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Policy Paper

Think Centered

The Opioid Crisis

The Opioid Crisis

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ABOUT THE NEW CENTER

American politics is broken, with the far left and far right making it increasingly impossible to govern. This will not change until a vibrant center emerges with an agenda that appeals to the majority of the American people. This is the mission of The New Center, which aims to establish the ideas and the community to create a powerful political center in today's America.

THE NEW CENTER

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Executive Summary

More than 130 people die every day in America from an opioid overdose.[1] An estimated 11.4 million people misused opioids in 2017, including 11.1 million people misusing prescription drugs and 886,000 people using heroin.[2] Although this crisis has only recently grabbed the attention of policymakers, it has been building for years.

Since the 1990s, opioid deaths in America have quadrupled and opioid abuse has emerged as perhaps the country's most serious public health crisis.[3] From 2014 to 2018, U.S. life expectancy decreased every year, which the CDC has partially attributed to the prevalence of opioid abuse.[4] The exponential increase in opioid abuse has been driven by a lethal brew of overprescribed pills, a new generation of lethal and illicit drugs, and economic and family breakdown in communities across the country.

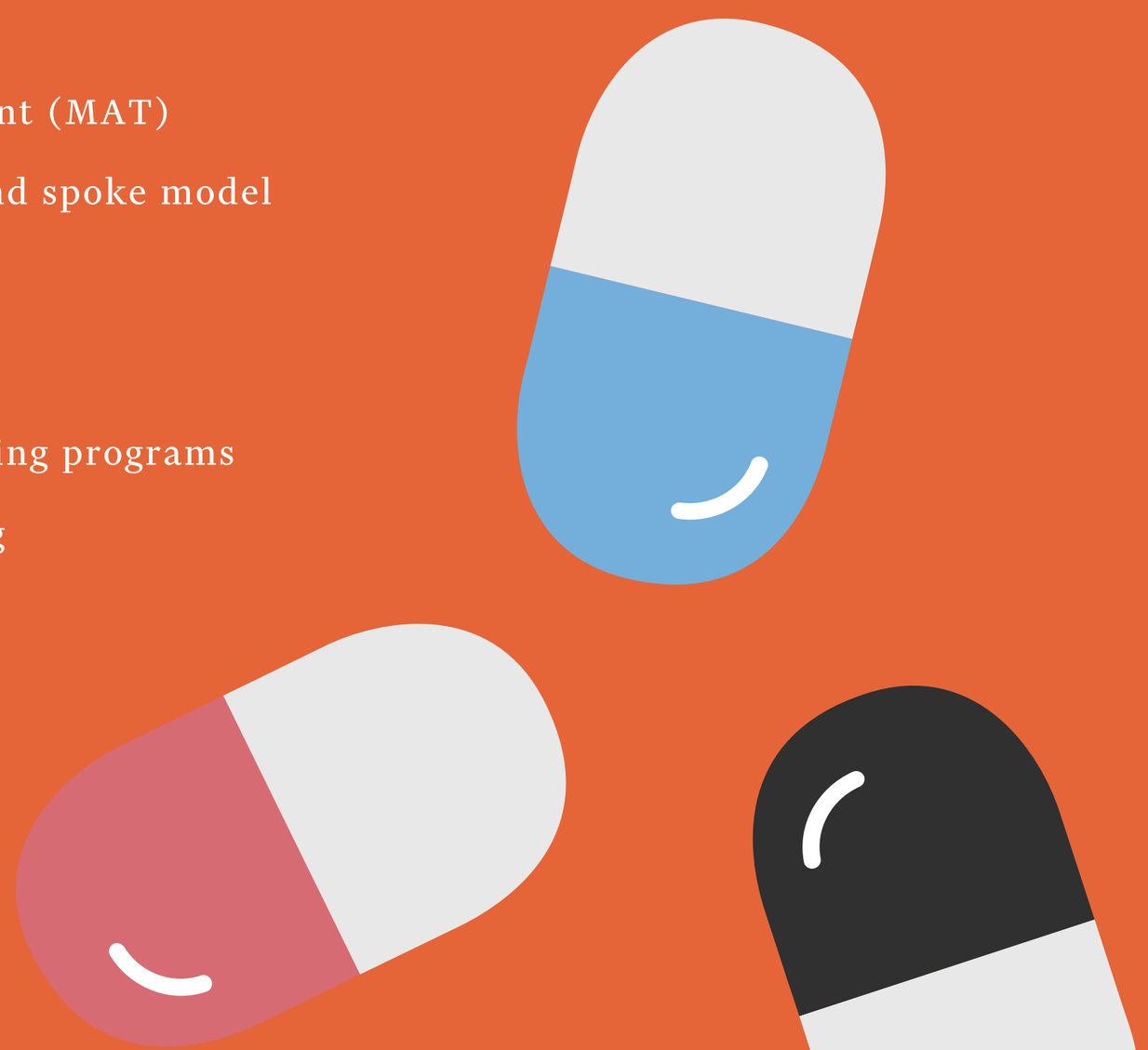
But this isn't the first time America has been gripped by addiction—medical journals were reporting the dangers of opium addiction more than a century ago. F. E. Oliver, a prolific Boston researcher and medical doctor, wrote in 1872:

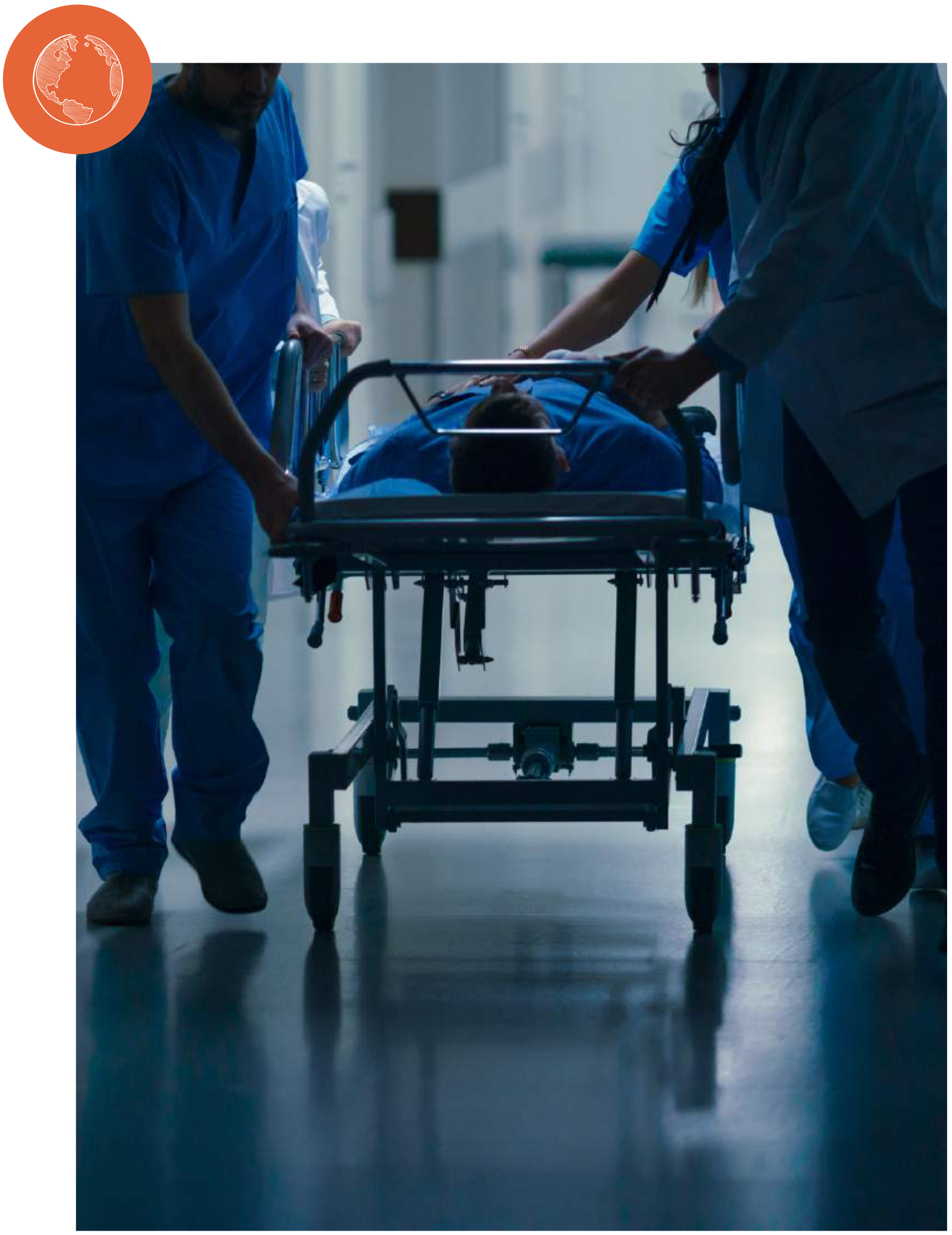
"It is not too soon to look about us and see how far [opium] has intruded upon our soil, that we may be the better prepared to meet, if need be, so insidious a foe."[5]

Following the Civil War, the Union Army alone issued nearly 10 million opium pills and 2.84 million ounces of opium powder to wounded soldiers—part of a trend where doctors increasingly viewed opiates as a panacea for pain.[6] By the 1870s, the hypodermic needle became more commonly used, allowing opium-based morphine to quickly flood the bloodstream to produce powerful effects.[7] Opium derivatives were being prescribed to middle- and upper-class women, with doctors turning to morphine for women's health services like menstrual cramps and morning sickness.[8] Drugs soon flooded immigrant and black communities with more limited educational, housing, and social opportunities to guard against addiction.[9]

Drug crises pile on each other, and the public health burden gets heavier each time. Though recent efforts by legislators, doctors, and patients have striven to curb this epidemic, opioid-involved deaths still outpace deaths from HIV/AIDS, firearms, and car crashes.[10] The New Center has several ideas for how America can better prepare to meet so insidious a foe:

- Removing barriers to medication-assisted treatment (MAT)
- Delivering comprehensive care through the hub and spoke model
- Creating a support system through drug courts
- Better educating medical students on chronic pain
- Streamlining the use of prescription drug monitoring programs
- Allowing federal grants to provide flexible funding





How Did We Get Here?

The Spread of Opioids

"Though it could cure little, it could relieve anything."[11]
David T. Courtwright

Chronic pain prevalence has increased by 25% in the past two decades, with one in five adult Americans reporting chronic pain in 2016.[12] This is higher than the rate of other leading conditions such as heart disease, diabetes, and all forms of cancer.[13] Additionally, because chronic pain can stem from various biopsychosocial factors and underlying conditions, it is often extremely complex to treat, leaving patients despondent and suffering.

In the 1990s, the medical community had found a counter to the influx of chronic pain sufferers—opioids like oxycodone and hydrocodone.[14]

Previously, prescription opioids were used mostly to treat short-term, acute, and cancer-related pain. But pharmaceutical companies like Purdue Pharmaceuticals began aggressively advertising prescription opioids for chronic pain. The company sponsored free patient samples, hosted expensive doctor dinners, and staged all-expenses-paid doctor symposiums.[15] Purdue Pharma promoted their extended-release opioid "OxyContin" as non-addictive for long-term use, encouraging doctors to prescribe opioids at greater rates to treat acute pain. A lack of accurate information for doctors and patients allowed for risky prescribing behaviors—like high-dose, long-term prescriptions—before it became clear that opioids were among the most addictive medically approved medicines.[16]

Rural areas were disproportionately affected by the crisis, partially due to their larger populations of elderly people and chronic pain sufferers. In 2017, patients in the most rural counties had an 87% higher chance of receiving an opioid prescription than their metropolitan counterparts.[17] In West Virginia, the state hit hardest by the opioid crisis, 780 million painkillers entered the state from 2007 to 2012, despite having a population of only 1.8 million people.[18]

In attempts to improve patient care and decrease costs, some in the medical community inadvertently contributed to the crisis. Physicians wrote longer-term prescriptions at high doses in efforts to fully treat pain and limit refill requests. To streamline refills, some retail pharmacies charged less for prescriptions in a bulk sum rather than those with multiple refills required, a common practice for many non-addictive medicines.[19]

In addition, some insurance companies placed more expensive, less addictive pain treatments on higher cost-sharing tiers than opioids, encouraging providers to prescribe opioids over safer, equally effective treatments.[20]

The Spread of Opioids

FROM THE DOCTOR TO THE DEALER

For too many chronic pain sufferers, prescription misuse morphed into a heroin addiction in the new millennium. In 2009, 86% of urban heroin users reported using prescription opioids prior to heroin.[21] And heroin, an opioid derived from morphine, is becoming more affordable and more potent.[22]

The heroin market began evolving in the 1990s when production moved from the Golden Triangle, the poppy-growing region of Myanmar, Laos, and Thailand, to operations in Mexico and South America with higher production capacities.[23] The price plummeted from around $2,200 per gram in 1980 to $500 in 2009.[24] A single-use bag of heroin now costs between $5 and $20, making it a cheap way to get a powerful high.[25]

In 2014, a new class of drugs flooded the illicit market. It was traditionally used in hospitals throughout surgical procedures, childbirth, and palliative care.[26] These so-called "synthetic opioids"—most notably, fentanyl—can provide a lethal dose in just two milligrams.[27] Unlike in hospitals, where the quality and administration of the drug is meticulously supervised, almost all street fentanyl is illicitly manufactured without proper safety controls, predominantly in China and Mexico.[28] Most people taking fentanyl do so inadvertently—it's often used to cut pricier drugs like cocaine and heroin, with many lower-level dealers also unaware of the products' exact contents.[29]

Nearly 50% of all opioid-related deaths involve synthetic drugs like fentanyl, making it the deadliest drug in America.[30]

WHAT ARE "SYNTHETIC OPIOIDS"?

Heroin is derived from the resin of opium poppy plants, which require large fields and labor-intensive harvesting. The supply of heroin is thereby highly dependent on crop yield. Drugs like fentanyl and tramadol are purely synthetic (manufactured in a lab), making them much cheaper and more reliable to produce. Fentanyl analogs are continually being produced, meaning that the synthetic opioid market is always evolving.[31]

Right: Re-creation of a lethal dose of fentanyl for size comparison.[32]

A Changing Tide

As opioid-related deaths exploded through the 2000s, the government started to take notice. In 2007, the federal government filed charges against Purdue Pharmaceuticals for falsely marketing OxyContin as safe and non-addictive. The company pleaded guilty to felony charges of lying about OxyContin's addictiveness, while three top executives pleaded guilty to misdemeanor charges. Purdue Pharma, its president, lawyer, and medical director were required to jointly pay $634.5 million in fines.[33]

WHO ARE THE SACKLERS?

Purdue Pharma was primarily headed by members of the Sackler family, who allegedly downplayed OxyContin addictiveness and paid for aggressive marketing campaigns.[37] Amid a wave of Purdue backlash, the company directed $10.7 billion to Sackler family trusts and offshore holdings, helping them become America's nineteenth-richest family.[38] The family has since offered $3 billion to settle thousands of lawsuits, but hasn't disclosed how much money they have, or where it's located.[39]

Over the next decade, thousands of lawsuits were filed against Purdue Pharma, its leadership, and the Sackler family who principally owned the company.[34] These lawsuits are continually being filed by states, counties, cities, towns, and tribal governments seeking billions in damages.[35] In September 2019, Purdue Pharma filed for Chapter 11 bankruptcy, only days after reaching a multibillion-dollar settlement involving around 2,300 state and local governments.[36]

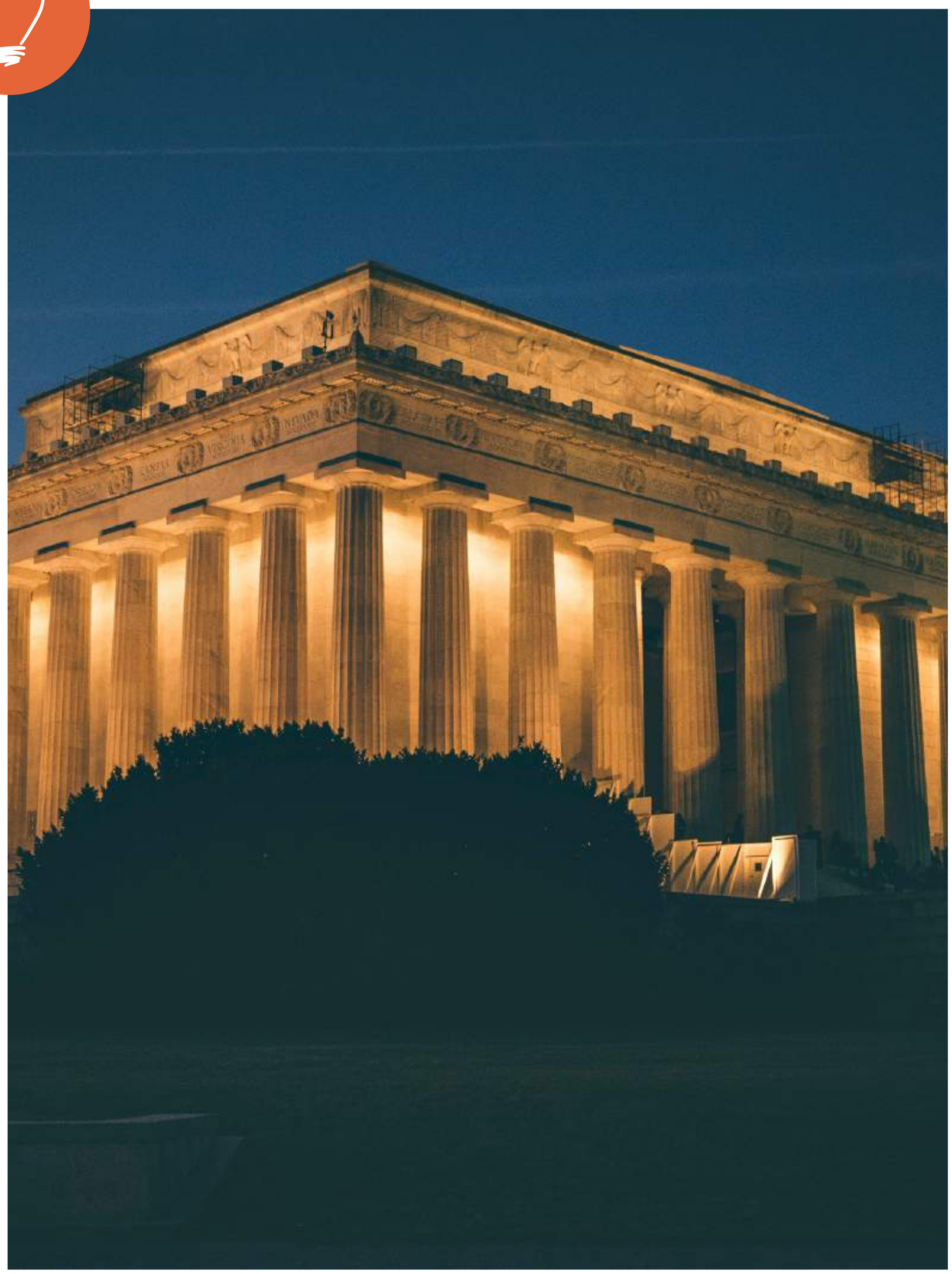
At the height of the crisis in 2016, the CDC released the 12-recommendation Guideline for Prescribing Opioids for Chronic Pain, aimed at improving the prescribing behaviors of primary care providers, who write most prescriptions. The Guideline advised doctors to avoid prescribing opioids for chronic pain if possible, and if not, to use the lowest possible effective dose.[40]

In the same year, President Barack Obama signed the Comprehensive Addiction and Recovery Act of 2016 (CARA, P.L. 114-198). CARA aimed to expand prevention and educational efforts, increase the availability of anti-overdose drugs and recovery treatments, treat opioid-addicted inmates, and more. While CARA approved several innovative programs to curb the epidemic, it authorized only $181 million each year in new funding. In December 2016, Congress added to CARA's funding through the bipartisan 21st Century Cures Act (P.L. 114-255). This act provided an additional $1 billion in state funding to help implement the strategies approved by CARA.[41]

In 2017, President Trump continued efforts to curb the opioid crisis, declaring it a public health emergency. In 2018, the Administration launched the Initiative to Stop Opioid Abuse, a multi-pronged approach to combat the opioid crisis by reducing over-prescribing, increasing education, disrupting illicit drug supply chains, and employing evidence-based treatment and recovery support services.[42] Between 2016 and 2019, the U.S Department of Health and Human Services (HHS) announced more than $9 billion in grants to states and local communities to help increase access to treatment and prevention services.[43]

From 1990 to 2017, the rate of total drug overdose deaths grew every single year. 2018 marked the first year for a decrease in the total number of overdose deaths, shrinking just five percent from the year before.[44]

While recent efforts have shown success, opioid abuse remains rampant. States and the federal government can, and should, do more to curb this epidemic.



Key Insights for Policymakers

Addiction Intervention

1. MEDICATION-ASSISTED TREATMENT (MAT)

Medication-assisted treatment (MAT) is a form of harm reduction, a public health strategy that aims to diminish the negative effects of opioid use. Doctors prescribe methadone, buprenorphine, naltrexone—the three therapies approved by the FDA—to help ease cravings and withdrawal symptoms for opioid-addicted patients. Methadone and buprenorphine are still opioids, though with more limited sedative effects, and therefore have the potential for abuse and addiction. However, when used correctly, MAT helps limit addiction-related medical problems, allowing people to perform daily functions and rebuild their lives.[45]

Several studies have documented the effectiveness of methadone and buprenorphine for retaining participants in treatment programs and deterring the use of illicit opioids.[46] In 2015, McLean Hospital's Dr. Hilary S. Connery conducted a systematic review of MAT effectiveness, published in the Harvard Review of Psychiatry. She found that agonist therapies reduced opioid use and increased treatment retention, with methadone being the "gold standard" of medication.[47] Combined buprenorphine/naloxone is also a strong option for treatment.[48] Health Affairs found mortality rates were twice as high among patients receiving no treatment for opioid abuse compared to those receiving buprenorphine.[49]

HOW DOES MAT WORK?

Methadone and buprenorphine are synthetic, long-acting opioids with pharmacologic actions similar to sedative drugs.[50] Methadone is an "agonist" therapy and buprenorphine is a "partial agonist"; the drugs (to different degrees) block opioid receptors that opioids would otherwise attach to and create euphoric effects. If a methadone-taking individual attempted to get high by using heroin, the methadone would block the euphoric effects.

Despite wide evidence corroborating MAT's efficacy, it's often difficult for those misusing opioids to receive the treatment. The Pew Research Center (Pew) Health Program found that two primary barriers to MAT adoption are "limited insurance coverage and a lack of qualified medical personnel."[51] Pew argues that, despite the Affordable Care Act requirement that insurance companies cover opioid abuse treatment generally, the law doesn't define which services and medications must be covered. Because drug treatment needs to be highly individualized, patients might have few viable options for therapies that are covered. Additionally, treatment services might be covered for a short period of time, meaning patients may not be insured for the full course of their treatments.[52]

Analysis by ProPublica and the New York Times concluded that MAT-restricting policies plague Medicare plans, with tedious prior authorizations and expensive cost sharing requirements limiting patient access.[53] Similarly, 63% of employer-sponsored plans placed restrictions like prior authorizations on generic forms of MAT, while 7% of plans don't cover generic MAT at all.[54] Multiple state Medicaid programs require prior approval for MAT prescriptions and place limits on the length of treatment.[55] A handful of state Medicaid plans don't cover methadone at all.[56] According to researchers at Health Affairs, various policies can limit MAT prescribing, including:[57]

- ✗ Low reimbursement rates (payments to medical professionals, which can make doctors less likely to offer services).
- ✗ Limits on the type of MAT covered, as demonstrated by some states' lack of coverage of methadone.
- ✗ Limits on treatment duration, as seen with some states' limiting of buprenorphine to six months of treatment.
- ✗ Restricting treatment to a narrow list of locations, which can limit access for rural, working, and poorer patients.
- ✗ Onerous prior authorization requirements, which can delay treatment and inconvenience doctors.

Addiction Intervention

SOLUTIONS FOR MEDICAID

Despite the strong body of evidence supporting MAT, coverage rates for state Medicaid plans are still uneven. 17% of Medicaid plans don't cover brand name MAT, while 58% place brand name MAT on the higher-cost, non-preferred tier.[58] To successfully promote MAT, states should ensure (at minimum) that methadone and buprenorphine are covered by their state Medicaid plans and placed on preferred cost-sharing tiers.

This is especially critical because Medicaid coverage for MAT makes community-based treatment programs much more likely to offer the medications. For example, buprenorphine was more widely provided by health professionals after Medicaid offered coverage, making the drug more affordable and, thereby, more likely to be taken by patients.[59]

SOLUTIONS FOR PRIVATE INSURANCE

States should also pressure private insurers to drop barriers to MAT, such as time limitations and prior authorizations, that could negatively impact patient treatment. Pennsylvania Governor Tom Wolf facilitated an agreement between the state and seven of its largest health insurance companies to remove prior authorization requirements for MAT. Aetna, Capital BlueCross, Geisinger, Highmark, Independence Blue Cross, UPMC Health Plan, and UnitedHealthcare agreed to provide coverage of all three MATs.[60] These drugs are also being offered at the lowest patient cost (generic) tier without prior authorization requirements.[61]

Addiction Intervention

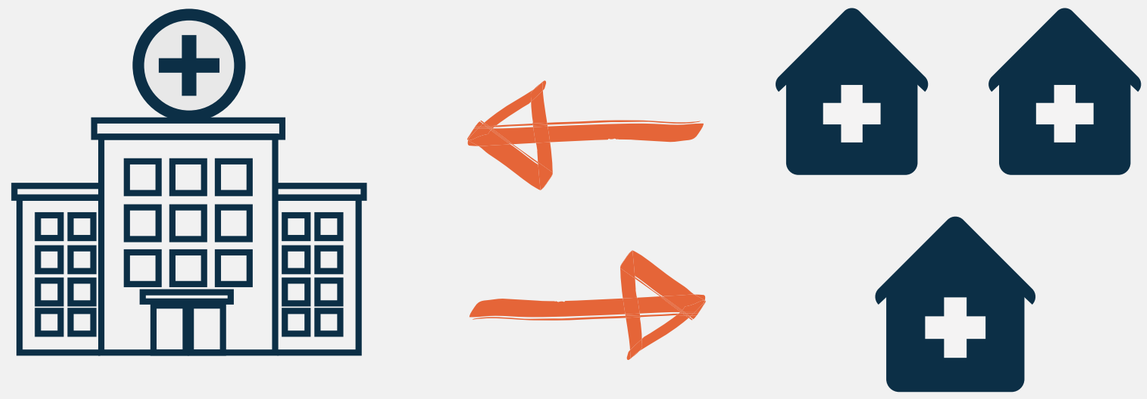
2. HUB AND SPOKE MODEL

For MAT to be effective, patients need access to consistent care from trained health care professionals in their area.[62] Staying in long-term treatment programs can become onerous and expensive to those traveling long distances, or those in urban areas with limited transportation. Helping patients transition from hospital settings to community-based services is key in keeping people healthy.[63]

In 2010, the Affordable Care Act created a Medicaid State Plan option to help states create "Health Homes"—community centers for coordinated care for Medicaid patients with chronic conditions (and those dual-eligible for Medicaid and Medicare). Health homes "integrate and coordinate all primary, acute, behavioral health, and long term services and supports to treat the whole person."[64]

Vermont has used the ACA's home health initiatives to establish a "hub and spoke" model of care, using the facilities to address opioid abuse disorder, which is classified as a chronic condition. The hub and spoke model was first implemented to make it easier for patients with opioid use disorder to access treatment centers.

WHAT IS HUB AND SPOKE?



- High-intensity MAT, offering methadone
- Regional locations
- All staff specialized in addiction treatment

- Maintenance MAT, not offering methadone
- Community locations
- Lead provider, nurse, & counselor

Source: The Vermont Blueprint for Health[67]

The model established nine central "hubs," intensive treatment centers like hospitals, which link to 75 "spokes" throughout the state, typically primary care physicians and outpatient programs that treat addiction.[65] Hubs provide MAT, case management, urgent medical care, and hands-on support for those early in their treatment. Spokes are in local communities, providing less-intensive continued care closer to home.[66]

Vermont reports that 6,000 people are now participating in the hub and spoke program.[68] Since the start of hub and spoke, the number of people receiving MAT has doubled.[69] The program also reduced patient wait times substantially. According to the CDC-funded Vermont Blueprint for Health Annual Report, in 2016 "the statewide waitlist [for Hub programs] had fallen below 500 for the first time."[70] By February 2019, treatment centers using this model had dropped the waitlist to zero, Dr. Mark Levine, Commissioner of Vermont's Agency of Human Services, told The Granite State News Collaborative.[71]

A 2017 impact assessment by the University of Vermont found that patients enrolled in the hub and spoke program showed a 96% reduction in illicit opioid use, 90% reduction in illegal activities and police run-ins, and zero patient overdoses after they entered the program (compared to 25% of patients who experienced at least one overdose before starting the program).[72] According to the Centers for Medicare and Medicaid Services, health homes nationally have yielded $21.6 million in savings to Medicare over an 18-month period and $6.7 million in annual savings to Medicaid, making them a highly cost-effective drug recovery support system.[73]

Addiction Intervention

HUB AND SPOKE: SOLUTIONS

To help support the establishment of a hub and spoke model, more states could submit a state plan amendment (SPA) for the Medicaid Health Home State Plan Option. These health homes can be used to set up the hub and spoke model to focus specifically on treating opioid use disorder. Through SPAs, states can receive 90% enhanced federally matched funding during the first two years of implementation to support hub and spoke rollout.[74] This option provides funding for primary care, medications, and mental health services.

21 states and the District of Columbia have submitted SPAs to fund treatment centers for various chronic illnesses.[75] However, only four states (Maine, Michigan, Rhode Island, and Vermont) have used these health home grants to specifically treat individuals with opioid use disorder.[76]While multiple states have adopted the measure, over half still have not filed a health home SPA at all, including states facing some of the worst rates of opioid-related deaths, such as Ohio, Massachusetts, and Kentucky.[77]

According to the Centers for Medicare & Medicaid Services, there is no deadline by which a state must submit a health home SPA. State policymakers creating comprehensive plans of care for opioid addiction should file an SPA for an opioid-focused Medicaid health home program, using the funding to establish the hub and spoke model. As seen with Vermont, health home programs can transform lives, especially in areas that expanded Medicaid, since those programs can service low-income adults who are most affected by the opioid crisis.[78]

Addiction Intervention

3. DRUG COURTS

"Drug courts" are courts typically designed for nonviolent offenders with mental and substance abuse disorders. Instead of jailing individuals, drug courts connect people with medical treatment, mental health services, and judicial supervision. As of January 2020, there are 4,168 drug courts in the U.S., with program graduates more likely to stay clean than traditional probationers.[79] Drug courts reduce drug use and crime, while also saving the criminal justice system $2.21 for every $1 invested, according to analysis by The Urban Institute.[80] Despite these successes, most eligible drug-related offenders don't have access to drug courts and are instead sent through the traditional justice system.

Drug courts have been shown to reduce the rate of self-reported drug use (56% versus 76% of traditional probationers) and positive drug tests (29% versus 46%) over an 18-month period. Among those who were using drugs, probationers in drug courts used drugs less frequently than the control group. Those in drug courts also report lower rates of committing crimes (40% versus 53%).[81]

Drug courts are also cost-efficient. A decade-long study from The National Institute of Justice found that drug courts reduced recidivism and "resulted in public savings of $6,744 on average ($12,218 if victimization costs are included)" per participant.[82] According to a 2008 study by The Urban Institute, drug courts cost around $515 million dollars annually, while saving the judicial system more than $1 billion annually.[83]

While drug courts could produce public savings and wide-ranging benefits to public health:

Political, judicial, and administrative inconsistencies in drug courts have led to uneven standards for evidence-based treatments. For example, a 2013 study from researchers at the National Development and Research Institutes found that only 46% of drug courts offered agonist MAT.[84] While drug treatment is highly specific to each patient, some courts require individuals to "taper off" of MAT quickly, reducing its efficacy.[85]

Graduation rates ranged widely by region, with a high of 92% in Guam, a low of 35% in Kentucky, and a national average of 59%.[86]

They still only reach a small portion of the at-risk population, a disadvantage that is particularly noticeable in rural areas.[87] In rural areas, need often outweighs the availability of drug courts and treatment options, particularly detoxification and mental health services.[88] In 2014, American University found that challenges to rural drug courts included lack of treatment capacity, few trained professionals, transportation restrictions, and limited childcare options.[89]

Court processing and sentencing times can vary widely. Drug courts don't always offer treatment immediately following arraignment, making detainees wait weeks for a trial, increasing the likelihood of an overdose.[90]

Racial disparities affect the efficacy of drug courts, with African Americans and Hispanics less likely to graduate from programs than Whites. In one Texas court, 65.42% of Whites graduated, while the figure was only 52.17% for Hispanics and 45.71% African Americans.[91] A 2018 Indiana University qualitative survey found that while African American participants had favorable views on drug courts, barriers to graduation included their "environments, mainly risk factors posed by family, neighborhoods, and peers."[92] Evidence from California drug courts also suggests that African Americans face discrimination in medical care and are less likely to be offered critical MAT than their white counterparts.[93]

Addiction Intervention

DRUG COURTS: SOLUTIONS

Expanding the use of drug courts enjoys bipartisan support. During his second term, President Obama's budget requested $101 million for drug and mental health courts.[94] In 2017, President Trump's Commission on Combating Drug Addiction and the Opioid Crisis recommended that the DOJ set up drug courts in all 93 federal judicial districts (up from 27 federal districts) and offer MAT during and after the trial process.[95]

In 2018, the White House Office of National Drug Control Policy announced $4 million in funding for the National Association of Drug Court Professionals "to provide training and technical assistance to drug courts across the Nation."[96] As increasingly more drug programs roll out, it's critical that the programs meet evidence-based standards, namely:

Drug courts should keep abreast of best practices for adult drug courts, working to mend their policies to meet evidence-based standards. The National Association of Drug Court Professionals released an updated Adult Drug Court Best Practice Standards in 2019 that can serve as a guide.[97]

Those in drug court should have access to uninterrupted MAT—both methadone and buprenorphine—and mental health recovery services, ideally within 24 hours of arrest. In August 2015, then-New Jersey Governor Chris Christie signed Senate Bill 2381/Assembly Bill 3723, which allows individuals to continue MAT treatment after graduation. Before this, the majority of New Jersey drug courts required participants to discontinue MAT before graduating, against the advice of the medical community.[98] The bill passed with every single legislator—on both sides of the aisle—voting in favor of it.[99]

Programs should offer creative incentives to boost graduation rates, particularly in regions that struggle with low completion. For example, some areas like Guam and New Jersey aim to increase program retention rates by offering expungement of nonviolent criminal offenses for graduates.[100] Additionally, research shows that participants who are studying or working during court proceedings are nearly 2.5 times more likely to graduate than those who are not.[101]Helping link individuals to job and education opportunities could dramatically increase their likelihood of graduation.

Programs specifically designed to address racial disparity can help address the graduation gap between white, hispanic, and black participants. Studies have shown the influence of communities in African American graduation rates in particular, including findings that participants "felt they would graduate [from] drug court more frequently if there were more African Americans in [their] program."[102] One solution is placing participants in culturally-informed intervention treatments that employ evidence-based counseling, such as Habilitation Empowerment Accountability Therapy (HEAT). HEAT is a strength-based, culturally relevant program designed for young African Americans (originally only for men, but now offering HEAT for Women) with a focus on treating generational traumas and mental health disorders. Participants who received HEAT were substantially more likely to graduate and complete parole, and critically, reported higher levels of satisfaction with the counseling they received, their counselors, and their group members.[103]

Prevent Future Addiction

Many policymakers have dedicated the lion's share of their attention to treating those with opioid abuse disorder—a critically important cause. However, only addressing the problems, not the pattern, dooms America to repeat this cycle of drug abuse. Long-held stigmas about those struggling with addiction, coupled with the dissolution of due diligence around pain management, has allowed opioids to deconstruct workplaces, communities, and families. Parents shouldn't have to see their children trapped in the same battle as their generation, and the generations before them.

1. INCREASING EDUCATION EFFORTS

Even though doctors frequently see patients with chronic pain, medical schools traditionally haven't dedicated much time to teaching pain management. A study across multiple English-speaking, high-income countries found that pain medicine was usually incorporated into broad medical courses, rather than courses specifically dedicated to pain medicine. 80% of medical schools in the U.S. taught pain medicine “within modules not specifically dedicated to pain, such as anesthesiology, pharmacology, anatomy, physiology, oncology, and emergency medicine.”[104]

In America, medical schools spend only nine hours on average teaching pain management—leaving many doctors woefully ill-equipped to manage one of the most common chronic conditions.[105]

Prevent Future Addiction

INCREASE EDUCATION: SOLUTION

Congress is currently weighing the bipartisan H.Con.Res.8, a resolution to express "the sense of Congress on the need to improve and expand training for future physicians on properly treating pain and prescribing opioids."[106] While this resolution would raise awareness for policymakers, recognition alone is not enough. A second bill, The Opioid Workforce Act of 2019 (H.R.2439/S.2892), would fund 1,000 additional residency positions over five years in hospitals with established or upcoming residency programs in addiction medicine, addiction psychiatry, or pain management.[107]

By 2032, America is projected to have a shortage of nearly 122,000 physicians across various disciplines; enhanced federal support for residency positions is one step toward addressing the dearth of pain specialists.[108] (To learn more about America's doctor shortage, see The New Center's issue brief.) The Opioid Workforce Act of 2019 is bipartisan; it was introduced in the House by Representatives Brad Schneider (D-IL), Susan Brooks (R-IN), Elise Stefanik (R-NY), and Ann Kuster (D-NH) and has 53 Senate cosponsors from both sides of the aisle.[109] The bill has also been endorsed by numerous medical schools, national health organizations, pain management associations, state health societies, and patient advocacy groups.[110]

Prevent Future Addiction

2. PDMP MONITORING

A recent study found that the rate of first-time opioid prescribing fell by 54% from 2012 to 2017, indicating a transformation in prescribing habits, at least for initial prescriptions.[111] Despite these successes, studies over the same time period show an alarming rate of "high-risk" prescribing. Several studies have defined "high-risk prescribing" as high-dose prescriptions, long-dose prescriptions (a three-day supply is usually enough for acute pain), overlapping opioid prescriptions, and overlapping opioid and benzodiazepine prescriptions.[112]

From 2012 to 2017, an alarming 57% of first-time opioid prescriptions were for three or more days' supply, with 16% for more than seven days, for commercially-insured patients. From 2011 to 2014, an Oregon study found long-term opioid-use patients had a 37% incidence rate of high-dose prescriptions, 56% rate of overlapping benzodiazepine prescriptions, and 24% rate of multiple opioid prescriptions from different doctors.[113] A RAND study found that high-risk prescribing was most commonly encountered by white, older, rural, and clinically depressed patients.[114]

One powerful tool against high-risk prescribing is prescription drug monitoring programs (PDMPs). Prescription drug monitoring programs are statewide databases that track controlled substances like prescription opioids, including substances' dosing and prescribing information. PDMPs can provide pharmacies and health professionals with timely information about prescribing behaviors and potential misuse cases.[115]

Ideally, whenever a patient is prescribed and dispensed a controlled substance, the information should be entered into the PDMP database, ensuring that patients are receiving appropriate doses. To prevent high-risk prescribing, doctors must first check the database to see if the patient is already taking opioid medication—making it critical that PDMP data is up-to-date and accurate.

Several state and federal studies have documented the efficacy of PDMPs:

From 2011 to 2017, after implementing a PDMP, Florida achieved a 69.3% decrease in the number of patients having "multiple prescriber episodes" (i.e., doctor-shopping), where patients visit multiple doctors to secure multiple opioid prescriptions.[116] From 2010 to 2013, Florida was one of only two states to see a decrease in overdose deaths.[117] The state currently enforces one of America's strictest limits on opioid prescribing, generally restricting prescriptions to a three-day supply.[118]

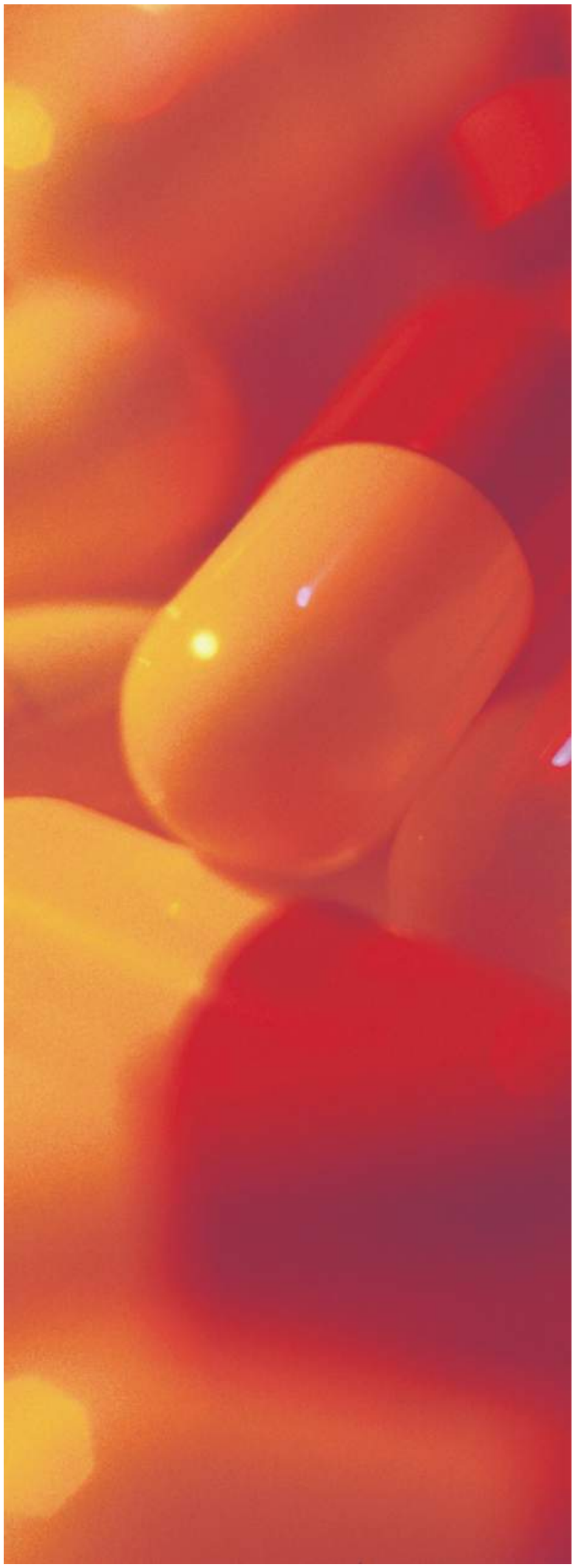
In 2012, New York and Tennessee mandated checking PDMPs before prescribing opioids. The following year showed a 75% and 36% drop in patients with multiple prescriber episodes, respectively.[119]

Certain best practices were also found to increase the effectiveness of PDMPs:

Policies that allow doctors to delegate PDMP access to office staff make it easier on offices to check the database. This way, if a doctor is busy with a patient, a staff member can check the database for them. Delegating PDMP authority was associated with a "7.2% reduction in opioid prescriptions from more than three providers and a 4.3% reduction in high dose opioid prescriptions."[120]

Mandatory use of PDMPs (requiring doctors to check the database before prescribing) resulted in a "9.2% reduction in the probability of overlapping opioid prescriptions, a 6.6% reduction in the probability of having three or more prescribers, and an 8% reduction in the probability of having overlapping opioid and benzodiazepine prescriptions."[121]

Prevent Future Addiction



PDMP MONITORING: SOLUTIONS

Despite PDMP successes, not all states require the same rigorous checking and maintenance of databases. The following strategies could increase the use of PDMPs and curb unnecessary high-risk prescribing:

- In 2018, the Federation of State Medical Boards unveiled a comprehensive review to maximize state PDMP effectiveness. State legislators, medical boards, and government health offices should consider these guidelines when trying to maximize PDMP effectiveness.[122]

- States should promote mandatory PDMP registration and universal use. In 2018, Congress passed the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (SUPPORT Act, Pub. L. No. 115-271), which requires states to set up PDMPs for Medicaid beneficiaries by October 2021.[123] While this is a step in the right direction, PDMPs should be used regardless of patient insurance.

- PDMP databases should integrate patients' electronic health records for easier access to accurate prescribing data.

- Policymakers should streamline the PDMP enrollment process and allow prescribers the ability to delegate database-checking authority. More than half of states don't allow doctors to set up multiple accounts on the PDMP platform, increasing the administrative burden on doctors and taking time away from patients.[124] However, some states like Kentucky give prescribers unlimited designated PDMP delegates, while enforcing penalties on those who misuse the database. Early data suggested that non-prescriber delegates contributed significantly to the database's utilization and maintenance.[125]

- Health professionals must regularly maintain the database, vigilantly updating patient prescribing information to ensure data accuracy and real-time reporting.

Prevent Future Addiction

3. FLEXIBLE FUNDING

The nature of drug addiction is always in flux. As seen throughout the opioid crisis, many people start with one drug and then pick up another, like moving from prescription drugs to heroin. Though most public health efforts are focused on addressing the opioid crisis, non-opioid drug use, particularly with methamphetamine, has risen nationally in the past several years. Recently, meth has become cheaper and purer, while opioids have become more difficult to secure.[126]

A recent JAMA Network research letter found that positive tests for methamphetamine increased 487% from 2013 to 2019 in routine health care settings.[127] Treatment options for those using meth are also more limited than for those using opioids—there are currently no approved medications for meth addiction.[128] Provisional CDC data indicates that this problem isn't going away—meth-related overdoses surged in 2018, 21% higher than the previous year.[129]

FLEXIBLE FUNDING: SOLUTION

The flexible nature of drug crises necessitates focused efforts on complex, multi-drug addictions. Drug addiction is highly location-dependent—stimulants like meth are popular in Nevada, while Vermont has been dubbed "America's Heroin Capital."[130] Non-opioid drug funding to states allows communities to address local drug health crises when they occur.[131]

When writing bills and appropriations, Congress should avoid drug-specific language, building flexibility into federal grants to allow state agencies to adapt to quickly changing conditions of substance abuse disorder.

Endnotes

[1] Bose, J., Hedden, S., et al. (2018, September). Key substance use and mental health indicators in the United States: results from the 2017 National Survey on Drug Use and Health. Retrieved from https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf

[2] Bose, J., Hedden, S., et al. (2018, September). Key substance use and mental health indicators in the United States: results from the 2017 National Survey on Drug Use and Health. Retrieved from https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf

[3] Overdose Death Rates. (2019, January). Retrieved from https://www.drugabuse.gov/related-topics/trendsstatistics/overdose-death-rates

[4] Dwyer, C. (2018, November 29). U.S. life expectancy drops amid 'disturbing' rise in overdoses and suicides. Retrieved from https://www.npr.org/2018/11/29/671844884/u-s-life-expectancy-drops-amid-disturbing-rise-in-overdoses-andsuicides

[5] Oliver, F. E. (1872). The use and abuse of opium. Retrieved from http://druglibrary.net/schaffer/History/1870/useandabuseofopium1872.htm

[6] Lewy, J. (2014). The army disease: drug addiction and the Civil War. War in History, 21(1), 102-119. https://doi.org/10.1177/0968344513504724 What are the mental and physical effects of a morphine high? (2019, June 10). Retrieved from https://americanaddictioncenters.org/morphine-treatment/mental-and-physical-effects

[7] Howard-Jones, N. (1947). A critical study of the origins and early development of hypodermic medication. Journal of the History of Medicine, 2, 201-249. https://doi.org/10.1093/jhmas/ii.2.201

[8] Hubbard, F. H. (1881). The opium habit and alcoholism. New Haven, CT: A. S. Barnes & Company.

[9] Courtwright, D. T. (1992). A century of American narcotic policy. Treating Drug Problems: Institute of Medicine Report, 2, 1-65. https://doi.org/10.17226/1971

[10] Preliminary estimates. (2019). Retrieved from https://injuryfacts.nsc.org/motor-vehicle/overview/preliminaryestimates/ Kochanek, K., Murphy, S., et al. (2019, June 24). Deaths: final data for 2017. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf U.S. statistics. (2020, January 16). Retrieved from https://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics

[11] Courtwright, D. T. (2009). Dark paradise: a history of opiate addiction in America. Cambridge, MA: Harvard University Press.

[12] Dahlhamer J., Lucas J., et al. (2018). Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. MMWR Morb Mortal Wkly Rep 2018, 67, 1001–1006. http://dx.doi.org/10.15585/mmwr.mm6736a2 Nahin R. L., Sayer B., et al. (2019). Eighteen-year trends in the prevalence of, and health care use for, non-cancer pain in the United States: data from the Medical Expenditure Panel Survey. Journal of Pain, 20(7), 796-809. https://doi.org/10.1016/j.jpain.2019.01.003

Endnotes

[13] Statistics about diabetes. (2017). Retrieved from https://www.diabetes.org/resources/statistics/statistics-about-diabetes Heart disease facts. (2019). Retrieved from https://www.cdc.gov/heartdisease/facts.htm Cancer stat facts: cancer of any site. (2019). Retrieved from https://seer.cancer.gov/statfacts/html/all.html Institute of Medicine. (2011). Relieving pain in America: a blueprint for transforming prevention, care, education, and research. Washington, DC: National Academic Press.

[14] Rummans T. A., Burton M. C., & Dawson N. L. (2018). How good intentions contributed to bad outcomes: the opioid crisis. Mayo Clinic Proceedings, 93(3), 344-350. https://doi.org/10.1016/j.mayocp.2017.12.020

[15] Van Zee, A. (2009). The promotion and marketing of oxycontin: commercial triumph, public health tragedy. American Journal of Public Health, 99(2), 221–227. https://doi.org/10.2105/AJPH.2007.131714
Hadland, S. E., Magdalena, C., et al. (2018). Association of pharmaceutical industry marking of opioid products to physicians with subsequent opioid prescribing. JAMA Internal Medicine, 178(6), 861-863. https://doi.org/10.1001/jamanetworkopen.2018.6007

[16] Opioid overdose crisis. (2019, January). Retrieved from https://www.drugabuse.gov/drugs-abuse/opioids/opioidoverdose-crisis
Controlled substance schedules (2019, August). Retrieved from https://www.deadiversion.usdoj.gov/schedules/

[17] García M. C., Heilig C. M., et al. (2019). Opioid prescribing rates in nonmetropolitan and metropolitan counties among primary care providers using an electronic health record system — United States, 2014–2017. MMWR Morb Mortal Wkly Rep 2019, 68, 25–30. http://dx.doi.org/10.15585/mmwr.mm6802a1

[18] Lopez, G. (2019, October 17). The thousands of lawsuits against opioid companies, explained. Retrieved from https://www.vox.com/policy-and-politics/2017/6/7/15724054/opioid-epidemic-lawsuits-purdue-oxycontin
Eyre, E. (2016, December 17). Drug firms poured 780M painkillers into WV amid rise of overdoses. Retrieved from https://www.wvgazettemail.com/news/health/drug-firms-poured-m-painkillers-into-wv-amid-rise-of/article_78963590b050-11e7-8186-f7e8c8a1b804.html

[19] Rummans T. A., Burton M. C., & Dawson N. L. (2018). How good intentions contributed to bad outcomes: the opioid crisis. Mayo Clinic Proceedings, 93(3), 344-350. https://doi.org/10.1016/j.mayocp.2017.12.020

[20] Rummans T. A., Burton M. C., & Dawson N. L. (2018). How good intentions contributed to bad outcomes: the opioid crisis. Mayo Clinic Proceedings, 93(3), 344-350. https://doi.org/10.1016/j.mayocp.2017.12.020

[21] Prescription opioid use is a risk factor for heroin use. (2018, January). Retrieved from https://www.drugabuse.gov/publications/research-reports/relationship-between-prescription-drug-heroinabuse/prescription-opioid-use-risk-factor-heroin-use

[22] Ross, S. (2016, June). An addiction specialist explains the deadly link between prescription opioids & heroin abuse. Retrieved from https://nyulangone.org/news/addiction-specialist-explains-deadly-link-between-prescription-opioidsheroin-abuse

Endnotes

[23] Dismukes, L. (2018). How did we get here? Heroin and fentanyl trafficking trends. North Carolina Medical Journal, 79(3), 181-184. https://doi.org/10.18043/ncm.79.3.181 2017 national drug threat assessment. (2017, October). Retrieved from https://www.dea.gov/sites/default/files/201807/DIR-040-17_2017-NDTA.pdf

[24] Bronshtein, T. (2016, November 16). Explore how illegal drugs have become cheaper and more potent over time. Retrieved from https://www.statnews.com/2016/11/16/illegal-drugs-price-potency/

[25] Hufford, M., & Burke, D. (2018, November 8). The costs of heroin and naloxone: a tragic snapshot of the opioid crisis. Retrieved from https://www.statnews.com/2018/11/08/costs-heroin-naloxone-tragic-snapshot-opioid-crisis/

[26] Peng, P., & Sandler, A. N. (1999). A review of the use of fentanyl analgesia in the management of acute pain in adults. Anesthesiology, 90(2), 576-599. https://doi.org/10.1097/00000542-199902000-00034

[27] Carfentanil: a dangerous new factor in the U.S. opioid crisis. Retrieved from https://www.justice.gov/usaoedky/file/898991/download

[28] Katz, J. (2017, August 10). Short answers to hard questions about the opioid crisis. Retrieved from https://www.nytimes.com/interactive/2017/08/03/upshot/opioid-drug-overdose-epidemic.html

[29] Katz, J. (2017, August 10). Short answers to hard questions about the opioid crisis. Retrieved from https://www.nytimes.com/interactive/2017/08/03/upshot/opioid-drug-overdose-epidemic.html

[30] Fentanyl and other synthetic opioids drug overdose deaths. (2018, May). Retrieved from https://www.drugabuse.gov/related-topics/trends-statistics/infographics/fentanyl-other-synthetic-opioids-drugoverdose-deaths
Kounang, N. (2019, October 25). Fentanyl is the deadliest drug in the US, but in some places, meth kills more. Retrieved from https://www.cnn.com/2019/10/25/health/fentanyl-deadliest-drug/index.html

[31] Synthetic opioids drug overdose data. (2019, April 2). Retrieved from https://www.cdc.gov/drugoverdose/data/fentanyl.html

[32] Officials warn of new drug 100 times more potent than fentanyl. (2019, April 16). Retrieved from https://www.cbsnews.com/news/carfentanil-officials-warn-of-new-drug-100-times-more-potent-than-fentanyl-2019-0416/.

[33] Purdue Pharma, execs to pay $634.5 million fine in OxyContin case. (2010, August 5). Retrieved from https://www.cnbc.com/id/18591525

[34] Opioid litigation. (2019, October 21). Retrieved from https://www.motleyrice.com/public-client/opioid-litigation

[35] Strickler, L. (2019, August 27). Purdue Pharma offers $10-12 billion to settle opioid claims. Retrieved from https://www.nbcnews.com/news/us-news/purdue-pharma-offers-10-12-billion-settle-opioid-claims-n1046526

Endnotes

[36] Allyn, B. (2019, September 16). Purdue Pharma, accused of fueling opioid crisis, files for Chapter 11. Retrieved from https://www.npr.org/2019/09/16/761107097/purdue-pharma-accused-of-fueling-opioid-crisis-files-for-chapter-11
Mann, B. (2019, September 11). Purdue Pharma reaches tentative deal to settle thousands of opioid lawsuits. Retrieved from https://www.npr.org/2019/09/11/759967610/purdue-pharma-reaches-tentative-deal-to-settle-thousands-of-opioidlawsuits

[37] Willmsen, C., & Bebinger, M. (2019, February 1). Lawsuit details how the Sackler family allegedly built and Oxycontin fortune. Retrieved from https://khn.org/news/lawsuit-details-how-the-sackler-family-allegedly-built-an-oxycontinfortune/

[38] Dwyer, C. (2019, December 17). Sacklers withdrew nearly $11 billion from Purdue as opioid crisis mounted. Retrieved from https://www.npr.org/2019/12/17/788783876/sacklers-withdrew-nearly-11-billion-from-purdue-as-opioid-crisismounted
Morrell, A. (2015, July 1). The Oxycontin clan: the $14 billion newcomer to Forbes 2015 list of richest U.S. families. Retrieved from https://www.forbes.com/sites/alexmorrell/2015/07/01/the-oxycontin-clan-the-14-billion-newcomer-toforbes-2015-list-of-richest-u-s-families/#40bcf1c575e0
America's Richest Families. Retrieved from https://www.forbes.com/families/list/#tab:overall

[39] Hoffman, J., & Hakim, D. (2019, December 16). Purdue Pharma payments to Sackler family soared amid opioid crisis. Retrieved from https://www.nytimes.com/2019/12/16/health/sacklers-purdue-payments-opioids-.html

[40] CDC releases guideline for prescribing opioids for chronic pain. (2016, March 15). Retrieved from https://www.cdc.gov/media/dpk/prescription-drug-overdose/opioid-prescription-guidelines/dpk-opioid-prescriptionguidelines.html#

[41] 21st Century Cures Act, H.R. 34, 114th Cong., 2nd Sess. (2016).

[42] Ending America's opioid crisis. Retrieved from https://www.whitehouse.gov/opioids/

[43] HHS by the numbers. (2019, October 9). Retrieved from https://www.hhs.gov/opioids/about-the-epidemic/hhs-bynumbers/index.html

[44] Goodnough, A., Katz J., & Sanger-Katz, M. (2019, July 17). Drug overdose deaths drop in U.S. for first time since 1990. Retrieved from https://www.nytimes.com/interactive/2019/07/17/upshot/drug-overdosedeaths-fall.html

[45] Sorensen, J. (2018, January 8). America's opioid epidemic: a rights-based approach. Retrieved from https://www.hhrjournal.org/2019/01/americas-opioid-epidemic-a-rights-based-approach/

[46] Mattick, R. P., Breen, C., et al. (2014). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database of Systematic Reviews 2014, 2(CD002207). https://doi.org/10.1002/14651858.CD002207.pub4
Minozzi, S., Amato, L., et al. (2014). Maintenance treatments for opiate-dependent adolescents. Cochrane Database of Systematic Reviews 2014, Issue 6(CD007210). https://doi.org/10.1002/14651858.CD007210.pub3

Endnotes

[47] Connery, H. (2015). Medication-assisted treatment of opioid use disorder: review of the evidence and future directions. Harvard Review of Psychiatry, 23(2), 63-75. https://doi.org/10.1097%2FHRP.0000000000000075

[48] Connery, H. (2015). Medication-assisted treatment of opioid use disorder: review of the evidence and future directions. Harvard Review of Psychiatry, 23(2), 63-75. https://doi.org/10.1097%2FHRP.0000000000000075

[49] Clark, R., Samnaliev, M., et al. (2011). The evidence doesn't justify steps by state Medicaid programs to restrict opioid addiction treatment with buprenorphine. Health Affairs, 30(8). https://doi.org/10.1377/hlthaff.2010.0532

[50] Anderson, I. B., & Kearney, T. E. (2000). Use of methadone. The Western Journal of Medicine, 172(1), 43-46. https://dx.doi.org/10.1136%2Fewjm.172.1.43

[51] Rising, J. (2016, November 22). Medication-assisted treatment improves outcomes for patients with opioid use disorder. Retrieved from https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2016/11/medication-assistedtreatment-improves-outcomes-for-patients-with-opioid-use-disorder

[52] Uncovering coverage gaps: a review of addiction benefits in ACA plans. (2016, June). Retrieved from https://www.centeronaddiction.org/addiction-research/reports/uncovering-coverage-gaps-review-of-addiction-benefitsin-aca-plans

[53] Thomas, K., & Ornstein, C. (2017, September 17). Amid opioid crisis, insurers restrict pricey, less addictive painkillers. Retrieved from https://www.propublica.org/article/insurers-limit-coverage-of-pricey-less-addictive-painkillers

[54] Medication-assisted treatment (MAT). Retrieved from https://cdn2.hubspot.net/hubfs/464546/PhRMA_MAT_Doc.pdf

[55] Thomas, K., & Ornstein, C. (2017, September 17). Amid opioid crisis, insurers restrict pricey, less addictive painkillers. Retrieved from https://www.propublica.org/article/insurers-limit-coverage-of-pricey-less-addictive-painkillers

[56] Medicaid's role in addressing the opioid epidemic. (2019, June 3). Retrieved from https://www.kff.org/infographic/medicaids-role-in-addressing-opioid-epidemic/

[57] Sandoe, E., Fry, C., & Frank, R. (2018, October 2). Policy levers that states can use to improve opioid addiction treatment and address the opioid epidemic. Retrieved from https://www.healthaffairs.org/do/10.1377/hblog20180927.51221/full/

[58] Medication-assisted treatment (MAT). Retrieved from https://cdn2.hubspot.net/hubfs/464546/PhRMA_MAT_Doc.pdf

[59] Ducharme, L. J., & Abraham, A. J. (2008). State policy influence on the early diffusion of buprenorphine in community treatment programs. Substance Abuse Treatment, Prevention, and Policy, 3(17). https://doi.org/10.1186/1747-597X-3-17

[60] Wilson, S. (2018, November 20). Pennsylvania moves to cut administrative burden on MAT. Retrieved from https://www.aafp.org/news/government-medicine/20181120pennpriorauth.html

Endnotes

[61] Wolf administration announces agreement with insurers to eliminate barriers to medication-assisted treatment. (2018, October 12). Retrieved from https://www.media.pa.gov/Pages/Insurance-Details.aspx?newsid=344

[62] Healthcare access in rural communities. (2019, January 18). Retrieved from https://www.ruralhealthinfo.org/topics/healthcare-access#barriers

[63] Sandoe, E., Fry, C., & Frank, R. (2018, October 2). Policy levers that states can use to improve opioid addiction treatment and address the opioid epidemic. Retrieved from https://www.healthaffairs.org/do/10.1377/hblog20180927.51221/full/

[64] Health homes. Retrieved from https://www.medicaid.gov/medicaid/ltss/health-homes/index.html

[65] Hoagland, G. W., Parekh, A., et al. (2019, March). Tracking federal funding to combat the opioid crisis. Retrieved from https://bipartisanpolicy.org/wp-content/uploads/2019/03/Tracking-Federal-Funding-to-Combat-the-Opioid-Crisis.pdf

[66] Hub and spoke. Retrieved from https://blueprintforhealth.vermont.gov/about-blueprint/hub-and-spoke

[67] Hub and spoke. Retrieved from https://blueprintforhealth.vermont.gov/about-blueprint/hub-and-spoke

[68] Hub and spoke. Retrieved from https://blueprintforhealth.vermont.gov/about-blueprint/hub-and-spoke

[69] Numbers tell the story in Vermont hub and spoke. (2019, March 4). Retrieved from https://www.nashuatelegraph.com/news/local-news/2019/03/04/numbers-tell-the-story-in-vermont-hub-and-spoke/

[70] Rawson, R. (2017, December). Vermont hub-and-spoke model of care for opioid use disorders: an evaluation. Retrieved from www.healthvermont.gov/sites/default/files/documents/pdf/ADAP_Hub_and_Spoke_Evaluation_2017_1.pdf

[71] Numbers tell the story in Vermont hub and spoke. (2019, March 4). Retrieved from https://www.nashuatelegraph.com/news/local-news/2019/03/04/numbers-tell-the-story-in-vermont-hub-and-spoke/

[72] Rawson, R. (2017, December). Vermont hub-and-spoke model of care for opioid use disorders: an evaluation. Retrieved from www.healthvermont.gov/sites/default/files/documents/pdf/ADAP_Hub_and_Spoke_Evaluation_2017_1.pdf

[73] Walsh, E. (2016, January 4). Measurement, monitoring, and evaluation of the financial alignment initiative for MedicareMedicaid enrollees. Retrieved from https://innovation.cms.gov/Files/reports/fai-wa-prelimppone.pdf Medication assisted treatment program for opioid addiction. Retrieved from https://www.astho.org/Health-SystemsTransformation/Medicaid-and-Public-Health-Partnerships/Case-Studies/Vermont-MAT-Program-for-Opioid-Addiction/

[74] Health home information resource center. Retrieved from https://www.medicaid.gov/state-resource-center/medicaidstate-technical-assistance/Health-Home-Information-Resource-Center/index.html

[75] Clemans-Cope, L., & Allen, E. (2017, October 11). Medicaid's health homes program: a powerful way for states to address the opioid crisis. Retrieved from https://www.urban.org/urban-wire/medicaids-health-homes-program-powerful-waystates-address-opioid-crisis

Endnotes

[76] Medicaid health homes: SPA overview. (2019, November). Retrieved from https://www.medicaid.gov/state-resourcecenter/medicaid-state-technical-assistance/health-home-information-resource-center/downloads/hh-spa-overview.pdf

[77] Opioid summaries by state. (2019, May). Retrieved from htwww.drugabuse.gov/drugs-abuse/opioids/opioidsummaries-by-state

[78] Clemans-Cope, L., & Allen, E. (2017, October 11). Medicaid's health homes program: a powerful way for states to address the opioid crisis. Retrieved from https://www.urban.org/urban-wire/medicaids-health-homes-program-powerful-waystates-address-opioid-crisis

[79] Drug treatment court programs in the United States. Retrieved from https://ndcrc.org/database/
Rossman, S., Roman, J., et al. (2011, December). The multi-site adult drug court evaluation: executive summary. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/237108.pdf

[80] Drug courts. Retrieved from https://obamawhitehouse.archives.gov/ondcp/ondcp-fact-sheets/drug-courts-smartapproach-to-criminal-justice
Sandoe, E., Fry, C., & Frank, R. (2018, October 2). Policy levers that states can use to improve opioid addiction treatment and address the opioid epidemic. Retrieved from https://www.healthaffairs.org/do/10.1377/hblog20180927.51221/full/
Bhati, A. S., Roman, J., & Chalfin, A. (2008, May). To treat or not to treat: evidence on the prospects of expanding treatment to drug-involved offenders. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/222908.pdf

[81] Rossman, S., Roman, J., et al. (2011, December). The multi-site adult drug court evaluation: executive summary. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/237108.pdf

[82] Finigan, M. W., Carey, S., & Cox, A. (2007, April). Impact of a mature drug court over 10 years of operation: recidivism and costs. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/219225.pdf

[83] Bhati, A. S., Roman, J., & Chalfin, A. (2008, May). To treat or not to treat: evidence on the prospects of expanding treatment to drug-involved offenders. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/222908.pdf

[84] Matusow, H., Dickman, S., et al. (2012). Medication assisted treatment in US drug courts: results from a nationwide survey of availability, barriers and attitudes. Journal of Substance Abuse Treatment, 44(5), 473-480. https://doi.org/10.1016/j.jsat.2012.10.004

[85] Csete, J., & Catania, H. (2013). Methadone treatment providers' views of drug court policy and practice: a case study of New York State. Harm Reduction Journal 10(35). https://doi.org/10.1186/1477-7517-10-35

[86] Marlowe, D. B., Hardin, C. D, & Fox, C. L. (2016, June). Painting the current picture. Retrieved from https://www.ndci.org/wp-content/uploads/2016/05/Painting-the-Current-Picture-2016.pdf

[87] Sandoe, E., Fry, C., & Frank, R. (2018, October 2). Policy levers that states can use to improve opioid addiction treatment and address the opioid epidemic. Retrieved from https://www.healthaffairs.org/do/10.1377/hblog20180927.51221/full/

Endnotes

[88] Pullen, E., & Oser, C. (2014). Barriers to substance abuse treatment in rural and urban communities: counselor perspectives. Substance Use & Misuse, 49(7), 891-901. https://doi.org/10.3109/10826084.2014.891615

[89] Rural drug courts: challenges and solutions. (2014, April 1). Retrieved from https://www.youtube.com/watch?v=kpKQgdLaTgg&feature=youtu.be

[90] Rampel, M., Fox-Kralstein, D., et al. (2003, October). The New York State adult drug court evaluation. Retrieved from https://www.courtinnovation.org/sites/default/files/drug_court_eval_exec_sum.pdf
The 10 essential elements of opioid intervention courts. Retrieved from http://ndcrc.org/wpcontent/uploads/2019/10/DCR2-Article-2.pdf

[91] Gallagher, J. (2013). Drug court graduation rates: implications for policy advocacy and future research. Alcoholism Treatment Quarterly, 31(2), 241-253. https://doi.org/10.1080/07347324.2013.772019

[92] Gallagher, J., & Wahler, E. (2018). Racial disparities in drug court evaluation rates: the role of recovery support groups and environments. Journal of Social Work Practices in the Addictions, 18(2), 113-127. https://doi.org/10.1080/1533256X.2018.1448277

[93] Evaluation of the Substance Abuse and Crime Prevention Act final report. (2007, April 13). Retrieved from http://www.uclaisap.org/Prop36/documents/SACPAEvaluationReport.pdf

[94] Drug courts. Retrieved from https://obamawhitehouse.archives.gov/ondcp/ondcp-fact-sheets/drug-courts-smartapproach-to-criminal-justice

[95] Christie, C., Baker, C., et al. (2017, November 1). The President's Commission on Combating Drug Addiction and the Opioid Crisis. Retrieved from www.whitehouse.gov/sites/whitehouse.gov/files/images/Final_Report_Draft_11-12017.pdf

[96] ONDCP announces key funding for nation's drug courts. (2018, September 26). Retrieved from https://www.whitehouse.gov/briefings-statements/ondcp-announces-key-funding-nations-drug-courts/

[97] Adult drug courts best practices. (2018). Retrieved from https://www.nadcp.org/wp-content/uploads/2018/12/AdultDrug-Court-Best-Practice-Standards-Volume-I-Text-Revision-December-2018-1.pdf

[98] NJ Governor Chris Christie signs bill expanding access to evidence-based drug treatment for participants in drug courts. (2015, August 9). Retrieved from http://www.drugpolicy.org/news/2015/08/nj-governor-chris-christie-signs-billexpanding-access-evidence-based-drug-treatment-pa

[99] New Jersey Senate Bill 2381. (2015). Retrieved from https://legiscan.com/NJ/bill/S2381/2014

[100] Adult drug court. Retrieved from http://www.guamsupremecourt.com/Adult-Drug-Court/Adult-Drug-Court.html In the matter of the expungement of the arrest/charge records of T.B. (2019, January 8). Retrieved from https://www.njcourts.gov/attorneys/assets/opinions/supreme/a_18_19_20_17.pdf?c=CfO

[101] Gallagher, J., & Wahler, E., et al. (2018). Improving graduation rates in drug court through employment and schooling opportunities and medication-assisted treatment (MAT). Journal of Social Service Research, 44(3), 343-349. https://doi.org/10.1080/01488376.2018.1472173

Endnotes

[102] Gallagher, J., & Wahler, E., et al. (2018). Improving graduation rates in drug court through employment and schooling opportunities and medication-assisted treatment (MAT). Journal of Social Service Research, 44(3), 343-349. https://doi.org/10.1080/01488376.2018.1472173

[103] Marlowe, D. B., Shannon, L. M., et al. (2018). Developing a culturally proficient intervention for young African American men in drug court: examining feasibility and estimating an effect size for Habilitation Empowerment Accountability Therapy (HEAT). Retrieved from https://scholarworks.iupui.edu/handle/1805/15018

[104] Shipton, E. E., Bate, F., et al. (2018). Systematic review of pain medicine content, teaching, and assessment in medical school curricula internationally. Pain and Therapy, 7(2), 139-161. https://dx.doi.org/10.1007%2Fs40122-018-0103-z

[105] Shipton, E. E., Bate, F., et al. (2018). Systematic review of pain medicine content, teaching, and assessment in medical school curricula internationally. Pain and Therapy, 7(2), 139-161. https://dx.doi.org/10.1007%2Fs40122-018-0103-z

[106] Expressing the sense of Congress on the need to improve and expand training for future physicians on properly treating pain and prescribing opioids, and for other purposes, H.Con.Res.8, 116th Cong., 1st Sess. (2019).

[107] Opioid Workforce Act of 2019, H.R. 3414, 116th Cong., 1st Sess. (2019).

[108] Dall, T., Reynolds, R., et al. (2019, April). The complexities of physician supply and demand: projections from 2017 to 2023. Retrieved from https://www.aamc.org/system/files/c/2/31-2019_update__the_complexities_of_physician_supply_and_demand_-_projections_from_2017-2032.pdf

[109] Opioid Workforce Act of 2019, H.R. 3414, 116th Cong., 1st Sess. (2019).

[110] Dear Chairman Neal and Ranking Member Brady. (2019, June 26). Retrieved from https://www.acponline.org/acp_policy/letters/joint_letter_of_support_for_opioid_workforce_act_hr_3414_2019.pdf AHA supports Opioid Workforce Act. (2019, May 2). Retrieved from https://www.aha.org/news/headline/2019-05-02aha-supports-opioid-workforce-act AAMC statement on House introduction of Opioid Workforce Act of 2019. (2019, May 2). Retrieved from https://www.aamc.org/news-insights/press-releases/aamc-statement-house-introduction-opioid-workforce-act-2019 ASAM, AAAP, and ACAAM applaud Senate introduction of Bipartisan Opioid Workforce Act. (2019, November 21). Retrieved from https://www.asam.org/docs/default-source/advocacy/senate-opioid-workforce-act-of-2019---final(1).pdf?sfvrsn=11e4fc2_2

[111] Zhu, W., Chernew, M. E., et al. (2019). Initial opioid prescriptions among U.S. commercially insured patients, 2012-2017. New England Journal of Medicine, 380(11), 1043-1052. https://doi.org/10.1056/NEJMsa1807069

[112] Zhu, W., Chernew, M.E., et al. (2019). Initial opioid prescriptions among U.S. commercially insured patients, 2012-2017. New England Journal of Medicine, 380(11), 1043-1052. https://doi.org/10.1056/NEJMsa1807069 Heins, S. E., Sorbero, M. J., et al. (2018). High-risk prescribing Medicaid enrollees receiving opioid analgesics: individualand county-level factors. Substance Use & Misuse, 53(10), 1591-1601. https://doi.org/10.1080/10826084.2017.1416407 CDC guideline for prescribing opioids for chronic pain. Retrieved from https://www.cdc.gov/drugoverdose/pdf/guidelines_at-a-glance-a.pdf Hallvik, S., Geissert, P., et al. (2018). Opioid-prescribing continuity and risk opioid prescriptions. Annals of Family Medicine, 16(5), 440-442. https://doi.org/10.1370/afm.2285

Endnotes

[113] Hallvik, S., Geissert, P., et al. (2018). Opioid-prescribing continuity and risk opioid prescriptions. Annals of Family Medicine, 16(5), 440-442. https://doi.org/10.1370/afm.2285

[114] Heins, S. E., Sorbero, M. J., et al. (2018). High-risk prescribing Medicaid enrollees receiving opioid analgesics: individualand county-level factors. Substance Use & Misuse, 53(10), 1591-1601. https://doi.org/10.1080/10826084.2017.1416407

[115] What states need to know about PDMPs. (2017, October 3). Retrieved from https://www.cdc.gov/drugoverdose/pdmp/states.html

[116] Scott, R., Philip, C., & Poston, R. (2017, December 1). 2016-2017 prescription drug monitoring program annual report. Retrieved from http://www.floridahealth.gov/statistics-and-data/e-forcse/funding/2017pdmpannualreport.pdf

[117] Scott, R., Philip, C., & Poston, R. (2017, December 1). 2016-2017 prescription drug monitoring program annual report. Retrieved from http://www.floridahealth.gov/statistics-and-data/e-forcse/funding/2017pdmpannualreport.pdf

[118] Scott, R., Philip, C., & Poston, R. (2017, December 1). 2016-2017 prescription drug monitoring program annual report. Retrieved from http://www.floridahealth.gov/statistics-and-data/e-forcse/funding/2017pdmpannualreport.pdf

[119] State successes. (2019, July 29). Retrieved from https://www.cdc.gov/drugoverdose/policy/successes.html

[120] Gutkind, S. (2018, October 2). Impact of state policies for prescription drug monitoring programs on high-risk opioid prescriptions. Retrieved from https://ldi.upenn.edu/healthpolicysense/impact-state-policies-prescription-drugmonitoring-programs-high-risk-opioid

[121] Gutkind, S. (2018, October 2). Impact of state policies for prescription drug monitoring programs on high-risk opioid prescriptions. Retrieved from https://ldi.upenn.edu/healthpolicysense/impact-state-policies-prescription-drugmonitoring-programs-high-risk-opioid

[122] Prescription drug monitoring programs (PDMPs). (2018, April). Retrieved from https://www.fsmb.org/siteassets/advocacy/policies/prescription-drug-monitoring-programs---adopted.pdf

[123] Substance-Use Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act, H.R. 6, 115th Cong., 2nd Sess. (2018).

[124] Prescription drug monitoring programs. (2016, October). Retrieved from https://www.pewtrusts.org/en/research-andanalysis/reports/2016/12/prescription-drug-monitoring-programs

[125] PDMP delegate account systems. (2015, May). Retrieved from https://www.pdmpassist.org/pdf/PDMP_admin/Briefing%20on%20Delegate%20Account%20Systems.pdf

[126] What is the scope of methamphetamine misuse in the United States? (2019, October). Retrieved from https://drugabuse.gov/publications/research-reports/methamphetamine/what-scope-methamphetamine-misusein-united-states

Endnotes

[127] Twillman, R. K, Dawson, E., et al. (2020). Evaluation of trends of near-real-time urine drug test results for methamphetamine, cocaine, heroin, and fentanyl. JAMA Network Open, 3(1). https://doi.org/10.1001/jamanetworkopen.2019.18514

[128] Rodriguez, C. H., Lucas, E., & Donovan-Smith, O. (2019, June 13). Federal grants restricted to fighting opioids miss the mark, states say. Retrieved from https://www.npr.org/sections/health-shots/2019/06/13/731512068/federal-grantsrestricted-to-fighting-opioids-miss-the-mark-states-say
Vocci, F. J., & Appel, N. M. (2007). Approaches to the development of medications for the treatment of methamphetamine dependence. Addiction, 102(1), 96-106. https://doi.org/10.1111/j.1360-0443.2007.01772.x

[129] Provisional drug overdose death counts. (2020, January 15). Retrieved from https://www.cdc.gov/nchs/nvss/vsrr/drugoverdose-data.htm#COD_classification_definition_drug_deaths

[130] Tron, G. (2014, February 7). How did idyllic Vermont become America's heroin capital? Retrieved from https://www.politico.com/magazine/story/2014/02/vermont-heroin-capital-of-america-103280
Baker, J. (2018, March 30). Nevada's death rate from meth, other stimulants highest in nation. Retrieved from https://www.reviewjournal.com/life/health/nevadas-death-rate-from-meth-other-stimulants-highest-in-nation/

[131] Tracking federal funding to combat the opioid crisis. (2019, March). Retrieved from https://bipartisanpolicy.org/report/tracking-federal-funding-to-combat-the-opioid-crisis/