoholism, barbiturate intoxication and narcosis, excessive anaesthesia administration, morphine and codeine addictions, ‘nicotinism’ (tobacco smoking), behavior problems in children, enuresis, migraine heart bloc, the ‘spasmodic laughter and weeping...[and] disturbances of gait’ associated with disseminated sclerosis, myasthenia gravis (a chronic and sometimes fatal disease of the nervous system which gravely weakens voluntary muscles), myotonia (muscular rigidity and tonic spasms), head injuries, infantile cerebral palsy, urticaria (hives or nettle rash), Meniere's Syndrome (a chronic, disabling, and painful inner ear disturbance), dysmenorrhea, colic, ‘irritable colon,’ irradiation sickness, and hypotension.” GINSFON & HEBDOM, supra note 7, at 11.
23. MARKOVITZ, supra note 8, at 55; WEISHEIT & WHITE, supra note 8, at 29; GARRIOTT, supra note 8, at 23–24.
24. REIDING, supra note 6, at 16.
25. Id. at 64.
26. GINSFON & HEBDOM, supra note 7, at 62; see id. at 62–95; WEISHEIT & WHITE, supra note 8, at 46–47.
27. HALKITS, supra note 8, at 49; see Titanic (Paramount Pictures 1999), https://www.youtube.com/watch?v=ItjXTieWKyl.
28. IVERSEN, supra note 8, at 81 (punctuation omitted).
29. See GINSFON & HEBDOM, supra note 7, at 27.
30. NIDA DRUG FACTS, supra note 8; WEISHEIT & WHITE, supra note 8, at 13.
31. DEA Meth Fact Sheet, supra note 8; Markovitz, supra note 8, at 8, 15, 26, 30; Brownstein et al., supra note 8, at 99; Halkitis, supra note 8, at 36; Weisheit & White, supra note 8, at 13. Its lengthy effect gives meth a cost advantage over cocaine. Halkitis, supra note 8, at xiii (“Methamphetamine is the drug of our time. Quick, accessible, affordable, and with an initial high that makes the user feel like a million bucks. The drug offers focused concentration, high energy sex, and the ability to accomplish volumes of work in a short period of time. For a fast-moving, quick-paced society, for a society that values a thin body and sexual expression, methamphetamine is the drug of our time.”); Jonathan P. Caulkins & Keith Humphries, New Drugs, Old Misery: The Challenges of Fentanyl, Meth, and Other Synthetic Drugs, MANHATTAN INST., ISSUE BRIEF 2 (Nov. 2023).

32. Halkitis, supra note 8, at xvi (“This powerful crystalline substance does not discriminate, and it functions as an equal opportunity destroyer of lives. Yet, its appeal to users is undeniable.”).

33. NIDA Drug Facts, supra note 8; see also, e.g., Weisheit & White, supra note 8, at 27–28; Kish, supra note 8, at 1680; Panenka et al., supra note 14; Nora D. Volkow et al., Association of Dopamine Transporter Reduction with Psychomotor Impairment in Methamphetamine Abusers, 158 Am. L. PSYCHIATRY 377, 380 (2001) (“This study documented significant dopamine transporter reduction in detoxified methamphetamine abusers relative to non-drug-abusing comparison subjects that was associated with poor motor and memory performance.”). It might be possible for meth users to recover at least some of their lost abilities after protracted abstinence, but that is uncertain. See Nora D. Volkow et al., Loss of Dopamine Transporters in Methamphetamine Abusers Recovers with Protracted Abstinence, 211 NEUROSCIENCE 9414 (2001); Gene-Jack Wang et al., Partial Recovery of Brain Metabolism in Methamphetamine Abusers After Protracted Abstinence, 161 Am. J. PSYCHIATRY 242 (2004).

34. See, e.g., DEA Meth Fact Sheet, supra note 8. Methamphetamine might also be an off-label treatment for narcolepsy. See Merrill M. Miller et al., Treatment of Narcolepsy with Methamphetamine, 16 SLEEP 606 (1993); Methamphetamine: Acute Intoxication, UpToDate, Oct. 13, 2023, https://www uptodate.com/contents/methamphetamine-acute-intoxication/print.

35. DEA Meth Fact Sheet, supra note 8; Halkitis, supra note 8, at 6; Weisheit & White, supra note 8, at 26; Bridget M. Kuehn, Meth Use Linked to Risk of Parkinson Disease, 306 JAMA 814, 814 (2011).

36. Scott et al., supra note 8, at 276.

37. Halkitis, supra note 8, at 28, 30–31; Reding, supra note 6, at 47–48; Annette E. Fleckstein et al., New Insights Into the Mechanism of Action of Amphetamines, 47 ANNU. REV. PHARMACOLOGY & TOXICOLOGY 681, 682–83 (2007); Scott et al., supra note 8, at 29.

38. Halkitis, supra note 8, at 31.

39. Iversen, supra note 8, at 19 (citation omitted), 81 (punctuation omitted).

40. Grinspoon & Bakalar, supra note 7, at 112–34; Iversen, supra note 8, at 4.

41. Halkitis, supra note 8, at 31; Scott et al., supra note 8, at 277.

42. Owen, supra note 19, at 5; id. (“Everything aches. Your body feels parched, like a desert that hasn’t seen a rain cloud in years. Your head hurts. You can’t sleep. You can’t eat. Your tongue swells up to twice its normal size. All you can do is drink pint after pint of water and pray for blessed release.”).

43. Iversen, supra note 8, at 19 (citation omitted), 81.

44. Id. at 19 (citation omitted), 81.

45. Markovitz, supra note 8, at 17 (“People addicted to speed were known as ‘speed freaks.’”); Iversen, supra note 8, at 81 (“A ‘run’ can last for several days at a time during which the user is unable to eat or sleep until he crashes into a deep sleep that can last for 18 [hours]. Repeated speeding can lead to cycles of unproductive frenzied activity, stereotypical behaviors known as pandung...or psychosis...alternating with exhaustion, extended sleep, and subsequent dysphoria. Loss of appetite can become anorexia, a state in which the user finds it difficult to eat at all, resulting in extreme and debilitating weight loss.”; id.

46. Iversen, supra note 8, at 85.

47. Id. at 81; Anna Moszczynska, Neurobiology and Clinical Manifestations of Methamphetamine Neurotoxicity, 33 PSYCHIATRIC TIMES 16 (2016).

48. Iversen, supra note 8, at 84, 85 (“The ability of psychoactive drugs to trigger this natural mechanism, and to cause the animal or human being to seek further doses of the drug, could be viewed as an aberrant form of learning, where the drug ‘hijacks’ a normal mechanism in the brain, leading eventually to drug dependence.”); see id. at 85–87; Reding, supra note 6, at 38 (“the attitude of Nathan Lein, Iowa, prosecutor: ‘Let’s try to look at meth scientifically and economically,’ he begins. ‘First, there’s the part of your brain that’s evolved over thousands of years to reward you for doing the things that will regenerate the species. Have sex, feel good, in a nutshell. Then there’s meth, which is twenty times better than sex. So, basically meth becomes more powerful than biology.’); cf. Quiniones, supra note 14, at 153 (“[Drug] shut down the prefrontal cortex, overwhelming the brain with impulses that tells us the danger is being without dope. An addicted brain is one where a raging primitive reward system has silenced the prefrontal cortex’s wise counsel.”).

49. Halkitis, supra note 8 at 64, 105.

50. Weisheit & White, supra note 8, at 220 (“It is rare for those dependent on methamphetamine not to also have excessive relationships with alcohol and other drugs.”); Christopher F. Rufo, The Moral Crisis of Skid Row, CITY J., Winter 2020 (“Since I’ve been here, so many decades, the percentages of the type of drug users has shifted,” says [Mark Casanova, executive director of Homeless Healthcare Los Angeles]. ‘Right now, about 70 percent of [the homeless drug users on Skid Row] are crystal meth users, or a combo of crystal meth and heroin, crystal meth and cocaine.... The remaining
percentage is probably about 25 percent heroin, and a fair number of cocaine users.' While having such a high percentage of meth users means fewer fatal overdoses per capita in Los Angeles than in cities with higher rates of heroin addiction, like San Francisco, it also means that service providers here must contend with the unique properties of methamphetamines, which flood the body with dopamine and noradrenaline and can induce psychosis and lead to violent behavior.

51. Halkitis, supra note 8, at 64 (using that term to describe teeth that are stained, blackened, rotting, crumbling, or falling out from meth use, which can corrode the enamel and lead users to skip dental (and physical) hygiene); Weisheit & White, supra note 8, at 65–66.

52. DEA Meth Fact Sheet, supra note 8; Garriott, supra note 8, at 22, 68; Ginspoon & Hedblom, supra note 7, at 136–46; Halkitis, supra note 8, at 49–68; Iversen, supra note 8, at 146. Photographs of repeat meth offenders taken over time can also reveal the gradual process of a slow death. See Garriott, supra note 8, at 80; Ginspoon & Hedblom, supra note 7, at 107; Markovitz, supra note 8, at 38.

53. Reding, supra note 6, at 33.

54. Halkitis, supra note 8, at 57 (noting that chronic meth use often "manifests itself in decision-making that is driven more by immediate outcomes rather than by task-related processes").

55. Such as when a passenger tries to open an emergency exit door while the aircraft is in flight. See Adam Sabes, Woman on Meth Tries to Open Emergency Exit Door After Showing Signs of Anxiety, Fox News, Nov. 24, 2023, https://www.foxbusiness.com/technology/woman-meth-tries-open-emergency-exit-door-showing-signs-anxiety.

56. Depression is a very common mental health problem for meth users. Halkitis, supra note 8, at 91.

57. See Owen, supra note 19, at 6–7: "But maybe the worst part of my dalliance with the drug was the paranoid episodes that accompanied extended use. The mere sound of police sirens in the distance spooked me. Imaginary undercover detectives followed me in the street. Sitting in my apartment, I'd hear a key in the lock and see the doorknob turning, but nobody would enter. I'd hear childlike voices whispering my name in the hallway, but when I went out to investigate, the hallway was empty. I'd peer out the windows and catch brief glimpses of shadowy figures wearing fedora hats and raincoats snapping photographs from the fire escape across the street. I felt like an extra in a bad horror movie. If I didn't stop this craziness, I was headed for a nervous breakdown."

58. Quinones, supra note 14, at 258–59; see also, e.g., DEA Meth Fact Sheet, supra note 8; Markovitz, supra note 8, at 32–33. Including what is known as “meth bugs”—that is, the belief that bugs are crawling around on or under one’s skin, which leads users to rid themselves of such beasties by gouging them out by hand, by knife, or by whatever else serves that purpose. DEA Meth Fact Sheet, supra note 8.

59. DEA Meth Fact Sheet, supra note 8; NIDA Drug Facts, supra note 8; United Nations Off. on Drugs & Crime: Methamphetamine (2023); Brownstein et al., supra note 8, at 17, 92–94; Halkitis, supra note 8, at 50 (“Deaths because of methamphetamine addiction are not always a direct result of the toxicity of the drug itself.... The combination of methamphetamine with other substances, as well as deaths because of homicide, suicide, and accidental causes...all contribute to the deadly nature of this drug.”); Iversen, supra note 8, at 145; Weisheit & White, supra note 8, at 62–65, 84–90 (discussing the psychopharmacological, systemic or contextual, and economic factors contributing to violence), 91 (“[W]hile violence was not common, when it occurred it was ‘frightening because of the unprovoked, arbitrary, and grossly psychotic quality of the acts themselves.’”) (footnote and punctuation omitted), 92 (noting that daily meth users are more likely to commit violent crimes than less frequent users); Scott et al., supra note 8, at 277–78, 281, 286–87 (“A wealth of animal and human literature implicates chronic [methamphetamine] use in metabolic and neurotransmitter abnormalities, structural brain alterations, and deficits in everyday functioning.... Significant deficits of medium magnitude were observed in several different cognitive processes...including episodic memory, executive functions (e.g., response inhibition, problem solving), complex information processing speed, and psychomotor functions.... Taken together, these cognitive and neurobiological data support the notion that [methamphetamine] use disrupts the organizational and tactical components of memory encoding and retrieval that are dependent on frontostral networks....”). 287 (noting the “hypothesis” that “[methamphetamine] dependent individuals may evidence fundamental dysfunction in decision-making, including a predilection for stimulus driven behavior...”) (citation omitted). Most amphetamine-related fatalities result from stroke, heart failure, or acute aortic dissection due to increased heart rate and blood pressure. Scott et al., supra note 8, at 277.

60. Quinones, supra note 14, at 251.

61. DEA Meth Fact Sheet, supra note 8 (“Researchers have reported that as much as 50 percent of the dopamine-producing cells in the brain can be damaged after prolonged exposure to relatively low levels of meth. Some studies suggested that the use of methamphetamine may also result in serotonergic neurotoxicity.”); NIDA Drug Facts, supra note 8 (“In addition, continued methamphetamine use causes changes in the brain’s dopamine system that are associated with reduced coordination and impaired verbal learning. In studies of people who used methamphetamine over the long term, severe changes also affected areas of the brain involved with emotion and memory. This may explain many of the emotional and cognitive problems seen in those who use methamphetamine.”); Reding, supra note 6, at 48; Fleckstein et al., supra note 37, at 690–91; cf. Brian Armstrong & Kevin K. Noguchi, The Neurotoxic Effects of 3,4-Methylenedioxy-methamphetamine (MDMA) and Methamphetamine on Serotonin, Dopamine, and GABA-ergic Terminals: An In-Vitro Autoradiographic Study in Rats, 25 Neurotoxicology 904 (2004) (describing result in studies on laboratory rats).

62. Markovitz, supra note 8, at 32; Weisheit & White, supra note 8, at 49; Kuehn, supra note 35, at 814. Keep in mind that “[m]any of the chemicals used to manufacture methamphetamine were originally developed for industrial purposes and are, therefore, quite toxic.” Markovitz, supra note 8, at 9. One estimate is that meth labs produce five–seven pounds of toxic waste for every pound of meth cooked. Halkitis, supra note 8, at 45. The consumption of such materials, wholly aside from meth’s addictive effects and their consequences, poisons a user’s body (as well as anyone nearby) and can cause death. Markovitz, supra note 8, at 9, 23–24 (“Chuck Allen, the chief of police in Granite Falls, Washington, bluntly told a reporter: “Battery
Acid, ammonia, paint thinner, lye—that’s what you’re smelling. Take a bunch of the most toxic solvents there are, mix ‘em up with some Sudafed pills and put that in your pipe and smoke it. Your teeth’ll fall out, your skin’ll scab off, and a month from now you’ll be coughing up chunks of your lung—but hey, what the hell? Party on, right?”). And using hypodermics exposes parties to infection from hepatitis and HIV/AIDS. Scott et al., supra note 8, at 278.

63. “I found myself increasingly irritated at the world and everyone in it, especially after the drug started to wear off…. I’ve always been a cocky son of a bitch, but, under the influence of meth, I was insufferable. I would scream on the phone at publicists. I would get into shouting matches with strangers in night clubs. If someone got in my way when I was walking down the street, I would push them roughly aside. ‘I wanna destroy the passerby,’ the Sex Pistols once sang, which pretty much summed up my attitude toward the rest of humanity.” Owen, supra note 19, at 5; id. at 6 (“It [meth] was the only drug I ever took where I felt like I could literally kill somebody.”).

64. See, e.g., Grinspoon & Hedblom, supra note 7, at 182 (“Under the influence of amphetamines, lability of mood is common, the user abruptly shifting from warmly congenial to furiously hostile moods for the most trivial of reasons.”), 182–205, 189 (“Since the amphetamines have psychopharmacological properties which potentiate or disinhibit aggressive impulses and promote paranoid thinking and even delusions, they have much greater potential for producing violence than opiates or marijuana.”). 192 (“The fact that massive doses of amphetamines often induce a form of paranoia has been discussed already.... There is little doubt that this tendency toward paranoid thinking significantly enhances the danger that the already volatile and impulsive methamphetamine abuser will act out his irritability and aggressiveness in violently criminal behavior.”). 193 (noting the “capricious manner in which a high-dose amphetamine abuser may suddenly turn against both friends and strangers” and “a tendency to lash out uncontrollably with little warning and less provocation” and noting “[t]he incidence of violence and crime in Haight-Ashbury after it became the ‘speed capital of the world’ in 1968.”). 201 (“Finally, the need for amphetamine may lead to crime. The abuser’s concerns increasingly narrow into the immediate present of procuring and using drugs as he becomes separated from the past and unconcerned about his future. Any interference with these single-minded pursuits becomes an overwhelming threat, as his life has few other sources of satisfaction or meaning. Thus assaultive behavior becomes more probable as the inhibitions to immediate action that usually comes from recalling past experiences or considering future consequences are minimized.”); Halkitis, supra note 8, at 50 (noting that “[a]buse of the drug is highly related to criminal behavior, including violent criminal behavior”).

65. “Methamphetamine-abusing parents are reported to have a parenting style described as ‘polar parenting’ in which the treatment of their children swings between extremes of anger and apathy.” Weisheit & White, supra note 8, at 96 (footnote omitted).

66. “At least three distinct but mutually reinforcing pharmacological properties appear to make amphetamines uniquely criminogenic. First, high doses of amphetamines invariably cause a focusing of attention on immediate, close range stimuli. Amphetamine’s second criminogenic psychopharmacological property is inseparable from its ability to enhance the abuser’s immediate awareness of stimuli, sensory clues, and peripherally visible objects or persons. After a few days of continuously ‘running,’ he is often so blatantly paranoid that he imagines others are plotting against him and must be attacked first. The third and most criminogenic pharmacological property of amphetamines is their psychomotor stimulating effect. Under the influence of speed even the most lethargic person often must do something, even if it is as boring and repetitious as stringing beads for hours. When such a deep and insistent need to do something is thought to be disapproved or blocked, the speed abuser may attack the thwarted with murderous rage. Often such violent ‘retaliation’ is intrinsically rewarding because it relieves the abuser’s feelings of pent-up psychological and muscular tension.” Grinspoon & Hedblom, supra note 7, at 202–05 (emphasis in original).

67. Halkitis, supra note 8, at 63.

68. Scott et al., supra note 8, at 278–79.

69. See Markowitz, supra note 8, at 45–50, 53–57; Weisheit & White, supra note 8, at 95 (“What is striking is the frequent finding that the association between methamphetamine use and violence is particularly strong for domestic or partner violence.”) (footnote omitted), 97 (“Adding alcohol to the mix, a relatively common practice, can substantially increase the likelihood of violence.”).

70. “Many of the chemicals used to manufacture methamphetamine were originally developed for industrial purposes and are, therefore, toxic.” Markowitz, supra note 8, at 9. Long-term exposure of children to the toxic waste from meth cooking can damage their cardiovascular, neurological, or digestive systems. Halkitis, supra note 8, at 44. “[C]hildren should be considered in danger if they are playing on carpet contaminated with toxic chemicals used in methamphetamine production, if they are allowed to play in areas where they may be punctured by contaminated needles or glassware, or if they have traces of methamphetamine on their clothing or on their bodies.” Id. at 109 (footnote omitted); id. at 109–13. Meth use by pregnant women can permanently damage their unborn babies. Grinspoon & Hedblom, supra note 7, at 146–47; Markowitz, supra note 8, at 40–41. Complicating the issue, however, is that most pregnant women also consume alcohol, which has a known adverse effect on unborn children, as well as other factors, such as the stage of pregnancy when the use occurs, the amount consumed, and the purity of the drug used. Weisheit & White, supra note 8, at 71–73.

71. Markowitz, supra note 8, at 54.

72. Halkitis, supra note 8, at 57 (suggesting that “use of the drug is associated with persistent physiological changes to the brain that lead to slower reaction times in examinations of cognitive function”), 59 (noting that meth can impair recall and the ability to manipulate information, perform abstract reasoning, and ignore irrelevant data). A 2014 report issued by the U.S. National Highway Traffic Safety Administration concluded that methamphetamine use “may impair the ability to engage in potentially hazardous activities such as driving a motor vehicle” for numerous reasons: “The drug manufacturer states that patients should be informed that methamphetamine and amphetamine may impair the ability to engage in potentially hazardous activities such as driving a motor vehicle. In epidemiology studies drive-off-the-road type accidents, high speed, failing to stop, diminished divided attention, inattentive driving, impatience, and high risk driving have been reported. Significant impairment of driving performance would also be expected during drug withdrawal. In a recent review of 101 driving under the influence cases, where methamphetamine was the
only drug detected, blood concentrations ranged from blood concentrations ranged from < 0.05- 2.36 mg/L (mean 0.35 mg/L, median 0.23 mg/L). Driving and driver behaviors included speeding, lane travel, erratic driving, accidents, nervousness, rapid and non-stop speech, unintelligible speech, disorientation, agitation, staggering and awkward movements, irrational and violent behavior, and unconsciousness. Impairment was attributed to distraction, disorientation, motor excitation, hyperactive reflexes, general cognitive impairment, or withdrawal, fatigue, and hypersomnia.


73. NIDA DrugFacts, supra note 8; Grinspoon & Hedelim, supra note 7, at 149–81.

74. NIDA DrugFacts, supra note 8.

75. Halkitis, supra note 8, at 107 (punctuation omitted); see also, e.g., id. at 107–19.

76. Quinones, supra note 14, at 157 (“Our revolution in neuroscience research has shown that around 30 percent of people have a genetic disposition for addiction. But no matter what a person’s genetic disposition, no one gets addicted to drugs she hasn’t tried.”).


78. Weisheit & White, supra note 8, at 79.

79. Id. at 79.

80. “Most controlled studies give subjects either 5 mg or 10 mg of methamphetamine, but abusers may use one hundred times that amount or more in a twenty-four hour period. In addition, laboratory studies generally administer the drug only for a few days while abusers will have used for months or even years. Further, complicating matters, it appears that nicotine used in combination with methamphetamine enhances the effects of methamphetamine, and smoking tobacco is common among methamphetamine users. id. at 80.

81. Id. at 79.

82. Reding, supra note 6, at 11 (quoting a local physician).

83. Halkitis, supra note 8, at 4.

84. Owen, supra note 19, at 8.

85. Grinspoon & Hedelim, supra note 7, at 61.

86. Id. (quoting Matt Bai, White Storm Warning, Newsweek, 67, Mar. 31, 1997). Even advocates for use of other drugs, such as poet Alan Ginsberg, urged people to stay away from amphetamine: “Ginsberg proclaimed in an interview with the Los Angeles Free Press, ‘Let’s issue a general proclamation to all the underground community…. Speed is antisocial, paranoid making, it’s a drag, bad for your body, bad for your mind, generally, in the long run uncreative and it’s a plague in the whole dope industry. All the nice gentle dope fiends are getting screwed up by the real horror monster Frankenstein speed freaks who are going around stealing and bad mouthing everybody.’” Id. at 17 (footnote omitted).

87. Owen, supra note 19, at 7.

88. Id.; see Quinones, supra note 14, at 4–5 (“Their meth and fentanyl ended the notion of recreational drug use. Now anything could kill or mentally maim. What started as an epidemic of opiate addiction became…simply an epidemic of addiction, broadened by staggering supplies of corrosive synthetic dope.”).

89. Quinones, supra note 14, at 243.

90. See Nat’l Forensic Laboratory Information Servs., NFLIS-Drug 2020 Midyear Report 1 (2021) (“Methamphetamine was the most frequently identified drug in the West (42%), Midwest (29%), and South (32%), while cocaine was the most frequently identified drug in the Northeast (22%).”).

91. Quinones, supra note 14, at 243.

92. Substance Abuse & Mental Health Servs. Admin., Key Substance Use and Mental Health Indicators in the United States: Results from the 2022 National Survey on Drug Use and Health 18, 35 (2023). Methamphetamine users, “more often than not, are polydrug users,” combining meth with other illicit drugs “to achieve a particular high or to balance the effect of the drug.” Halkitis, supra note 8, at 21, id. 23 (noting that polydrug use is “very common”); Scott et al., supra note 8, at 290 (“individuals rarely use [methamphetamine] in isolation”); Jan Hoffman, “A Monster”: Super Meth and Other Drugs Push Crisis Beyond Opioids, N.Y. Times, Nov. 13, 2023, https://www.nytimes.com/2023/11/13/health/poly substance-opioids-addiction.html?smid=nytcore-ios-share&refer=source=articleSource=articleShare. Interestingly, studies suggest that meth is a popular drug among whites, Hispanics, American Indians, and Asian/Pacific Islanders but far less so among blacks. Brownstein et al., supra note 8, at 47–52 (noting that most meth users are white males), 100; Garrott, supra note 8, at 25–26 (noting that there is a diverse population of users but that meth “has increasingly come to be seen as a white, rural drug,” perhaps because “clandestine manufacturers have tended to locate in rural areas”). Halkitis, supra note 8, at 14; Weisheit & White, supra note 8, at 19, 22. But see Quinones, supra note 14, at 322.

93. The 2020 Census reported that New Mexico had a population of 2,177,522 residents and Kansas had a population of 2,937,880. U.S. Census Bureau, U.S. Dept of Commerce, 2020 U.S. Census Apportionment Results Tab. 2 (Apr. 26, 2021).

94. See, e.g., Quinones, supra note 14, at 265–66 (“They provide a community for users, creating the kinds of environmental cues that USC psychologist Wendy Wood found crucial in forming habits. Encampments are places where addicts flee from treatment, where they can find the warm embrace of approval for their meth use.”).

95. Id. at 265.
96. **Iversen**, supra note 8, at 4.
97. **Brownstein et al.**, supra note 8, at 30.
99. **Brownstein et al.**, supra note 8, at 5; **Garrott**, supra note 8, at 22–23; see Debra S. Peterson & R. Michael Jennings, *Methamphetamine: A Recipe for Disaster*, 73 J. Kan. B.A. 7, 8 (Oct. 2004) ("Methamphetamine is relatively easy to make. Addicts can acquire everything they need to satisfy their cravings at the local Wal-Mart or other retailer, except anhydrous ammonia (which can be easily stolen from any of the great number of tanks in farm fields anywhere in the state [Kansas]).").
100. **Brownstein et al.**, supra note 8, at 5; **Garrott**, supra note 8, at 22–23; **Halkitis**, supra note 8, at 41 (meth can be made in a van or the trunk of a car); see Peterson & Jennings, supra note 99, at 8.
102. Id. at 118.
103. See **Brownstein et al.**, supra note 8, at 3 ("What we saw first in [Galax, Virginia] and then later across the United States was an example of how methamphetamine had become a major industry in cities, towns, and rural communities across America creating jobs for people who needed work and serving for some people as a focus for their daily lives and social experiences.").
104. **Weisheit & White**, supra note 8, at 28 (noting that what made methamphetamine distinctive included "the lack of any need for any plant-based precursor like the opium poppy or the cocoa bush, the widespread availability of the ingredients required for its manufacture, [and] the minimal skill required for such manufacture."). Even overqualified, underpaid, terminally ill high school chemistry teachers looking for a way to leave their families some money can cook a massive amount of meth and make a small fortune. See *Breaking Bad* (Am. Movie Classics 2008–2013).
105. **Grinspoon & Hedstrom**, supra note 7, at 24; **Markovitz**, supra note 8, at 18.
106. **NIDA DrugFacts**, supra note 8; **Iversen**, supra note 8, at 97 ("Methamphetamine was ideally suited to the biker lifestyle, which emphasized fast-high risk motor cycling, fighting, heavy drinking, partying, and drug use."); **Garrott**, supra note 8, at 28, 40 ("This image of the meth lab as rural, hidden, and impossible to detect aside from a few telltale signs has become a key symbol of methamphetamine."); **Markovitz**, supra note 8, at 18; **Quinones**, supra note 14, at 26; **Weisheit & White**, supra note 8, at 14–17, 29.
107. There was also an ongoing transition in the precursor chemicals used to produce meth. Initially, the most powerful ingredient was phenyl-2-propanone, or P2P. When the federal government made it difficult to obtain P2P, bikers and other cooks switched to ephedrine. When the federal government responded with controls on the sale of that compound, cooks switched to pseudoephedrine. The federal government found it far more difficult to curb the importation and sale of that substance because it was used in cold medicines like Sudafed that consumers demanded. **Markovitz**, supra note 8, at 18–21; **Reing**, supra note 6. Eventually, Congress made the purchase of pseudoephedrine more difficult, but that took more than 15 years. See infra text accompanying notes 78–84 & note 81. Mexican superlabs use P2P. **Quinones**, supra note 14, at 267.
109. **Halkitis**, supra note 8 at 38–39, 41–42 & Figs. 3.34 & 3.4; **Weisheit & White**, supra note 8, at xi; Anna S. Vogt, *The Mess Left Behind: Regulating the Cleanup of Former Methamphetamine Laboratories*, 38 Idaho L. Rev. 251, 255–56 (2001). Small-scale producers can even manufacture meth in a two-liter plastic bottle, known as the “Shake-and-Bake” technique. That production process has become popular because only one cook is necessary, there is no need to heat the mixture, it requires a smaller number of precursors such as pseudoephedrine, and it can be mixed in a two-liter plastic bottle. **Brownstein et al.**, supra note 8, at 29, 35, 35, 83–84, 97–98. That production process, like others, is dangerous. Vogt, supra, at 258 ("One safety concern inherent in clandestine labs is the risk of toxic gases, fires, and explosions due to the highly flammable chemicals used in production. Some metals may ignite or explode when reacting with air and water. A fire at a meth lab inevitably results in the release of toxic fumes as chemicals burn or explode. This is a danger to anyone in the vicinity and especially to firefighters. Nationwide it is estimated that between twenty percent and thirty percent of meth labs seized are discovered because of fire.") (footnotes omitted).
110. **DEA Meth Fact Sheet**, supra note 8; **NIDA DrugFacts**, supra note 8.
112. “In the United States today, people from many walks of life find themselves coming into contact with this dangerous drug. Police officers have certainly seen how methamphetamine can affect young people, as have prosecutors, judges, probation officers, and others who work in the criminal justice system. Additionally, social workers are faced with the problem of helping the children of parents who are addicted to meth. Firemen find themselves responding to house fires caused by the highly combustible process of cooking meth. Campers and hikers come across the toxic waste from meth labs, which is often dumped in the woods. Ordinary people are victims of identity theft—their credit card numbers stolen by crystal meth addicts desperate for money. Pharmacies catch shoplifters stealing cold medications that contain pseudoephedrine, a key ingredient needed to make the drug. Teachers look over their classrooms and see empty seats, their students missing school because of drug abuse.” **Markovitz**, supra note 8, at 7.
114. **Brownstein et al.**, supra note 8, at 5; id. at ix ("[W]hile federal and state legislation designed to address meth-related problems initially did inconvenience the markets and marketers of meth, it also had unintended outcomes including the revitalization and reorganization of what was
previously a more localized yet fragmented industry.”). Interestingly, according to one observer, legitimate commercial transactions and the illicit market for drugs other than meth commonly involve parties with no established personal relationship between sellers and buyers. By contrast, in small-scale meth markets, “personal relationships are a critical element of market transactions. Meth is rarely if ever sold to strangers.... It requires trustworthy social relationships.” Id. at 69, 75.

115. That law was Title VII of the USA PATRIOT Improvement Act of 2005, Pub. L. No. 109-177, 120 Stat. 192, 256; see GARROTT, supra note 8, at 1.


117. But not all. Some parties pay several individuals, including the homeless, to make separate purchases. BROWNSTEIN ET AL., supra note 8, at 18, 35, 90, 103.

118. “When federal and state legislation after 2004 made it more difficult for local meth cooks to secure the chemicals (especially pseudoephedrine) needed to cook the meth, the demand for meth did not go away. Illicit drug enterprises already distributing other drug products to drug users in the United States seized the opportunity and superlabs were opened to produce a large enough supply of methamphetamine for widespread wholesale distribution.” BROWNSTEIN ET AL., supra note 8, at 38; id. at 78, 84, 97–98, 99–100; HAUKSTET, supra note 8, at 206.

119. “The move to pseudoephedrine was really the blockbuster moment in the modern history of the meth epidemic. That’s because the DTOs were firmly able to tie the fate of their illicit product to perhaps the world’s most lucrative legal drug. This really is the genius of the meth business. Cocaine and heroin are linked to illegal crops—coca and poppies, respectively. Meth on the other hand is linked in a one-to-one ratio with fighting the common cold. Not only was the pharmacological industry likely to fight harder against pseudoephedrine monitoring than it had regarding ephedrine, but the sheer bulk of pseudoephedrine being produced made it difficult to track compared with the relatively small amount of ephedrine being manufactured. Add to that that 50 percent of the world’s pseudoephedrine was (and is) manufactured in China—a nation that has been increasingly unwilling to negotiate with the United States—and [Drug Enforcement Administration official Gene] Haslip’s dream of international cooperation in monitoring meth’s precursors had, after a short and unprecedented victory, fallen completely apart.” REIDING, supra note 6, at 114. The DTOs’ ingredients also make their product far more damaging than what bikers and Mom and Pop businesses turned out. As Sam Quinones has explained: “This new meth itself was quickly, intensely damaging people’s brains. The symptoms were always the same—violent paranoia, hallucinations, figures always lurking in the shadows, isolation, riddled and abscessed dental work, uncontrollable limbs, massive memory loss, jumbled speech, and, almost always, homelessness. It was creating a swath of people who, while on meth and for a good period afterward, were mentally ill and all but untreatable by usual methods. Ephedrine-made meth wasn’t good for the brain, but it was nothing like this. Schizophrenia and bipolar disorder are afflictions that begin in the young. Now people in their thirties and forties were going mad. The new meth was also deadly in a way ephedrine meth was not. It was killing young people with congestive heart failure, a disease common to people over sixty-five.” QUINONES, supra note 14, at 259–60.

120. “Not only were the superlabs a source of methamphetamine when the local lab supply was diminished, but the quality of the product was different. Local labs were mostly producing powder or paste (called ‘peanut butter’ or ‘crank’ by users), sometimes coloring it to make their product distinctive. Superlabs mostly produced crystal meth. The difference in quality from the user perspective varied, but they do smell and taste different and, in the main, the crystal is considered to be purer, more potent, and to have a more pleasing appearance. As a respondent from the state of Washington said, ‘The backyard mom-pop labs, theirs is powder. They’re doing their best to make it into crystal but the purities are real low. I would say 80 percent [of the meth in his area] for certain is coming from across the border, the Mexican superlabs, and it’s pure crystal. It’s high-quality, high-grade stuff.’ BROWNSTEIN ET AL., supra note 8, at 38–39; id. at ix, 19. Nick Reding’s book Methland, supra note 6, explains in detail how the 1998 act had that perverse effect.

121. REIDING, supra note 6, at 113.

122. See, e.g., BROWNSTEIN ET AL., supra note 8, at 19.

123. REIDING, supra note 6, at 113.

124. Id.

125. Id. at 156–57, 157 (“According to Tony Loya, the [ex-DEA Special Agent-in-Charge] who ran Operation Snowcap from Guatemala City, ‘What happened was not the lesser of two evils; it was the greater. Our success with Medellin and Cali essentially set the Mexicans up in business at a time when they were already cash-rich thanks to the budding meth trade in Southern California.’ DEAs success with Snowcap essentially awarded the Mexican organizations gate-keeping rights in the most valuable narcotic market on earth, at the same time as those organizations were building a separate but related business in the meth trade.”).

126. “A senior American official assigned to the U.S. embassy in Mexico City who also worked on Operation Snowcap explained the result this way: ‘By controlling the entry point for all of the cocaine into the U.S., the Mexicans controlled the price? It depends on the DTOs. By taking payment in cocaine and distributing it themselves, the DTOs created fifty percent market share overnight. If you control the price, along with half the retail and distribution, you basically own the business.’ REIDING, supra note 6, at 158.

127. See, e.g., BROWNSTEIN ET AL., supra note 8, at 19–20. As former DEA Special Agent Loya noted, “the DTOs will never abandon the meth business—no matter how good the cocaine market—since, with meth, the DTOs control manufacture, distribution, and retail. Meth is a peach of a business.” REIDING, supra note 6, at 242.

129. See, e.g., Markovitz, supra note 8, at 9–10.
132. See, e.g., Quinones, supra note 14, at 269 (“Historians note that societies’ consumption of illegal drugs moves in gradual waves over decades; demand shifts from depressants to stimulants, then back. That’s true, but that’s not what happened here. There was nothing gradual about what occurred to the country’s drug stream.”); Weisheit & White, supra note 8, at 41.
133. Quinones, supra note 14, at 269. Traditionally, individual users were committed either to opioids such as heroin or to stimulants such as meth. “Meth and heroin users had been separate groups, different cultures; historically they never mixed” because “the drugs affect different parts of the brain’s reward pathway.” Id. at 268. That scenario is changing. Id. at 268–69 (“Opioid addicts on Suboxone, without that life repair, were still connected to the drug world and still wanted to get high on something. They provided a ready market for Mexican traffickers’ cheap and plentiful P2P meth.… In a remarkable switch, meth became a fentanyl substitute.… So an unprecedented event occurred. Massive supplies of P2P meth out of Mexico created demand for a stimulant out of a market for a depressant. In the process, traffickers forged a new population of mentally ill Americans.”).
134. Id. at 269. Harvard Medical School Professor Lester Grinspoon and Peter Hedblom described as follows the troubling features of a crash after a cycle of amphetamine use: “The ‘crashing’ amphetamine abuser lacks the energy to complain and may seem to be merely exhausted and in need of sleep. Recently investigators have looked more closely, and the emerging picture is unpleasant and painful. Extreme lethargy and fatigue are almost invariably reported. Although the ‘crasher’ may sleep for several days, he never sleeps well, and often wakes screaming from nightmares. On awakening, he may experience anxiety attacks and suicidally severe depression. His psychic disruption and loss of self-control may lead to violent acting out of sexual conflicts and aggressive impulses. He often experiences acute fear and terror and is as likely to turn homicidal as suicidal. He is apt to be extremely irritating and demanding, driving people away just when he most needs their help. His head aches; he may have trouble breathing; he sweats profusely; his body is racked by alternating sensations of extreme heat and cold and distressing muscle cramps. He may feel so exhausted that he is unable even to stand. He is characteristically constipated, and suffers painful gastrointestinal cramps.” Grinspoon & Hedblom, supra note 7, at 180.
135. Quinones, supra note 14, at 269. What criminologist James Q. Wilson wrote about cocaine, a stimulant like amphetamines, applies even more powerfully to methamphetamine. “Tobacco shortens one’s life, cocaine debases it. Nicotine alters one’s habits, cocaine alters one’s soul.” James Q. Wilson, Against the Legalization of Drugs, 89 COMMENT 21, 26 (1990); see also supra note 134 (quoting Grinspoon & Hedblom, supra note 7, at 188).
136. See Gabor Mate, IN THE REalm OF HUNGRy GHOSTS: CLOSE ENCOUNTERS WITH ADDICTION (2010).
138. Weisheit & White, supra note 8, at 28.
139. Id. In fact, “psychoactive drugs can lie dormant in a culture for many years if not decades before they break into widespread use and generate significant social problems. Both amphetamine and methamphetamine exhibited a long incubation period between their discovery and their emergence and association with addiction.” Id. A related lesson is that use by some American subpopulations does not generate widespread concern. Id. (“Amphetamines in the United States in the 1950s and 1960s had little visibility as a problem until amphetamine use spread to adolescents and young adults in the 1960s.”).
140. Weisheit & White, supra note 8, at 30.
141. See Markovitz, supra note 8, at 4–5; Arnold S. Trebach, THE HEROIN SOLUTION (1982). Heroin also is an example of another “theme in the history of addiction”—namely, the “harmful effects that grow out of efforts to treat addiction.” Weisheit & White, supra note 8, at 29. Just as, early in the 20th century, heroin was prescribed to treat morphine addictions, in the 1960s, physicians prescribed meth to treat heroin addictions. Id.
142. See Markovitz, supra note 8, at 7 (quoted supra at note 112).
143. I See Nothing—Sgt Schultz, https://www.youtube.com/watch?v=34ag4nkSh7Q.
144. See, e.g., Quinones, supra note 14, at 363 (“Mexico’s response has more than just failed. On the contrary, a new book by historian Benjamin Smith, The Dope: The Real History of the Mexican Drug Trade, shows that elements of the Mexican government have often controlled, guided, exploited, and aided those traffickers since the 1950s as they morphed from illiterate ranchers to criminals, even as these government officials went through the motions of battling the drug trade. The relentless quantities of meth flowing into American towns are a measurement of Mexico’s inept criminal justice system.”); Vanda Felbab-Brown, Why America Is Struggling to Stop the Fentanyl Epidemic, FOREIGN AFF. (2023), https://www.foreignaffairs.com/mexico/why-america-struggling-stop-fentanyl-epidemic (“The collapse of the rule of law in Mexico goes far beyond the human toll of its drug war, which has killed more than 30,000 Mexicans every year since 2017—not counting the more than 112,000 people that went missing during the same period. In addition to controlling the drug trade, the cartels have expanded their extortion rackets and have even come to dominate parts of the country’s formal economy. They now have a hand in agriculture, fisheries, logging, mining, and the water supply. Their assault on state power and civil society has taken on new, more brazen forms, too, including increasingly aggressive attempts to influence elections and infiltrate state institutions.”).
145. Weisheit & White, supra note 8, at 30.
146. Id. at 32.
147. *Iversen*, supra note 8, at 94–96.

148. *Weisheit & White*, supra note 8, at 31 (“Surges [in drug use] can reflect deep cultural changes that alter personal appetites for certain kinds of experiences and imbue certain drugs with symbolic value. The challenging of traditional values and the protest movements of the 1960s whetted the cultural appetite for introspection while elevating the values of nonconformity and activism.”).

149. *Id.* at 30.

150. *Id.* at 31.


152. *Iversen*, supra note 8, at 41–49.


154. See *Reding*, supra note 6, at 31–32 (“One example of the connection between financial loss and the increase in meth use was a feeling among the small-time cooks that they, like the moonshiners of the early twentieth century, were the last of a breed, not just of rebellious criminals, but of small-business people. In the wake of so many closed store fronts, it was the Beavis and Butt-Head cooks...who touted their place as entrepreneurs in the increasingly weak economy of Oelwein [Iowa].”).

155. “[W]hat neuroscience can now tell us: that every human brain has capacity for addiction. Isolation is part of why some people get addicted and some do not. So was trauma. Abuse, rape, neglect, PTSD, a parent’s drug use were as unspoken in America as addiction and as prevalent.” *Quinones*, supra note 14, at 5, see *Reding*, supra note 6, at 32 (“It was an added benefit of the vitality of their [meth] businesses that people, when they snorted or smoked local crank felt good for days. Viewing themselves as modern-day Pied Pipers, the cooks by their very presence in town posed a question to which the answer was not obvious: What else was there to feel good about?”).

156. “A striking feature of my research was the pessimistic light in which those given the task of dealing with the methamphetamine problem (police, probation officers, public health workers, judges, etc.) viewed their efforts. I asked Frank Fields, a state trooper who spent two years working exclusively on drug-related cases, if he thought what he and his fellow officers were doing was having any effect. He smiled slightly and shook his head no. ‘All we can do is try to contain it,’ he said. ‘But we’ll never get rid of it.’... Most of those officials involved directly with the prosecution of drug offenders viewed it as, at best, a managerial task—an exercise in containment. They did not see themselves as fighting a battle that could be won.” *Garrett*, supra note 8, at 129, 164; see also, e.g., *Markovitz*, supra note 8, at 9 (Iowa prosecutor Lein: “This effort”—viz., to find and close small, domestic meth labs—“seems to be a never-ending battle. As Arkansas drug agent Danny Joe Ramsey remarked to a reporter in early 2004, ‘For every meth lab we shut down, there are four others. I don’t feel like we’re making a dent.’”); 10 (“The ease with which crystal meth can be produced has caused great concern among experts on addiction. Mona Sumner, chief operating officer of Rimrock Foundation, a drug treatment center in Montana, voiced this frustration: ‘How are you going to cut off the supply of something that you can produce at home?’”); *Reding*, supra note 6, at 38 (“So you can put a tweaker in prison, and the whole time he’s in there he’s thinking of only one thing: how he’s going to get high the day he’s out. He’s not even thinking about it actually. He’s like, rewired to know that everything in life is about the drug so you say, “What good does prison do?”...and sometimes I look at the guy who can’t stop doing crank, and I just think [‘F***. It’d be easier to shoot the son of a bitch.’]” (emphasis in original).

157. Consider what one public health official had to say on the subject: “Portland, Oregon began seeing the flood of this new meth about 2013. By January 2020, the city had to close its downtown sobering station. The station had opened in 1985 as a place for alcoholics to sober up for six to eight hours, but it was unequipped to handle the P2P meth addicts. ‘The degree of mental health disturbance, the wave of psychosis, the profound, profound disorganization [is something] I’ve never seen before,’ said Dr. Rachel Solotaroff, director of Central City Concern, the social-service nonprofit that ran the station.... She was overwhelmed. ‘If they’re not raging and agitated, they can be completely noncommunicative. Treating addiction relies on your ability to have a connection with someone. But I’ve never experienced something like this—where there’s no way in to that person.’” *Quinones*, supra note 14, at 260 (emphasis and bracketed material in original); see also, e.g., *id.* at 260 (“On Skid Row in Los Angeles, crack had been the drug for decades. But by 2014 the new meth was everywhere. When that happened, it ‘seemed that people were losing their minds faster,’ Los Angeles beat officer Deon Joseph told me. Joseph had worked Skid Row for twenty-two years. ‘They’d be okay when they were just using crack,’ he told me. ‘Then in 2014, with meth, all of a sudden they became mentally ill. They deteriorated into mental illness faster than I ever saw with crack cocaine.’” (emphasis in original), 260–61 (“Dr. Susan Partovi has been a physician for the homeless in Los Angeles since 2003.... On Skid Row by 2014, meth was everywhere. ‘It was crazy how many severely mentally ill people were out there,’ Partovi told me. ‘Now almost everyone we see when we do homeless outreach [on the streets] is on meth. Meth may now be causing long-term psychosis, similar to schizophrenia, [that lasts] even after they’re not using meth anymore.’” (bracketed material in original), 261–67 (noting similar reports in Indiana, Kansas, Kentucky, Missouri, New Mexico, Ohio, Tennessee, Texas, Virginia, and West Virginia).)

158. *Markovitz*, supra note 8, at 65 (“Sometimes the best counselors are former meth users who have dedicated their lives to helping make sure other young people do not make the same mistakes they did.”).

159. For a discussion of meth treatment, see *Markovitz*, supra note 8, at 60–73.


161. See *id.* at 367 (“We need to make arrests, but not as a reason to send someone to prison. Instead, criminal charges are leverage we can use to ply users from the dope that will consume them otherwise. Our era of synthetic street drugs requires this.”).
162. See id. ("Happily, drug courts around America are doing this work—using the threat of prison terms to push addicts into treatment, where they can put some space between their brain and dope and slowly embrace sobriety. It’s slow, hard work, with slip-ups and success. But this rethinking of courts and judging is harm reduction of the most elementary kind. County drug courts are not a luxury. Synthetic drugs have made them a necessity."). Unfortunately, “rogue prosecutors”—viz., elected district or commonwealth’s attorneys who decline to prosecute misdemeanors and, in their opinion, “minor” felonies because of their disparate effect on the poor and minorities—prevent drug courts from serving their purpose by keeping drug-addicted offenders out of the criminal justice system. No one—not victims, not the public, and not the offenders themselves—benefits from that approach to law (dis)enforcement. For a trenchant discussion of the problem, see ZACK SMITH & CHARLES D. STIMPSON, ROGUE PROSECUTORS: HOW RADICAL SOROS LAWYERS ARE DESTROYING AMERICA’S COMMUNITIES (2023).


164. See QUINONES, supra note 14, at 202 (“The popular image was of an addict suddenly seeing the light. Now ‘ready’ for treatment, she found a path forward and all was good. [Judge] Barrett found that was hardly ever the case; reality was a lot messier. Most had to be prodded; many rebelled or had no confidence that they could succeed after years of being shunned, stinking, hatred, and now stained with tattoos that felt as permanent as their addictions. Life seemed impossible without dope. Amid all this, assuming that hardened street addicts would just suddenly be ‘ready’ for treatment was dangerous folly. Instead, said Mimi Zarzar, Barrett’s court administrator, ‘you slowly move people to a readiness. They go from, “I’m not sure I want this,” to “Maybe I might want this,” to “Yes, I do want this.”’”). 366 (“We used to believe people needed to hit rock bottom before seeking treatment. That’s another idea made obsolete by our addiction crisis and the current synthetic drug supply. It belongs to an era when drugs of choice were merciful. Nowadays people are living in tents, screaming at unseen demons, raped, pimped, beaten, unshowered, and unfed. That would seem to be rock bottom. Yet it’s not enough to persuade people to get treatment…. The dope is different now. Today, rock bottom is death.”).

165. See Paul J. Larkin & Gian Carlo Canaparo, The Fallacy of Systemic Discrimination in the American Criminal Justice System, 18 LIBERTY U.L. REV. 1, 142 (2025) (“Drug trafficking and violence have always gone together like peanut butter and jelly and still do now.”) (footnotes omitted); see also, e.g., Terry v. United States, 141 S. Ct. 1858, 1860 & n.2 (2021); PHILIPPE BOURGOS, IN SEARCH OF RESPECT: SELLING CRACK IN EL BARRIO 24 (2d ed. 2003) (“Regular displays of violence are essential for preventing rip-offs by colleagues, customers, and professional holdup artists. Indeed, upward mobility in the underground economy of the street-selling world requires a systematic and effective use of violence against one’s colleagues, one’s neighbors, and, to a certain extent, against oneself. Behavior that appears irrationally violent, ‘barbaric,’ and ultimately self-destructive to the outsider, can be reinterpreted according to the logic of the underground economy as judicial public relations and long-term investment in one’s ‘human capital development.’”); BRUCE A. JACOBS, DEALING CRACK: THE SOCIAL WORLD OF STREETCORNER SELLING 126 (1999) (noting the relationship between drug use and crime, particularly crack cocaine) (“The most serious crime occurs among the heaviest crack users and includes offenses that extend beyond drug-related, income-generating activity and into the realm of revenge, racial antagonism, and the protection of image and honor.”).

166. Meth dealers act like the pushers that our mothers warned us about, as one acknowledged: “At first, we give it away. Then the addicts will do anything to get more.”” REDING, supra note 6, at 7.

167. Between 2015 and 2019, the Mexican military raided 333 meth labs in the Mexican state of Sinaloa alone. The number of arrests: 0. The lesson that the DTOs learned was that drug enforcement might cost you product and profits, but not your life or prison time. QUINONES, supra note 14, at 237.

168. “There is a value in keeping drugs hidden and separated from Madison Avenue marketing budgets and expertise, for the same reasons that lead some people who eat healthily at home to struggle with restraint at all-you-can-eat buffets. Put differently, law enforcement can help someone who wants to avoid a drug not to be tempted by it daily, but it generally cannot stop someone who is determined to obtain the drug from finding it.” CAULKINS & HUMPHREYS, supra note 31, at 5.